

Decision 07-10-032 October 18, 2007

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Examine the  
Commission's Post-2005 Energy Efficiency  
Policies, Programs, Evaluation, Measurement,  
and Verification, and Related Issues.

Rulemaking 06-04-010  
(Filed April 13, 2006)

**INTERIM OPINION ON ISSUES RELATING TO FUTURE SAVINGS GOALS  
AND  
PROGRAM PLANNING FOR 2009-2011 ENERGY EFFICIENCY AND BEYOND**

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**INTERIM OPINION ON ISSUES RELATING TO FUTURE SAVINGS  
GOALS AND PROGRAM PLANNING FOR  
2009-2011 ENERGY EFFICIENCY AND BEYOND**

**1. Introduction and Summary**

California's highest energy priority is to pursue cost-effective energy efficiency measures over both the short- and long-term. Today's decision lays the foundation for making energy efficiency an integral part of "business as usual" in California. Today we:

- (1) Direct the utilities to prepare a single, comprehensive statewide long-term energy efficiency plan;
- (2) Adopt three programmatic initiatives:
  - \* All new residential construction in California will be zero net energy by 2020;
  - \* All new commercial construction in California will be zero net energy by 2030; and
  - \* Heating, Ventilation, and Air Conditioning (HVAC) industry will be reshaped to ensure optimal equipment performance;
- (3) Develop the "next generation" of California utility energy efficiency programs for 2009-2011;
- (4) Commit in the near term to adopting utility energy efficiency goals through 2020 and reaffirm our previously adopted 2009-2011 goals; and
- (5) Establish new, collaborative processes with key business, consumer groups, and governmental organizations in California, throughout the West, nationally and internationally.

This decision institutes a comprehensive, long-term energy efficiency strategy to achieve our ultimate goal -- making energy efficiency a way of life.

This goal reflects California's Energy Action Plan II<sup>1</sup> policy that energy efficiency is the resource of first choice to meet California's growing energy demand, and the requirement of Public Utilities Code Section 454.5(b)(9)(C) that utilities first meet their "unmet resource needs through all available energy efficiency and demand reduction resources that are cost effective, reliable, and feasible."

Energy efficiency is also projected to deliver a large portion of the greenhouse gas emissions reductions necessary to achieve the goals of the California Global Warming Solutions Act of 2006.<sup>2</sup>

Our decision today implements commitments made by this Commission and sixteen other major California organizations, to aggressively pursue energy efficiency as part of the National Action Plan for Energy Efficiency.<sup>3</sup> It upholds

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<sup>1</sup> The Energy Action Plan identifies specific goals and actions to ensure that adequate, reliable and reasonably-priced electrical power and natural gas supplies are achieved and provided through cost-effective and environmentally sound strategies. A copy of the Energy Action Plan is posted on the Commission's website at <http://www.cpuc.ca.gov/static/energy/electric/energy+action+plan/index.htm>. See also, Decision (D.) 05-09-043, *mimeo.*, p. 15; Energy Efficiency Policy Manual Version 3 (Policy Rules), Rule II.2 (Attachment 3 to D.05-04-051).

<sup>2</sup> California Health & Safety Code, §§ 38500 *et seq.* (AB 32); see, Climate Action Team Report to the Governor, April 2006, [http://www.climatechange.ca.gov/climate\\_action\\_team/reports/2006-04-03\\_FINAL\\_CAT\\_REPORT.PDF](http://www.climatechange.ca.gov/climate_action_team/reports/2006-04-03_FINAL_CAT_REPORT.PDF).

<sup>3</sup> On June 29, 2007, the Commission, along with sixteen other key California organizations, adopted a *California Memorandum of Understanding in Support of the National Action Plan for Energy Efficiency*, which we take official notice of today. The National Action Plan for Energy Efficiency and the Memorandum of Understanding are posted at [www.cpuc.ca.gov/napee](http://www.cpuc.ca.gov/napee).

the pledge by the Western states and their regulatory commissions, including ourselves, to work collaboratively on energy efficiency.<sup>4</sup>

Today's decision creates a framework for sustainable energy efficiency and other demand-reducing programs and a process for accomplishing extensive energy savings through long-term strategic planning. To do this well requires an approach that transcends regulatory, programmatic and jurisdictional constraints, and emphasizes a broader view of the energy efficiency landscape. California's investor-owned utilities<sup>5</sup> will continue to fulfill their key role as administrators of ratepayer-funded programs, and maximize the potential of those programs by engaging in collaborative efforts with the many other entities involved in planning and delivering energy efficiency savings.

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<sup>4</sup> See, *Western Regional Climate Action Initiative*, February 26, 2007, signed by governors of the States of California, Arizona, Washington, Oregon, and New Mexico, and the December 1, 2006, *Western Public Utility Commissions' Joint Action Framework on Climate Change*, adopted by the CPUC, the Washington Utility and Transportation Commission, the Oregon Public Utility Commission and the New Mexico Regulation Commission. These documents, of which we take official notice, are posted at

<http://www.cpuc.ca.gov/static/energy/electric/energy+efficiency/ee+general+info/wic+statement+of+regional+goal.pdf>

<http://www.cpuc.ca.gov/static/energy/electric/energy+efficiency/ee+general+info/western+regional+climate+action+initiative.pdf>

<sup>5</sup> We use the term "utilities" (investor-owned utilities or IOUs) to refer collectively to the utility respondents in this rulemaking: Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), San Diego Gas & Electric Company (SDG&E), and Southern California Gas Company (SoCalGas).

In this decision we require the utilities to:

- Engage in long-term strategic planning;
- Collaborate with others who engage in planning and delivery of energy efficiency related goods and services, or who receive such services; and
- Integrate customer demand-side programs, such as energy efficiency, self-generation, advanced metering, and demand response, in a coherent and efficient manner.

This more integrative approach to program development and delivery will permit California to take advantage of ever more cost-effective ways of implementing energy efficiency programs.<sup>6</sup> This does not mean consolidating these customer demand-side programs under one administrator, but rather to find energy efficiency opportunities in these programs and leveraging them to maximize energy savings offerings to customers.

As a key tool to implement this strategic approach, we direct the utilities to develop a single, statewide IOU strategic plan for energy efficiency through 2020 and beyond. We seek to move beyond a narrow focus on achieving short-term savings through a broader strategic focus on long-term goals. This includes our long-term goal to achieve market transformation through continual incorporation of efficiency gains into codes and standards and increasing

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<sup>6</sup> We intend to issue a decision later this year in our low income energy efficiency (LIEE) rulemaking proceeding (Rulemaking (R.) 07-01-042) that will clarify our long-term goals for LIEE, provide guidance on development of utility LIEE program portfolios for 2009-2011, and give direction to the utilities for better integration of the LIEE with general energy efficiency programs.



privatization of cost-effective energy efficiency services in competitive markets activities.<sup>7,8</sup>

Accordingly, we advance major programmatic initiatives in three substantive areas - residential new construction, commercial new construction, HVAC systems. The IOUs' strategic plan shall describe their strategies for achieving all cost-effective energy efficiency through 2020 and beyond with their comprehensive efforts to implement these programmatic initiatives.

Our emphasis on long-term, collaborative planning and implementation implies several broad themes, which we rely upon in evaluating the best ways to approach energy efficiency efforts over the next several years:

1. We will achieve maximum savings by providing integrated customer demand-side programs.

Integrating our numerous customer demand-side programs will avoid duplication of efforts, reduce transaction costs and diminish customer confusion. We must understand how the programs intersect and take advantage of the interactions.

2. We commit to strategies, programs, measures and institutional structures that provide long-term results.

We consider energy efficiency a long-term resource and utility programs and our regulatory oversight must prioritize long-term planning. Energy efficiency strategies cannot be selected solely on the basis of short-term payback periods or quick results. Accordingly, we direct the utilities to develop a single

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<sup>7</sup> Decision (D.) 98-04-063, Appendix A, defines "market transformation" as "[l]ong-lasting sustainable changes in the structure or functioning of a market achieved by reducing barriers to the adoption of energy efficiency measures to the point where further publicly-funded intervention is not longer appropriate in that specific market."

<sup>8</sup> At the same time, we recognize the host of market barriers to energy efficiency and anticipate a long-term, sustained role of this Commission and the utilities in overcoming such barriers is critical, particularly in light of AB 32.

strategic plan and adopt three long-term programmatic initiatives for consumer demand-side programs in residential new construction, commercial new construction, and HVAC systems.

3. We will use all available regulatory and market based tools.

Our utility energy efficiency portfolios employ a wide range of programs, including research and development, emerging technologies, codes and standards, public education and marketing, rebates and subsidies, and market transformation. The integration of each of these necessary tools can maximize impact and should be clearly articulated.

4. We will engage a wider range of entities and institutions in developing and delivering programs.

In the past, we have emphasized utility programs, utility funding and utility customers.<sup>9</sup> This is logical given the limits of our legal jurisdiction, but this approach has resulted in fractured energy efficiency program development and delivery. Cost-effective use of resources for maximum reductions in energy demand will require the commitment of the most influential decision-makers who can affect comprehensive change. In order to reach a goal of making energy efficiency an integral part of “business as usual,” we need a pronounced commitment from business and government leaders and a more collaborative approach that involves all key stakeholders. We emphasize the need for enhanced cooperation and collaboration and commit to a

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<sup>9</sup> At the same time, we have supported the important role of third parties - *e.g.*, by requiring at least 20% of portfolio funding be competitively bid to third parties, by directing the utilities to assist in the development of the state’s energy efficiency codes and standards, by use of advisory groups, etc. (D.05-01-055). Our directives today build upon this past policy emphasis.

leadership role in reaching out to key leaders to engage participation in this effort and direct the IOUs to do likewise.<sup>10</sup>

This decision also provides policy guidance to the IOUs on the development and composition of their 2009-2011 energy efficiency portfolios. We provide greater flexibility to our utilities and greater certainty to the energy efficiency market by providing for continuity in program planning, delivery, and funding beyond the three year program cycle. Finally, we retain the 2009-2011 energy savings goals adopted for the utilities in D.04-09-060 and commit to extending our goals through 2020 on an expedited basis.

We recognize that the Energy Commission is a critical part of any energy efficiency strategy in California. Our sister agency has a 30-year history of creating market transformation for energy efficiency measures through its Title 24 Building Codes and Title 20 Appliance Codes and has led the nation in these efforts. Cooperation and collaboration with the Energy Commission is an essential piece of a successful, long-term strategy to make energy efficiency a way of life for investor-owner utility ratepayers.

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<sup>10</sup> In addition to our commitments for this leadership role under the National Action Plan, and the Joint Action Framework on Climate Change, *supra*, our actions today provide for international collaborative efforts and exchange of information on energy efficiency, in accordance with the *Agreement on Cooperation Between the California Public Utilities Commission, the California Energy Commission, and the Jiangsu Provincial Economic and Trade Commission*, entered into on September 2, 2005, and the *United Kingdom and California Announcement on Climate Change & Clean Energy Collaboration*, dated July 31, 2006. We take official notice of these agreements; they can be found at [http://www.cpuc.ca.gov/static/energy/electric/energy+efficiency/ee+general+info/california-jiangsumou\\_final.pdf](http://www.cpuc.ca.gov/static/energy/electric/energy+efficiency/ee+general+info/california-jiangsumou_final.pdf)  
<http://www.cpuc.ca.gov/static/energy/electric/energy+efficiency/ee+general+info/west+coast+comm+joint+commitments+on+climate+change+final.pdf>.

The Energy Commission also plays an extremely important role in California in the research and analysis of technological, economic and policy issues affecting energy in general, and energy efficiency in particular. The Energy Commission staff has provided a great deal of collaborative, analytical support in the development of this, and past, energy efficiency decisions. We intend to continue to collaborate with the Energy Commission on the utilities' energy efficiency programs and strategic planning efforts to the maximum extent practicable. This will include collaboration with the Energy Commission in this proceeding and the Energy Commission's integrated energy policy report (IEPR) proceeding. This includes our consideration of the information and analyses presented in each IEPR as specified in Public Resources Code sec. 25302, as we direct the resource policies and expenditures of regulated utilities.

We are extremely encouraged that the CEC's draft 2007 IEPR released on October 2, 2007 includes a recommendation that the state adopt "zero net energy" as a long-term goal for new commercial and residential buildings, to be accomplished in conjunction with the CEC's building standards.<sup>11</sup> We appreciate the CEC's leadership role as it envisions the next generations of building and appliance standards. This is the ultimate outcome to ensure our future buildings are as smart and efficient as possible. In the important realm of air conditioning, AB 2021 directs the CEC to identify options to improve the efficiency and reduce peak electrical demand. We agree with this focus and herein designate air

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<sup>11</sup> 2007 IEPR Report, Draft Committee Report, pg. 107 (Docket #06-IEP-1). The Energy Commission is scheduled to adopt the Draft IEPR at its November 21, 2007 business meeting. The Draft IEPR recommends: "Increase the efficiency levels of the building standards so that buildings are net zero energy users by 2010 [sic] for residences and by

*Footnote continued on next page*

conditioning as a third major programmatic initiative. Toward these shared visions, the CPUC expects to shape ratepayer-funding of initiatives for emerging technology promotion, efficiency incentive programs, and codes & standards analysis and support activities. We applaud the IEPR Committee's leadership in these areas, and the CEC's willingness to work with us toward our common aims.

The California Energy Commission, in its October 2, 2007, Committee Draft of the 2007 Integrated Energy Policy Report, recommends goals to meet its obligation under AB 2021 to establish statewide energy efficiency goals. The CEC recommends statewide goals that are 100% of economic potential for energy efficiency. We commit to working with the Energy Commission on strategies to achieve all cost-effective and feasible energy efficiency. As noted above, when the utilities prepare their strategic plans, they need to describe how their programs will capture this energy efficiency potential. We recognize and emphasize that in order to meet these ambitious goals, new programs and other strategies, including those that have the potential to motivate permanent market transformation changes, will be essential. In addition, because the goals are for a ten-year period, programs that provides savings before 2016 need to be included.

## **2. Procedural History and Background<sup>12</sup>**

This decision is the most recent in a series of Commission actions that have changed the paradigm for IOU energy efficiency programs in California. Public Utilities Code Section 454.5(6)(9)(c), the Energy Action Plan and past

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2020 [sic] for commercial buildings." We understand these dates are a typographical error and the recommended dates are 2020 for residential and 2030 for commercial.

<sup>12</sup> Attachment 1 describes the abbreviations and acronyms used in this decision.

Commission decisions have established a policy to procure all cost-effective conservation and energy efficiency resources before adding generation resources.

In D.04-09-060, the Commission voiced clearly its goal to pursue all cost-effective energy efficiency opportunities in support of the Energy Action Plan commitment that conservation and energy efficiency are first in the “loading order” of electricity and natural gas resources. In accordance with this overarching goal, D.04-09-060 established short- and long-term numerical targets for electricity and natural gas savings. We stated that these targets must be aggressive and must stretch the capabilities and efforts of all those involved in program planning and implementation.<sup>13</sup>

We specified that achievement of the goals must reflect actual installations of energy efficiency measures, not simply commitments to install them. We ordered the utilities to reflect our adopted goals in their resource acquisition and procurement plans so that ratepayers do not procure redundant supply-side resources over the short- or long-term.<sup>14</sup> To encourage longer term planning and funding, we authorized a three-year program implementation and funding cycle for electric and natural gas energy efficiency.

In D.05-01-055, we returned the utilities to the lead administrative role in energy efficiency program selection and portfolio management and restated our policy that the focus for ratepayer resource procurement dollars in the future would be meeting the energy savings goals by procuring all cost-effective energy efficiency resources over both the short- and long-term. We gave our staff the

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<sup>13</sup> D.04-09-060, p. 22.

<sup>14</sup> D.04-09-060, Ordering Paragraph (OP) 6.

responsibility for evaluation, measurement and verification (EM&V) activities to ensure that these savings are actually delivered and for assisting us in developing policy goals and priorities for energy efficiency.

D.05-04-051 directed that utility energy efficiency performance should be evaluated based on overall portfolio achievements, rather than on the performance of each individual program, in order to “encourage innovation, and allow for some risk-taking on pilot programs and/or measures in the portfolio.”<sup>15</sup> We also updated the Energy Efficiency Policy Manual<sup>16</sup> to reflect policy rules that articulate the Commission’s objectives for energy efficiency and provide guidance to the utility program administrators, program implementers and interested parties for the development of program portfolios for 2006 and beyond.

In D.05-09-043 and D.05-11-011, we committed \$2.2 billion in ratepayer funds to procure energy efficiency savings over the 2006-2008 program cycle and approved the utilities’ program portfolios, including utility efforts to better integrate their programs at a strategic level. For example, we approved the development of a joint plan on statewide marketing and outreach; a sustainable communities program incorporating higher performance energy efficiency and demand reduction technologies, along with clean on-site generation, water conservation, transportation efficiencies and waste reduction strategies; and programs to assist customers in choosing and implementing a package of

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<sup>15</sup> D.05-04-051, p. 7.

<sup>16</sup> See fn. 2, *supra*. To the extent our decision today changes the Policy Rules in the Manual, we will revise them, consistent with Policy Rule XI.4.

demand side management measures such as conservation, demand response, and self-generation.

The Commission opened this rulemaking in April 2006 to further refine the policies, programs and EM&V related to the “next generation” of energy efficiency activities in 2006 and beyond. In Phase I, we have addressed adoption of a shareholder risk/reward incentive mechanism for energy efficiency programs.<sup>17</sup> This decision addresses Phase II issues related to future savings goals and program planning for 2009-2011 energy efficiency and beyond.

Assigned Commissioner Dian M. Grueneich and assigned Administrative Law Judge (ALJ) Kim Malcolm held a prehearing conference in this rulemaking on February 27, 2007 in San Francisco. On April 13, Commissioner Grueneich issued a Phase II scoping memo and ruling identifying the following issues to be addressed:

1. **Energy Efficiency Program Goals** - to determine the efficacy of continuing previously-adopted portfolio goals for 2009-2011.
  - Whether energy efficiency goals should be changed for 2009-2011 and, if so, what relevant new information they should consider;
  - An approach to setting long-term goals for 2012 -2020 – how they should be developed and what they should be; and
  - To what extent savings from certain activity areas should or should not be counted toward satisfying 2009-2011 portfolio goals – building codes and standards, water conservation programs, timing of credit for impacts that occur in a future period, non-

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<sup>17</sup> D.07-09-043.



utility energy efficiency strategies initiated by local communities, other non-utility energy efficiency impacts (*e.g.*, market initiatives by manufacturers, distributors, business and professional organizations), and low income energy efficiency programs.

2. **Strategies and Program Emphasis For 2009-2011 Energy Efficiency Portfolios** – to promote maximum energy savings through coordinated actions of utility programs, market transformation, and codes and standards, alongside strategies for the reduction of greenhouse gasses -- “Big Bold Strategies” -- as a transition toward eventually having overall state strategies that encompass all energy efficiency actions, commence incrementally by selecting three or four big bold strategies for 2009-2011, which might include:

- Lighting;
- Residential new construction and renovations;
- Commercial Buildings;
- Gas Water Heaters;
- Air conditioning retrofit/replacement; or
- Other possible program elements that offer significant potential for energy efficiency.

Strategies and issues to be addressed will include:

- Coordination across market and government participants, including local government;
- Attribution of energy savings;
- Working with other states; and
- Funding from sources other than Commission-regulated rates (Public Interest Energy Research (PIER), emerging technologies, California Energy Commission (CEC) codes and standards budget, private sector actors, etc.).

3. **Advisory Framework and Administration** – reviewing and updating processes for portfolio development, selection of programmatic strategies, and crafting longer term visions to take full advantage of the community of knowledge and resources via:
  - Role and activities of the Peer Review Group/Program Advisory Group (PRG/PAG) – membership, responsibilities, time commitments, work products;
  - Promoting work with local governments, other states, manufacturers, etc.; and
  - Ensuring overall strategies and individual programs reflect best practice, innovation, and highly cost-effective implementation approaches.
4. **Portfolio Composition and Development Rules** – designing programs and selecting a portfolio balance in ways that promote innovation, new technologies, and effective, efficient program implementation, including:
  - Statewide programs vs. localized programs;
  - Role of partnerships;
  - Whether and how to increase competition for cost-effective program implementation;
  - Whether to modify share of portfolio implemented by third parties;
  - Extent to which enabling or support features (e.g. consumer behavior change, on-bill-financing, etc.) are captured in program designs; and
  - Policy rules and definitions – avoided cost data to value peak demand impacts, updating the Database for Energy Efficient Resources (DEER), lifecycle consideration of measure impacts, the Energy and Environmental Economics, Inc. (E3) calculator application.

Eleven days of workshops were held on May 3, 4, 14 and June 5, 6, 7, 8, 11, 12, 13 and 21 in San Francisco, California, facilitated by Commission staff.

Representatives from dozens of organizations participated at one or more days of the workshops and many submitted written comments as well. Participating parties have included the IOUs, publicly-owned utilities (POUs), consumer representatives, environmental groups, local governments, energy efficiency contractors, consultants, and industry.<sup>18</sup> Our staff successfully engaged a number of parties who traditionally do not participate at the Commission, including the Northwest Energy Efficiency Alliance (NEEA), and the Sacramento Municipal Utilities District (SMUD) and members of the building industry. The staff of the CEC collaborated with the Commission on issues raised in this proceeding by providing technical expertise and information on these issues and the relationship of the proposals to the CEC's own programs, rules and policies.

### **3. A Comprehensive Strategic Plan for Consumer Demand-Side Options**

We direct the utilities to prepare a single strategic plan for energy efficiency through 2020 and beyond.<sup>19</sup> Below we explain why we require strategic planning, how the plan will be developed, and what will be included in the plan.

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<sup>18</sup> Attachment 2 contains a complete list of the parties to this proceeding and their acronyms.

<sup>19</sup> Our adopted goals only extend to 2013. As discussed below in Section 7.2, we direct staff to work with utilities and other parties in identifying "temporary" goals through at least 2020 that can inform the Strategic Plan. We intend to adopt formal goals through 2020 in 2008.

### 3.1. The Need for Strategic Planning

**Parties' Positions:**<sup>20</sup> The parties filed comments on the feasibility and usefulness of a strategic planning effort. The parties strongly support comprehensive strategic planning<sup>21</sup> and generally concur that planning should transcend the strict confines of the utilities' jurisdictional boundaries and more explicitly incorporate the ideas and resources of other market and governmental actors, such as local governments, manufacturers, and businesses.

SCE voices its support for a strategic planning process:

[The] IOUs' work should be congruent with California's policy agenda regarding energy, energy efficiency, and climate change mitigation. Accordingly, market transformational actions should complement long-term resource acquisition; similarly utility initiatives should work toward institutionalizing energy efficiency by contributing to codes and standards and to industry and government standard practices. We also strongly support consistency with state energy policy (Energy Action Plan II) that calls for IOUs to 'capture all cost-effective achievable energy savings potential' even though it may lead to lower average cost effectiveness as California utilities move on from picking the 'low-hanging' fruit to the 'medium-' and 'high-hanging' fruits as well.<sup>22</sup>

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<sup>20</sup> We received several rounds of comments from numerous parties on this and other issues in this phase of the proceeding. These comments greatly increased our understanding of the issues and provided valuable insight. However, as usual in these types of proceedings, the record is voluminous. We thus highlight common themes and issues presented by the parties, rather than summarizing every nuance in individual positions.

<sup>21</sup> The parties used various phrases to describe a strategic planning process, including "collaborative planning," "coordinated long-term planning," and "shared problem-solving."

<sup>22</sup> July 10, 2007, SCE Comments, p. 3.

A number of parties, including the Division of Ratepayer Advocates (DRA) and The Utility Reform Network (TURN) point out that a statewide IOU strategic plan could achieve economies of scope and scale and improve consistency in the design and delivery of utility programs. The Natural Resources Defense Council (NRDC), DRA, and SDG&E/SoCalGas believe a collaborative forum could enhance coordination and thereby promote compliance with the state's mandated building codes and appliance and equipment standards. The NEEA states collaboration across the western states is essential and may promote energy savings that individual states could not independently achieve.

Several parties commented that maximizing energy savings opportunities requires the active engagement of market players and local governments in planning and portfolio development. For example, DRA, SDG&E/SoCalGas and NRDC argue that such coordination with local governments is necessary in order to improve much-needed compliance with building codes and pursue more stringent building standards than those required by the state. NEEA proposes working with major manufacturers and retailers whose markets go beyond the traditional boundaries of utility service territories. SMUD notes that broad collaboration across utilities, local governments, and market players brings additional benefits of increased customer participation, reduced costs, co-marketing opportunities, and a more seamless package of integrated services for the customer.

SCE states that among the benefits of a long-term plan for energy efficiency is that energy efficiency programs can be better integrated with long-term overall resource planning and acquisition. TURN makes a similar point, explaining that a strategic plan will facilitate identifying ways to use energy

efficiency programs to better match differing load profiles and will promote the delivery of longer term energy efficiency measures and activities that in particular reduce on-peak demand.

TURN is concerned that the 2006-2008 portfolios rely far too heavily on lighting, which is relatively inexpensive and easy to implement. TURN argues that an overly exclusive focus on lighting can result in extensive lost opportunities and lack of persistent savings.<sup>23</sup> TURN further notes that certain low-cost lighting measures, such as compact fluorescent light bulbs (CFLs), have a low expected useful life (EUL), *i.e.*, the number of years that a measure or program will continue to produce savings before it must be replaced.

DRA recommends that a strategic planning effort not only focus on longer-term goals and strategies but define and quantify when market transformation has occurred so that it is obvious when ratepayer energy efficiency funding has succeeded and particular technologies or programs no longer need ratepayer subsidies.<sup>24</sup> DRA argues a focus on market transformation will enable dynamic energy efficiency programs where technologies or programs that no longer need subsidies are “sun-setted” and are replaced by new technologies and programs

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<sup>23</sup> July 23, 2007, TURN Post-Workshop Comments, p. 10. Our Energy Efficiency Policy Manual, Rule II.4, defines “lost opportunities” as “those energy efficiency options which offer long-lived, cost-effective savings and which, if not exploited promptly or simultaneously with other low cost energy efficiency measures or in tandem with other load-reduction technologies or distributed generation technologies being installed at the site (*e.g.*, solar heating or photovoltaics), are lost irretrievably or rendered much more costly to achieve.”

<sup>24</sup> July 10, 2007, DRA Comments, p. 6.

that have been encouraged by efforts in research and development, emerging technologies, and bringing new technologies to market.

**Discussion.** We agree with the parties that Californians will be better served by a more comprehensive approach to program planning, design and delivery for energy efficiency. Our overriding goal in energy efficiency is to “pursue all cost-effective energy efficiency opportunities over both the short- and long-term.”<sup>25</sup> A number of parties believe we and the utilities have focused on the former, to the detriment of the latter. At a minimum, all parties agree that California (and likely other regions as well) will achieve far greater savings if the IOUs and the Commission actively engage in coordinated, long-term planning.

Currently, the utilities are assigned responsibility for developing a portfolio of energy efficiency programs to achieve our adopted targets for energy savings in a cost-effective manner. This model can be effective in accomplishing certain short-term savings goals but without more strategic and longer-term planning, is limited in achieving savings over the longer term and perhaps even over the three-year portfolio cycle.

We agree with parties that a directed, statewide strategic planning effort will deliver more savings from existing measures, create new savings opportunities for the future, and afford efficiencies in the development and delivery of programs. We further agree with those who urge development of a written strategic plan to achieve the long-term (as well as short-term) goals we have adopted. Without a long-term, written strategic plan, we cannot determine if the utilities are pursuing the appropriate mix of programs to meet our goals.

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<sup>25</sup> D.05-09-043, p. 51; Policy Rule II.1.

Our current approach is too narrow to recognize adequately the complexities and evolving nature of the marketplace for energy efficiency products, services, and investments.

We hereby direct the utilities to submit a single joint, statewide IOU strategic plan (Strategic Plan or Plan) in addition to their individual applications for the 2009-2011 energy efficiency program portfolios. The Plan must be specific enough to serve as a roadmap to meaningful action in the near term, while providing direction for future program design and development through 2020 and beyond. Each utility's 2009-2011 proposed program portfolio should reflect the Plan, as well as circumstances unique to the utility, its customer base, service territory, and other factors.

Assuring a more comprehensive, integrated model for energy efficiency will require a significant shift in the utilities' approach to program design, development and implementation. Although we have consistently encouraged the utilities to think and act strategically in designing and delivering energy efficiency programs, the utilities and indeed other leaders in business and government must adopt a conceptual framework that is more comprehensive and forward-looking.

We also agree with SCE, DRA and TURN that we must reiterate the goal of using ratepayer-funded energy efficiency programs to transform the market and incorporate efficiency gains into codes and standards (C&S).<sup>26</sup> TURN

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<sup>26</sup> As we stated in our 2006-2008 portfolio decision, using ratepayer dollars to work towards adoption of higher appliance and building standards may be one of the most cost-effective ways to tap the savings potential for energy efficiency and procure least-cost energy resources on behalf of all ratepayers. D.05-09-043, p. 121.



correctly notes that an emphasis on measures with savings that decay quickly creates a “treading water effect” whereby the measures are replaced in the next portfolio cycle with little development towards sustainable programs that do not require continual reinvestments of ratepayer funds.

In D.98-04-063, we defined “market transformation” as:

Long-lasting sustainable changes in the structure or functioning of a market achieved by reducing barriers to the adoption of energy efficiency measures to the point where further publicly-funded intervention is no longer appropriate in that specific market.<sup>27</sup>

By re-emphasizing our market transformation goal in this decision, we do not discount the benefits of shorter-term measures for energy savings. The portfolios must contain an appropriate mix of short and longer term energy savings. However, short-term programs such as the replacement of incandescent light bulbs with compact fluorescent light bulbs must be accompanied by programs to encourage new technologies in lighting, consumer education on the benefits of energy efficient lighting and conservation, and advocacy for higher codes and standards for lighting.

### **3.2. The Process for Development of the Strategic Plan**

**Parties’ Positions.** The parties presented a variety of ideas on the structure for a strategic planning process. DRA states the Commission’s leadership in this proceeding has been important and believes the Commission should continue to lead and coordinate strategic thinking, especially considering the need to engage so many constituencies in business and government. The

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<sup>27</sup> D.98-04-063, Appendix A.

City and County of San Francisco (CCSF) likewise proposes that the Commission oversee and enforce a long-term strategic plan. SMUD recommends that the Commission and the CEC convene collaborative forums that engage a broad array of government agencies, community-based organizations, businesses and consumer groups to participate in program development.

NEEA and TURN emphasize the need to transcend jurisdictional boundaries and conduct planning at local, regional and national levels. Based on its experience, NEEA believes an effective, comprehensive strategic plan requires a forum that sustains working partnerships between various constituencies, rather than traditional advisory groups, which have limited participation. It stresses that planning for product delivery requires the participation of individuals and groups that are involved in business planning, market research, and marketing for specified products and services. Representatives of local governments emphasize their prospective contributions to energy efficiency planning, especially in efforts that target new home and commercial construction.

Several parties, including SDG&E/SoCalGas, NRDC and DRA, recommend continued collaboration with the existing PAG structure. CCSF would strengthen the role of the PAGs in a strategic planning forum and increase its influence by formalizing its role. DRA proposes modifying the existing PAG structure to create a forum for strategic planning and would reconstitute the individual utility PAGs into a single statewide PAG that would focus on integrated and consistent energy efficiency strategies across jurisdictions and utility programs.

**Discussion.** We agree with DRA and CCSF that a utility-led strategic planning process, by itself, will not be sufficient to convene the many entities

that must be involved in this process. Likewise, we believe reliance on PAGs, even in an enhanced role, will not result in the collaborative process necessary for comprehensive strategic planning.<sup>28</sup> As PG&E stated:

...broader, more collaborative, market-transforming activities contemplated for energy efficiency in 2009-2011 and beyond dictates the need for a broader, more collaborative forum that will invite regional and national participation by all interested stakeholders.<sup>29</sup>

We conclude that the Commission must initially lead the effort to engage non-utility parties in a coordinated strategic planning effort with the IOUs. Although the utilities will play a critical role and will be responsible for the creation of the Strategic Plan, the Commission will lead the process in order to ensure that non-utility parties participate, the process is collaborative, and the Commission's policy objectives are met. The effort leading to the IOUs submission of the statewide Strategic Plan will be conducted under the direction of the assigned Commissioner according to the following guidance. The assigned Commissioner may engage the assistance of Commission staff and consultants as necessary and we anticipate that initial meetings will be led by Commission staff. While the joint Strategic Plan will emphasize statewide strategies, the 2009-2011 portfolio filings that draw upon the plan should reflect regional and local variations.

The process for developing the Strategic Plan should be inclusive and promote a broad exchange of ideas and analysis. We are particularly interested

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<sup>28</sup> We address the role of the PAGs below in Section 6.8.

<sup>29</sup> July 23, 2007, PG&E Comments, p. 2.

in the participation of POUs and local governments across California, and also regional energy efficiency entities such as NEEA. We direct staff to ensure a broad set of stakeholders is invited to participate in this process, stretching beyond those organizations typically seen in CPUC proceedings. This is critical to consensus on a single statewide plan. We especially invite the continued collaboration with CEC staff. The forums should be scheduled at times and in places that encourage participation by informed and knowledgeable stakeholders able to identify issues, needs, optional strategies, roles and associated action steps for the Strategic Plan.

The Commission herein schedules the initial planning meeting. This meeting should refine the scope, schedule, and tasks required to prepare the Strategic Plan, including the roles and responsibilities of participants and additional planning meetings. In addition, the Assigned Commissioner or Commission staff shall, prior to this meeting, issue direction addressing the scope, principles and methods to be employed to ensure transparency, accountability and responsiveness throughout the strategic planning process.

All meetings shall be publicly noticed in the Commission's Daily Calendar and to the service list for this proceeding. As recommended by DRA, efforts shall be made to include experts representing each market sector who could advise on long-term strategic planning. All reasonable efforts should be made to notify other important participants, such as state agencies, local governments, POUs, energy efficiency trade and professional associations, research entities, and regional planning organizations.

Although the Commission will convene and guide these planning forums and the development of the Strategic Plan will be a collaborative effort, the creation of the Plan will be the responsibility of the utilities. While it may be

unrealistic to expect consensus among the many parties we hope to engage, we direct the utilities to take advantage of the knowledge, skills and ideas of those who participate in the planning forums, and to respond directly to stakeholder input. Finally, the Plan must be consistent with the guidance we provide in this decision and our Energy Efficiency Policy Manual (Policy Rules).

The Commission encourages the utilities to hold, prior to the release of the draft plan, a working session enabling active stakeholder participants in the planning process to preview and comment on the proposed draft plan contents. Based on this or a similar process, the Commission expects the utilities to incorporate useful suggestions for the modification or improvement of the plan prior to its general public release and filing with Commission staff. Procedures such as these will ensure that active stakeholders are effectively engaged to shape the draft document distributed for public comment.

The IOUs shall serve a draft of the Strategic Plan on the Commission staff and all parties to this docket (or any successor docket) no later than February 1, 2008. Commission staff shall provide notice of the draft Plan on the Commission's website and make it available to the general public. The utilities shall subsequently solicit written comments on the plan and conduct publicly noticed meetings in San Francisco, San Diego and Los Angeles to hear from interested parties on the Plan's content. The Commission staff may also provide guidance to the utilities regarding the content and format of the Plan.

In addition, the IOUs are hereby directed to establish a joint California Energy Efficiency Strategic Planning web portal. The utilities shall post on this web portal all Strategic Planning working meeting agendas, key reference documents and work products, draft plan (once prepared) and all written stakeholder comments received on the plan.

The utilities shall file their final joint Strategic Plan as part of their energy efficiency portfolio applications for their 2009-2011 programs, which will be due no later than May 15 2008. The utilities shall include in this final joint Strategic Plan a list of all major stakeholder comments received on the draft, and a utility response as to the disposition of each.

In addition to the initial strategic planning effort we describe here, we intend to conduct annual strategic planning sessions in the future. These sessions will provide opportunities to discuss progress toward objectives and implementation milestones, findings from market assessments or program evaluations, changes in the marketplace, and possible improvements to the strategic plan. These sessions will be in addition to the Commission's formal review of utilities' overall progress on meeting adopted energy savings goals and portfolio management. We will also expand the Commission's website, as discussed below, to enhance both the initial and continuing strategic planning process.

We recognize the limitations time will impose on this initial planning effort and the strains it may impose on the utilities and other parties, especially as they work on developing the 2009-2011 energy efficiency program portfolio applications. Nevertheless, within that constraint, we expect an earnest effort and a high quality product. We also expect the utilities to take the opportunity to join us in demonstrating leadership in this effort.<sup>30</sup>

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<sup>30</sup> Intervenor compensation for work on strategic planning may be awarded to participants in conformance with existing law, which requires that intervenors demonstrate substantive contributions to a Commission order or decision.

### **3.3. Content of the Strategic Plan**

**Parties' Positions.** The parties offered a variety of proposals for the structure of the Strategic Plan. Several parties addressed the degree of specificity or flexibility that may be needed to describe actions in a long-term plan. DRA, NRDC, and TURN recognize that the strategic plans will necessarily reveal more detail for the near term and less for the work to be accomplished in later years. CCSF recommends the use of specified short and mid-term milestones, with flexibility to adapt and adjust strategies as circumstances change and information becomes available. CCSF also argues that local governments should play a large role in the energy efficiency programs through their planning processes, development and enforcement of C&S, and delivery of energy efficiency in conjunction with local government programs, and assistance in accessing hard to reach populations.<sup>31</sup> In particular, CCSF notes that cities can and do have C&S that are more stringent than state standards and can act as a pilot program for testing newly developed C&S.

Some parties, including DRA and SMUD, recommend that the Strategic Plan incorporate a systems approach to energy efficiency program design and delivery, which would consider hardware, controls, software, user operation and behavior, rather than the existing emphasis on a single technology or hardware. Similarly, NEEA and SMUD propose that strategic planning identify and integrate activities at each stage of a product's life cycle, including research and development (R&D), early commercialization, full-scale utility programs, and codes and standards. Several parties emphasize the need for the Strategic Plan

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<sup>31</sup> July 23, 2007, CCSF Comments, p. 11.

to better integrate energy efficiency strategies with other energy resource applications, such as conservation, self-generation, advanced meters, and demand response.

**Discussion.** We acknowledge that the Strategic Planning effort is a new approach that will require flexibility and responsiveness on the part of this Commission. Therefore, the assigned Commissioner, in consultation with the assigned ALJ and Commission staff, may provide additional clarification and direction with respect to the content and development of the Strategic Plan through rulings. Based on the comments received, we envision the Plan will include, at a minimum, the following major items:

- Long Term Guidance Through 2020;
- Integration Strategy;
- Market Transformation;
- Programmatic Initiatives/Big, Bold Energy Efficiency Strategies (BBEES)
- Best Practices, Portfolio Diversity, and Innovation;
- Local Government; and
- Low Income Energy Efficiency

We provide below further direction on each of these areas except the BBEES which are discussed in Section 4 below.<sup>32</sup>

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<sup>32</sup> We also note two examples of energy efficiency strategic planning. The first is the UK Energy Efficiency Action Plan 2007, fn. 43. The second is Volume 3, Appendix D, “Conservation Acquisition Strategies” in the most recent plan of the Northwest Power and Conservation Council found at [www.nwcouncil.org](http://www.nwcouncil.org).



### **3.3.1. Long-Term Guidance Through 2020**

The Plan should reflect a balance between long-range strategies to achieve all cost-effective energy efficiency, and specific actions to achieve near-term savings goals. The Plan should identify, at least generally, the program areas and associated strategic implementation activities needed through 2020 to achieve our goal of implementing all cost-effective energy efficiency. The Plan should also identify specific activities and implementation milestones to carry out in the 2009-2011 program cycle, both by utilities and by other players participating in the Strategic Plan's preparation.

### **3.3.2. Integration Strategy**

Integration of measures, programs, and actors at all levels is necessary to avoid lost opportunities and achieve market transformation. The Plan should present a strategy to integrate measures, programs, policies and actors at all key levels of energy efficiency program design and delivery. To do this, this portion of the Plan should: (1) address the full range of comprehensive consumer demand-side options,<sup>33</sup> such as demand response, advanced meters, conservation and self-generation; (2) present a systems approach that encompasses all types of measures, programs and activities, including research and development, codes and standards, design, hardware, controls, installation,

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<sup>33</sup> Many consumer demand-side options are offered by non-utility providers. For example, demand response aggregators enroll customers in utility programs and their own demand response programs. In the future demand response aggregators and individual customers may offer demand response directly into the CAISO's energy and ancillary services market. Another example is the Self Generation Incentive Program currently administered by CCSE. The Plan should recognize the existence of non-utility providers.

maintenance, and user behavior; and (3) include a process to engage collaboratively the expertise of market sector professionals and the leadership of key stakeholders. The intent is not to consolidate these programs under one administrator, but rather to find energy efficiency opportunities in these programs and, to the extent that energy savings can be directly attributable to the utilities' energy efficiency efforts, count those savings towards achievement of the energy efficiency goals. The utilities already have some programs in their current portfolios that use an integrated approach to demand side management. In D.05-09-043, we approved the utility proposals to "include strategies to integrate energy efficiency offerings with [demand response (DR)] and [distributed generation (DG)] solutions" in order to "determine the best combination of resources to meet the particular customer's needs" and to prepare a joint strategy to integrate consumer side programs in a manner that is cost-effective and avoids confusion to customers.<sup>34</sup> For example, PG&E's Market Integrated Demand Side Management (MIDSM) program sought third-party proposals to assist customers in choosing and implementing a package of demand side management (DSM) measures such as conservation, DR, and self-generation. SCE, SoCalGas, and SDG&E have sustainable communities programs which offer higher tier incentives for sustainable building projects that significantly exceed Title 24 standards and incorporate high performance energy efficiency and demand response, clean distributed generation, water conservation, transportation efficiency and waste reduction strategies.

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<sup>34</sup> D.05-09-043, pp. 28, 71. The process we set forth in this decision will ensure expanded use of such integrated programs and tracking of the program implementation.

We direct the utilities to review the lessons learned from these programs as part of the strategic planning process and to maximize use of such approaches in the Strategic Plan. The Strategic Plan should also set out a process to move ideas/programs/products through R&D/emerging technologies/utility programs/codes & standards and/or market transformation. Finally, we expect the utilities to explain strategies to engage the full range of players, even those who may not currently be integrated, in delivering energy efficiency savings.<sup>35</sup> Many strategies likely will lend themselves to statewide implementation approaches and program delivery, including collaboration with POU's and market stakeholders. Where possible, we encourage even wider regional implementation programs with other western states or even national joint sponsors.

While deepening integration of delivery of DSM programs and customer offerings may entail some upfront incremental costs to the utilities for planning and program integration, it is our expectation that more cohesive program offerings across multiple programs targeting the same market or audience will result in lower downstream costs in administration and marketing of individual programs. Commission developed guidelines for portfolio filings shall address this issue.

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<sup>35</sup> As an example, the utilities should investigate partnerships with financial institutions to develop or offer loans or other funding mechanisms for implementation of energy efficiency strategies, as well as make better use of state bond funds available for energy efficiency activities.

### **3.3.3. Market Transformation**

A key element of the long-term nature of the Strategic Plan is that it articulates how energy efficiency programs are or will be designed with the goal of transitioning to either the marketplace without ratepayer subsidies, or codes and standards. To do so, the Plan must identify the targeted timeframe for such market transition and the process for tracking progress so that it is clear at what point a program has made a successful transition or conversely, is having problems.

The Strategic Plan shall incorporate the market transformation goal described above and develop milestones to measure progress towards that goal. For example, the NEEA sets market transformation goals for its programs, and then measures progress towards the goals by determining the extent to which various barriers have been overcome in a given market. Such barrier criteria include: consumer awareness, product/service availability, pricing, purchasing behavior, customer satisfaction, and future customer actions.<sup>36</sup> Measures and programs that have achieved their goals are phased out of the utility energy efficiency portfolios to make room for new measures.

### **3.3.4. Programmatic Initiatives**

The Plan shall contain the framework and utility role for implementing the three programmatic initiatives we adopt in this decision. We provide guidance on this portion of the Strategic Plan in Section 4 below.

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<sup>36</sup> July 18, 2007, NEEA Comments, pp. 7, 11-13.

### **3.3.5. Best Practices, Portfolio Diversity, and Innovation**

The Plan shall explain the processes used to encourage and implement best practices, portfolio diversity, and innovative ideas. We provide additional direction in our discussion below of these items with regard to the 2009-2011 portfolio plans.

### **3.3.6. Local Government**

Our prior decisions have emphasized that local government partnerships can play a key role in energy efficiency programs.<sup>37</sup> While we decline to adopt CCSF's recommendation to require the utilities to include a local government component in each program, we direct the utilities to include a section in the Strategic Plan identifying an overall strategy to leverage the role of local governments in their energy efficiency programs. We are especially intrigued by CCSF's recommendation that local governments work with utilities to "stage" the implementation of more stringent codes and standards with incentives, for example, by providing support for code development, and incentives for more efficiency technologies in early stages. These incentives would be phased out as codes are implemented and market transformation is sufficiently underway. We also are intrigued with the possible use of energy efficiency programs to incent local governments to adopt land use plans and permitting processes that promote reduced energy use.

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<sup>37</sup> See, e.g., D.05-01-055, p. 93 and D.03-08-067.

### **3.3.7. Low Income Energy Efficiency**

The Strategic Plan shall address the use of LIEE programs, both as stand-alone programs and in conjunction with general energy efficiency and customer-side programs. The Commission will provide guidance on development of LIEE program portfolios for 2009-2011 and the integration of LIEE in the Strategic Plan in a decision later this year in R.07-01-042.

## **4. Big Bold, Energy Efficiency Strategies (BBEES) /Programmatic Initiatives**

In her April 13, 2007 scoping ruling, the assigned Commissioner directed parties to develop Big Bold Energy Efficiency Strategies (BBEES or programmatic initiatives) which are strategies “ . . . to promote maximum energy savings through coordinated actions of utility programs, market transformation, and codes and standards.” Commission staff held a workshop on May 14 to present expert panels on potential strategies and received oral comments. In a May 24, 2007 ruling, the assigned Commissioner identified four programmatic areas for further investigation: Residential New Construction, Commercial New Construction, Industrial Programs and HVAC. The ruling also posed a number of questions regarding feasibility, design and potential impact of strategies in these areas. Dozens of parties, many of whom normally do not participate in Commission proceedings, filed comments. The comments provided impressive evaluations of various major initiatives and generally supported the four strategies.

Commission staff held a series of intensive workshops, between June 5 and 12. National experts participated in these workshops to assist utilities and

stakeholders in analyzing the four strategies selected for further review.<sup>38</sup> The assigned ALJ issued a ruling on June 21, 2007 requesting parties' responses to questions on these programmatic initiatives. Parties filed written comments on July 9, 2007.

We agree with SCE's comments that:

[BBEES] can ensure that California retains the nation's and the world's premiere energy-efficient economy, energy resource acquisition strategy, and energy-related environmental stewardship. To successfully internalize, institutionalize and sustain Big, Bold energy efficiency strategies into the long-term, California will replace business-as-usual with the Big, Bold paradigm from top to bottom and throughout the research-deployment programs-policy continuum; and harmonize and align actions from all participants in the energy marketplace and from all parties that set and/or implement California's energy policies, strategies and programs.<sup>39</sup>

As explained by SCE, we expect the utility efforts on these programmatic initiatives to enhance rather than supplant other successful utility programs and to set the stage for the reengineering of the development and delivery of energy efficiency programs in California.

Table 1 shows illustrative energy savings for the four Big Bold strategies by the year 2016. The analysis was performed by Commission staff and the

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<sup>38</sup> We hereby recognize and commend the efforts of our senior Clean Energy Adviser Jeanne Clinton who has overseen this strategic initiative of the BBEES and the efforts of our staff and CEC collaborative staff. Collectively, they have successfully undertaken an unprecedented workshop and comment process and have provided a model of leadership, outreach, analysis, and collaboration well worth following in other substantive areas this Commission addresses.

<sup>39</sup> July 10, 2007, SCE Comments, pp. 47-48.

Energy Commission, and relied in part on baseline consumption data from the 2006 Itron Potential Study.<sup>40</sup>

**TABLE I**

Estimates of 2016 Energy Savings from Big Bold Energy Efficiency Strategies<sup>41</sup>

	Estimate of Sector or Segment Consumption Magnitude			Estimated EE Potential		
	TWH	MW	Million Therms	TWH	MW	Million Therms
New Commercial	9	1,900	50	4.5	950	25
New Residential	6	2,900	500	1	500	100-200
HVAC	19	14,400	3,000	2	1,400	300
Industrial	40	7,400	2,900	5	650	500

<sup>40</sup> Assigned Commissioner Ruling, May 24, 2007, Attachment A, p. 3. These numbers were developed for illustrative purposes only and more detailed study is required to establish more definitive potential savings.

<sup>41</sup> **New Commercial Buildings:** The target is 50% savings and 100% participation. The remainder of zero net energy will be supplied by renewables.

**New Residential Construction:** The savings potential was estimated by Itron for electricity and natural gas. The peak savings potential was assumed to be the same percentage as the electricity savings.

**HVAC Residential and Small Commercial:** Includes residential air conditioning and space heating and one third of commercial air conditioning, space heating and ventilation. The savings potential is based on a 10% increase in efficiency based on improvements made at turnover taken out to 2016 at the rate of 1/15th of the existing base per year. In addition, for the entire stock, an additional 10-15% was assumed.

**Industrial:** The savings potential was estimated by LBNL and Itron.



We adopt today, as programmatic initiatives, three of the four proposed BBEES:

- (1) All new residential construction in California will be zero net energy<sup>42</sup> by 2020;
- (2) All new commercial construction in California will be zero net energy by 2030; and
- (3) The HVAC industry will be reshaped to assure optimal performance of HVAC equipment.

We discuss each of these initiatives in greater detail below.

We are extremely pleased that the draft 2007 IEPR contains a recommendation to incorporate the Zero Net Energy goals in the Energy Commission's building standards for commercial and residential buildings. As stated in section 3.1 above, we "reiterate the goal of using ratepayer-funded energy efficiency programs to transform the market and incorporate efficiency gains into codes and standards." We very much appreciate the Energy Commission's recommendation and agree that incorporating these programmatic initiatives into the building standards is critical to their success. In the 2009-2011 portfolios, we direct the utilities to address how the two Zero Net Energy programmatic initiatives will be integrated into the utilities' existing

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<sup>42</sup> Zero Net Energy is herein defined as the implementation of a combination of building energy efficiency design features and on-site clean distributed generation that result in no net purchases from the electricity or gas grid, at the level of a single "project" seeking development entitlements and building code permits. Definition of zero net energy at this scale enables a wider range of technologies to be considered and deployed, including district heating and cooling systems and/or small-scale renewable energy projects that serve more than one home or business.

programs to support the development of the Energy Commission's codes and standards, as well as other types of measures.

The utilities shall include a section on each of these programmatic initiatives in the Strategic Plan and include specific programs in their individual 2009-2011 portfolio applications to implement these strategies.<sup>43</sup> Unlike the initial development of the Strategic Plan, the utilities (rather than our staff) shall be responsible for the development of a stakeholder forum to determine the right mix of programs, partnerships and incentives for each of these programmatic initiatives and for developing and implementing these initiatives. However, we direct our staff to participate in meetings and workshops as appropriate and to assist in obtaining the broad range of participation needed to move these initiatives forward.

We expect that the Strategic Plan will identify, to the extent possible, a "roadmap" of actions by the IOUs and other stakeholders needed to successfully implement the programmatic initiatives we adopt today and that they will be a part of a cost effective portfolio and comply with all policy rules. The 2009-2011 portfolio applications will then include the specific utility programs to achieve the IOU actions identified in that time-frame in the Plan. The utilities shall retain the 2009-2011 portfolio development role, including development of portfolio

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<sup>43</sup> We do not set a specific budget amount for these initiatives for the 2009-2011 portfolios. We do expect that utilities will clearly disclose in their April 2008 applications the entire proposed budget and additional funds from non-EE programs they seek to collect and spend for these programmatic initiatives. We are confident that the utilities, as managers of their portfolios, can include, after collaboration with key stakeholders, well-designed programs for the next portfolio cycle that will strongly support these critical initiatives.

design and the identification of cost-effective programs and activities. However, we expect that the Strategic Plan and related 2009-2011 portfolio filings will strongly reflect stakeholder input and exhibit utility strength in convening, engaging and collaborating with stakeholders to develop effective programs and strategies, and in obtaining the commitment of other actors to play leadership roles. Therefore the 2009-2011 utility applications will identify on-going range of activities and steps that the utilities will undertake in 2009 and beyond to ensure that these initiatives develop in a continuing and collaborative fashion. Because our jurisdiction extends only to the IOUs, these programmatic initiatives are limited to the IOU service territories. However, we have had extensive participation by California POUs in this proceeding to date, and we commit at a leadership level to continue to work with the POUs - and the CEC - to develop these initiatives so as to include all of California. We direct the utilities to join us in this effort and authorize the assigned Commissioner to lead this Commission's efforts to facilitate this collaboration.

We recognize that some of the major programmatic initiatives adopted today might result in implementation strategies of higher first cost, or in expenditures that result in savings in future years after the preparatory costs are already incurred. To this concern we have three comments to the utilities: first, some of these expenditures likely will be "early investments" that produce longer term energy savings to meet out-year savings goals, and should be viewed as investing in a diversified portfolio for long-term returns; second, we expect that utilities will continue to select programs and compile their program portfolios in a manner that is cost-effective for ratepayers; and third, we remind all that the strategic plans' scope by definition extends beyond the specific role of utility programs to include actors from other sectors (*e.g.*, other government agencies,

private building owners and industries, colleges and universities, etc.) that also will be contributing to the direct or in-kind costs of carrying out a wide-ranging set of actions that will achieve California's energy and greenhouse gas reduction goals.

#### **4.1. Residential New Construction**

The assigned Commissioner's May 24 ruling described a potential residential new construction program as follows:

X% [to be determined] of residential new construction and major residential renovations (during 2009-2011) to exceed Title 24 by 35%, and these levels then would be incorporated into 2011 CEC Title 24 standards. Then plan for additional targets and subsequent building standards refinements for 2012+.

**Parties' Positions:** The parties agreed that this energy efficiency strategy was viable and that associated energy savings are likely to be high. PG&E suggests potential near term savings from this strategy could be about 67 gigawatt (GWh) and 52 megawatt (MW) per year.

The parties do not agree on whether a residential new construction program standing alone would be cost-effective.<sup>44</sup> The utilities raise concerns that the program may not be cost-effective. The Community Environmental Council (CE Council), DRA, City of Oakland (Oakland) Robert Mowris and Associates (RMA), and CCSF all believe the strategy would be cost-effective.

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<sup>44</sup> As noted earlier, our Policy Rules do not require individual utility programs to be cost-effective. Rather, we require that the entire utility portfolio be cost-effective over a three-year period.

SDG&E/SoCalGas suggests the need to evaluate the market more carefully in order to specify better targets for single-family versus multi-family or “mixed use” construction.

SMUD comments that getting 50% of new homes to be at least 35% more energy efficient than Title 24 standards would be difficult but feasible.<sup>45</sup> The CE Council believes the timeline for meeting quantified goals for residential and commercial new construction should be 2020, rather than 2030, as the AIA now specifies. The CE Council comments that the short-term goal listed in the May 24 ruling is a good first step, but may not be aggressive enough, pointing to widespread support for more ambitious energy efficiency goals for new construction and the likelihood that this strategy will lead to significant cost savings for homeowners and ratepayers.

Many parties believe that the Energy Commission and local governments are the entities that are most likely to influence the success of this strategy. NEEA suggests the effectiveness of this strategy may depend partly on coordination with master developers, the national Urban Land Institute, the CBIA, and financing and insurance industries.

Several parties emphasize that this strategy likely requires a long-term commitment by the Commission because developers’ and manufacturers’ home

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<sup>45</sup> The Energy Commission administers energy efficiency standards for building construction (Title 24 of the California Code of Regulations (CCR)) and for new equipment such as air conditioning and lighting sold and installed in buildings (Title 20, CCR). Both standards are updated periodically to incorporate new energy efficiency technologies and methods. The Federal Government also sets minimum national standards for some appliances and equipment. The national standards are incorporated into the California standards.

building cycles usually extend beyond the utilities' three-year budget cycle. Members of the building industry explain that an estimated 70%-80% of new homes in Southern California are developed in master-planned communities by production builders. There, decisions are made five to six years pre-construction on subdivision layout, including street and home orientation that will later affect solar heating and natural cooling conditions, as well as rooftop suitability for solar photovoltaic (PV) systems. Actual design and planning of utility infrastructure requirements occurs three to four year pre-construction, long before most current utility incentive programs are applicable.

The utilities, CE Council, Schweitzer, TURN and SDG&E/SoCalGas advocate quantifying the "carbon footprint" of efficient new homes and using this information as another way for both motivating adoption and applying a metric that might have more universal understanding and support. The United Kingdom (UK) has adopted a very successful energy efficiency labeling program for new homes that provides a model for our efforts.<sup>46</sup>

**Discussion.** A comprehensive, integrated long-term strategy to achieve maximum energy savings in residential new construction is both very promising and critically needed, and we hereby adopt this strategy. Table 1 shows that potential energy savings could be as high as 500 MW, 1,000 GWh, and 150 million therms. These savings are substantial and would provide long term, permanent energy savings and can lead to the development of new technologies

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<sup>46</sup> See, UK Energy Efficiency Action Plan 2007, <http://www.defra.gov.uk/environment/climatechange/uk/energy/pdf/action-plan-2007.pdf>.

and the training of design and construction professionals that will extend to the retrofit market.

Because California continues to build major developments in anticipation of population growth, there is a substantial opportunity for deploying this energy efficiency strategy. The parties generally believe that a committed collaboration among the community of home builders, this Commission, the Energy Commission, the utilities, and other key stakeholders could, by 2011, achieve energy savings that would exceed 2005 Title 24 standards by 35% in half of residential new construction. We adopt as a programmatic initiative that by 2020 all new housing in California IOU service territories<sup>47</sup> will be built to consume “zero net energy,” using all cost-effective energy efficiency and other demand reduction/no or low carbon impact measures. This programmatic initiative is consistent with input we have received from the CEC collaborative staff and the CEC’s draft IEPR.

We choose to use the “zero net energy” metric over “zero net carbon” as our expertise and jurisdiction more readily applies to energy. We also adopt an

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<sup>47</sup> As noted earlier, while these programmatic initiatives apply only to the IOU service areas, our commitment, at both a leadership and staff level, is to work with the California POU's and the CEC to extend these initiatives statewide.

interim goal that 50% of new homes achieve energy savings that meet the Tier II standards of the Energy Commission's New Solar Homes Program by 2011.<sup>48</sup>

Moving the industry in this direction will require an aggressive and creative action plan. We direct the utilities to seek the participation of and collaborate with Energy Commission staff responsible for building standards and the PIER program.

The process for moving ahead with this aggressive New Residential Construction programmatic initiative shall begin with IOU-initiated stakeholder meetings that emphasize several actions:

1. Collaborating with national and western regional organizations to work with building products and materials suppliers to develop new technologies and systems;
2. Sharing information and ideas about innovative and cost-effective approaches to achieving "zero net energy" new housing, including the definition of an interim milestone for 2015;
3. Leveraging the planning resources of local governments to develop accessible technical assistance and incentive programs to motivate efficient building design and construction early in the process of planning for new construction;

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<sup>48</sup> The New Solar Homes Partnership Tier II Energy Efficiency Requirements are:

- 35% Total Energy Savings Compared to 2005 Title 24
- 40% Cooling Energy Savings Compared to 2005 Title 24
- Energy Star for Builder Provided Appliances
- Full Compliance with Title 24 Lighting Requirements

The 2011 interim goal will remain tied to the 2005 Title 24 standard regardless of the expected 2008 code update.



4. Identifying ways to leverage market players' activities and market, offerings, including providing information to buyers on expected home energy consumption; and
5. Identifying how to measure impacts and calculate cost-effectiveness of ratepayer expenditures for the EM&V process.

The utilities, in cooperation with Commission staff and the assigned Commissioner, shall solicit the involvement and commitment of home energy rating services, local government planning and building officials, Energy Commission staff, consumer groups, representatives of the Building Industry Association, and representatives of relevant trade associations, developers, buildings and labor groups. The utilities are charged with taking a leadership role, along with the Commission, to engage these stakeholders in an active process not only in the development of the strategy, but also in its successful implementation.<sup>49</sup>

Finally, the UK has adopted a zero net energy goal for new residential construction by 2016 and we encourage the utilities to examine the UK program for innovative ideas and best practices.<sup>50</sup>

#### **4.2. Commercial New Construction**

The May 24 Assigned Commissioner's ruling described a proposal to join the AIA Campaign to achieve Zero Net Energy Building Design by 2030 (AIA

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<sup>49</sup> The Commission recognizes that what the IOUs are charged with and will be evaluated upon is effort toward a market transformational process and that neither the Commission nor the utilities can control the actions of stakeholders.

<sup>50</sup> UK Energy Action Plan 2007, pp. 20-27.  
<http://www.defra.gov.uk/environment/climatechange/uk/energy/pdf/action-plan-2007.pdf>.

2030 Challenge).<sup>51</sup> This effort would include identifying the next 6-10 years of Energy Commission standards work,<sup>52</sup> emerging technologies initiatives, utility incentive programs, and state or local initiatives targeting commercial building and property developers. The 2030 target has been adopted by the AIA, the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) and the U. S. Green Building Council (USGBC).

**Parties' Positions.** The utilities, DRA, TURN, CCSF, CE Council and NEEA all agree that this strategy is feasible and should be considered a program priority. The utilities state that program impacts would vary depending on building types and that the Commission should adopt a clearer definition of the program. SCE recommends using the AIA interim milestones for moving in the direction of constructing commercial buildings that use zero net energy and are "carbon neutral" by 2030: 50% lower fossil energy use than the average building initially; 60% lower by 2010; 70% by 2015; 80% by 2020; 90% by 2025, and 100% by 2030.

Several parties identified opportunities to leverage utility programs with entities involved in designing, building, or managing new commercial buildings

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<sup>51</sup> The 2030 Challenge is described at:

<http://www.usgbc.org/News/PressReleaseDetails.aspx?ID=2779>.

The AIA web site has guidelines for achieving carbon neutral buildings at:

[http://www.aia.org/static/state\\_local\\_resources/adv\\_sustainability](http://www.aia.org/static/state_local_resources/adv_sustainability) and also offers principles for a 50% reduction in fossil fuel consumption:

<http://www.aia.org/fiftytofifty>.

<sup>52</sup> As discussed above, the CEC's draft IEPR recommends an increase in the efficiency levels of the state building standards to match the programmatic goal we adopt today.

and with local governments. PG&E believes a relatively small number of large commercial property owners can influence broader market acceptance by showing leadership in building energy efficient and green commercial buildings. Heller Manus Architects (Heller Manus) concurs that peer and market pressure will result in demand for more efficient buildings and that end users will be willing to pay for added costs. Heller Manus recommends targeting building owners who control the largest amount of space, the teams that design and construct those spaces, and the municipalities where they are permitted and built.

Heller Manus emphasizes the need to increase the number of educated and trained building designers, building clients and users, contractors, and building/planning department officials. It also suggests engaging elementary and secondary schools, universities and colleges, and professional licensing and accreditation organizations to provide training and education on green buildings.

**Discussion.** We adopt a programmatic initiative to achieve “zero net energy” design and technologies in all new commercial construction in the IOU service territories by 2030, consistent with the goal adopted by the AIA. An aggressive program targeting new commercial construction offers substantial opportunities for energy savings. Commercial buildings today consume about one-third of all the electricity in California. Considerable growth is expected in the years ahead. An aggressive strategy could reduce energy demand by as much as 4,500 GWh and 950 MW. PG&E believes that the savings potential might be lower, but still significant, at 1,500 GWh/year.

We agree that a reasonable approach for achieving high market participation might commence by targeting a relatively small number of

influential commercial builders, owners and designers, especially those who have large holdings nationally and may incorporate California design principles on a national scale. The national and regional nature of the commercial construction market may provide momentum for substantial energy savings that are cost-effective both within and outside California.

Moving the industry in this direction will require an aggressive and creative action plan. We direct the utilities to seek the participation of and collaborate with Energy Commission staff responsible for building standards and the PIER program; POU's such as SMUD and the Los Angeles Department of Water and Power (LADWP); major commercial real estate developers and building construction companies; and equivalent state and private sector building sector leaders from neighboring states in the West.

The utilities should place an emphasis on influencing decisions and policies at the earliest possible stage. For example, to target early decisions by builders and owners, the utilities should focus on training and educating building and design professionals and influencing decisions at the design stage of a building project. A continual source of new ideas and technologies can be cultivated via the CEC's PIER research program and the utilities' promotion of emerging technologies. We expect the utilities' plan for new commercial construction to leverage opportunities presented by actions identified in the Governor's Green Building Initiative and Action Plan, the work of the AIA on its 2030 Challenge, and related promotional and innovative actions by government agencies and businesses.<sup>53</sup> Knowledge transfer also must engage vocational

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<sup>53</sup> See, e.g., the initiative of the World Business Council for Sustainable Development (WBCSD) to achieve buildings with zero net energy from external power supplies and

*Footnote continued on next page*

education, college and university graduate preparation, and other workforce training across a wide range organizations. Finally, to ensure widespread market transformation, the utilities should continue their advocacy for more stringent building standards and codes at the state and local level.

The utilities shall use the following milestones:

**2011:** 30% of newly constructed buildings would incorporate energy efficiency measures so that the building specifications will exceed 2005 Title 24 requirements by 30% or more;

**2015:** 50% of newly constructed buildings would incorporate energy efficiency measures so that building specifications will exceed 2005 Title 24 requirements by 30% or more;

**2020:** 20% of newly constructed buildings would demand “zero net energy”; and

**2030:** 100% of newly constructed commercial buildings would demand zero net energy.

#### **4.3. Residential and Small Commercial Heating Ventilation, and Air Conditioning (HVAC)**

The assigned Commissioner’s May 24 ruling described the following illustrative HVAC program:

Achieve X% participation of high-efficiency A/C systems in the retrofit/ replacement residential and small commercial market segments. Systems also should be optimally sized, with high-quality installations and low-leakage ductwork. This strategy might involve a national approach to climate-

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zero net carbon dioxide emissions, while being economically viable to construct and operate at:

<http://www.wbcSD.org/templates/TemplateWBCSD5/layout.asp?type=p&MenuId=MTA5NQ&doOpen=1&ClickMenu=LeftMenu>.

zone- efficiency standards (e.g., hot-dry, warm-humid, and temperate zones).

**Parties' Positions.** The utilities generally support a greater emphasis on improving the energy efficiency of HVAC systems, partly because of the potential for peak demand reductions. DRA emphasizes that residential air conditioning accounts for 20% of summer peak demand. SDG&E/SoCalGas state that the proposed goals may be too ambitious if the goals rely on overly optimistic assumptions regarding the number and level of high quality installations and associated energy savings levels. SCE suggests a target in the mid 30% range, while PG&E proposes increasing participation by 5% a year starting in 2010. The CE Council argues the utilities can accomplish a goal of 50% participation by 2011 with future adjustments depending on the success of the first couple of years.

Collectively, the parties agree that a major improvement in HVAC energy efficiency savings will require significant improvement in existing industry practices and major changes in utility programs. Because there are many entities involved in the HVAC industry, a major challenge will be designing and successfully implementing solutions that overcome the existing fragmentation in the industry. Parties identified the following specific issues that need to be addressed:

- Widespread disregard for Title 24 standards and permit requirements has resulted in poor quality installations and no performance verification. The quality of HVAC installations tends to be poor, with wide-spread non-compliance with Title 24 system sizing and duct treatment specifications. The statewide method of compliance is through the issuance of local building permits and post-installation inspections. However, the Energy Commission estimates that only 10% of

installations are performed with local building permits and local governments do not have the resources to identify and pursue violations.

- Need for greater attention to climate-appropriate technologies and other new technology solutions. The national equipment efficiency standards for HVAC set by the U.S. Department of Energy (USDOE) are not crafted to address the needs of consumers in the hot, dry areas of California and other western states. Accordingly, manufacturers do not routinely develop products that are energy efficient in those climates. Large-scale introduction of new technologies presents difficult problems, including the need for large, up-front capital investments, a lack of demonstration projects, the limited availability of new technologies on the market, and an untrained workforce.
- Need for systems and whole building solutions. HVAC installations should be combined with a more comprehensive energy efficiency approach at the site, including cool roofs, building shell, ventilation, and other building technologies. PG&E estimates that a more holistic approach could produce energy savings exceeding 1400 MW in ten years.

**Discussion.** Residential and small commercial HVAC offers considerable opportunity for increased energy efficiency. Because small HVAC constitutes over 20% of California's peak demand, the potential energy savings are substantial: as high as 1,400 MW, 2,000 GWh, and 300 million therms.<sup>54</sup>

A successful HVAC initiative must be structured to overcome the problems identified above. Basically, the full spectrum of air conditioning

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<sup>54</sup> July 10, 2007, SCE Comments, p. 12, indicates that air conditioning contributes about 35% of California's peak electric load (14% commercial and 21% residential).

equipment sales, installation, and service business practices must change and the multitude of key stakeholders must engage in a collaborative effort to make the changes. A comprehensive approach will involve the cooperation of and coordination with manufacturers and distributors, consumer education, contractor training, verification of quality installations and maintenance, consequences for noncompliance with codes and standards, and making high quality installations profitable. The challenge is formidable but not impossible. Although the parties do not agree on specific strategies for implementing an aggressive HVAC strategy, they support undertaking such an effort.

The CEC is required under AB2021 (Section 4(b)(1)) to “investigate options and develop a plan to improve energy efficiency of, and to decrease the peak electricity demand of, air conditioners. The plan is to be submitted to the legislature by January 1, 2008. The Commission is fully committed to collaborating and coordinating the HVAC Programmatic Initiative with the CEC’s AB2021 efforts.

We direct the utilities to work with our staff, to identify the necessary stakeholders, especially the CEC, and to seek to engage them in this HVAC initiative. We will use our leadership and that of other state agencies to bring parties together. We hope to engage a broad array of individuals and organizations with the knowledge and influence needed to promote real change in the HVAC industry. These entities include HVAC contractor associations such as the Air Conditioning Contractors of America, the Building Performance Contractors’ Association, Home Energy Rating System providers, local governments, the Contractors State Licensing Board, the California Association of Local Building Officials, and national organizations such as the Institute of Heating and Air Conditioning Industries (IHACI), the Consortium for Energy



Efficiency (CEE), the American Council for an Energy Efficient Economy (ACEEE), USDOE and the United States Environmental Protection Agency (USEPA), and the National Electrical Manufacturers Association. Planning also must engage educational, vocational, and training professionals who can address workforce development issues. The utilities shall convene working sessions with key stakeholders to develop a proposed HVAC course of action to promote efficient design, marketing and installation of HVAC systems and shall develop short-term, mid-term and year 2020 savings targets for the HVAC Programmatic Initiative.

We recognize the challenges presented by an initiative to promote HVAC programs require more advanced planning and more complex activities than the other programmatic initiatives we adopt today. For that reason, we expect the work on this strategy may require more time and study than other adopted initiatives. Accordingly, the utilities' Strategic Plan should provide an initial assessment of relevant issues and associated actions, which will be supplemented and refined over time. We expect the utilities' 2009-2011 portfolios to include the HVAC initiative to the extent practical under the circumstances, but with a more comprehensive program than has been implemented in past years.

#### **4.4. Industrial Sector Programs**

The assigned Commissioner's May 24 ruling asked the parties to comment on an illustrative industrial sector program that would "achieve 100% of electricity economic potential in the industrial sector by 2015 through voluntary action."

**Parties' Positions.** Several parties commented that an industrial sector energy efficiency strategy would reduce greenhouse gas emissions and water use

and make California companies more competitive. In spite of these benefits, the parties were generally not optimistic about the prospects for a major energy efficiency initiative in the industrial sector in the near term. Some, including PG&E, raise concerns that cost-effectiveness requires a payback period of at least four years, while many industrial customers will not invest in measures unless the payback period is less than two years.

Parties also stated that uncertainties associated with future AB 32 regulations for industrial sector greenhouse gas (GHG) reduction are likely to dampen interest in energy efficiency investments in the industrial sector because customers and investors do not know if they will receive credit under AB 32 for GHG emission reductions due to energy efficiency. DRA does not find a voluntary approach sufficient and observes there is a lack of efficiency standards in the industrial sector.

Only SCE strongly endorsed moving ahead with an aggressive industrial sector energy efficiency strategy, suggesting it may provide significant energy savings, although SCE does not believe it could realize 100% of the sector's energy savings potential by 2015. SCE proposes to combine market demand response and cogeneration programs with energy efficiency offerings in the industrial sector. SDG&E/SoCalGas agrees that the industrial sector presents huge opportunities for energy efficiency, but argues for a focus on higher incentive payments and liberalized Commission policies on free-ridership, along with efficiency gains from combined heat and power.

While most parties did not recommend a major initiative in the industrial sector, they suggested many ways to improve existing industrial efficiency programs, for example, by assuring the availability of incentives for projects with

longer lead times, removing incentive payment limits, and marketing the programs to high level decision-makers rather than plant engineers.

PG&E states that the AB 32 action plan to be developed by the California Air Resources Board (CARB) may provide the best opportunity to leverage an industrial sector energy efficiency effort. PG&E, NAESCO and DRA recommend close coordination with CARB in its development of a plan for reducing greenhouse gasses with a program design that would promote energy efficiency.

**Discussion.** California's industrial energy customers use nearly a third of the state's energy, and the estimated potential energy savings associated with industrial energy efficiency programs are as high as 650 MW, 5,000 GWh, and 500 million therms. A major initiative in this sector of the economy, however, is premature. Most industrial customers are unlikely to invest significantly in energy efficiency measures before they know the responsibilities they will have to reduce greenhouse gas emissions under AB 32, and how the CARB will count GHG reductions from energy efficiency. The implementation of AB 32 is underway but this uncertainty may not be eliminated for a year or more.

The industrial sector continues to be an important target for the utilities' energy efficiency programs, and must be included in the Strategic Plan and the 2009-2011 portfolios. While we do not adopt a specific programmatic initiative for the industrial sector in this Decision, this should not be interpreted as diminishing the importance of energy efficiency measures designed for California's industries. As California Large Energy Consumers (CLECA) points out in its Opening Comments, there are real opportunities in the industrial sector in 2009-2011 program cycle and we expect the utilities to include robust industrial sector programs in their April 2008 portfolio applications that are

responsive to the specific needs and concerns raised by parties such as CLECA and the California Manufacturers & Technology Association (CMTA).

In addition, the utilities and Commission staff shall monitor developments as CARB moves forward on implementing AB 32. To the extent CARB identifies energy efficiency opportunities as a mitigation strategy we stand ready to work with CARB. For example, CARB is in the initial stages of considering an early action measure involving energy efficiency improvements at California cement facilities. See CARB website for report, "Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California Recommended for Board Consideration," available at

[http://www.arb.ca.gov/cc/ccea/meetings/091707workshop/ea\\_ii\\_report.pdf](http://www.arb.ca.gov/cc/ccea/meetings/091707workshop/ea_ii_report.pdf).

As CARB adopts early action measures to promote energy efficiency in the industrial sector we will convene a workshop to identify opportunities for utility programs to support such early actions. In addition, we will work with CARB to clarify GHG reduction accounting procedures for the industrial sector as early as feasible.

We will revisit industrial sector energy efficiency strategies as more information becomes available that would affect industrial customer decisions to install energy efficiency measures.

## **5. Marketing, Education, Outreach, and Training**

Marketing, education, and outreach (ME&O) are essential in promoting energy efficiency. Few consumers would participate in California's programs without information about their existing benefits. Education about the benefits of energy efficiency and other customer demand-side options is central to transforming energy efficiency from a program to a lifestyle. The Commission will continue to support robust funding to meet this goal.

Likewise, energy efficiency career training is a prudent investment. Trained personnel at every level are necessary to ensure California's energy efficiency efforts will not falter.

However, it is time to implement a more strategic use of ratepayer ME&O and training funds. In this decision, we take several actions to enhance our programs in this area. First, we direct the utilities to strengthen and expand the efforts they began in 2006 to develop an integrated, comprehensive approach to ME&O for all demand-side customer options, focusing particularly on energy efficiency. Integration includes more statewide coordination as well as comprehensive messages that combine the variety of energy reducing/avoiding options available to customers. We also provide direction to the utilities and our staff to update and expand our energy efficiency websites to make these tools more useful for both the energy industry and the general public.

Second, to maximize the effective use of funding in this area, we also direct the utilities to closely coordinate their training programs with each other and to investigate partnerships with public and private organizations. California is facing a shortage of trained people to plan, administer, implement, and evaluate our extensive energy efficiency efforts. Given our long-term commitment to energy efficiency, we must train hundreds, if not thousands, of people in critical skills in a very short time. Utility coordination, combined with new organizational partnerships will advance best practices in energy efficiency training and increase the impact of all efforts.

Finally, we will analyze the results of the pending EM&V study on outreach efforts and provide direction on the 2009-2011 portfolios plans accordingly.

### **5.1. Increased ME&O Integration and Coordination**

**Parties' Positions.** Between 2006 and 2008, California ratepayers will have funded approximately \$300 million for public education, marketing, and outreach to support customer demand-side programs.<sup>55</sup> Of this amount, \$176 million funds public education and outreach for utility energy efficiency programs.<sup>56</sup> Approximately one-third of the funding is for statewide promotion of energy efficiency and the remainder is for educational efforts focused on individual utility territories. In addition, between 2006 and 2008 ratepayers are funding about \$70 million for energy efficiency outreach to low income households,<sup>57</sup> \$80 million for demand response,<sup>58</sup> and another \$4.5 million for solar installations.<sup>59</sup> The Commission has authorized an additional \$180 million for ME&O efforts, throughout the roll-out and implementation phases, related to advanced metering infrastructure (AMI), which is the installation of meters, over

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<sup>55</sup> This number aggregates ratepayer funding for ME&O for all customer demand-side programs (energy efficiency, demand response, low income, and the California Solar Initiative).

<sup>56</sup> D.05-09-043 authorized 2006-2008 energy efficiency portfolio plans and funding levels, including program areas covering statewide marketing, education centers, third-party, and local government partnerships.

<sup>57</sup> D.06-12-036, D.06-12-038, D.05-12-026.

<sup>58</sup> D.06-03-024.

<sup>59</sup> D.07-05-047.

several years, designed to provide real-time cost and usage information to individual customers.<sup>60</sup>

On June 21, 2007, the ALJ issued a ruling to assess whether and how to modify current ME&O approaches for energy efficiency programs to achieve efficiencies with other demand side programs, and better coordination with other entities that have similar programs. Numerous parties submitted comments and virtually all agreed that:

- ME&O are essential for optimal program results;
- New and improved coordination with local government and other entities is possible and will produce favorable results;
- Increased and consistent coordination across energy programs, such as those involving demand response, solar installations, and greenhouse gas reductions, is possible and will produce favorable results; and
- A central forum for identifying best practices, innovative strategies and new opportunities for coordination will advance improvements in ME&O.

Responding parties presented several strategies for promoting energy efficiency programs. The utilities generally reported some coordinated efforts, although no utility claimed that it was maximizing the opportunities in this regard. PG&E comments that leaders in the area of climate change are creating new opportunities for cooperative marketing efforts. SoCalGas argues that “sustainable design,” which concurrently promotes energy efficiency, demand

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<sup>60</sup> D.06-07-027 approved approximately \$72 million for PG&E’s AMI ME&O, D.07-04-043 approved approximately \$38 million for SDG&E’s AMI ME&O, A.07-07-026 includes approximately \$70 million for SCE’s proposed AMI ME&O.

reduction, reductions in greenhouse gasses, and water conservation, is best marketed by a single entity, namely, the utility.

Other parties raise concerns that existing ME&O programs are fragmented and miss opportunities for increased energy savings. They generally agree that a more centralized strategic forum is needed. NRDC suggests that the utilities should lead it; EP Incorporated (EPI) prefers a Commission-led effort. TURN suggests the Commission consider the creation of an independent entity, like the NEEA, to develop and implement a long-term strategy for statewide ME&O. Schweitzer suggests a more comprehensive interactive website and use of the Energy Commission's New Solar Homes Program Advisory Committee to coordinate and develop marketing strategies. DRA proposes the Commission convene a task force to study ways to improve marketing efforts that includes marketing professionals and POUs. DRA asserts that energy efficiency should be treated like a product line that requires professionalized marketing strategies. It recommends the development of a recognizable and trusted brand for California energy efficiency products and services. DRA also recommends that all marketing efforts include conservation as a central message.

CCSF urges us to modify Policy Rule II.1, which currently states that energy efficiency is a critical part of the state's strategy to reduce the environmental impact (including GHG emissions) associated with the state's energy consumption. CCSF recommends that we rewrite the Policy Rule to include jointly marketing energy efficiency with water conservation, recycling, toxic reduction (particularly mercury from fluorescent lamps), solar, distributed generation, green buildings, low income and other related programs.

**Discussion.** We favor a coordinated ME&O effort across utility territories and consumer demand side options. Increased coordination will optimize the



development and delivery of energy efficiency messages that inform consumers and motivate energy-saving activity. Such efforts can reduce costs while increasing the impact of energy efficiency measures, information and offerings. Indeed, the utilities proposed to develop in their current portfolio a “2006 Integrated Statewide Marketing and Outreach Plan.”

We direct the utilities and third parties to expand their current efforts to achieve the following goals:

1. *Coordination of related marketing, education and outreach programs, such as incentives for solar and other distributed generation installations, demand response programs, conservation and low income programs;*
2. *Coordination of providers with similar or related interests and services, such as local governments, community-based organizations, firms and municipal utilities;*
3. *Comprehensive approach to motivating all types of energy efficiency investments and behaviors; and*
4. *Cost-effective, high impact plan to drive maximum energy savings – both long term and short term – tailored to reflect the values, habits and demographics of different target communities and populations, particularly low income and ethnic groups.*

For example, the utilities should undertake joint marketing of energy efficiency programs with other customer energy technologies, such as demand response and solar installations.

The utilities shall include a long-term coordinated approach to ME&O in the Strategic Plan. In addition to the direction provided above, the approach shall integrate outreach efforts on AB 32 and climate change, and rely on targeted information and messages to motivate energy efficiency and conservation actions and participation by the residential and small commercial

sectors. The approach shall also describe new ME&O initiatives for the limited English population in California. The utility portfolio plan applications filed next spring shall include a specific section on ME&O that implements our directives today and the ME&O section of the Strategic Plan.

We agree with CCSF's proposed changes to the Policy Rules relating to the joint marketing of energy efficiency with other programs, and will address this in the next version of the Energy Efficiency Policy Manual. We direct Energy Division to update the Policy Rules, in accordance with the procedure set forth in Policy Rule XI.1. We direct the utilities to implement this Policy Rule update (and all other modification to the Policy Rules resulting from today's decision) in both the Strategic Plan and their applications for approval of 2009-2011 energy efficiency portfolios.

D.05-01-055 directed the utilities to fund the development of a data management system.<sup>61</sup> As a result, the Energy Division staff and its consultants designed the Energy Efficiency Groupware Application (EEGA) to serve as a repository for the utilities' monthly and quarterly program reports and present energy efficiency program information in an organized, consistent, and useful manner that is readily accessible to the public, the Commission, and other agencies.<sup>62</sup> D.05-01-055 also directed that as part of each program planning cycle, the IOUs should continue to reserve a portion of energy efficiency funding for the purpose of maintaining and expanding EEGA, to track savings, cost-

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<sup>61</sup> D.05-01-055, p. 131.

<sup>62</sup> <http://eega2006.cpuc.ca.gov>.

effectiveness results and to support our resource planning and goal setting activities.<sup>63</sup>

We reaffirm the direction we provided in D.05-01-055 on the funding and development of EEGA. Namely, the IOUs should present proposed funding for EEGA as a separate budget line item in their 2009-2011 applications.

Commission staff, or its contractor, will perform the work to maintain and expand EEGA, and the IOUs shall submit the necessary portfolio and program-level data in the format and frequency specified by staff. The IOUs should forward all program implementation plans to the Commission, as they are received, along with any other program or portfolio data that staff may require in order to monitor program performance. Commission staff will be responsible for determining the final scope of work for any maintenance and enhancements of EEGA. In the interest of time, staff may choose to use the existing contracting structure for EEGA.

We intend for the public to be able to utilize centralized on-line resources to understand the full range of our energy efficiency efforts. This use requires on-line information regarding program elements, best practices and lessons learned. The utilization we envision also requires technological changes and applications to facilitate access to third-party programs, utility contracting procedures, innovative and pilot programs, and new outreach opportunities. We direct staff to work with the utilities to develop an Energy Efficiency Web Portal (EE Web Portal) that provides one integrated point of access to a multitude of

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<sup>63</sup> D.05-01-055, p. 132.

energy efficiency information.<sup>64</sup> The web portal will be a user-centered, interactive resource that allows users to easily navigate multiple points of data, applications, and information systems. We will combine or link this web portal with other websites, including, but not limited to the utilities' websites and other government agencies.<sup>65</sup>

The utilities have also developed an Energy Efficiency Best Practices database and website.<sup>66</sup> To remain useful, the database must be updated periodically with information on new programs, end use technologies, and implementation strategies. Originally developed for a primary audience of program evaluators, the website and database can be improved for broader usefulness to program designers, implementation practitioners, and marketers. This data base, like the EEGA, should be updated on a continuing basis and integrated with our EE Web Portal. We direct Energy Division and utilities to ensure the necessary updating and integration occurs.

Many parties urge the Commission to become more proactive in overseeing and assisting in the ME&O efforts, both at a leadership level and in assisting collaboration among stakeholders. We agree. We will convene an ME&O Task Force to assist in the development of the Strategic Plan, the utilities'

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<sup>64</sup> We envision a much expanded portal that is comprehensive, interactive, and user-friendly.

<sup>65</sup> Commission staff should work with the utilities to develop a budget for the EE Web Portal for the 2008 portfolio plan applications. Commission staff, or its contractor, will perform the work to maintain and expand EE Web Portal. We authorize the assigned Commissioner to provide direction as needed for pre-2009 development of the EE Web Portal and direct utilities to provide early development funding from existing budgets.

<sup>66</sup> See: <http://www.eebestpractices.com/>.

portfolio plan applications, and the EE Web Portal. The Task Force should also explore DRA's suggestion of developing a recognizable and trusted brand for California energy efficiency products and services.

## **5.2. Training**

**Parties' Comments.** Numerous parties raised the lack of adequately trained energy efficiency professionals, including planners, contractors, and local government building code officials, as significant barriers to accomplishment of California's energy efficiency goals. This theme recurs for all sectors and activities -- planning, EM&V, code enforcement, new construction, HVAC, industrial programs, etc.

For example, Heller Manus pointed out that education is the key to encouraging efficiency as standard practice for commercial new construction.<sup>67</sup>

They offer detailed recommendations for four efficiency education targets:

1) building industry clients and users must understand efficiency economics and environmental benefits (*e.g.* via business and law schools, real estate licensing, building owner and manager certification, and associated continuing education mechanisms); 2) college level and continuing education licensing requirements of building design architects and engineers, with special attention to energy modeling and feedback on actual building performance; 3) secondary education,

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<sup>67</sup> This mirrors discussion at the June 5-6, 2007 Commercial New Construction workshop, where experts indicated that now "1 in 1000 buildings is 'high-performing' " (defined as 50% better than minimum standard. Further there was general agreement that there are not sufficient "knowledge-holders" of energy efficient design and design/build integration to apply this approach on a wide scale. This workshop discussion revealed a need for more engineers and architects in the field - both via more "seats" in college and university architecture and engineering schools, and greater retention of such graduates in the building design field.

contractor license requirements, and continuing education for contractors; and 4) staff training and professional accreditations of local government building and planning officials. SCE and SDG&E/SoCalGas cite similar needs. SCE specifically calls for the Commission to “value knowledge transfer, technical assistance, and design assistance activities.”<sup>68</sup>

To achieve residential new construction efficiency potential, SCE cites the greatest barrier as the slow pace of technological advancement and production builders’ use of integrated design principles. SCE advocates activities to identify and transfer knowledge regarding best practice designs and equipment selection by climate zone. PG&E calls for state agencies to undertake education and improved understanding of building practices.

The parties agree that the HVAC industry needs considerable career education and design/installation training. On the career front, Better Buildings Inc. (Better Buildings) describes the labor shortage in the HVAC industry as “beyond critical,” and states that “without ... a more attractive career for younger workers there will simply not be enough qualified people to do the work”<sup>69</sup> It urges training of HVAC sales personnel on energy efficiency equipment, system, and maintenance solutions. PG&E, SCE, SDG&E/SoCalGas, and TURN agree that the greatest barrier to HVAC performance is the lack of training for contractors and other skilled technicians. SCE and SDG&E/SoCalGas also would target dealers and end-use customers regarding quality installation. PG&E, TURN, and SDG&E/SoCalGas would target

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<sup>68</sup> May 29, 2007, SCE Comments, p. 5.

<sup>69</sup> July 10, p. 8. Better Building Inc., Comments.

building inspectors regarding code compliance. PG&E further advocates contractor training as a condition of license renewal.

**Discussion.** Without adequate numbers of trained personnel working in the various fields of energy efficiency, California will not succeed in achieving its goals. Training is necessary not only to support our energy efficiency goals, but to provide hundreds if not thousands of jobs in the state. California must quickly increase statewide efforts to train people at all levels to plan, administer, and deliver energy efficiency, both in the public and private sectors. This effort will require concerted planning among secondary and post-secondary educational leaders, technical and professional organizations, state agencies, economic and labor development organizations, utilities, and construction and manufacturing businesses that deliver energy efficiency solutions. We expect such an effort will require a wide variety of initiatives and seek multiple funding sources, not just ratepayer funds.

We direct the utilities to expand their on-going efforts for a coordinated, comprehensive, expedited approach to training, utilizing partnerships with related private and public efforts. Specifically, we direct the utilities to include a training section in the Strategic Plan and the 2008 portfolio plan applications and to work with stakeholders to develop specific training strategies for applicable sectors or markets. We expect that ratepayer funds can be combined with other funding sources to fill this essential need.

We see this potential labor shortfall and increasing demand for skilled workers as an opportunity to include segments of society that would not traditionally have access to this new energy economy. For example, minority, low-income, and other disadvantaged communities could benefit greatly from targeted outreach and training efforts that teach these communities the skills

they need to succeed at these critical jobs. Such focused training efforts can create entrepreneurial, wealth-building opportunities that build economic advancement for these communities. We direct the utilities to include specific training strategies for reaching minority, low-income, and other disadvantaged communities in their Strategic Plan. We expect utilities to develop strategies in collaboration with stakeholders from these communities.

### **5.3. ME&O EM&V Studies and Follow-up**

The Commission has an obligation to ensure that ratepayer dollars spent on ME&O programs are used wisely to achieve maximum results in energy savings and increased public awareness. Lack of data on the effectiveness of past programs hampers our efforts to develop clear guidance to the utilities on the ME&O portion of the Strategic Plan and 2009-2011 portfolios.

In D.05-04-051, we established a performance basis for ME&O programs that includes “any direct energy savings impacts attributable to the activity.”<sup>70</sup> D.05-04-051 also clarifies the counting of non-resource programs, including ME&O, towards our goals and requires that the EM&V efforts include recommendations to improve program performance. These recommendations are to be structured to provide both early feedback to program implementers and to the planning process for the next program cycle.<sup>71</sup> The Commission’s EM&V studies on the ME&O programs are expected to be completed by July 2008 for the process evaluation and January 2010 for the indirect impact evaluation.

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<sup>70</sup> D.05-04-051, p. 60.

<sup>71</sup> D.05-04-051, p. 65.



The Energy Division staff and their contractors will be engaged in an early feedback process that can inform the development, administration, implementation and budgets of the 2009-2011 portfolios. If the feedback demonstrates serious weaknesses with the current ME&O programs, we will consider a change in direction, including soliciting third-party bids for the administration and implementation of all or part of the programs or working with a non-profit organization, as recommended by TURN. The assigned Commissioner may issue further direction to the utilities on the planning, content and process for ME&O programs consistent with the findings of the EM&V study and this decision.

## **6. 2009-2011 Energy Efficiency Portfolio Design and Rules**

In this section we provide direction to the utilities on the content and process for development of their 2009-2011 portfolios plans.

### **6.1. Policy Direction**

The existing Policy Rules adopted in D.05-04-051 require the utilities' energy efficiency program portfolios to be diverse from the standpoint of program type, long- and short-term savings, reduction of peak loads and geography. We agree. We expect the utilities to review closely all provisions of the Policy Rules and in particular Rules II.1 through Rule II.6 as they develop their upcoming portfolio plan applications to ensure full compliance with the Policy Rules. We also direct utilities to demonstrate compliance with Rule II.6 regarding linkages between R&D, emerging technologies, and program commercialization.

We are committed to more aggressive, comprehensive and long-term program strategies and have thus established in this decision both the

preparation of the Strategic Plan and the three programmatic initiatives. We are convinced these can be cornerstones for future energy efficiency efforts, not just in California, but also nationally and internationally, and for assisting in the achievement of the AB 32 greenhouse gas reduction goals.

## **6.2. Portfolio Content Criteria, Process and Schedule for 2009-2011 Energy Efficiency Portfolio Applications**

The Strategic Plan, our decisions, and our Policy Rules will form the foundation for the 2009-2011 energy efficiency portfolio plan applications to be filed in Spring 2008. We expect that some of the utilities' program proposals from the current program cycle will continue and others will be added or expanded, including activities targeted to achieve our three programmatic goals.

In D.04-09-060 and D.05-01-055, we established a schedule for the utilities' 2006-2008 portfolio applications and provided general direction for the type of information to be included in those filings.<sup>72</sup>

D.05-09-043 established criteria by which we would review the utilities' 2006-2008 program planning applications in consideration of their energy efficiency portfolios. In this decision, we identify several additional objectives such as adherence to a strategic plan, longer-term energy savings, and leveraging of other stakeholders' actions and resources. Here we list a combined set of criteria that we will use in reviewing the utilities' 2009-2011 applications:

1. Are the proposed portfolios cost-effective on a prospective basis taking reasonable account of uncertainty with respect to key cost-effectiveness input parameters?

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<sup>72</sup> See D.04-09-060, OP 4 and D.05-01-055, OPs 6 and 7.

2. Are the portfolios designed such that it will be feasible for the utilities to meet or exceed the Commission's energy savings goals? If each of the annual goals cannot be met in light of the accounting and ramping up transition issues described in D.04-09-060 and D.05-04-051, will the proposed portfolio plans meet or exceed the 2011 cumulative energy savings goal?
3. Are the portfolios and associated funding levels appropriately balanced between activities that address short-term and long-term savings?
4. Do the portfolio plans provide sufficient strategies and funding to address opportunities to reduce critical peak loads and improve system load factors?
5. Do the plans reasonably allocate funds among market sectors and applications with respect to the savings potential that has been identified in the potential studies?
6. Do the plans adequately describe strategies to minimize lost opportunities, per Rule 5?
7. Do the plans provide for adequate statewide coordination of similar program offerings?
8. Do the plans reflect a long-term strategic plan that exhibits well-integrated planning along the following four dimensions?:
  - a) Coordination across stages of technology and program developments, such as research and development, emerging technology promotion, public outreach, upstream distributor marketing, utility customer-focused programs, codes and standards advocacy, and other activities that can take advantage of statewide, regional, and national leverage?
  - b) Leveraging the involvement and contributions from a variety of actors and financial resources, e.g. federal government, national manufacturers and distributors, national and regional building industry organizations and professionals, contractors, and educational institutions?

- c) Program designs and implementation strategies that explicitly seek to overcome identified market barriers to increased efficiency adoption? and
  - d) Identifying an “end game” for each technology or practice that transforms building, purchasing, and use decisions to become either “standard practice” (sometimes referred to as “market transformation”), or incorporated into minimum codes and standards?
9. Are there reasonable proposals for any fund shifting and program flexibility rules that should be adopted for these program plans?
  10. Are the overall funding levels proposed for the portfolio plans reasonable?
  11. Is there evidence of program continuity across types of programs, or implementers, for those programs which have proven successful and cost-effective?
  12. Are there appropriate strategies and program designs proposed for the three targeted programmatic initiatives?

We modify the process we adopted in D.05-01-055 for the review of the portfolio plans to make the development process more efficient and specifically, so that our review of third-party proposals and utility proposals is conducted concurrently. We conducted the 2006-2008 portfolio review process in two parts: we approved utility core program portfolios as presented to us in formal applications and we subsequently approved third-party programs in an advice letter process. For 2009-2011 portfolios, we adopt a single review process that will require the utilities to conduct third-party solicitations in time for inclusion in their energy efficiency portfolio plan applications.

This streamlining will require the utilities to begin the third-party solicitations almost immediately. It also means the solicitations will be conducted in advance of the completion of the utilities’ Strategic Plan. While this

timing is not optimal, this decision provides the utilities with enough guidance to conduct the solicitations in advance and the simpler, timelier, and better coordinated review process is a worthwhile tradeoff.

We also modify the third-party solicitation process and structure. For 2006-2008 solicitations, the utilities needed Commission approval for the criteria they used to evaluate third-party proposals and for the program areas upon which the third-party solicitations would focus.<sup>73</sup> We eliminate this review and approval process, and instead direct the utilities to apply the criteria they used in the last round of solicitations and grant the utilities discretion in how they determine program focus for the third-party solicitations. The utilities may use a combination of previously approved criteria based on their experience in the 2006-2008 solicitations, upon review and concurrence by their Peer Review Groups (PRGs).

Finally, we address the requirement in D.05-01-055 that utilities spend at least 20% of their portfolio funding on third-party programs that were subject to the competitive bidding process. In seeking to promote good competitive third-party proposals, D.05-01-055 did not permit the utilities to count expenditures on bilateral third-party program contracts as part of this 20%.<sup>74</sup> However, we want the utilities to extend the best of the 2006-2008 competitively bid programs into the next program cycle and we do not believe ratepayer interests will be compromised if those programs are extended by way of bilateral contract rather than a more complex bidding process. In order to encourage the utilities to

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<sup>73</sup> D.05-09-043, OP 8.

<sup>74</sup> D.05-01-055, p. 89.

extend high quality programs into the next program cycle, we will permit the utilities to count the costs of bilateral contracts as part of the 20% set aside for competitively bid contracts if those bilateral contracts are extensions of existing programs that won competitive bids in 2006-2008. The Commission will review whether the utilities' solicitation processes followed the directives in D.05-01-055, as modified by this decision, and the Energy Efficiency Policy Rules.

For the 2009-2011 program cycle, Commission staff, in consultation with the utilities, and after obtaining input from interested stakeholders and the PRGs, should develop a proposed schedule and information requirements for these upcoming portfolio applications. The proposed schedule for the portfolio applications should include workshops held by each of the utilities prior to the submittal of their applications, as well as possible workshops afterwards to gather and address concerns of the parties about their specific 2009-2011 applications. The information requirements should build upon the information we required for the 2006-2008 program cycle and, in addition, include a description of how each program or strategy reflects the Strategic Plan during the short term and longer term. These documents shall also include guidance to the utilities on the use of multiple funding sources for the marketing and/or delivery of integrated energy services programs as directed herein, such as reporting requirements by source and proportional share of funds directed toward a given program.

Within 90 days from the effective date of this decision, Commission staff shall present its recommendations to the assigned Commissioner and assigned ALJ, with a summary of the input received from the utilities and interested stakeholders. The proposed schedule should ensure that a final Commission decision can be issued no later than September, 2008. In consultation with

Commission staff and the assigned Commissioner, the assigned ALJ shall issue a ruling adopting a final schedule and information requirements for the 2009-2011 program cycle as soon as practical thereafter.

As in the past years, the applications should include electronic workbooks describing energy savings and program expenditures. The program categories and descriptions shall be consistent across the utilities to ensure comparability and efficient review of the portfolios.

### **6.3. Cost-Effectiveness and Savings Goal Calculations**

In this section, we consider recommendations to change our adopted cost-effectiveness and savings goal calculations.

#### **6.3.1. Cumulative Savings**

**Parties' Positions.** TURN, the CE Council, and DRA propose that we change our adopted approach to establishing savings goals based on "life-cycle savings" rather than annual and cumulative savings accomplishments. The term "life-cycle" refers to the expected trajectory of savings from an energy efficiency measure (or portfolio of measures) over the EUL of the measure(s), taking account of any natural decay or persistence in performance over time. These parties also recommend that we augment our reporting requirements, establish minimum requirements before rebates can be offered for the portfolio or for specific measures (*e.g.*, based on a minimum EUL of the measure), or consider developing additional metrics outside the risk/reward incentive mechanism to encourage long-term energy savings. NEEA also recommends that the Commission change its current methodology for calculating cost-effectiveness

and instead look at cost-effectiveness “over a five to ten year period after market response has ramped up and economies of scale have been achieved.”<sup>75</sup> These parties suggest that our current approach to energy efficiency will not adequately motivate the utilities to pursue energy efficiency savings that persist over time, unless such changes are implemented.

**Discussion.** The parties raise a fundamental concern that our current rules motivate utilities to pursue programs to install measures with short payback periods and EULs at the expense of programs that offer longer-term savings. They believe ratepayers will ultimately spend more than necessary in the long run, even if overall the portfolios remain cost-effective. The parties argue that the current approach to calculating energy savings does not adequately motivate the utilities to pursue measures with longer useful lives and greater savings persistence.

This concern is illustrated in Figure I, which displays a conceptual year-by-year profile of how blocks of energy efficiency savings are added in successor years’ programs. As the figure shows, the savings from a particular year’s portfolio diminishes through time as the measures installed in earlier years decay in performance or reach the end of their lives. Comparing cumulative savings accomplishments to the cumulative savings goals reveals a potential shortfall in the outer years.<sup>76</sup>

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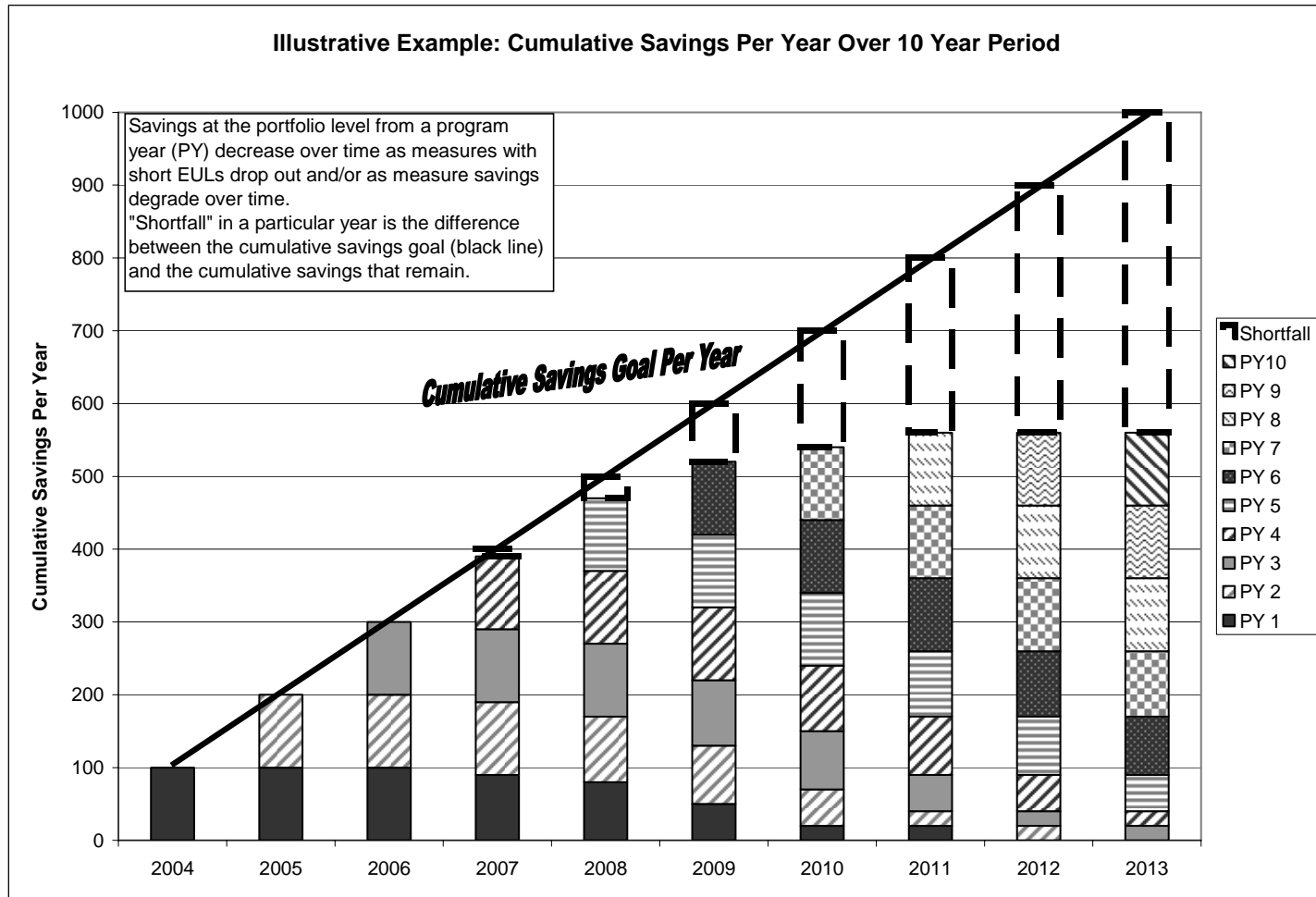
<sup>75</sup> July 18, 2007, NEEA Comments, § C.6.a.

<sup>76</sup> There are three generic ways to reduce or replenish the decay quantity: (1) repeat programs at additional expense in later years to replace “dead” measures in-kind, (2) avoid short-term decay by promoting longer life measures in early years, or (3) document that market transformation of certain products or measures guarantees

*Footnote continued on next page*



**Figure I**  
**Illustration of Impact of Lifecycle Savings on Cumulative Savings Goals**



We are not persuaded that the wholesale changes recommended by parties are warranted at this time, particularly in light of our recently issued decision on a risk/reward incentive mechanism for energy efficiency.<sup>77</sup> Under that

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that like-efficiency measures are routinely installed when the consumer replaces an expired measure.

<sup>77</sup> D.07-09-043.

mechanism, utilities only earn rewards if they meet or exceed a minimum performance standard (MPS) tied to our cumulative savings goals.

As we stated in D.04-09-060, our annual goal numbers represent the “annual gigawatt hour (GWh) and megawatt (MW) savings achieved by the set of programs and measures implemented in that specific program year.” The cumulative goal numbers represent the “annual savings from energy efficiency programs efforts up to and including that program year.”<sup>78</sup> Here, we clarify that the cumulative goals numbers and MPS are calculated in a manner analogous to Figure 1 above. For any given year, cumulative savings represents the savings in that year from all previous measure installations (and reflecting any persistence decay that has occurred since the measures were installed) plus the first-year savings of the measures installed in that program year.

In other words, in any given year, the IOUs are responsible for implementing additional energy efficiency measures that deliver savings *in that year* equal to the Total Annual Electricity Savings goal established for that year. In addition, the utilities remain responsible for ensuring the total savings available in a given year are equal to the cumulative savings goal for that year. If measures implemented in an earlier year to achieve that earlier year’s annual electricity savings goal are no longer in service (*e.g.*, reached their full expected useful life), then in order to achieve their Total Cumulative Savings goal the IOUs will have to undertake additional actions to maintain the target efficiency resource. Thus, contrary to the assertions of DRA and TURN, even absent the risk/reward framework the utilities are held accountable for any non-persistence

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<sup>78</sup> D.04-09-060, p. 10.

in energy savings in the performance of energy efficiency measures deployed as this non-persistence in energy savings directly and adversely impacts their progress against the ten-year cumulative goals established in D.04-09-060. This is equally true for the Commission's adopted GWh, MW and Therm goals.

Under the risk/reward mechanism's MPS, the utilities are further motivated to avoid excessive reliance on short-lived measures. Therefore, it does not work to the utilities' advantage to focus exclusively on measures with short lives (or low persistence of savings over time) because doing so creates the savings shortfall illustrated above, making it harder to meet the MPS. For example, if an energy efficient light with an expected life of five years was installed in 2004, it will remain in service producing savings throughout 2006-2008, after which it will reach the end of its life and need to be replaced with like-savings in 2009. A utility's 2009-2011 portfolio then can reflect one or more options as to how to "maintain" this level of equivalent savings, such as by repeating the equivalent measure delivery and incentive again, promoting measures with much longer expected lives that will endure over many years ahead and not have to be replaced so soon, and/or achieving market transformation strategies that ensure only like-kind efficiency lamps can be purchased in 2009.

This strategy would also make it harder for the utilities to meet the threshold we established for a "step up" (from 9% to 12%) in the shared-savings rate under the incentive mechanism, which occurs when they attain 100% of the goals or higher. Both the trigger for the start of earnings in the proposed risk/reward mechanism and the performance threshold for the higher earnings rate provide the utilities with a financial incentive to develop portfolios with long-life, high persistence measures.

In addition, our requirement that the utilities prepare a long-term Strategic Plan and pursue three long-term programmatic initiatives provides clear direction to the utilities to emphasize long-term energy saving measures as part of the appropriate portfolio mix. Our intent is for the utilities to meet or exceed the cumulative savings goals we have established (and that are relied upon on in the utilities' long-term procurement plans) in a way that maximizes net benefits over the long term. Doing so encourages the utilities to minimize ratepayer funding for "replenishing" energy savings that are lost from efficiency measures that have relatively short EULs. Future program cycles need to create additional savings, rather than require the expenditure of additional funds to replace energy savings realized in previous years and that have eroded due to the short useful lives of particular measures. The IOUs may propose the optimal portfolio plan with the recognition that any programs with short EULs must be made up (and any expenses for doing so revealed) over the long term in order to attain adopted cumulative goals.

We direct the utilities to report in their applications for 2009-2011 energy efficiency portfolio approvals the expected cumulative savings (as described above) of their portfolio plans over the long-term (*i.e.*, at least 20 years). Using 2004 as the base year, we also expect to see the cumulative effect of these savings across program cycles in their annual reporting, commencing with the 2004-2005 portfolio when we established the cumulative goals. Utilities shall include this information in the Strategic Plan and 2009-2011 portfolio plan applications. Cumulative savings as clarified herein also should be included in Commission

staff's Verification and Performance Earnings Basis reports that are required under our EM&V protocols.<sup>79</sup>

### **6.3.2. Comprehensiveness/Cream Skimming/Lost Opportunities<sup>80</sup>**

The utilities' focus on maximizing net benefits in the short term, in the absence of a method to quantify and encourage more diverse portfolios and discourage "cream skimming," may create lost opportunities and impede progress toward acquisition of all cost-effective energy efficiency.<sup>81</sup>

**Parties' Positions.** Parties suggest several options for addressing this issue. One option involves attempting to quantify lost opportunities created by IOU programs and then deducting this amount from the net benefits of the portfolio. Marin Energy Watch (Marin) suggests we develop the tools to account for lost opportunities in the portfolio development and EM&V processes, and in cost-effectiveness tests. TURN/CE Council recommends that we modify the

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<sup>79</sup> The clarification we make in this decision on how cumulative savings should be interpreted and reported will not necessarily impact the utilities' achievement of the MPS under our adopted incentive mechanism for the 2006-2008 program cycle, given that savings from measures installed since 2004 and throughout this current cycle may persist. However, we expect that this clarification will influence the utilities' development of their portfolios for 2009-2011.

<sup>80</sup> See Jeff Hirsch memo (section 4) attached to Small Business CA's comments (pp. 15-26) for more details.

<sup>81</sup> As defined in Policy Rule II.4, the "cream skimming" results in the pursuit of cost-effective measures, leaving behind other cost-effective opportunities. Cream skimming becomes a problem when lost opportunities are created in the process. Lost opportunities occur when a customer does not install an energy efficiency measure that is cost-effective at the time, but whose installation is unlikely to be cost-effective if the customer attempts to install the same measure later.

current cost-effectiveness methodologies to subtract the net benefits lost due to cream-skimming from the benefits actually achieved when computing the Total Resource Cost (TRC) for the portfolios. An alternative is to adopt an avoided cost premium for cost-effectiveness, similar to what the utilities currently do for Standard Performance Contracting comprehensiveness. The Commission could additionally explore other approaches, such as requiring that the TRC hover around 1.0, with a demonstration of comprehensive savings. Likewise, the Commission might take the approach used in Texas and disallow rebates for EE measures with EULs under ten years, or another threshold.

**Discussion.** Although we appreciate the problem we identify as “cream skimming,” we decline to modify our cost-effectiveness tests at this time. Our protocols are currently not configured to quantify lost opportunities or portfolio comprehensiveness for the purpose of including them in cost-effectiveness tests. However, we take note of CBPCA’s suggestion for comprehensive programs (*e.g.*, Home Performance with ENERGY STAR) to utilize workpapers to exclude non-energy benefits and costs from cost-effectiveness tests. In addition, actions in this decision are likely to help discourage cream skimming and promote comprehensiveness (*i.e.*, allowing the utilities to commit funds for projects with long lead times, paying more attention to lifecycle savings, developing the Strategic Plan and the three programmatic initiatives).

### **6.3.3. Avoided Cost Calculations for On-Peak Savings**

**Parties’ Positions.** SCE, NRDC and PG&E comment that our existing method of calculating program benefits accurately reflects the value of on-peak energy savings. SDG&E/SoCalGas and TURN/CE Council suggest that the Commission change the value of peak energy savings in the cost-effectiveness

calculation if the Commission wishes to promote more savings of peak energy. TURN/CE Council identifies several changes that it believes would promote more on-peak savings: (1) updating the avoided cost for a combined cycle gas turbine (CCGT); (2) increasing the environmental adder to reflect the value of reducing greenhouse gasses; (3) updating the existing heat rates and generation mix used to develop the carbon emission values; and (4) prioritizing certain high efficiency measures that currently do not have load shapes during the update to the DEER.

**Discussion.** It appears that the utilities have not pursued peak reduction programs, as the Policy Rules require. To promote the utilities' pursuit of such programs, the parties propose changes to avoided costs, reiterating many arguments that they have presented in our avoided cost proceeding, our demand response proceeding, as well as Phase 1 of this proceeding (the shareholder incentive phase). We have previously indicated that the methodology for avoided costs, which we recently updated in D.06-06-043, may be modified in the future to address the concerns expressed by the parties, including TURN.

In the meantime, we reiterate the need for the utilities to comply with Policy Rule II.5 quoted below. Specifically, the utilities shall in their 2009 – 2011 portfolio demonstrate compliance with this Policy Rule.

... In addition, the Program Administrators should demonstrate in their program planning applications for the PY2006-PY2008 [PY2009-2011] how their proposed portfolio will aggressively increase overall capacity utilization and lower peak loads through the deployment of low load factor/high critical peak savings measures

#### **6.4. Best Practices, Portfolio Diversity and Innovation**

Parties addressed the need to modify the Policy Rules or policies to encourage the application of best practices, diversity of portfolio programs and innovation.

**Parties' Positions.** The utilities and NRDC generally believe the existing rules adequately promote these outcomes. DRA suggests best practices could be encouraged with the development of a manual, using a collaborative process that is informed by the Energy Efficiency Best Practices Study.<sup>82</sup> TURN/CE Council proposes that the Commission motivate the utilities to reduce the number of program offerings in their energy efficiency portfolios to improve program delivery and reduce overhead costs. TURN/CE Council believes that the utilities' independent administration of programs that are "statewide" in nature has caused duplication of effort and disparate administrative requirements (such as third-party contract terms). TURN/CE Council recommends the utilities coordinate these efforts by, for example, expanding utility-specific programs to make them statewide or region-wide, renaming programs with statewide applicability, and developing comparable administrative processes. TURN/CE Council would accomplish this effort by way of a PRG or PAG.

**Discussion.** We reaffirm our support for innovative programs, program diversity and program management that takes advantage of industry best practices and economies of scale afforded by state-wide programs. The policies and strategic planning we have articulated in this decision, along with identified modifications in the Policy Rules, will promote these aspects of energy efficiency

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<sup>82</sup> See <http://www.eebestpractices.com/index.asp>.



programs. For example, the portfolios will be guided by a more focused planning process that will be informed by the contributions of other private and public organizations. This process will promote innovation and good program management. We expect the utilities to incorporate best practices of program design and implementation in their development of energy efficiency portfolios.

### **6.5. Third-Party Contracting and Partnership Programs**

Our prior decisions encourage third-party contracting and local government partnerships.<sup>83</sup> Currently, the utilities employ third-party contractors and develop partnerships with local governments and other government entities to design and deliver energy efficiency programs. The April 13 Assigned Commissioner's Ruling asked parties to comment on whether the Commission should modify existing rules or policies to encourage or require expanded use of these relationships for program delivery, including changes to the 20% minimum third-party contract requirement.

**Parties' Positions.** SDG&E/SoCalGas, NRDC and PG&E comment that generally they have adequate incentives to use third parties and local governments for program delivery when their participation is cost-effective. No party proposed changing the current rule that requires the utilities to engage third-party contractors for at least 20% of their portfolio budgets. SDG&E/SoCalGas recommends, however, that the Commission permit the utilities to begin the competitive bidding process prior to the start of the funding

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<sup>83</sup> We include all governmental entities -- such as community colleges, the University of California and California State Universities, and school districts -- in our definition of local governments.

cycle so that programs are ready to be implemented shortly after the Commission approves the utility portfolio plans and budget, thus avoiding delays in program implementation. SCE makes similar points with regard to third-party implementers, suggesting that the Commission permit the utilities to “ramp up” for the subsequent budget cycle in the current cycle.

TURN and CE Council recommend that the Commission modify its rules to require comparisons between utility programs and third-party programs from the standpoint of cost-effectiveness and other policy objectives, in the program selection process. TURN proposes that the Commission require that programs for utilities and third parties be subject to the same selection criteria before funding is authorized and require independent third parties to conduct these comparisons. PG&E objects to TURN’s recommendation, believing it would remove program administration from the utilities. PG&E states there are logistical problems with comparing utility programs, which are comprised of the efforts of many types of contractors, with third-party programs.

With regard to local government partnerships, TURN would change the emphasis. TURN claims the utilities have relied on local governments primarily to identify and serve hard-to-reach populations and recommends that the utilities employ local governments as representatives of the broader interests of local communities, just as they hire their own account representatives for large commercial and industrial customers. DRA urges the utilities to be more active in leveraging local government programs and collaborating with such organizations as the League of California Cities and the Local Government Commission. SDG&E/SoCalGas state utilities are missing opportunities with local governments because of “non-coincident” funding cycles between the utility and the government agency. They request changes to Commission

policies and rules so as to allow the utilities to fund programs with local governments through overlapping utility budget cycles.

The Local Government Sustainable Energy Coalition (LGSEC) describes benefits of local government partnerships, including producing significant energy savings, capturing lost opportunities, providing accountability, and offering a regional approach to energy efficiency. LGSEC comments that cities of all sizes are able to leverage opportunities with other programs such as C&S, green building initiatives, DR, information exchange, and emerging technologies. LGSEC recommends we modify our rules to guarantee funding to local government partnerships and assess financial penalties against a utility that fails to meet partnership targets. LGSEC would also change the EM&V process to provide additional counting of savings from local government. PG&E opposes virtually all of LGSEC's proposals as either unnecessary or unwarranted. It opposes funding guarantees, penalties of any kind, and local government branding.

**Discussion.** Successful energy efficiency programs have always relied to some extent on third-party contractors and local government partnerships. These entities may provide expertise the utilities do not have or better access to target groups and local communities. Local governments may be able to combine utility programs with their own complementary, more comprehensive energy strategies. The parties identify some barriers to maximizing opportunities provided by relationships with third parties and local governments, and also provide ideas for overcoming them.

The utilities, DRA, LGSEC, and TURN address ways the Commission's current funding cycle constrains the utilities' working relationships with local governments and third-party contractors. We are convinced that the problems

parties have identified warrant permitting more flexibility in our fund shifting rules adopted in D.05-09-043. In the section on Fund Shifting, we adopt several changes to help assure our portfolio planning and funding cycles do not stand in the way of good programs. These changes move the regulatory process in the direction of a more continuous and fluid budgeting process, which DRA and other parties strongly recommend.

We agree with the suggestions of TURN, LGSEC, and DRA that additional utility coordination with local governments and their associations, such as the Local Government Commission, is likely to present additional opportunities for cooperative energy efficiency work. The strategic planning approach we establish today should assist greatly in enhancing those relationships. We also direct the utilities to conduct at least one statewide meeting annually with local agencies, as LGSEC suggests, and to extend invitations to the publicly owned utilities (POUs). This meeting will provide a forum for identifying opportunities, problem-solving, and information sharing.

We are not prepared to adopt LGSEC's proposals to impose penalties for the utilities' failure to meet partnership targets or contract deadlines. We will consider penalties or other program modifications in the future if we have significant evidence of problems that impede progress toward satisfying energy efficiency program goals or policies.

Likewise, we are not prepared to adopt at this time TURN's recommendation that the program proposals of utilities and third parties be subject to the same standard of review before funding is authorized. The new processes we establish today – long-term strategic planning, more focus on innovation and exchange of best practice information, changes in our fund shifting rules – should all improve the likelihood of increased third-party

contracting in the next round of utility portfolio programs. We direct the utilities to include in their portfolio applications an explanation of the efforts they have made to expand their third-party and partnership relationships.

### **6.6. On-bill Financing**

A June 27 ALJ Ruling asked parties to comment on the design, and costs and benefits of “on-bill financing” programs. “On-bill financing” programs allow customers to finance energy efficiency measures through their energy bills at low interest or no interest. In D.05-09-043 we directed the utilities to analyze on-bill financing as part of a larger effort to remove barriers to rapid deployment of energy efficiency measures. SCE, SDG&E, and SoCalGas have instituted pilot programs which are currently under evaluation in our EM&V process.

**Parties’ Positions.** SCE, SoCalGas and SDG&E have offered on-bill financing as part of their 2006-2008 programs. SDG&E and SoCalGas currently offer on-bill financing for non-owner occupied multi-family units, small businesses and local governments. SDG&E reports that its programs are increasingly successful and that it is optimistic about the potential for on-bill financing to achieve additional energy efficiency.<sup>84</sup> SDG&E states that it is considering ways to expand the program to residential customers but has not yet determined whether California’s consumer lending laws present significant barriers. SCE reports that it also offers on-bill financing to small commercial customers as a pilot program. It states that before expanding this program it would need to assess the cost of loan defaults based on its pilot program and improve its customer billing system.

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<sup>84</sup> July 23, 2007, SDG&E Comments, p. 12.

D.05-09-043 observed that PG&E stated that it could not initiate an on-bill financing pilot because of limitations posed by its billing system. Here, PG&E expresses concerns that on-bill financing may present unacceptable risks to ratepayers who fund the program. It comments that large customers do not need access to financing and prior on-bill financing programs for small commercial customers have been too costly. PG&E believes on-bill financing opportunities for residential customers is very limited because of lending law restrictions and possible constraints in its billing system.

TURN, DRA and Small Business California support expanded use of on-bill financing as a way to motivate energy efficiency investments by small companies. DRA states that on-bill financing is critical to realizing the market potential for energy efficiency investments.<sup>85</sup> TURN would reduce funding for cash rebates in favor of on-bill financing and extend on-bill financing to residential customers. Small Business CA also advocates in favor of on-bill financing for small to medium sized businesses, observing that it would facilitate more comprehensive energy efficiency offerings by contractors. Conservation Services Group makes similar comments, noting the need for on-bill financing to promote investments in more efficient air conditioning equipment.

**Discussion.** On-bill financing allows entities who have limited access to financing to purchase energy efficiency measures provided by utility programs. While it may present some liabilities for ratepayers and additional program costs, more aggressive on-bill financing programs may eventually be cost-effective and motivate investments that would not otherwise be made.

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<sup>85</sup> July 16, 2007, DRA Comments, p. 32.

We direct the utilities to create or continue on-bill financing pilot programs for small commercial customers. In addition, we agree with Small Business California that institutional customers, such as cities, counties and other taxpayer funded institutions may provide a low-risk opportunity to increase on-bill financing because such customers have a very low probability of defaulting on loans. We therefore direct PG&E, SDG&E, SoCalGas and SCE to propose on-bill financing programs for institutional customers for the 2009-2011 cycle and to continue to investigate programs for other sectors such as residential customers. In addition, we direct SDG&E and SCE to share the results of their programs to date with Commission staff and other interested parties as part of the Strategic Plan and 2009-2011 portfolio development processes.

#### **6.7. Fund-Shifting Rules**

The Commission adopted “fund-shifting” rules in D.05-09-043 to provide the utilities with flexibility in managing their energy efficiency portfolios over each program cycle, within certain parameters. Table 8 to D.05-09-043 contains the current fund-shifting rules; the table is also appended to the Appendix A of our Policy Rules.<sup>86</sup> For example, under the Rules, utilities may carryover/ carryback funding during each year within a particular program cycle without triggering any review/ approval process. We address below comments and proposals received from parties on changes to our fund-shifting rules to better support longer-term energy efficiency programs.<sup>87</sup>

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<sup>86</sup> D.05-09-043, p. 154.

<sup>87</sup> June 21, 2007, ALJ Ruling Soliciting Questions on Energy Efficiency Programs and Strategies Workshop Topics.

Based on the changes to the fund-shifting rules we adopt today, staff shall post an updated Appendix A to our Policy Rules on the Commission's website as soon as practicable. As provided for in the Policy Rules, the assigned ALJ in consultation with the assigned Commissioner may provide necessary clarifications to the fund-shifting rules adopted today for the 2009-2011 program cycle.<sup>88</sup>

#### **6.7.1. Start-Up and Continuity Program Funding (Carry-over/Carry-back Funding)**

The Commission funds energy efficiency programs in three-year cycles (or program cycles). The Commission approves utility energy efficiency portfolio plans and related budgets before spending in the relevant program cycle can begin and those programs and budgets terminate at the end of the three year cycle unless the Commission extends them in a formal decision. At times, this process has inadvertently caused or threatened delays or interruptions in program funding or delivery, both for start-up of new programs and continuation of existing programs.

**Parties' Positions.** PG&E and DRA suggest allowing the utilities to fund – in the concurrent funding cycle -- start-up costs for a future program cycle. We approved this “carryback” funding practice in D.05-09-043 on a one-time basis with regard to use of 2006 funds in 2005, because of the large ramp-up in programs as of 2006.<sup>89</sup> The Commission also approved in D.05-09-043 the

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<sup>88</sup> Policy Rules, Rule X1.1.

<sup>89</sup> See, D.05-09-043, Ordering Paragraph 6: “[U]tilities are authorized to expend 2006 monies to fund activities in 2005 for programs that have long start-up period to ensure timely implementation in 2006. The utilities may also use authorized 2006 funds to continue successful 2005 programs that are approved for implementation in this

*Footnote continued on next page*



utilities' use of unspent funding authorizations for 2005 and prior program years as "carryover" funding for program continuity and start-up activities authorized for 2006.

DRA and TURN/CE Council support "rolling" funding cycles in a process that would assist long-term program development while addressing budgets on a somewhat more frequent schedule or as-needed. DRA proposes this idea as a way of reducing the inefficiencies and program disruptions that occur when utilities must ramp up and then ramp down ongoing programs. DRA states that a rolling funding cycle would also have the benefit of promoting projects with long lead times and eliminating the problem SDG&E/SoCalGas identifies regarding "non-coincident" budgeting cycles affecting partnerships with local governments. Similarly, Global Energy Partners supports continuing program authorization, with a continuing three-year Commission review cycle for oversight of expenditures and program effectiveness. NEEA also believes longer term funding commitments will facilitate improved strategic delivery of energy efficiency programs.

**Discussion.** We agree with the parties that the current process for budgeting and approving energy efficiency portfolios has unintentionally created problems with program delivery. However, we believe that a three-year program and budget approval cycle remains the appropriate time for periodic reevaluation of the content and delivery of the programs to ensure that the

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decision to avoid a hiatus in program availability provided all other funding options have been exhausted, as discussed in this decision."

portfolios achieve our goals. At the same time, the budgeting cycle need not stop and start on a single day.

We will therefore modify our fund-shifting rules to permit the utilities to spend next-cycle funds in the current budget cycle (once the next-cycle portfolio has been approved) to avoid interruptions of those programs continuing into the next cycle and for start-up costs of new programs. We authorize the utilities to borrow funding without Commission approval up to 15% of the current program cycle budget. Beyond that amount, the utilities are required to seek approval by filing an Advice Letter. The utilities should tap into the next-cycle funds only when no other energy efficiency funds (*i.e.* unspent, uncommitted funds from previous program years, or 2006-2008 funds that will not be needed) are available to devote to this purpose. This requirement is consistent with the Commission's treatment in D.05-09-043 of "carry back" funding from 2006 for use in 2005.<sup>90</sup>

If bridge funding is necessary to avoid interruptions in the continuity of 2006-2008 programs that will continue into 2009-2011, measures (costs and savings) installed during the 2008 should count towards the 2006-2008 goals even if the funds supporting these measures are borrowed from 2009-2011. This treatment is consistent with the Commission's directive in D.05-09-043 for 2004-2005 programs rolling over into 2006-2008.<sup>91</sup> We also find merit in the proposal of some parties for a "rolling" budget cycle although, as DRA suggests, its success would depend on careful planning. We direct the utilities to explore this

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<sup>90</sup> D.05-09-043, OP 6.

<sup>91</sup> D.05-09-043, p. 154.

approach with parties and our staff and we authorize the utilities to include a “rolling budget” proposal for their 2009-2011 portfolio plans for encumbering funds from the next program cycle for continuing programs, not to exceed 20% of the current program cycle budget. For calculating the PEB under the adopted energy efficiency risk/reward incentive mechanism, the funds encumbered for continuing programs will be counted when those funds are actually spent. This is consistent with our decision to count only “actual” savings as they occur both towards the savings goals (and MPS) and also in calculating the PEB net benefits.

#### **6.7.2. Funding Projects with Lead Times Beyond Three Years**

The second change we consider is modification of our rules and practices to provide funding for projects with long lead times, beyond three years.

**Parties’ Positions.** The parties agree that our existing program rules and practices do not adequately motivate the utilities to pursue cost-effective energy efficiency projects with long lead times, such as modifications to new and existing commercial buildings that may take several years to complete.

The utilities, TURN/CE Council, and NRDC comment that one of the barriers to committing to projects with long lead times is the uncertainty about whether utility energy efficiency funds will be available to pay for the projects after they are completed. All recommend the Commission confirm that funding for long-term projects will be available at the time of project completion, even where the payment is made after the program cycle; administrative dollars would be charged as they occur. CLECA also supports long-term program commitments that better match the long lead times of industrial investment plans.

The parties also commented on whether the utilities should be permitted to borrow up to 10% of a future budget. SCE, TURN/CE Council, DRA, NRDC, SDG&E/SoCalGas, PG&E all agree that borrowing from future budgets is necessary to alleviate funding problems with future energy efficiency projects. However, TURN/CE Council, DRA and CCSF argue that the 10% cap may be too restrictive and recommend a cap up to 20% of expected future budgets.

**Discussion.** We agree that the utilities must be assured that their commitments to projects with long lead times can be funded when the funding is required. As TURN/CE Council recommends, we will allow the utilities to commit funds from the next program cycle to fund programs that will not yield savings in the current cycle. Long-term funding commitments will be subject to the following conditions:

- Long-term projects that require funding beyond the three-year program cycle shall be specifically identified in the utility portfolio plans and shall include an estimate of the total costs broken down by year and associated energy savings;
- Funds for long-term projects must be actually encumbered in the current program cycle;
- Contracts with all types of implementing agencies and businesses must explicitly allow completion of work beyond the end of a program cycle;
- Encumbered funds may not exceed 20% of the value of the current program cycle budget to come from the subsequent program cycle, except by approval in an advice letter process;
- Long-term obligations must be reported and tracked separately and include information regarding funds encumbered and estimated date of project completion; and

- Energy savings for projects with long lead times will be calculated by defining the baseline as the applicable codes and standards at the time of the issuance of the building permit.

We direct the utilities to include a proposal in their 2009-2011 portfolio plans for encumbering funds from the next program cycle for long-term projects, subject to the conditions above. For calculating the PEB under the adopted energy efficiency risk/reward incentive mechanism, the funds encumbered for the long-term projects will be counted when those funds are actually spent. This is consistent with our decision to count only actual savings as they occur both towards the savings goals (and MPS) and also in calculating the PEB net benefits.

### **6.7.3. Mid-Cycle Program Funding Augmentations**

Currently, the utilities may file advice letters or applications for approval of additional energy efficiency program funding mid-cycle. The Palm Desert Demonstration Project is one example of funding augmentation for the current 2006-2008 program cycle. By D.06-12-013 and Resolution G-3402, the Commission authorized an increase of \$14 million for SCE and \$2.242 million for SoCalGas for this project. More recently, SCE filed a request to fund an additional \$20 million for distribution of CFLs in low income neighborhoods.<sup>92</sup> The Commission does not currently have a policy for how the associated energy savings or program costs will be considered in the context of the Commission's proposed adopted risk/reward incentive mechanism for energy efficiency.<sup>93</sup>

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<sup>92</sup> See, *Application for Approval of SCE's "Change a Light, Change the World" Compact Fluorescent Lamp Program*, A.07-05-010, dated May 10, 2007.

<sup>93</sup> See, D.07-09-043 (Phase I Risk/Reward Decision).

Before any earnings accrue under the risk/reward incentive mechanism, the utilities' energy efficiency portfolios must meet a "minimum performance standard" or "MPS" that is tied to achievement of the Commission's savings goals. The trigger for financial penalties is also based on performance levels relative to those goals. Earnings are calculated as a percentage (sharing rate) of the portfolio "net benefits," that is, the difference between portfolio savings and costs. In their comments in this phase of the proceeding, parties have raised the issue of how the savings and costs associated with mid-cycle funding augmentations should be counted within this incentive framework.

PG&E, SCE and NRDC would continue the current process of permitting the utilities to file advice letters to add new programs in the middle of a budget cycle. PG&E argues it should be able to increase its energy efficiency budget in such instances and retain energy savings goals. It recommends that the Commission permit the additional energy savings to count as any other program element toward achievement of adopted goals and incentive awards. SDG&E/SoCalGas suggests the current process should be expedited to allow the utilities to take advantage of market opportunities.

TURN/CE Council jointly recommend a process that they argue is fair from the standpoint of ratepayer liabilities while also motivating the utilities to pursue all cost-effective energy efficiency strategies.<sup>94</sup> They propose that energy savings from mid-cycle program changes that involve funding augmentations count toward incentive calculations as long as they are not counted toward satisfying the MPS, or in determining which "performance band" should be used

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<sup>94</sup> July 25, 2007 TURN/CE Council Joint Filing, p. 45.

in calculating incentive payments or penalties. DRA concurs with this recommendation.

Alternatively, TURN/CE Council suggest that the Commission could increase the energy efficiency savings goals whenever mid-cycle funding augmentations are approved. However, they do not recommend this approach because of the difficulty in making adjustments to those goals. TURN/CE Council also do not recommend the Commission treat mid-cycle program changes outside the incentive awards program, believing this would discourage the utilities from undertaking good programs mid-cycle.

**Discussion.** We establish energy efficiency funding levels for each three-year program cycle after an extensive program planning and review process. We evaluate on a prospective basis the ability of portfolio activities to achieve the three-year savings goals cost-effectively with the funds authorized, with the input of interested stakeholders and Commission staff. Therefore, we expect utility requests for funding augmentation once the Commission has approved funding levels and utility program portfolios for a particular program cycle to be limited to extraordinary circumstances.<sup>95</sup>

In effect, mid-cycle funding augmentations provide the utilities with additional funding to accomplish a goal that was set with a lower budget. As TURN/CE Council point out in their comments, fairness to ratepayers dictates that these extra ratepayer dollars not represent a bonus to increase shareholder earnings with no risks attached. The approach presented by TURN/CE Council

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<sup>95</sup> This expectation applies to requests for funding augmentation that would require either approval to increase revenue requirements or approval to carryover unspent funding authorized for an earlier program cycle.

in this proceeding provides this assurance without discouraging the aggressive pursuit of cost-effective energy efficiency. It encourages the utilities to propose innovative and responsive program elements without tipping the scale in favor of utilities from the standpoint of whether they are meeting energy savings goals.

Accordingly, we will modify our fund-shifting rules to clarify that energy savings from mid-cycle program funding augmentations will be counted in the calculation of portfolio cost-effectiveness and PEB for utility incentive awards. That is, we will include the program savings and costs just as we would for any program in our assessment of portfolio cost-effectiveness and the calculation of PEB “net benefits” under our adopted shareholder incentive mechanism. However, the savings from these programs will not count towards achievement of energy savings goals for the purpose of assessing whether performance has reached the MPS (or falls within the various performance bands) under our adopted incentive mechanism.

As we discussed in our decision adopting the risk/return incentive mechanism, we will also need to review carefully each proposal to augment energy efficiency program funding to ensure that such funding is not misclassified as LIEE, given the implications associated with LIEE classification that carry over to the proposed incentive mechanism.<sup>96</sup> Savings associated with any mid-cycle funding augmentation to the LIEE program will not count towards the MPS.

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<sup>96</sup> See, D.07-09-043 (Phase I Risk/Reward Decision), Section 9.5.



### **6.8. The Role of Advisory Groups**

When we returned the utilities to the role of energy efficiency program administrators, we established a number of quality control measures for program choice and portfolio management to ensure that the IOUs select programs and manage them in a manner that is consistent with our objectives.<sup>97</sup> Advisory groups were one of the quality control measures that we adopted in D.05-01-055.

The purpose of these groups is twofold. On one level it is to promote an open exchange of information between utility program administrators, industry experts and stakeholders as the utilities develop their program selections for Commission consideration and manage their program portfolios throughout the funding cycle. On another level, advisory groups can serve an important “peer review” function by providing an independent assessment of the utilities’ portfolio design and program selections.<sup>98</sup>

In D.05-01-055, we directed each utility to establish a PAG to address ongoing program management and development commencing with the 2006-2008 program cycle. Each PAG includes a subgroup of non-financially interested members that review the utilities’ process of program selection and portfolio development.<sup>99</sup> Members of each PRG review the utilities’ overall portfolio plans, their plans for third-party bids, the utilities’ bid evaluation criteria and the

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<sup>97</sup> D.05-01-055, p. 89.

<sup>98</sup> D.05-01-055, p. 98.

<sup>99</sup> In addition to Energy Division, DRA, and CEC staff, other PRG members include NDRC, TURN, and in San Diego, Utility Consumers’ Action Network (UCAN) and an academician from the University of California at San Diego.

application of those criteria in selecting third-party programs. We directed the three PRGs to assess the statewide portfolio's ability to meet or exceed short and long-term savings goals in compliance with the Commission's policy rules. Our Policy Rule VII summarizes the directives in D.05-01-055 with regard to advisory groups.

The assigned Commissioner's scoping ruling of May 24, 2007<sup>100</sup> stated that this proceeding would include consideration of the advisory group structure and process, as directed in D.05-01-055. The assigned Commissioner's April 13, 2007 ruling provided additional guidance on the advisory group structure review, including possible adjustments to PAG and PRG roles, responsibilities and processes.<sup>101</sup>

**Parties' Positions.** The parties generally agree that the PRG/PAGs are useful in overseeing the third-party contracting process, but less successful in the portfolio development and implementation review process. The utilities view these groups as providing value in shaping and improving the program portfolios, increasing program participation, and promoting new technologies. However, PG&E believes the usefulness of the advisory groups has been limited because its members do not share the IOU objectives in all cases. PG&E does not believe the existing advisory groups are designed to affect long-term strategic planning but can continue to be useful in promoting a fair third-party contracting process. SCE and SDG&E/SoCalGas comment that the PRG/PAG process has been useful for developing ways to improve local programs but that

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<sup>100</sup> Ruling, p. 24.

<sup>101</sup> Ruling, p. 9.

they do not rely upon their PRG/PAGs to determine the details of program administration or design.

DRA and TURN explain the PRG process has been useful in promoting a fair third-party contracting process but argue that the PAGs have not been successful in promoting innovation, best practices, program design or cost-effectiveness. DRA comments that the PAGs are mostly a forum for the utilities to inform members of decisions the utilities have apparently already made. DRA proposes changes to the PRG/PAG process that would incorporate more strategic planning.

CCSF would reconstitute these forums to include key market players, state agencies such as CARB and Cal EPA, and experts on new technologies, market transformation and sustainable development. LA, NAESCO and the California Center for Sustainable Energy (CCSE) also believe PRG/PAG members have little or no influence over utility portfolio decisions. CCSE would redefine these advisory groups so that they would focus on ongoing evaluation and program selection, with some authority over some program decisions. The County of Los Angeles (LAC) would broaden the scope of the advisory group process to include program design and operation as well as networking and collaboration. NRDC would create a statewide PRG to review statewide bids and refocus the advisory process to provide a more meaningful venue for portfolio and program improvement and innovation. Women's Energy Matters (WEM) proposes independent administration of energy efficiency programs.<sup>102</sup>

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<sup>102</sup> WEM's comments are outside the scope of this proceeding.

**Discussion.** We take seriously the concerns of many parties regarding the PRGs and PAGs, especially the comments that these are more often forums for the utilities to present decisions already made rather than to seek input in a collaborative manner. We also share the utilities' concerns that advisory groups are not effective ways to provide useful information on the details of utility program management or administration. A recent report by a Commission consultant found that the PAGs may not have consistently served their intended functions, that the meetings are not well structured, and that the utilities do not appear to use the feedback they receive from the members. It also suggests that non-members are frustrated by their lack of access.<sup>103</sup>

Today we adopt a strategic planning process that will greatly assist in portfolio development for 2009-2011 and beyond. We have emphasized the process is to be collaborative in nature and have directed our staff to oversee at least the initial steps of the process, to ensure such collaboration. In large part, this more collaborative process subsumes the advisory function of the PAG. To avoid redundancy and promote an efficient process, we eliminate the PAGs in favor of the more inclusive and comprehensive strategic planning approach we adopt today. We have also made a number of rule and policy changes for promoting improved program design and delivery in this decision that also eliminates the prior role of the PAG.

As described in D.05-01-055 and Policy Rule VII.4, members of each PRG are expected to: (1) participate in the ongoing PAG process, (2) review the IOUs'

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<sup>103</sup> The report, conducted pursuant to a contract with the Commission, is titled "Program Advisory Group and Peer Review Group Process Evaluation" and was published February 14, 2007 by TecMarket Works.

submittals to the Commission and assess the IOUs' overall portfolio plans, including their plans for bidding out pieces of the portfolio per the minimum bidding requirement, and (3) review the bid evaluation utilized by the IOUs and their application of that criteria in selected third-party programs. The Commission further required the utilities to consult with the PRG's for certain fund shifting requests, proposals to modify customer incentive levels, and for adding new programs mid-cycle<sup>104</sup>. In addition, the three PRGs are expected to meet and assess the statewide portfolio in terms of its ability to meet or exceed short and long-term savings goals in compliance with the Rules.

Given our elimination of the PAG, the first function of the PRGs is eliminated. We do, however, retain the remaining functions of the PRGs and expand its role to oversee the development of criteria and selection of government partnership programs. The PRG should provide an assessment report on the IOU 2009-2011 portfolio applications, competitive solicitation, and the government partnership process 30 days after the IOU applications are filed.

To the extent that the assigned Commissioner or ALJ, in consultation with the staff, finds it necessary to modify the PRG process or activities in response to the development of the Strategic Plan or the 2009-2011 portfolios, they may do so by ruling at any time during the program cycle.

We will continue to award intervenor compensation for participation in PRG meetings in accordance with existing law and Commission decisions. However, participation in these groups does not automatically qualify an intervenor for compensation. The compensation program does not anticipate the

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<sup>104</sup> D.05-09-043 p. 149 and Table 8 (Adopted Fund Shifting Rules); D.06-12-013, OP 2.

use of consumer advocates as technical consultants or as substitutes for utility or Commission staff, and related work may not be eligible for compensation. Nonetheless, we encourage consumer group participation in the PRG, and will consider compensating associated work if the consumer group can demonstrate consumer benefits from that participation and can show that participation contributed to a Commission order or decision, consistent with Public Utilities Code Section 1801 *et seq.*

Finally, we encourage parties to participate in our formal proceedings in 2008 and the years beyond that will review the utility applications for approval of their portfolio plans and the associated budgets. We also strongly encourage the utilities to work with interested parties in advance of filing their applications to minimize controversy, incorporate good ideas into their portfolio proposals, and conform their proposals to Commission policies and rules.

#### **6.9. Evaluation, Measurement and Verification (EM&V) Processes and Funding**

In D.05-01-055, we directed our staff to conduct EM&V studies to verify the level of actual energy savings achieved through the energy efficiency programs. The development of energy efficiency programs that deliver reliable energy savings for California's ratepayers depends on well-designed methods of EM&V.<sup>105</sup>

The June 27, 2007 ALJ Ruling solicited proposals for modifications to the current EM&V processes. As we provide guidance for the next generation of energy efficiency programs, we also seek improvement to the EM&V process to

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<sup>105</sup> Policy Rule V.1.

better promote utility energy efficiency program delivery. We address here only processes and budgets, not the protocols, metrics, methodologies or analytical foundations for EM&V, which are appropriately issues for other forums.

**Parties' Positions.** PG&E states that the Commission's current EM&V process is too bureaucratic and should be changed. PG&E and NRDC suggest that at a minimum EM&V evaluators clarify what data is needed for evaluation early in the program cycle. PG&E also suggests evaluators, implementers, designers and administrators meet to develop common understandings on the scope and focus of the evaluations and data needs.

SDG&E/SoCalGas and DRA comment that the timing of EM&V study results is critical for their usefulness in subsequent program cycles and for refining ongoing programs. SDG&E/SoCalGas suggests an annual forum to discuss the use of EM&V study results in program design and delivery. SCE proposes changes to current rules to clarify better the responsibilities of Commission staff, program administrators and program implementers for EM&V work. Currently, the Policy Rules state:

“Energy Division will be responsible for program and portfolio impacts-related EM&V; Program administrators and program implementers shall manage program design, evaluation, and market assessment, with Energy Division taking the lead role in the selection of contractors.”<sup>106</sup>

SCE would modify this language to state that program implementers are not responsible for EM&V and to permit program administrators to undertake a

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<sup>106</sup> Policy Rule V.3; see also D.05-01-055.

wider variety of studies that are relevant to EM&V. It proposes the following language:

Energy Division will be responsible for program and portfolio impacts-related EM&V; Program administrators shall manage other types of studies, including process evaluation, market assessment, and early measurement and verification studies, with Energy Division taking the lead role in the selection of contractors.”

TURN recommends the use of more early evaluations of program elements, mentioning recent studies of CFL useful life estimates undertaken prior to the formal EM&V process. DRA makes similar comments on this topic. TURN would also have Commission staff manage the E3 calculator to improve the reliability of the software and supporting data.

**Discussion.** The parties provide practical and useful ideas for improvements to the EM&V process that would make EM&V reports more useful and more accurate. We direct Commission staff to implement the following process changes to the EM&V work staff manages:

- Convene regular meetings with utilities and interested parties to develop common understandings about the types of data and information required and the processes to be used;
- Identify key evaluation topics that may be studied early in the cycle to provide information to utilities and other program implementers;
- Where possible, provide early feedback of EM&V findings to the utilities and program implementers; and
- Convene an annual meeting with the utilities and other interested parties to describe and discuss any EM&V findings that could lead to improvements in the program portfolio.



In addition, staff may directly manage the development of the cost effectiveness calculator tool (E3) at its discretion.

Consistent with our guidance for the 2006-2008 portfolio plan development, 8% of utility budgets should be set aside to fund both utility and Commission managed EM&V studies, policy support, and strategic planning projects.<sup>107</sup> The Executive Director may hire and manage one or more contractors to assist Commission Energy Division staff for the purpose of advancing the energy efficiency strategic planning work described in this order. Such costs, if any, shall be paid from the 8 percent of the utilities' portfolio budgets to fund Commission EM&V, policy support, and strategic planning projects described in this order and D.05-04-051 (OP 10), on a proportional basis in relationship to energy efficiency funding levels reported each year as specified by the Executive Director. The Executive Director, with the approval of the Commission's General Counsel, i) may contract directly with outside consultants for these services, or ii) may arrange for one or more of the utilities to contract with outside consultants for the provision of the required services to Commission Energy Division. Contracting through the utilities for services for Energy Division shall be subject to the agreement on terms, conditions and documentation for the contract arrangement that are acceptable to the utility and the Executive Director. However, Energy Division will be Contract Manager and will retain all contract management responsibilities for these contracts, with the utilities funding the contract utilizing their authorized energy efficiency program funds as described above.

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<sup>107</sup> D.05-04-051, OP 10.

Commission staff should post on our energy efficiency website a detailed budget and plan for receiving comments on proposed EM&V projects no later than 60 days after the authorization of the IOU portfolio budgets. It should also notify the service list of this proceeding of the availability of this information. If necessary, utilities may borrow funds at Commission staff direction from the PY 2006-2008 EM&V funding authorized in D.05-11-011 to commence projects related to PY 2009-2011 EM&V, policy support, and strategic planning projects that require an early start. The IOUs must submit a portfolio level budget and plan for their own energy efficiency process evaluation and market analysis projects with their program funding request.

#### **7. Measuring Utility Success: Energy Savings Goals**

D.04-09-060 adopted annual and cumulative goals for energy savings from 2004-2013 for PG&E, SDG&E, SCE, and SoCalGas. The decision also announced that the Commission would update the goals every three years, in concert with the three-year program planning and funding cycle for energy efficiency.<sup>108</sup> The April 13, 2007 assigned Commissioner's ruling in this docket provided guidance on the three-goal update areas that would be addressed:

- Whether energy efficiency goals should be changed for 2009-2011 and, if so, what relevant new information they should consider;
- An approach to setting long-term goals for 2012-2020 – how they should be developed and what they should be; and

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<sup>108</sup> D.04-09-060, p. 3 provides detailed background on the events and information leading to the adoption of our current goals

- To what extent savings from certain activity areas should or should not be counted toward satisfying 2009-2011 portfolio goals – building codes and standards, water conservation programs, timing of credit for impacts that occur in a future period, non-utility energy efficiency strategies initiated by local communities, other non-utility energy efficiency impacts (*e.g.*, market initiatives by manufacturers, distributors, business and professional organizations), and low income energy efficiency programs.<sup>109</sup>

Commission staff conducted a workshop on May 3-4, 2007 that included presentations by CPUC and Energy Commission collaborative staff, Itron, KEMA, and TecMarket Works. Based on the extensive workshop discussion, the assigned Commissioner issued a ruling on June 1 soliciting responses to a number of questions related to whether and how to change the utility energy savings goals. The utilities, TURN/DRA, NRDC, CCSF, the Community Environmental Council, LAC, The Energy Coalition, EPI, and Small Business California filed comments.

### **7.1. Adopted Energy Savings Goals for 2009-2011**

**Parties' Positions.** The parties disagree on whether to modify our goals adopted in D.04-09-060. The utilities argue the adopted goals are unrealistic and should be lowered. Other parties urge us to retain our adopted goals, as reasonable targets that can and should be achieved. The CE Council requests that we increase our adopted goals. PG&E, SCE, and SDG&E/SoCalGas rely on

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<sup>109</sup> Assigned Commissioner's Scoping Memo and Ruling, April 13, 2007, pp. 3 and 6-7.

a 2006 report by Itron and KEMA commissioned by PG&E,<sup>110</sup> that they argue shows the data upon which D.04-09-060 relied is outdated and that the new information justifies significantly lowering our adopted goals. For example, they point to new building C&S adopted since 2002 and they state that some of their energy efficiency programs have been so successful that the market for them will become saturated before or during 2009-2011. PG&E states that the 2006 maximum net achievable savings potential is about 30% lower than the value in a 2002 study relied in part by the Commission in its 2004 decision.

SDG&E argues that its goals are highly unrealistic because it claims the Commission has used a methodology for developing the SDG&E goals that is significantly different from that used for PG&E and SCE. SDG&E states that the savings goals for SDG&E are 118% of the cumulative maximum achievable potential, compared to a value of 88% for PG&E and SCE, presenting a much more difficult challenge for SDG&E in its efforts to achieve its goals. SDG&E also cites the Commission policy decision in 2006 to count only actual projects delivering savings, as opposed to “committed” projects as a further hurdle in meeting our adopted goals. Although PG&E advocates lowering our adopted energy savings goals, it presents the alternative of increasing the types of energy savings that are attributed to meeting energy savings goals.

TURN/DRA, NRDC, CCSF, and Small Business California all argue there is no basis to justify changing and in particular lowering our 2009-2011 goals. NRDC and TURN/DRA claim that the effects of possible market saturation from

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<sup>110</sup> California Energy Efficiency Potential Study, Itron, Inc., RLW Analytics, Inc., and Architectural Energy Corp., May 2006.

current utility programs will be offset by countervailing factors, such as the growing demand for greenhouse gas emission reductions and public awareness of global climate change. NRDC, the Community Environmental Council, and TURN/DRA also believe the PG&E-sponsored KEMA/Itron 2006 study underestimates potential energy savings because it does not forecast the effects of improved energy efficiency technologies. TURN/DRA also note that the 2006 study does not include data from the entire 2004-2005 program cycle. TURN/DRA also argue the substantial resources required to modify our goals would be better spent on improving energy efficiency programs.

EPI suggests that the goals should be modified so that reductions in energy during peak periods are assigned more value than energy savings produced during off peak periods. The CE Council recommends that the goals be raised, believing that continually rising energy generation costs will make more energy efficiency measures cost-effective, in turn making it easier for utilities to introduce more energy efficiency programs and expand existing programs.

**Discussion.** The only question we address in this portion of the decision is whether to modify existing energy savings goals. If we were to agree that the goals should be modified, we could not, on the basis of the existing record in this proceeding, make such changes now.<sup>111</sup> We conclude that the goals we adopted for PG&E, SCE, and SoCalGas in 2004 for the years 2009-2011 are reasonable and

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<sup>111</sup> Although the utilities presented a study to support their proposal to lower our adopted goals, the study only assists us in deciding the threshold issue of whether to modify our goals. Far more detailed information would be needed to actually change the goals.

appropriate to use in the next program planning cycle; we decline to modify these goals.

As TURN and DRA observe, modifying the energy savings goals at this time would be a contentious and complex technical exercise. This work would necessarily divert our attention from matters that are higher priority, namely, the development of more and better energy efficiency programs and strategies. Moreover, we are cognizant of the inconsistent message we would send if we reduced our expectations of utility performance in energy efficiency program delivery at a time when we are aggressively promoting energy efficiency as urgent and essential for the health of the state's economy and environment. For these reasons, the utilities have a substantial burden to demonstrate the reasonableness of their proposals to lower our adopted energy savings goals. They have not satisfied that burden.

The utilities have not persuaded us that the energy savings goals we adopted in 2004 are either unachievable or unreasonable on the basis of new information or changed circumstances. The parties opposing lowering our existing goals make a convincing case that any changes that might reduce energy savings potential – such as market saturation or new codes and standards -- are likely to be offset by other circumstances, such as the development of improved energy efficiency technologies, increased public awareness of greenhouse gasses, and the effects of higher rates. Although we agree with CE Council that there may be an argument for increasing the goals, we are not convinced that the likelihood of increased energy savings is high enough to justify an elaborate and controversial inquiry on the matter.

Our adopted energy savings goals are deliberately aggressive. We designed them to motivate utility action and, under the risk/reward incentive

mechanism, the utilities may be amply rewarded for their successful efforts. Modification of the goals is both unnecessary and counterproductive, and such an inquiry would hamper everyone's ability to address more important issues. We therefore retain PG&E, SoCalGas, and SCE's existing energy savings goals for the 2009-2011 period.

We make one exception, however, in the case of SDG&E. D.04-09-060 adopted energy savings goals for SDG&E that are substantially higher than those adopted for SCE and PG&E. That is, SDG&E's energy savings goals are equal to 118% of the "maximum (energy savings) achievable potential" over ten years while the allocation to SCE, SoCalGas, and PG&E is 88%. We adopted this allocation in order to avoid certain practical problems that might occur if we were to allocate energy savings more equally between the three companies.

SDG&E argues that the allocation is inequitable, that it has saturated its territory with energy efficiency, and that such results are not sustainable over the long term.<sup>112</sup> TURN and DRA acknowledge this inequity as it applies to SDG&E and suggest remedying this imbalance by ensuring SDG&E has adequate funding rather than adjusting SDG&E's goals downward.<sup>113</sup>

In adopting SDG&E's 2006-2008 energy savings goals, we stated our intent to "take a fresh look at the underlying assumptions that create the disparity in the 2004/2005 savings baseline and estimated savings potential across the three service territories when we update our savings potential estimates in the

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<sup>112</sup> July 2, 2007 Reply Comments of SDG&E and SoCalGas.

<sup>113</sup> July 2, 2007 Reply Comments of TURN and DRA.

future.”<sup>114</sup> Accordingly, we hereby commit to revisiting SDG&E’s energy savings goals, as SDG&E proposes, or addressing the matter in the budget process as TURN and DRA propose. In either forum SDG&E will have the burden to provide a proposal that is technically sound and does not compromise our objectives to promote an aggressive energy efficiency strategy in Sempra’s territory. The assigned Commissioner may determine the forum and schedule for this inquiry.

## **7.2. An Approach to Setting Long-term Goals for 2012-2020**

The issue of setting long-term goals for 2012-2020 has two components. First, what should be done with regard to any changes in the goals we have adopted for 2012-2013 and second, what approach should we take in setting goals further out, to 2020.

**Parties’ Positions.** TURN/DRA, NRDC, PG&E, and SDG&E/SoCalGas suggest that changing our adopted goals for 2012-2013 is premature until more data is available. PG&E and SDG&E/SoCalGas recommend obtaining feedback from the 2009-2011 project cycle before considering changes to the goals for 2012-2013. Small Business California suggests that the goals for 2012-2013 be changed only if EM&V studies demonstrate significant shortfalls from the ex ante projections. SCE was the only respondent advocating immediate modification of the 2012-2013 goals. SCE requests lowering the goals for the same reasons as it argues for lowering the 2009-2011 goals, claiming new developments from those considered in D.04-09-060.

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<sup>114</sup> D.04-09-060, pp. 26-27.



With regard to the approach for setting post-2013 goals, NRDC supports adoption of longer-term goals and recommends a similar timeframe to that established in AB 32 (*e.g.*, at least through 2020).

**Discussion.** We decline to reduce adopted goals for 2012-2013 for the same reasons we retain the goals adopted for 2009-2011.

The Assigned Commissioner's April 13 scoping ruling stated that we would investigate energy savings goals through 2020 in recognition of the timeline set forth in AB 32 for greenhouse gas reduction programs. To that end, we have commissioned a study to guide our decision regarding appropriate goals for 2012 through 2020. D.04-09-060 stated our intent to extend the goals during each three year planning period, and directed staff to develop a timeline for developing these goals as expeditiously as possible.<sup>115</sup>

### **7.3. Adjustments to the Counting Rules for the 2009-2011 Portfolio Goals**

The assigned Commissioner's April 13 scoping ruling stated our intent to address the extent to which savings from certain activity areas should be counted toward satisfying 2009-2011 portfolio goals. We address below each of the six activity areas listed in the ruling: codes and standards, water conservation, impacts from future budget cycles, local government energy efficiency activities, other non-utility energy efficiency impacts, and low income energy efficiency savings.

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<sup>115</sup> We direct staff to work with utilities on "temporary" goals for 2014 through at least 2020 for the IOU Strategic Plan. Such an approach is acceptable for now, since the purpose of the Strategic Plan is to set a general course and with the understanding that it will require ongoing refinements.

### 7.3.1. Codes and Standards (C&S)

We reaffirm our 2005 goal that the utility programs should include efforts to encourage the adoption of more stringent C&S. We stated that these programs

... have been an essential and valuable component of the energy efficiency program portfolio in the past, and continue to be recognized as such in our updated policy rules. In fact, using ratepayer dollars to work towards adoption of higher appliance and building standards may be one of the most cost-effective ways to tap the savings potential for energy efficiency and procure least-cost energy resources on behalf of all ratepayers.<sup>116</sup>

In D.05-09-043, we adopted a policy of counting 50% of the verified savings from pre-2006 utility C&S advocacy work towards energy savings goals for 2006-2008. In addition, we count 100% of the energy impacts of the utilities' post-2006 C&S advocacy work in estimating progress toward energy savings goals. The issue we address today is whether to use the same rules for counting utility C&S activities for our upcoming 2009-2011 program cycle. This involves both how we count savings from the utilities' pre-2006 C&S and for post-2006 C&S advocacy work.

**Parties' Positions.** Parties generally agree that utilities should be allowed to count at least some of the results of their work on C&S to the extent that they produce verified energy savings. TURN/DRA and SCE propose retaining the current policy of counting half of the savings for the period prior to 2006. TURN/DRA believe the 50% rule strikes a balance that motivates the utilities to assure builder compliance with C&S in effect during the pre-2006 period and to

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<sup>116</sup> D.05-09-043, pp. 120-121.

pursue aggressive energy efficiency in the post-2006 period. PG&E suggests that all verified energy savings from pre-2006 C&S work should count. CCSF supports including the energy savings attributable to C&S assistance but urges improvements in the method for quantifying these effects.

CCSF, TURN/DRA, SCE, NRDC, and SDG&E/SoCalGas discuss the importance of ensuring compliance with C&S. TURN/DRA and NRDC propose that all savings attributable to utility compliance efforts be counted in addition to their work assisting in C&S changes. SCE disagrees, arguing that utilities cannot enforce C&S, only governmental agencies.

**Discussion.** We reaffirm our existing policy of allowing utility C&S advocacy activities to count towards their savings goals. We agree with SCE and TURN/DRA that current Commission policy should be continued for the next program cycle. Therefore, we will count 50% of verified savings from the utilities' pre-2006 C&S advocacy work towards achievement of goals for 2009-2011, and 100% of verified savings from post-2006 C&S advocacy work.

We recognize the importance of compliance with C&S but agree with SCE that utilities cannot and should not displace the responsibility of government to ensure compliance. Nevertheless, as we discuss above, all parties agree that there is widespread lack of compliance with HVAC requirements and the utilities are expected to play a proactive role in identifying and assisting in steps to enhance compliance. To the extent that the IOUs believe that additional activities centered on C&S compliance warrant counting towards achievement of the goals, we encourage them to address this issue in their work on the HVAC programmatic initiative.

Because compliance is essential, we are open to allowing utility efforts in support of compliance if the utilities choose to include these in their portfolios to

strengthen the total expected energy savings. Moreover, because we already address in our EM&V protocols determining verified energy savings from C&S work, we view this as a utility program strategy choice of allocating expenditures between advocacy and compliance.

### **7.3.2. Water Conservation Programs**

In D.05-09-043, we declined to adopt the proposal of NRDC and CCSF to count “embedded energy savings” in reducing water usage towards the 2006-2008 savings goals.<sup>117</sup> NRDC has provided information from an Energy Commission study that indicates that saving water also saves substantial amounts of energy associated with water use efficiency, due to reduced pumping, treatment and wastewater treatment. It is these upstream or “embedded” savings that NRDC and CCSF argued should also explicitly count towards the savings goals. D.05-09-043 directed the assigned Commissioner to explore this counting issue further.<sup>118</sup>

In this docket, staff sponsored a workshop on this issue on July 17, 2006 and received comments from interested parties on July 31 and August 18. Assigned Commissioner Grueneich then issued a ruling on October 16 that directed each of the utilities to file applications seeking approval of one-year pilot programs, to begin on July 1, 2007, forming partnerships with large water providers to implement a jointly-funded program designed to maximize

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<sup>117</sup> D.05-09-043, p. 164.

<sup>118</sup> D.05-09-043, p. 165.

embedded energy savings per dollar of program cost.<sup>119</sup> The IOUs have filed those applications and they have been consolidated.

In this docket, we have taken comments on whether and under which conditions energy savings associated with water conservation programs should be counted toward the utilities 2009-2011 savings goals.

**Parties' Positions.** Most parties agree that in principle, energy savings associated with water conservation programs should count toward utility goals where the program is cost-effective and supported by utility efforts. TURN/DRA, NRDC, and PG&E note that it is still difficult to quantify the effects of water-embedded energy savings and recommend that the pilot projects under development be completed before the Commission makes a decision on the counting issue. If the Commission finds that water conservation programs can be a cost-effective method of saving energy, these parties suggest the savings should be counted toward energy savings goals and be applied during a utility program cycle. NRDC would limit to 10% of total energy savings the amount of savings counted from water conservation programs.

**Discussion.** We agree with the parties that is premature to decide whether and how to count energy savings from water conservation until we have assessed the results of the utilities' pilot programs, including the cost-effectiveness of water conservation programs from the standpoint of saving energy. We direct the assigned Commissioner and staff to continue to explore this issue as expeditiously as possible. If, through the Water Energy Pilot process currently underway, we find the water conservation savings to be cost-effective

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<sup>119</sup> These applications were filed in A.07-01-030, and are currently under review.

from the standpoint of energy savings, we will consider allowing a mid-cycle program addition upon a petition from a utility or other party. The energy savings arising from the program addition may be applied toward the utilities' energy savings goals; however, we will not count any energy savings generated from the water-embedded energy pilot programs the Commission is considering in A.07-01-24 *et al.*

### **7.3.3. Local Government Programs**

**Parties' Positions.** The utilities, TURN/DRA, NRDC, LAC, and CCSF all agree on the importance of partnerships between utilities and local governments. SCE, PG&E, and LAC suggest that energy savings attributable to these programs should only count in cases where the local government program can be attributed to the influence of the utility partnership, or instances where utilities provide significant financial or resource support.

**Discussion.** We have previously articulated our support for local government partnerships that take advantage of the expertise, access and infrastructure of local agencies for implementing energy efficiency programs. Partnerships between utilities and local governments must be an essential part of a long-term strategy for energy efficiency programs in California. We will continue to count savings from local government programs when they can be attributed to a utility's partnership with the local government, or where the utility can demonstrate that the financial or informational support it provided the local government affected energy savings.

### **7.3.4. Other Energy Efficiency Impacts**

Utility energy efficiency programs can influence energy savings in two indirect ways. One occurs when program participants undertake energy efficiency improvements beyond the scope of the utility's program. Some refer

to the energy savings from these program participants in such situations as “participant spillover.”<sup>120</sup> The second occurs when those not directly participating in a utility program reduce their energy use after being influenced by a utility program. This second indirect effect is often referred to as a case of “non-participant spillover.” The issue we address is whether to allow utilities to count savings beginning with the 2009-2011 portfolios from such indirect effects for purposes of calculating progress toward goals.

**Parties’ Positions.** Parties had differing views on whether the utilities should be able to count savings from spillover effects toward energy savings goals. The utilities recommend that savings from participant spillover activities should count toward utility savings goals when the savings are attributable to the influence of the utility program. SCE further argues that this issues warrants attention as the Commission considers broader bases for action to reach more ambitious goals, as with the “Big, Bold” initiatives.<sup>121</sup> Similarly, SDG&E/SoCalGas states that the Commission’s goal to implement more

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<sup>120</sup> Our EM&V Protocols (Glossary) define “Spillover” as “Reductions in energy consumption and/or demand in a utility’s service area caused by the presence of the DSM program, beyond program related gross or net savings of participants. These effects could result from: (a) additional energy efficiency actions that program participants take outside the program as a result of having participated; (b) changes in the array of energy-using equipment that manufacturers, dealers and contractors offer all customers as a result of program availability; and (c) changes in the energy use of non-participants as a result of utility programs, whether direct (*e.g.*, utility program advertising) or indirect (*e.g.*, stocking practices such as (b) above or changes in consumer buying habits).” Participant spillover is described by (a), and non-participant spillover, by (b) and (c). Some parties refer to non-participant spillover as “free-drivers.”

<sup>121</sup> SCE Reply Comments, July 2, 2007, pp. 8-9.

aggressive energy efficiency strategies would not be served if utility accomplishments reduce the utilities' opportunities to earn incentives every time there is progress in the market.<sup>122</sup> PG&E states that the most cost-effective programs are those that have high spillover and the Commission should encourage their implementation.<sup>123</sup>

SCE suggests that the EM&V protocols be applied to assess when a program participant undertakes efficiency actions "to the extent and only to the extent, that the additional improvements can be attributed to the influence of the [utility] program." SCE acknowledges the difficult question of attributing savings when there are increasingly indirect effects (arguably "non-participant spillover"), such as when architects, builders, and building owners apply knowledge learned in some aspect of a utility program to other building construction projects. SCE states such instances could "be highly cost-effective savings that policy-makers should want to encourage, not discourage, because they can lead to a higher level of efficiency penetration." SCE recommends an

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<sup>122</sup> SDG&E/SoCalGas Reply Comments, July 2, 2007, p.4. This comment refers to the measurement protocol whereby the energy savings for which utilities get credit towards their goals are adjusted by a fraction that excludes efficiency actions occurring in the marketplace and for which utility programs are not directly responsible. Thus the utility gets credit for the "net" amount, not the "gross" savings occurring in the market. To the extent that some of the excluded savings might have been caused indirectly by the utility program, the utility (and the corresponding ratepayer expenditure) may receive less credit or "benefit" than if the savings were counted and the "net-to-gross ratio" higher. This would make it harder for a utility to reach its savings goals and performance targets, decrease the calculated net present value and cost-effectiveness of the program or portfolio, and reduce the performance earnings basis of the utility's risk/reward incentive.

<sup>123</sup> PG&E Reply Comments, July 6, 2007, p. 5.



investigative process to determine “documentation and measurements methods that could provide reliable, perhaps conservative, savings estimates in which [policy-makers] could have a high level of confidence.”<sup>124</sup>

TURN/DRA argue that such indirect savings should not be counted because it will reduce the motivation for utilities to seek other more direct energy efficiency savings, or could possibly cause utilities to “reap a windfall in shareholder incentives”.<sup>125</sup> Rather than count these savings, TURN/DRA recommend that if utility “efficiency savings diminishes significantly in the future because of ‘mainstreaming’,” the Commission reduce utility goals and budgets.<sup>126</sup> TURN/DRA further claim that “it is not clear that allowing the utilities to count spillover or free driver savings would stimulate any changed [utility] behavior,” such as “to work with a business with multiple branches.”<sup>127</sup>

**Discussion.** TURN/DRA make a good case that counting spillover effects may not motivate the best energy efficiency program strategies and give the utilities credit for energy savings they did not motivate. However, the opposite may be true. That is, counting participant spillover may encourage the utilities to support program participants to take additional, independent actions, and counting conservative estimates of “non-participant spillover” savings can support broad initiatives that change the “mainstream” market actions. Both cases could thereby promote energy efficiency improvements that ratepayers do

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<sup>124</sup> SCE Comments, June 18, 2007, pp. 11-12.

<sup>125</sup> TURN/DRA Joint Comments, June 18, 2007, p. 19.

<sup>126</sup> TURN/DRA Joint Comments, June 18, 2007, p. 20.

<sup>127</sup> TURN/DRA Joint Reply Comments, July 2, 2007, p. 29.

not fund. We should encourage the utilities to design programs that promote independent action.

We are willing to entertain proposals for counting savings for the 2009-2011 program cycle from the first type of indirect effects discussed above, that of participant spillover as we define it here, to the extent program impact evaluation studies can identify quantifiable savings.

We direct our staff, under the direction of the assigned Commissioner and working with parties during the evaluation of 2006-08 programs, to assess our existing EM&V protocols, the availability of data, the credibility of estimating savings, the gain from doing so relative to any incremental evaluation costs, to determine if there are participant spillover market effects that should be attributed to ratepayer-supported programs beginning with the next program cycle (2009-2011).<sup>128</sup>

We are less certain about the feasibility of reliably estimating the effects of the second type of indirect effects, that of “non-participant spillover.” There can be multiple factors (not just IOU programs) that drive the efficiency effects in a market, including motivations to reduce greenhouse gases or a desire to enhance corporate reputation through energy efficiency or “green” initiatives. These factors make the challenge of attribution more daunting. Still, we are cognizant of our directive for more integration and broader coordination with stakeholders beyond utility programs. With regard to the TURN/DRA comment on multiple

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<sup>128</sup> If we do determine to count “participant spillover” we may deem it reasonable to raise future goals in recognition of demonstrated significant market effects and apply the market evaluation estimates to those higher goals.

business locations, we encourage utilities to market efficiency recommendations to high-level business managers and officers who can commit to efficiency actions occurring at multiple locations.

For these reasons we choose a conservative path to address the issue of “non-participant spillover” savings. We direct Commission staff and its EM&V consultants to explore during 2008-2009 the ability to credibly quantify and credit “non-participant spillover” market effects. We direct staff to report their findings following the process evaluation and market impact studies of the 2006-2008 program cycle on the ability of current protocols to measure such “non-participant spillover” savings and to propose possible revisions to market effects protocols, utility savings goals, and/or performance incentive mechanisms for subsequent action by this Commission. This report will serve to initiate workshop discussion on the subject in 2009. Such effects should be credited only when they can be 1) observed and, 2) attributed to utility programs within some high standard of certainty.

### **7.3.5. Low Income Energy Efficiency Program Savings**

The final area of counting rules we address today is whether to modify our current rules that allow utilities to include savings from low income energy efficiency programs in assessing progress towards their energy savings goals. Unlike other utility energy efficiency programs, the low income programs are fully subsidized, require the customer to demonstrate low income status, and are less likely to be cost-effective. They are funded and managed separately from other utility energy efficiency programs. While our current rules permit utilities to count the savings from the low income energy efficiency goals in their general savings targets, we do not count the costs of the programs in determining the

cost-effectiveness of the utility portfolios or in calculating utility incentive awards.

**Parties' Positions.** The parties addressing this issue agree that the energy savings from low income programs should continue to be considered in the estimates of potential energy savings and in considering whether the utilities have met their goals. No party advocates for their inclusion in the calculation of utility incentive awards, probably because the programs are not consistently cost-effective.

**Discussion.** We agree that there is no reason to change the treatment of low income energy efficiency programs in estimating energy savings and progress toward goals at this time. We may reconsider this treatment if and when low income programs are treated more like resource programs, that is, with an increased emphasis on cost-effectiveness and the program's value as an energy resource.

#### **8. Next Steps and the Process for 2009-2011 Utility Portfolio Applications and Review**

Building on the work accomplished over the past several years, we commit to an even more comprehensive effort to lead the nation in making energy efficiency a primary energy resource. Toward that goal, we set up a process that will integrate long-term energy efficiency planning with near-term energy efficiency portfolio development. This effort should complement the Commission's work on long-term energy procurement planning, and promote a more comprehensive and inclusive structure for energy efficiency planning, decision-making, and program implementation.

The Energy Commission plays an extremely important role in California in the research and analysis of technological, economic and policy issues affecting

energy in general, and energy efficiency in particular. We intend to continue to collaborate with the Energy Commission on the utilities' energy efficiency programs and strategic planning efforts to the maximum extent practicable given the constraints of limited staff time and legal restrictions on the exercise of this Commission's legal authority. Our collaboration will continue in this proceeding and in the Energy Commission's integrated energy policy report proceeding and its consideration of the information and analyses presented in each IEPR as specified in Public Resources Code sec. 25302.

The schedule for the efforts we describe in this order, which may be modified by the assigned Commissioner, is as follows:

November 5	Initial strategic planning meeting to discuss work products, format, outreach and schedule at Commission Courtroom, State Office Building, 505 Van Ness Avenue, San Francisco, CA 94102
November - December 2007	Strategic planning meetings; IOU workshops on programmatic initiatives; Initial solicitations and program proposals for third-party contracts and local government partnerships
February 1, 2008	Publication of utilities' draft statewide strategic plan
January - February	Utility meetings on preliminary strategic plan Written comments from Commission staff and interested parties submitted to utilities (not filed)
May 15, 2008	Utility applications for 2009-2011 energy efficiency portfolios, including final proposed strategic plan
Summer 2008	Review of applications; hearings, workshops and written comments as required
October 2008	Commission decision

## **9. Comments on Proposed Decision**

The proposed decision of the Commissioner in this matter was mailed to the parties in accordance with Section 311 of the Public Utilities Code and Rule 14.2(a) of the Commission's Rules of Practice and Procedure. Comments were filed on October 9, 2007 by American Council for an Energy Efficient Economy, Better Buildings Incorporated, California Building Industry Association & the California Apartment Association, California Building Performance Contractors Association, California Center for Sustainable Energy, California Large Energy Consumers, California Manufacturers & Technology Association, City and County of San Francisco, Community Environmental Council, Davis Energy Group, Division of Ratepayer Advocates, Ecology Action, Ice Energy, Inc., Local Government Sustainable Energy Coalition (Association of Bay Area Governments, City and County of San Francisco, City of Berkeley, City of Oakland, County of Los Angeles, County of Marin, Local Government Commission, Local Government Sustainable Energy Coalition, Redwood Coast Energy Authority, South Bay Cities Council of Governments), Natural Resources Defense Council, Pacific Gas and Electric Company, San Diego Gas & Electric Company, Quantum Energy Services & Technologies, Inc., Southern California Gas Company, Schweitzer and Associates, Silicon Valley Leadership Group, Southern California Edison, The Utility Reform Network, and Women's Energy Matter. Reply comments were filed on October 15, 2007.

The proposed decision was modified to correct typographical and other errors, make needed clarifications and respond to comments.

## **10. Assignment of Proceeding and Other Procedural Matters**

Dian M. Grueneich is the assigned Commissioner in these proceedings and Kim Malcolm is the assigned ALJ for this portion of this proceeding.

### **Findings of Fact**

1. Californians and the goals articulated in AB 32 to reduce greenhouse gasses would be served by a more comprehensive approach to energy efficiency program planning, design and delivery.

2. Taking full advantage of the potential for energy efficiency in California will require the utilities to coordinate with other entities, leverage available resources of other programs, integrate energy efficiency program design and delivery with other demand-side customer offerings, develop longer term approaches to energy efficiency, promote market transformation and plan energy efficiency programs more strategically.

3. Utility energy efficiency programs have tended to emphasize programs targeting measures with shorter term impacts rather than those that would accomplish market transformation.

4. A comprehensive statewide strategic plan will serve the state's interest in pursuing all cost-effective short-term and long-term energy savings and is in the Commission's interest in assuring the utilities are pursuing the appropriate mix of programs to meet energy efficiency goals.

5. Having the Commission lead the initial work on the statewide strategic plan will promote a process that is inclusive, collaborative and reflects the Commission's policy objectives.

6. Successful programs targeting energy efficiency improvements in residential new construction appear to have the potential to provide substantial, permanent and cost-effective energy savings in California.

7. A reasonable goal is for all new residential dwellings, constructed in 2020 and after, to consume no net energy and to set an interim goal that 50% of new homes achieve energy savings that meet the Tier II standards based on the 2005 version of Title 24 of the Energy Commission's New Solar Homes program by 2011.

8. Successful programs targeting energy efficiency improvements in commercial new construction appear to have the potential to provide substantial, permanent and cost-effective energy savings in California.

9. A reasonable long-term goal is to have all new commercial buildings constructed in 2030 or later to consume "zero net energy."

10. Successful energy efficiency programs in new residential and commercial construction markets will require coordination and collaboration with and the commitments of various governmental and business organizations, training of industry workers, access to information about design standards, best practices, cost and end-use data, and the use of a systems approach to energy efficiency installations.

11. HVAC programs could potentially lead to substantial cost-effective energy savings during peak periods.

12. HVAC program success is impeded due to poor compliance with codes and standards, poor quality installations, lacking technologies that are tailored to specific climates, and the failure to apply a systems approach to HVAC solutions.



13. Successful HVAC energy efficiency programs will require a comprehensive approach to overcoming existing problems and should involve manufacturers and distributors, consumer education, contractor training, verification of quality installation and maintenance, and compliance with codes and standards, and should be coordinated with the requirements of AB2021.

14. The utilities and stakeholders, working with the CEC, should develop short-term mid-term and year 2020 savings targets for the HVAC Programmatic Initiative.

15. Industrial facilities present opportunities for substantial cost-effective energy savings. However, the uncertainties associated with the state's future implementation of AB 32 may discourage customer investments in energy efficiency measures. It is therefore premature to undertake a major industrial energy efficiency programmatic initiative until those uncertainties are resolved.

16. Marketing, education, and outreach (ME&O) are essential components of successful efforts to reduce energy demand in California. Oversight and accountability are essential to those programs on behalf of ratepayers who fund them. The utilities can make most effective use of ME&O programs by incorporating them in their strategic plans for energy efficiency programs.

17. Because the state appears to have a shortage of well-trained energy efficiency technicians and professionals, expanded training programs are needed to assure the effective and widespread implementation of energy efficiency programs.

18. The EEGA is a useful repository for energy efficiency program information.

19. An energy efficiency web portal could be useful to the public and members of government and industry in accessing relevant energy efficiency program and technical information.

20. The utilities' best practices database and website is only useful to the extent it is current.

21. An ME&O task force could facilitate the development of elements of the strategic plan, the utilities' portfolio applications and the energy efficiency web portal.

22. The Commission's EM&V studies are structured to analyze ME&O programs and practices, among other things, and may provide useful information about whether to change those programs and practices.

23. The utilities developed reasonable criteria for the selection of third-party contractors for the 2006-2008 solicitations that could be applied to the 2009-2011 third-party solicitations.

24. This order provides policy and program guidance that obviates the need for a two-step 2009-2011 energy efficiency portfolio review process, as conducted for the 2006-2008 program portfolios.

25. Utility portfolios for the period 2006-2008 appear to emphasize energy efficiency measures that have shorter term and immediate impacts rather than measures that have longer-term savings and more enduring market effects.

26. The Commission's rules require the utilities to include programs that have long-term impacts and "aggressively" increase overall capacity utilization and reduce peak load.

27. The strategic planning approach established in this order, certain rule changes, and the incentive award structure adopted in this proceeding will promote more comprehensive and diverse energy efficiency portfolios and

programs that have longer term impacts and reduce peak loads, and will discourage cream skimming.

28. The utilities' existing portfolios do not appear to include programs that have long-term impacts, or aggressively increase overall capacity utilization and reduce peak load.

29. The strategic planning process adopted herein will promote the application of best practices and innovation.

30. Utility partnerships with local governments may promote cost-effective and innovative energy efficiency programs. The strategic planning process adopted herein will promote these partnerships.

31. On-bill financing may promote cost-effective energy efficiency investments that may not otherwise be made.

32. Loans to government agencies are likely to present low risk of default.

33. SDG&E, SoCalGas and SCE have pilot on-bill financing programs for small business customers.

34. Existing three-year budget cycles present problems with program delivery when funding is interrupted.

35. Permitting the utilities to spend funds from the subsequent budget cycle in the current budget period for start-up costs will mitigate problems with program delivery.

36. A continuous or "rolling" budget cycle may mitigate funding problems associated with distinct budget cycles.

37. The utilities would be more likely to promote investments in projects with long lead times if they are able to commit future budget cycle funds to such projects.

38. Counting energy savings from mid-cycle program funding augmentations in the calculation of portfolio cost-effectiveness and performance earnings basis for utility incentive awards will not compromise ratepayer interests.

39. Counting the savings from mid-cycle program augmentations toward achievement of adopted energy savings goals would permit the utilities to more easily achieve the MPS by spending additional funds, to the detriment of ratepayers.

40. Most parties agree that PAGs have not been successful in promoting innovation, best practices or improved cost-effectiveness.

41. Most parties agree that PRGs have promoted fairness in the process of contracting with third parties.

42. Some of the work of the PRGs and all of the work of the PAGs will be subsumed in the process of developing a strategic plan.

43. Improvements to EM&V processes may make EM&V products more useful and effective.

44. Modifying the adopted energy savings goals would require an elaborate technical exercise that is not justified on the basis of the record here.

45. The utilities have not made a persuasive case that the adopted energy savings goals are unreasonable for the period 2009-2011 in light of existing circumstances and expected changes in markets, technologies and consumer behavior.

46. SDG&E's energy savings goal was based on different calculators than those used for SCE, SoCalGas and PG&E, and is arguably inequitable.

47. The utilities do not have authority to enforce codes and standards.

48. Currently, 50% of verified energy savings from the utilities' pre-2006 C&S advocacy work, and 100% of post-2006 C&S advocacy work, is counted toward achievement of energy savings goals.

49. Some utility programs result in "spillover" effects where customers undertake energy efficiency measures independently, either after having participated in a utility program or where they may have been influenced by a utility program but did not participate in it.

50. Quantifying spillover from "non-participants" could be an especially difficult task.

### **Conclusions of Law**

1. The utilities should be ordered to develop a single statewide strategic plan that would serve as a roadmap for long term and nearer term activities to promote maximum energy savings in California as set forth herein. The strategic plan should emphasize energy efficiency programs with long-term energy savings, enduring market effects, the programmatic initiatives adopted herein and other elements as set forth in this order. It should provide program direction and development through 2020 and beyond and be included with each utility's application for approval of 2009-2011 energy efficiency portfolios.

2. The assigned Commissioner to this proceeding should lead the initial process for the utilities' development of a strategic plan in order to assure the process is inclusive, collaborative and recognizes the Commission's objectives and policies. This process should solicit the participation of a wide variety of parties and interests, and be publicly noticed, as discussed herein.

3. The utilities should solicit, seriously consider and respond to the views and analysis of a wide range of stakeholders on a strategic plan.

4. The statewide strategic plan should address ways to accomplish the goals for new commercial and residential buildings set forth herein.

5. The utilities should be ordered to conduct stakeholder meetings on new construction programs as set forth herein.

6. The utilities should be ordered to conduct stakeholder meetings on HVAC program issues as set forth herein.

7. The statewide strategic plan should address ways to overcome barriers to cost-effective and successful implementation of HVAC programs.

8. The utilities' statewide strategic plan and their 2009-2011 portfolio applications should include proposals for industrial programs.

9. ME&O programs should be more strategic and comprehensive in the way they are used to promote energy efficiency and the statewide energy efficiency strategic plan should address ME&O as set forth herein.

10. The utilities' applications for 2009-2011 energy efficiency portfolio approvals should present proposed funding for EEGA as a separate budget line item.

11. The utilities should work with Commission staff to develop an energy efficiency web portal that provides an integrated point of access to energy efficiency program information.

12. The utilities should regularly update their best practices data bases with information on new programs, end use technologies and implementation strategies.

13. The Commission should lead an ME&O task force to assist in relevant aspects of the statewide strategic plan and utility portfolio applications, develop an energy efficiency web portal and consider the development of a brand for California energy efficiency products and services.

14. The statewide strategic and utility applications for approval of 2009-2011 energy efficiency portfolios should provide details about how education, marketing and outreach activities will be used to promote energy efficiency programs in an integrated and coordinated fashion, as set forth herein.

15. The statewide strategic and utility applications for approval of 2009-2011 energy efficiency portfolios should provide details about how to improve training of energy efficiency technicians and professionals as set forth herein.

16. The Commission should reconsider its approach to ME&O funding and contracting procedures if it determines that existing programs, practices and procedures are not effective or efficiently managed.

17. The utilities third-party solicitations should be complete by the time they file their respective applications for approval of 2009-2011 energy efficiency portfolios, as set forth herein.

18. The utilities should immediately begin planning for 2009-2011, using existing 2006-2008 funds, to ensure that third-party solicitations and other 2009-2011 planning activities are completed by the time the utilities file their respective applications for approval of the 2009-2011 Energy Efficiency portfolios.

19. The utilities should be permitted to count extensions of successful 2006-2008 third-party programs as part of the 20% of their respective budgets set aside for third-party contractor programs as set forth herein. These extensions should be able to be structured as bilateral contracts.

20. The utilities should include in their applications for approval of 2009-2011 energy efficiency portfolios the cumulative expected lifecycle savings of their portfolios, as set forth herein.

21. The Commission should not reconsider cost-effectiveness methodologies as they apply to energy efficiency measures at this time.

22. The utilities should be required to demonstrate that 2009-2011 portfolios comply with Policy Rule II.5.

23. The Commission should modify Policy Rule II.5 to demonstrate that proposed energy efficiency portfolios will improve system load factor as set forth herein.

24. The utilities should be ordered to convene at least one statewide meeting every year with interested local government agencies to pursue opportunities with local governments for energy efficiency programs and partnerships.

25. The utilities should be ordered to create or continue on-bill financing pilot programs for small commercial customers, propose on-bill financing programs for government agencies and to assess the opportunities for on-bill financing programs for residential customers.

26. SCE, SoCalGas and SDG&E should be ordered to present evaluations of their respective on-bill financing programs as part of the strategic planning process.

27. The utilities should be permitted to borrow funding from subsequent budget cycles for early start up program costs that occur prior to the start of the subsequent budget cycle, when the utilities have no other available energy efficiency funds (*i.e.*, unspent, uncommitted funds from previous program years, or 2006-2008 funds that will not be needed) to devote to this purpose, as set forth herein. The amount should not exceed 15% of the current budget except as authorized by advice letter.

28. The utilities' applications for approval of 2009-2011 energy efficiency portfolios should propose a "rolling budget" cycle process as set forth herein.



29. The Commission's rules should be modified to permit the utilities to make commitments of funds from future budget cycle to projects that will not be completed within the concurrent budget cycle, consistent with the conditions set forth herein.

30. Energy savings from mid-cycle program funding augmentations should be counted in the calculation of portfolio cost-effectiveness and performance earnings basis for utility incentive awards. Savings associated with any mid-cycle funding augmentation to the LIEE program will not count towards the MPS. The savings from mid-cycle program augmentations should not count toward achievement of energy savings goals for the purpose of assessing whether performance has reached the MPS.

31. The Energy Efficiency Policy Manual and related rules should be modified to be made consistent with the provisions of this order. The assigned Commissioner should be authorized to approve those modifications, consistent with this order.

32. Section 1801 *et seq.*, governing intervenor compensation requires the Commission to grant compensation to representing customers who can demonstrate contributions to a Commission order or decision, and which do not duplicate the work of other parties.

33. The PAG should be eliminated because its functions will be subsumed in the strategic planning and portfolio development process.

34. The PRG should be retained to oversee third-party bidding processes and related matters, as set forth herein.

35. The assigned ALJ and assigned Commissioner should be authorized to modify the PRG process as necessary for its effective, fair and efficient operation.

36. Compensation for participation in PRG meetings should be granted to parties who can demonstrate contributions to a Commission order or decision, consistent with Section 1801 *et seq.*

37. EM&V procedures should be modified to promote their usefulness and effectiveness as set forth herein.

38. The Commission should not entertain modifications to adopted energy savings goals at this time with the exception that it should consider modifications to SDG&E's energy savings goals if SDG&E can demonstrate that its proposal is technically sound and does not compromise an aggressive energy efficiency strategy in its territory.

39. The assigned Commissioner should determine the forum and schedule for considering modifications to SDG&E's energy savings goals.

40. The existing practice for counting C&S advocacy work should be continued for the 2009-2011 budget cycle, and similar practices should be applied to any proposed programs addressing C&S compliance.

41. The utilities should be permitted to propose ways to count work on HVAC compliance toward energy savings goals.

42. The utilities should be permitted to propose ways to count work on water conservation programs (other than the pilot programs at issue in A.07-01-024 *et al.*) toward energy savings goals, assuming those programs are cost-effective and have been implemented pursuant to Commission order or policy.

43. Utilities should continue to count energy savings from local government programs toward utility energy savings goals in cases where local government program savings are directly attributable to utility programs.

44. To the extent program impact studies can identify quantifiable savings, the utilities should be able to count toward 2009-2011 energy savings goals the

“spillover” effects that occur where customers undertake energy efficiency measures independently and after having participated in a utility program.

45. The Commission staff should study ways to quantify both “participant” and “non-participant” spillover for purposes of counting related energy savings toward the achievement of energy savings goals.

46. The Commission should retain existing practice with regard to counting the effects of low income energy efficiency programs toward the achievement of energy savings goals.

### **INTERIM ORDER**

**IT IS ORDERED** that:

1. Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), San Diego Gas and Electric Company (SDG&E) and Southern California Gas Company (SoCalGas) (herein referred to jointly as “the utilities”) shall, no later than February 1, 2008, jointly submit to the Administrative Law Judge assigned to this proceeding and the Energy Division a single statewide preliminary strategic plan as set forth in this Order.

2. The utilities shall jointly serve the preliminary strategic plan on all parties to this proceeding and any member of the public who requests a copy. The utilities shall solicit written comments on the preliminary strategic plan and conduct related meetings in Los Angeles, San Diego and San Francisco in the month of February.

3. The utilities shall establish a California Energy Efficiency Strategic Planning web portal by November 15, 2007. The utilities shall post on this website all Strategic Plan working meeting agendas and meeting summaries, key reference documents and work products, the draft Strategic Plan (once

prepared), and stakeholder written comments received on the draft plan. The preliminary strategic plan and the parties' comments on it shall not be filed in this proceeding.

4. As set forth in this Order, the utilities shall file a final strategic plan as a joint application no later than May 15, 2008.

5. The preliminary strategic plan and the final proposed strategic plan shall include: An outline of the strategies underlying design and implementation of 2009-2001 energy efficiency programs, as described in this order and with specific attention to residential new construction, commercial new construction and heating/ventilation/air conditioning programs; an outline of activities and milestones for implementing energy efficiency programs and strategies through 2020, as discussed in this order, and consistent with the Energy Efficiency Policy Manual and the policies and objectives set forth in this order. The strategic plan shall include proposals for industrial energy efficiency programs as set forth herein. In addition, the final proposed strategic plan shall include a list of all major comments received on the draft plan, and the utilities' response as to the disposition of each.

6. Prior to the February 1, 2008 release of the preliminary statewide Strategic Plan, the utilities are strongly encouraged to hold a working session enabling active stakeholder participants to the strategic planning process to preview and comment on the proposed draft comments. The utilities shall incorporate useful suggestions for modifications or improvements to the plan prior to its general release on February 1, 2008.

7. The Energy Efficiency Policy Manual shall be modified by adding the following Rule 12 to Section IV (Cost-Effectiveness):

12. Costs and energy savings from mid-budget cycle funding additions for programs other than low income energy efficiency (LIEE) programs shall be counted when calculating portfolio cost-effectiveness and the performance earnings basis in applying the energy efficiency risk/return incentive mechanism. Energy savings from mid-budget cycle funding additions shall count towards the utilities' energy efficiency goals for resource planning purposes only. Such savings shall not be counted towards the energy efficiency goals for the purpose of 1) satisfying the minimum performance standard (MPS) associated with the energy efficiency risk/reward incentive mechanism, or 2) determining which "performance band" (e.g., deadband or applicable earnings tier level) should be used in calculating incentive payments or penalties. Each proposal to augment energy efficiency program funding must be carefully reviewed to ensure that such funding is not misclassified as LIEE, given the implications associated with LIEE classification that carry over to the adopted incentive mechanism. Savings associated with any mid-cycle funding augmentation to the LIEE program will not count towards the MPS.

8. The statewide strategic plan shall propose a long term, coordinated approach to marketing, education and outreach, as set forth herein, that shall emphasize ways to integrate outreach efforts on climate change and conservation, joint marketing with other energy programs, and ways to engage customers with limited skills in English.

9. The Strategic Plan shall include a section regarding specific training strategies for applicable sectors and markets. Utilities shall include specific training strategies for reaching minority, low-income, and other disadvantaged communities in their Strategic Plan.

10. Each utility shall file an application for approval of its 2009-2011 energy efficiency portfolio no later than May 15, 2008.

11. SCE, SoCalGas and SDG&E shall present, as part of the strategic planning process, assessments of their respective on-bill financing pilot programs.

12. The utilities' applications for approval of 2009-2011 energy efficiency portfolios shall be informed by and complement the proposed statewide strategic plan and shall include strategies for programs targeting residential new construction, commercial new construction, and heating/ventilation/air conditioning measures, as set forth herein. The applications shall also include proposals for industrial energy efficiency programs as set forth herein. The applications shall reflect regional and local variations complementing the proposed statewide plan.

13. The utilities shall include in their applications for approval of 2009-2011 energy efficiency portfolios: (1) the cumulative expected lifecycle savings of their portfolios, as set forth herein; (2) an explanation of the efforts they have made to expand third-party and local government partnerships; (3) proposals for continuing or creating on-bill financing programs for small business customers and institutional customers, and an evaluation of the prospects for on-bill financing programs for residential customers, as set forth herein; (4) proposals for a "rolling budget" cycle process as set forth herein; (5) plans for encumbering funds from the subsequent budget cycle for long-term projects subject to the conditions set forth herein; (6) budgets and plans for their energy efficiency process evaluations and market analysis projects; (7) address how the two Zero Net Energy programmatic initiatives will be integrated into existing programs to support the development of the Energy Commission's codes and standards, as well as other types of measures; and (8) a report on the status of AB 32's

implementation and proposed program changes that would complement rules and policies, if adopted, including and in particular programs targeting energy efficiency measures in the industrial sector.

14. The utilities' applications for approval of 2009-2011 portfolios and the proposed statewide strategic plan shall reflect the modifications made to the Energy Efficiency Policy Manual and related rules, as approved by the assigned Commissioner and consistent with this order.

15. The utilities' third-party solicitations shall be completed by the time they file their respective applications for approval of 2009-2011 energy efficiency portfolios, as set forth herein. The utilities are authorized to count extensions of successful 2006-2008 third-party programs as part of the 20% of their respective budgets set aside for third-party contractor programs as set forth herein. These extensions may be structured as bilateral contracts.

16. The utilities shall, within 30 days of the effective date of this order, conduct stakeholder meetings on topics relating to new residential construction as set forth herein. The utilities shall solicit the involvement of key stakeholders identified herein including home energy rating services, local government planning and building officials, Energy Commission staff, consumer groups, representatives of the Building Industry Association, and representatives of relevant trade associations, developers, buildings and labor groups.

17. The utilities' development of a plan to promote energy efficient new commercial construction shall solicit the participation of the Energy Commission staff, publicly-owned utilities, major commercial real estate developers, building construction companies, and leaders in the public and private sectors.

18. The utilities shall, within 30 days of the effective date of this order, conduct the first of a series of working sessions with key stakeholders identified

herein to develop a course of action to improve heating, ventilation and air conditioning energy efficiency programs as set forth herein.

19. The utilities and Commission staff shall update and expand existing energy efficiency websites to make these tools more useful for both the energy industry and the general public. Commission staff shall work with the utilities to develop Energy Efficiency Web Portal.

20. The utilities' proposed energy efficiency portfolios for 2009-2011 shall be designed in recognition of the following evaluation criteria:

- 1) Are the proposed portfolios cost-effective on a prospective basis taking reasonable account of uncertainty with respect to key cost-effectiveness input parameters?
- 2) Are the portfolios designed such that it will be feasible for the utilities to meet or exceed the Commission's energy savings goals? If each of the annual goals cannot be met in light of the accounting and ramping up transition issues described in D.04-09-060 and D.05 04-051, will the proposed portfolio plans meet or exceed the 2011 cumulative energy savings goal?
- 3) Are the portfolios and associated funding levels appropriately balanced between activities that address short-term and long-term savings?
- 4) Do the portfolio plans provide sufficient strategies and funding to address opportunities to reduce critical peak loads and improve system load factors?
- 5) Do the plans reasonably allocate funds among market sectors and applications with respect to the savings potential that has been identified in the potential studies?
- 6) Do the plans adequately describe strategies to minimize lost opportunities, per Rule 5?
- 7) Do the plans provide for adequate statewide coordination of similar program offerings?



- 8) Do the plans reflect a long-term strategic plan that exhibits well-integrated planning along the following four dimensions?
  - a) Coordination across stages of technology and program developments, such as research and development, emerging technology promotion, public outreach, upstream distributor marketing, utility customer-focused programs, codes and standards advocacy, and other activities that can take advantage of statewide, regional, and national leverage?
  - b) Leveraging the involvement and contributions from a variety of actors and financial resources, e.g. federal government, national manufacturers and distributors, national and regional building industry organizations and professionals, contractors, and educational institutions?
  - c) Program designs and implementation strategies that explicitly seek to overcome identified market barriers to increased efficiency adoption? and
  - d) Identifying an “end game” for each technology or practice that transforms building, purchasing, and use decisions to become either “standard practice” (sometimes referred to as “market transformation”), or incorporated into minimum codes and standards?
- 9) Are there reasonable proposals for any fund shifting and program flexibility rules that should be adopted for these program plans?
- 10) Are the overall funding levels proposed for the portfolio plans reasonable?
- 11) Is there evidence of program continuity across types of programs, or implementers, for those programs which have proven successful and cost-effective?

12) Are there appropriate strategies and program designs proposed for the three targeted programmatic initiatives?

21. The utilities shall convene at least one statewide meeting every year with interested local government agencies to pursue opportunities with local governments for energy efficiency programs and partnerships and shall extend invitations to publicly owned utilities (POUs).

22. The utilities are authorized to borrow funding from subsequent budget cycles for start up costs associated with programs in the subsequent budget cycle when the utilities have no other available energy efficiency funds (*i.e.* unspent, uncommitted funds from previous program years, or 2006-2008 funds that will not be needed) to devote to this purpose, as set forth herein. The amount shall not exceed 15% of the current budget amount except as authorized by advice letter.

23. Energy savings from mid-cycle program funding augmentations shall be counted in the calculation of portfolio cost-effectiveness and performance earnings basis for utility incentive awards. The savings from mid-cycle program augmentations shall not count toward achievement of energy savings goals for the purpose of assessing whether performance has reached the minimum performance standard, as set forth herein.

24. The energy savings goals adopted in D.04-09-060 are retained for the utilities during the 2009-2011 budget period with the exception that SDG&E may propose modifications to its energy savings goals for the 2009-2013 period, as set forth herein.

25. The Commission will conduct a study to guide appropriate energy efficiency goals for 2014-2020 and beyond.

26. The existing practice for counting verified energy savings for pre-2006 codes and standards (C&S) advocacy work is continued for the 2009-2011 budget cycle. The utilities may propose ways to count work on C&S compliance toward energy savings goals.

27. To the extent program impact studies can identify quantifiable savings, the utilities may count toward 2009-2011 energy savings goals the “spillover” effects that occur where customers undertake energy efficiency measures independently and after having participated in a utility program.

28. The effects of low income energy efficiency programs shall continue to count toward the achievement of energy savings goals, although they will not be included in the calculation of incentive awards.

29. The PAG is eliminated because its functions will be subsumed in the strategic planning and portfolio development process.

30. The PRG is retained to oversee third-party bidding processes and related matters, as set forth herein.

31. The assigned Commissioner and assigned Administrative Law Judge (ALJ) are authorized to provide clarification and direction as required with respect to the content and development of the strategic plan.

32. The assigned ALJ is authorized to direct the utilities to provide information and reports that track the implementation and application of modified fund-shifting rules.

33. The assigned Commissioner and assigned ALJ are authorized to modify the PRG process as necessary for the effective, fair and efficient conduct of this proceeding and related processes.

34. The Commission staff shall distribute (1) a list that summarizes suggestions and ideas for implementing the energy efficiency programmatic

initiatives adopted in this decision, and (2) a list of exemplary programs in other states and countries that the utilities should investigate as part of developing the 2009-2011 portfolios, no later than 15 days of the effective date of this decision.

35. The Commission staff's management of Evaluation, Measurement and Verification of energy efficiency programs shall include meetings, provision of information, and procedures described herein.

- a) Convene regular meetings with utilities and interested parties to develop common understandings about the types of data and information required and the processes to be used;
- b) Identify key evaluation topics that may be studied early in the cycle to provide information to utilities and other program implementers;
- c) Where possible, provide early feedback of EM&V findings to the utilities and program implementers;
- d) Convene an annual meeting with the utilities and other interested parties to describe and discuss any EM&V findings that could lead to improvements in the program portfolio; and
- e) Report findings following the process evaluation and market impact studies of the 2006-2008 program cycle on the ability of current protocols to measure such as "non-participant spillover" savings and to propose possible revisions to market effects protocols, utility savings goals, and/or performance incentive mechanisms for subsequent action by this Commission. This report will serve to initiate workshop discussion on the subject in 2009.

36. The Commission staff shall develop a proposed schedule and list of proposed information requirements relevant to the utilities' applications for approval of 2009-2011 energy efficiency portfolios, as set forth herein.

37. The Commission staff shall study ways to quantify both “participant” and “non-participant” spillover for purposes of counting related energy savings toward the achievement of energy savings goals, as set forth herein.

38. The assigned Commissioner and assigned ALJ are authorized to take all procedural steps required to promote the objectives set forth in this order, including modifications to the schedule set forth herein and as required to assure the effective, fair and efficient conduct of this proceeding.

39. The assigned Commissioner is hereby authorized to approve modifications to the Energy Efficiency Policy Manual and related rules, consistent with this decision.

40. The assigned Commissioner and assigned ALJ are authorized to determine the forum and schedule for an inquiry addressing SDG&E’s adopted energy savings goals and whether they should be modified for the 2009-2013 period. SDG&E shall have the burden to demonstrate the reasonableness of modified energy savings goals.

41. As soon as practical, Commission staff shall post to the Commission website an updated version of the Energy Efficiency Policy Manual with the modifications addressed in this decision.

42. A prehearing conference and working session is scheduled in this proceeding for November 5, 2007 at 10:00 a.m. at 505 Van Ness Avenue, San Francisco, at which the Commission will address the scope, schedule and tasks required to prepare a statewide strategic plan, as set forth herein.

43. The Commission will convene an ME&O Task Force within 60 days of the final adoption of this Order. All interested parties are encouraged to attend the meeting session, which will address a course of action for ME&O issues as set forth herein.

44. The Executive Director may hire and manage one or more contractors to assist Energy Division staff for the purpose of advancing the energy efficiency strategic planning work as described herein.

45. This proceeding remains open for the purpose of considering issues relating to the incentive award mechanism, water conservation programs and the issues identified herein for further consideration.

This order is effective today.

Dated October 18, 2007, at San Francisco, California.

MICHAEL R. PEEVEY  
President  
DIAN M. GRUENEICH  
JOHN A. BOHN  
RACHELLE B. CHONG  
TIMOTHY ALAN SIMON  
Commissioners

**ATTACHMENT 1**

**Page 1**

**LIST OF ACRONYMS**

ACEEE	American Council for an Energy Efficient Economy
ALJ	Administrative Law Judge
AMI	Advanced metering infrastructure
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers
BBEES	Big Bold Energy Efficiency Strategies
CARB	California Air Resources Board
CBIA	California Building Industry Association
CCGT	Combined cycle gas turbine
CEC	California Energy Commission
CEE	Consortium for Energy Efficiency
CFL	Compact fluorescent lamp
C&S	Codes and standards
DEER	Database for energy efficient resources
DG	Distributed generation
DR	Demand response (programs)
E3	Energy & Environmental Economics, Inc.
EE	Energy efficiency
EEGA	Energy efficiency groupware application
EM&V	Evaluation, measurement and verification
EUL	Expected useful life
GHG	Greenhouse gas
GW	Gigawatt
GWh	Gigawatt hour
HVAC	Heating, ventilation and air conditioning
IHACI	Institute of Heating and Air Conditioning Industries
IOU	Investor-owned utility
LIEE	Low income energy efficiency (programs)
ME&O	Marketing, education and outreach
MIDSM	Market integrated demand side management
MPS	Minimum performance standard
MW	Megawatt
PAG	Program advisory group
PEB	Performance earnings basis

**ATTACHMENT 1**

**Page 2**

PIER	Public interest energy research
POU	Publicly-owned utility
PRG	Peer review group
R&D	Research and development
TRC	Total resource cost
UK	United Kingdom
USDOE	United States Department of Energy
USEPA	United States Environmental Protection Agency
USGBC	U. S. Green Building Council

**(END OF ATTACHMENT 1)**



**ATTACHMENT 2**

**Page 1**

**PARTICIPATING PARTIES**

Aglet Consumer Alliance (Aglet)  
Alliance to Save Energy  
American Council for an Energy Efficient Economy (ACEEE)  
Better Buildings Incorporated  
California Building Industry Association (CBIA) & the California Apartment  
Association (CAA)  
California Building Performance Contractors Association (CBPCA)  
California Large Energy Consumers (CLECA)  
California Manufacturers & Technology Association (CMTA)  
California Natural Gas Vehicle Coalition (CNGVC)  
California Center for Sustainable Energy (CCSE)  
City of Oakland (Oakland)  
City and County of San Francisco (CCSF)  
Community Environmental Council (CE Council)  
Conservation Services Group (CSG)  
County of Los Angeles (LA)  
Davis Energy Group (DEG)  
Division of Ratepayer Advocates (DRA)  
Ecology Action  
Energy Coalition  
EP Investments Incorporated (EPI)  
Global Energy Partners LLC (GEP)  
Heller Manus Architects (Heller Manus)  
Ice Energy, Inc. (ICE)  
Inland Empire Utilities Agency  
Local Government Sustainable Energy Coalition (LGSEC)  
(Association of Bay Area Governments,  
City and County of San Francisco,  
City of Berkeley, City of Oakland, County Of Los Angeles, County of Marin,  
Local Government Commission,  
Local Government Sustainable Energy Coalition,  
Redwood Coast Energy Authority,  
South Bay Cities Council of Governments)  
Marin Energy Management Team (Marin)

**ATTACHMENT 2**

**Page 2**

National Association of Energy Service Companies (NAESCO)  
Natural Resources Defense Council (NRDC)  
Northwest Energy Efficiency Alliance (NEEA)  
Pacific Gas and Electric Company (PG&E)  
Quantum Energy Services & Technologies, Inc. (QuEST)  
Robert Mowris and Associates (RMA)  
Sacramento Municipal Utility District (SMUD)  
San Diego Gas and Electric Company (SDG&E)  
Silicon Valley Leadership Group (SVLG)  
Southern California Gas Company (SoCalGas)  
Schweitzer and Associates (Schweitzer)  
Small Business California (SBC)  
Southern California Edison (SCE)  
The Utility Reform Network (TURN)  
University of California, Davis Energy Efficiency Center (UC Davis)  
Western Cooling Efficiency Center (WCEC)  
Women's Energy Matters (WEM)

**(END OF ATTACHMENT 2)**