Decision 05-09-043 September 22, 2005

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Pacific Gas and Electric Company (U 39-E), for approval of the 2006 – 2008 Energy Efficiency Programs and Budget.	Application 05-06-004 (Filed June 1, 2005)
Southern California Gas Company (U 904-G), for approval of Natural Gas Energy Efficiency Programs and Budgets for Years 2006 through 2008.	Application 05-06-011 (Filed June 1, 2005)
Southern California Edison Company (U 338-E), for approval of its 2006 – 2008 Energy Efficiency Program Plans and associated Public Goods Charge (PGC) and Procurement Funding Requests.	Application 05-06-015 (Filed June 2, 2005)
San Diego Gas & Electric Company (U 902-E), for approval of Electric and Natural Gas Energy Efficiency Programs and Budgets for Years 2006 through 2008.	Application 05-06-016 (Filed June 2, 2005)

INTERIM OPINION: ENERGY EFFICIENCY PORTFOLIO PLANS AND PROGRAM FUNDING LEVELS FOR 2006-2008 – PHASE 1 ISSUES

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INTERIM OPINION: ENERGY EFFICIENCY PORTFOLIO PLANS AND PROGRAM FUNDING LEVELS FOR 2006-2008 – PHASE 1 ISSUES

1. Introduction and Summary[1]

By today's decision, we authorize 2006-2008 energy efficiency portfolio plans and funding levels for Pacific Gas and Electric Company (PG&E), San Diego Gas and Electric Company (SDG&E), Southern California Edison Company (SCE), and Southern California Gas Company (SoCalGas), collectively referred to as "the utilities." These plans place cost-effective energy efficiency at the forefront of utility resource acquisition, consistent with the goals of the Energy Action Plan and our energy efficiency policies.

Departing from the administrative structure for energy efficiency of recent years, we tasked the utility program administrators to develop 2006-2008 energy efficiency portfolios that would meet or exceed our aggressive energy savings goals. We required that the resulting portfolios be cost-effective from two perspectives: (1) the total resource cost perspective, whereby the value of the energy savings is greater than the total cost of installed measures and all program costs and (2) the program administrator cost perspective, whereby the value of energy savings outweighs the cost of utility financial incentives to customers and all other program costs.

Consistent with our direction in Decision (D.) 05-01-055, the utilities developed their portfolio plans through a process of constructive and collegial exchange of information and ideas among utility staff, program advisory group members, third-party program implementers (including local governments), utility customers and other members of the public. Through the development of

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[1] Attachment 1 describes the abbreviations and acronyms used in this decision.

a Case Management Statement (CMS), this constructive exchange continued after the utility applications and parties' comments on those applications were filed.

In the aggregate as well as individually, the utilities' applications show that they expect to exceed the Commission's aggressive energy savings targets cost-effectively. Projected total resource savings to ratepayers (avoided utility generation and electric power and natural gas purchases, transmission and distribution costs) are approximately $5.4 billion over the life of the measures. With total costs estimated at $2.7 billion (including customers' out-of-pocket expenditures for energy efficiency measures/equipment), the total investment in energy efficiency during 2006-2008 is projected to produce $2.7 billion in net resource benefits (resource benefits minus costs). This translates into reduced utility revenue requirements and lower bills for customers, relative to what those levels would be without the energy efficiency programs.

The utilities project that ratepayer investments in energy efficiency will be capable of avoiding the equivalent of three giant (500 megawatt (MW)) power plants over the next three years. In addition, the lifetime electricity savings that result from measures installed during that period will reduce global warming pollution by an estimated 3.4 million tons of carbon dioxide in 2008, equivalent to taking about 650,000 cars off the road.[2]

The sensitivity analysis performed in this proceeding indicates that the proposed program plans will still be cost-effective even if the utilities achieve only 60% of projected savings. For SCE and SDG&E, the portfolios would still be cost-effective at 40% of projected savings. We conclude that the proposed portfolio plans are cost-effective on a prospective basis, taking reasonable

[2] See Tables 1, 2 and the summary table of projected portfolio savings in Attachment 4.

account of the uncertainties identified by parties with respect to key cost-effectiveness input parameters.

To achieve these cost-effective savings, annual ratepayer investments in energy efficiency will need to increase from approximately $500 million per year to over $800 million, including funding for evaluation, measurement and verification (EM&V). Specific EM&V plans and budgets will be authorized by subsequent decision. Today, we authorize the following 2006-2008 energy efficiency program budgets, not including funding for EM&V activities:[3]

	Current	Authorized 2006-2008 Program Budgets			
	2005	2006	2007	2008	2006-2008
PG&E	$188,899,022	$244,653,750	$279,428,777	$343,385,716	$867,468,243
SCE	$205,691,923	$216,574,075	$225,111,946	$233,145,977	$674,831,998
SDG&E	$63,304,369	$75,135,490	$84,665,039	$97,740,036	$257,540,565
SoCalGas	$37,408,392	$44,322,946	$56,582,684	$68,016,003	$168,921,633
Total	$495,303,706	$580,686,261	$645,788,446	$742,287,732	$1,968,762,439

As described in this decision, today's adopted portfolio plans reflect a mix of proven program designs and implementation strategies in combination with approaches to solicit new, innovative designs and savings technologies to enhance overall portfolio performance, both in the short- and long-run. Examples of new program strategies include on-bill financing, sustainable communities programs and integrated offerings to targeted markets, such as agricultural and food processing, which incorporate best practices, a variety of energy efficiency measures, financing, incentives, design assistance and

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[3] See Attachment 4. As noted in that attachment, 2005 budgets include carryover funds from previous years. The incremental funding requirements associated with these budgets, including franchise fees and uncollectibles for the electric portions, are presented in Tables 4-7.

equipment rebates. The plans also include continued and new partnerships with local governments to tap the energy savings potential in local communities.

Each of the utility portfolios support statewide program activities in the areas of emerging technologies, support for codes and standards and statewide marketing and outreach. The utilities will also be working with upstream market participants, e.g., manufacturers, retailers and distributors, in order to increase the acceptance and availability of energy efficient measures and equipment in all markets. In addition, the utilities continue to develop statewide consistency in rebate levels and participant rules. As described in this decision, they will be coordinating these activities statewide through joint meetings with their advisory groups and the development of joint plans for program implementation.

Approximately $500 million in program funds for the utilities combined will be put out to bid over the three-year program cycle to solicit third-party proposals.[4] The bid solicitations will target specific program areas that could be enhanced through improved design and implementation, or to solicit proposals for new program designs and technologies. For example, SCE will solicit bids for appliance recycling, home energy efficiency surveys, comprehensive heating, ventilating and air conditioning (HVAC) program activities, small business direct install programs, among others. PG&E plans to solicit competitive bids in each of its targeted markets, including residential new construction, agricultural and food processing, schools, colleges and universities and high technology sectors. Each of the utilities will be also be soliciting bids for new and innovative

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[4] As discussed in Section 4 below, the utilities plan to set aside program budgets for competitive bid solicitations as follows: SCE-$250 million, SDG&E-$51 million, SoCalGas-$34 million and PG&E-$173 million (applying 20% to the 2006-2008 program budget.)

programs that have the potential for longer term cost-effective energy savings, which may include commercialization/demonstration projects for emerging technologies.

By today's decision, we adopt the bid evaluation criteria that the utilities will use to develop their request for proposals (RFPs) for these competitive bid solicitations and select the winning bidders. As described in D.05-01-055, the bid evaluation process will be monitored by a subgroup of the utilities' program advisory groups, referred to as the "Peer Review Group," or "PRG." The PRG is chaired by Energy Division staff and PRG members have no financial interest in the outcome of the bid solicitations. Their independent assessment of the bid solicitation process will be appended to the utilities' compliance filings for Commission consideration of the results of the solicitations and final program offerings, later this year. At that time, we will review updated cost-effectiveness calculations to ensure that the portfolios continue to meet our savings goals and portfolio-level cost-effectiveness requirement, based on the responses to the bids and bid selections.

With respect to codes and standards advocacy programs, we adopt the recommendation presented by Energy Division and California Energy Commission (CEC) staff (Joint Staff) to credit 50% of the energy and peak savings resulting from those programs towards the 2006-2008 savings goals, subject to the condition that the actual savings are verified in studies conducted over the next three years. Consistent with Joint Staff's recommendations, we will consider these savings as a hedge against inherent risks that other programs may not meet their performance goals, as we evaluate the final program plans during the compliance phase of this decision. However, we defer consideration of whether these savings in new buildings and appliances installed after 2008 should count towards the savings goals in subsequent years, until we have fully considered this issue in the context of how we update the savings potential and associated goals for those years. We also clarify how we will treat these savings in cost-effectiveness and performance basis calculations for the 2006-2008 program cycle, and subsequent program cycles. Finally, we identify related issues that should be considered in the EM&V phase of this proceeding, in the context of updating our savings goals, or when we specify a risk/return incentive mechanism for energy efficiency programs, as appropriate.

Today's decision also describes the process whereby the utilities, with input from their advisory groups (and PRG subgroups) and the public, will continue to refine and improve program designs, implementation strategies and offerings throughout program implementation. For this purpose, we adopt fund-shifting rules that enable the utilities to make needed mid-course corrections to improve portfolio performance during implementation. In a separate phase of this proceeding, we are establishing EM&V plans for the 2006-2008 portfolio offerings and associated reporting requirements.[5] The results of the EM&V studies and regular reports on program costs and activities will provide this Commission, utility program administrators, their advisory groups and the interested public with the information needed to ensure that the overall portfolio remains cost-effective to ratepayers throughout program implementation.

Following today's decision, the compliance phase begins as the utilities complete their competitive bid solicitations and finalize their program plans for our consideration. As part of that process, we have directed the utilities to

[5] The EM&V plans and related protocols are being developed pursuant to the expedited review process established by D.05-04-051 in R.01-08-028.

conduct sensitivity analysis to assess whether those plans remain cost-effective and meet our savings goals if key parameters related to savings are lower than expected. We also require the utilities to hold a workshop with interested parties within 15 days of the effective date of this decision to discuss the energy efficiency avoided costs and cost-effectiveness calculator details used to estimate peak demand reductions. As discussed in this decision, besides being informational, this workshop should facilitate the identification of improvements to the "E3 calculator" that are relatively easy and quick to implement by the utilities, without causing delays to the current bid solicitation schedule. In addition, we expect that the workshop discussions will help Joint Staff and interested parties begin to identify what issues should be addressed during the post-compliance phase updating process described in today's decision.

In response to concerns over our current avoided cost valuation of peak demand reductions, in particular for those hours that are considered "critical peak," we take immediate steps today to evaluate the issues raised in this proceeding as part of the avoided cost updating process anticipated by D.05-04-024. In addition to considering refinements to the current avoided cost methodology with respect to the valuation of peak load reductions and related issues, this updating process will also consider (1) a common definition of peak demand reductions (and critical peak demand reductions or other terms, as appropriate) to use in evaluating energy efficiency resources, (2) refinements to the E3 calculator model that produces cost-effectiveness results and projections of peak load savings, and (3) improvements to the consistency in underlying load shape data and the methods by which that data is translated into peak savings estimates. As discussed in this decision, we intend to fully address these issues during the first half of 2006, or as soon thereafter as practicable.

We also address certain EM&V issues raised during this phase of the proceeding. In particular, we clarify that net-to-gross ratio assumptions will be adjusted (trued-up) on an *ex post* basis when we evaluate actual portfolio performance.[6] We also specify the expected useful life estimates to use in reporting portfolio performance and in calculating the performance basis for the 2006-2008 program cycle. In addition, we clarify that the Green Building Initiative does not create a free ridership issue with respect to projects that achieve a 20% improvement over Title 24 standards.

Pending the outcome of the compliance phase in this proceeding, today's decision authorizes the utilities to begin implementing on January 1, 2006 their non-competitive bid programs, as identified in their proposed portfolio plans. We extend this interim authorization until our final authorization of the proposed 2006-2008 energy efficiency programs, which is expected during the first quarter of 2006.

Once the roll out of energy efficiency programs begins in 2006, we will turn our efforts towards the establishment of a risk/reward incentive mechanism for energy efficiency, without further delay. We have already prepared the groundwork for developing such a mechanism by addressing administrative structure issues and threshold EM&V issues related to performance incentives earlier this year. As discussed in this decision, we believe that this task should be the next priority for our energy efficiency rulemaking, R.01-08-028. We will undertake the development of a risk/reward incentive mechanism for energy

[6] These ratios are used to estimate free ridership occurring in energy efficiency programs and are applied to gross program savings to net out the naturally occurring energy savings when determining the program's impacts.

efficiency in close coordination with the overall procurement incentive policies being developed in R.04-04-003, and with the post-compliance updating process we initiate today.

2. Background and Procedural History

We initiated this proceeding in our energy efficiency rulemaking[7] with the issuance of D.04-09-060. By that decision, we established the Commission's energy efficiency savings goals for 2006 and beyond to reflect the critical importance of reducing energy use per capita in California. For the three electric utilities, these goals reflect our expectation that energy efficiency efforts in their combined service territories should capture on the order of 70% of the economic potential and 90% of the maximum achievable potential for electric energy savings, based on the most recent studies of that potential. These efforts are projected to meet 55% to 59% of the utilities' incremental electric energy needs between 2004 and 2013. On the natural gas side, our adopted savings goals represent a 116% increase in expected savings over the next decade, relative to the status quo.[8]

In D.04-09-060 we also authorized a three-year program implementation and funding cycle for electric and natural gas energy efficiency (program cycle). We directed that the proposed energy efficiency plans and funding levels for the 2006-2008 program cycle be developed to meet the adopted savings goals for those years.

By D.05-01-055 and D.05-04-051, we further clarified our expectations regarding the development of the 2006-2008 energy efficiency plans. In

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[7] R.01-08-028.

[8] See D.04-09-060, pp. 2-3.

D.05-01-055, we returned the utilities to the lead administrative role in energy efficiency program selection and portfolio management—a role that they fulfilled in California prior to electric restructuring. We also clarified our expectations that the focus for spending ratepayer dollars in the future would be to meet or exceed our savings goals by capturing the most cost-effective energy efficiency resources as possible over both the short- and long-term.

As part of our overall approach to quality control, we established an advisory group structure, competitive bidding minimum requirements and a ban on affiliate transactions. These safeguards were designed to ensure that the program selection process would not favor programs designed and implemented by the utilities over those designed and implemented by third parties. In particular, we required that the utilities put out a minimum of 20% of their portfolio plans to competitive bid by third parties for the purpose of soliciting innovative ideas and proposals for improved portfolio performance.

We also directed the utilities to form program advisory groups (PAGs) representing local customer interests as well as national experts in the field of energy efficiency in order to: (1) promote transparency in portfolio development and design, (2) provide a forum for obtaining valuable technical expertise, (3) encourage collaboration among stakeholders and (4) create an open exchange of information in the development of the energy efficiency portfolios. A description of the advisory group process and list of PAG members is presented in Attachment 2.

In addition, we directed that a subgroup of non-financially interested members of each PAG, referred to as Peer Review Groups or "PRGs," be formed to review the utilities' submittals to the Commission. PRG membership includes Energy Division and Office of Ratepayer Advocates (ORA) staff, CEC staff and representatives from organizations without any financial interest in the program plans or competitive solicitations, such as the Natural Resources Defense Council (NRDC) and The Utility Reform Network (TURN).

The PRGs are required to provide written assessments of the utilities' overall portfolio plans, their plans for bidding out components of the portfolios per the minimum bidding requirements, the bid evaluation criteria utilized by the utilities and their application of that criteria in selecting third-party programs. We authorized Energy Division to hire a consultant to assist in its PRG responsibilities, including the review of the utilities' cost-effectiveness calculations for the proposed portfolio plans.

In D.05-04-051, we addressed threshold issues related to EM&V and directed the utilities to include in their applications a placeholder funding level for EM&V equal to 8% of program funding. We discussed the need to develop specific EM&V plans and funding levels on a separate track, so that the process could be informed by the protocol development activities coordinated by the Joint Staff. Finally, we directed the utilities to submit their proposed 2006-2008 energy efficiency plans and funding levels, together with the PRG written assessments, by separate application no later than June 1, 2005.

In addition, we updated the existing Energy Efficiency Policy Manual 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. Among other things, these rules describe threshold requirements for cost-effectiveness, and discuss how to calculate and present cost-effectiveness results for our consideration. They also summarize our determinations in D.05-01-055 regarding competitive bidding, advisory groups, affiliate rules and other administrative structure issues. In addition, the policy rules describe our expectations regarding the information that utility program administrators would file with their June 1 applications and during program implementation.

As described in Attachment 2, the utilities closely collaborated with their advisory groups and held public workshops as they developed their portfolio plans for our consideration. Their applications present a detailed listing of the comments and recommendations received during the PAG/PRG meetings and public workshops, and present the utilities' responses. As indicated by those responses, many of the specific recommendations were directly incorporated into the utilities' proposed portfolio plans.[9]

On June 1, 2005, the utilities filed their 2006-2008 portfolio plans and funding levels in this application docket. SDG&E, SoCalGas and SCE filed the PRG assessments with those applications. PG&E's PRG was granted a one-week extension in submitting their assessment. On July 8, 2005, PG&E filed the PRG assessment as a supplement to its June 1 application. The July 1 and July 8 PRG assessments included a draft report by TecMarket Works, Energy Division's consultant. That report reviewed the utilities' proposed plans with regard to cost-effectiveness and related issues based on information available as of mid-May.

On July 20, in response to PRG recommendations, PG&E filed an additional supplement to its application providing additional program detail and

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[9] PG&E: Volume 1, Prepared Testimony, Table 3-5; SCE: Exhibit SCE-2, Attachment III, Table 1.1; SDG&E and SoCalGas: Chapter I, Prepared Testimony, Attachment A.

modifying the scope of portfolio areas that would be open to third-party bidding. On July 21, PG&E filed an errata to its June 1 submittals.

A prehearing conference (PHC) was held on June 22 in San Francisco. As discussed at the PHC and in the Assigned Commissioner's subsequent scoping memo,[10] the proceeding is bifurcated into separate phases. Today's decision will address the portfolio plans and funding levels for non-EM&V related activities (Phase 1). As anticipated by the Commission in D.05-01-055, we will need to address specific EM&V plans for 2006-2008 energy efficiency activities and associated funding levels in a separate, subsequent Commission decision (Phase 2).

Once the Phase 1 issues are addressed by today's decision, the "compliance phase" begins as the utilities (with input from the PRGs) issue requests for proposals for competitive bids, review those bids, select winning bidders and finalize their program plans based on the responses. Per D.05-01-055, the Commission will allow the compliance filing to be submitted as an advice letter if the utility and its PRG are in full agreement on the final program plans and bid selections. If not, the utility will submit a compliance filing in this consolidated application docket requesting Commission approval of the final programs.[11]

Comments on Phase 1 issues were filed on June 30, 2005 by the following parties: Center for Small Business and the Environment, San Francisco Small Business Network and Small Business California (collectively referred to as CSBE in this decision), City and County of San Francisco (CCSF), ConSol, County of

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[10] See *Assigned Commissioner's Ruling and Scoping Memo*, dated June 30, 2005 in this proceeding.

[11] See D.05-01-055, pp. 103-104.

Los Angeles, NRDC, National Association of Energy Service Companies (NAESCO), ORA, Proctor Engineering Group (Proctor), TURN, Utility Consumers Action Network (UCAN) and Women's Energy Matters (WEM).

On July 1, the utilities jointly filed a supplement on estimated savings from codes and standards advocacy programs, after holding a public workshop on the proposed methodology. On that same day, TecMarket Works' final report on cost-effectiveness was also issued for comment by Administrative Law Judge (ALJ) ruling.[12] On July 8, 2005, opening comments on the issue of codes and standards savings were filed by CCSF, ORA and NRDC. PG&E also submitted additional program detail to the PRGs on July 8, 2005.

On July 15, the utilities filed requests for interim authorizations, pending Commission action on the compliance filings. Per the direction of the ALJ and Assigned Commissioner, the utilities jointly filed a Case Management Statement (also referred to as CMS) on July 18, 2005.[13] This filing articulates the current status of the undisputed and disputed issues in this proceeding among the utilities, PRG members and all parties filing opening comments in this proceeding.

On July 21, 2005, reply comments were filed by CSBE, Cal-UCONs, Inc. (Cal-UCONS)**,** CCSF, ConSol, jointly by Efficiency Partnership, Runyon Saltzman & Einhorn and Staples Marketing Communications, Inc., NRDC,

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[12] Administrative Law Judge's Ruling Soliciting Comments on TecMarket Works Final Report, dated July 1, 2005 in this proceeding.

[13] See *Administrative Law Judge's Ruling and Notice of Prehearing Conference*, June 8, 2005 and *Assigned Commissioner's Ruling and Scoping Memo*, June 30, 3005 in this proceeding. An extension to the filing date from Friday, July 15 to Monday at noon, July 18 was granted by ALJ Gottstein to allow PG&E sufficient time to assemble the final document on behalf of CMS participants.

NAESCO, PG&E, TURN, SDG&E / SoCalGas, and WEM. These comments respond to (1) positions of the parties as reflected in the June 30 opening comments and subsequent CMS, (2) updates to TecMarket Works draft report as reflected in the July 1 final report, (3) July 8 opening comments on codes and standards savings, and (4) the utilities' July 15 requests for interim authorization. The utilities submitted joint reply comments on codes and standards savings.

On June 30, 2005, the Assigned Commissioner issued a scoping memo confirming the preliminary categorization of the proceeding as ratesetting. The record of the proceeding provides sufficient information for us to evaluate the issues. No hearing is necessary.[14]

3. Scope of Proceeding

As outlined in the Assigned Commissioner's scoping memo, our consideration of the 2006-2008 program planning applications will focus on the following issues:

Phase 1:

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.04-09-050 and D.05-04-051, will the proposed portfolio plans meet or exceed the 2008 cumulative energy savings goal?
3. Are the portfolios and associated funding levels appropriately balanced between activities that address short-term and long-term savings?

[14] Assigned Commissioner's Ruling and Scoping Memo, June 30, 2005, p. 6.

4. Do the portfolio plans provide sufficient strategies and funding to address opportunities to reduce critical peak loads?
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, e.g., with respect to outreach, upstream marketing, codes and standards advocacy and other activities that can take advantage of statewide leverage?
8. Are the utilities' plans for competitive bidding reasonable and consistent with the 20% minimum requirement established by D.05-01-055? Are their proposed bid review criteria reasonable and consistent with the policy rules?
9. What fund shifting and program flexibility rules should be adopted for these program plans?
10. Are the overall funding levels proposed for the portfolio plans reasonable? What is the appropriate ratemaking treatment to recover these costs?

Phase 2:

Are the proposed EM&V plans and funding levels reasonable in light of the adopted EM&V protocols and portfolio plans? What is the appropriate ratemaking treatment to recover these costs?

Compliance Phase:

1. Has the utility solicited competitive bid proposals and evaluated them in a manner consistent with the Commission's approved bid evaluation criteria?
2. Has the utility adequately responded to any criticisms presented by the PRG (and Energy Division consultants) during the bid review process?
3. Is the resulting portfolio still expected to be cost-effective on a prospective basis?

By ruling dated May 11, 2005, in R.01-08-028, the Assigned Commissioner directed Joint Staff to review historical studies of savings attributable to the codes and standards work funded under energy efficiency that led up to the recent revisions to state appliance and building standards administered by the CEC, and to make recommendations on:

- What level of savings should be attributed to those activities for resource planning purposes, and
- Whether the Commission should revisit the issue of counting those savings towards the goals established for PY2006-PY2008.

Today's decision addresses the Phase 1 issues identified in the Assigned Commissioner's scoping memo and the codes and standards savings issues described above. By subsequent decision in this proceeding, we will address the EM&V related issues associated with the utilities' 2006-2008 portfolio plans (Phase 2). Compliance phase issues will be addressed either by Commission resolution, or by subsequent Commission decision in this proceeding, depending upon the PRG assessment of the utilities' bid selection process and final program plans.

4. Overview of Utility Portfolio Plans, Funding Levels and Competitive Bidding Proposals

In the sections that follow, we present an overview of the utilities' portfolio plans and funding levels, the components of those plans that each utility plans to put out for competitive bid, and their proposed bid evaluation criteria. With respect to the portfolio plans, our description is intended to highlight the overall approach to portfolio design, rather than present a detailed description of each program offering. Such details are available in the utility filings, which include descriptions of program objectives, implementation strategies and the types of energy efficiency measures or equipment offered under each program category.

The descriptions below reflect changes that the utilities have agreed to in response to the PRG assessments and interested parties' comments since their June 1 filings, as reflected in the CMS.

4.1. Portfolio Plans and Funding Levels

Each of the utilities has approached the development of its portfolio plan by (1) analyzing the technical potential for energy efficiency identified in recent studies (and used to establish the Commission's goals) and (2) developing specific goals for each of the market segments and end-uses based on this potential. Using this information, SCE, SDG&E and SoCalGas started with their current structure of program offerings designed primarily around customer sectors (e.g., residential - single family, residential - multi-family, commercial, industrial, and agriculture), and modified them accordingly. PG&E, on the other hand, took a different approach by redesigning its programs around market segments (e.g., mass markets, schools and colleges, office buildings, etc.), rather than continuing with a historic program structure that primarily organizes program strategies around regulatory customer rate classes.

We provide a brief overview of the utilities' portfolio plans and funding levels, below. At the end of each section, we present the utility's estimate of portfolio cost-effectiveness, from two perspectives: (1) the total resource cost (TRC) perspective, whereby the value of the energy savings is greater than the total cost of installed measures and all program costs and (2) the program administrator cost (PAC) perspective, whereby the value of energy savings outweighs the cost of utility financial incentives to customers and all other program costs.

Attachment 3 presents a short description of the programs in each utility's portfolio, the share of funding allocated to the program, expected megawatt hour

(MWh), summer peak megawatts (MW) and Mtherms savings, and the associated program-level TRC benefit-cost ratios. Attachment 4 also presents a program-by-program break down of the proposed portfolio budgets. Attachment 4 also presents a summary table with projected portfolio savings compared to our goals, by utility and program year.

4.1.1. SCE

SCE's proposed portfolio is based on a wide variety of programs for most sectors. Many of the programs are continuations and expansions of well-tested programs with established track records. Some programs will seek out innovative ideas for new opportunities, such as the Innovative Design for Energy Efficiency Applications (IDEEA) and Innovative Design for Energy Efficiency (INDEE) solicitations, that will seek new program designs and unique and newer energy efficiency technologies and/or approaches to capturing cost-effective energy efficiency. (See Section 4.2.1.2 below.) In addition, SCE has developed three flagship programs that are designed to produce efficiencies in implementation by combining multiple previous programs under a few umbrellas. These are the Business Incentive Program, the Residential Energy Efficiency Rebates and the Comprehensive HVAC program. Among them, these three large programs account for approximately one-third of the overall annual budget.

In particular, through the Business Incentive Program, SCE has integrated several previous stand-alone programs offered to the nonresidential sector (commercial, industrial, agriculture) into a centralized "one stop" source for audits, design assistance and rebates. In this way, SCE expects to more effectively tap the energy savings potential of the nonresidential sector, and incur lower program administrative costs.

Through its Comprehensive HVAC program, SCE plans to expand program activities that tap the savings potential in this sector, particularly with respect to the installation of efficient air conditioners. In addition, SCE is offering a new program, "retro-commissioning" in recognition of the significant energy savings potential in existing buildings. Retro-commissioning is a quality assurance program that reduces energy use by correcting operational inefficiencies in existing buildings with respect to the operation of HVAC, lighting, domestic hot water systems and related controls.

As part of its flagship Business Incentive Program, SCE is also initiating a new "on-bill" financing program, which offers eligible customers the option to finance their energy efficiency project through an on-the-bill repayment of the cost (after rebate) of installing qualified energy efficiency measures. SCE's program will initially target small businesses.

Additional program-specific information is provided in Attachments 3 and 4.

SCE proposes to spend $675 million (not including EM&V) over three years to save an incremental 3,292 giga-watt hours (GWh) and 714 MW annually by 2008. No therms are included in the TRC. The three-year portfolio is forecast to have a TRC benefit/cost ratio of 2.76 and a PAC ratio of 3.58.

4.1.2. PG&E

Based on its analysis of historical program records, load profile data and energy savings potential studies, PG&E developed a "Market Integrated Demand Side Management" portfolio, which organizes program offerings and strategies around "mass market" and "targeted market" segments.

PG&E's mass market is comprised of single-family residential retrofit, multifamily residential and small commercial customers. PG&E has organized these customers together as a single market because they have similar purchasing patterns and strategies, use the same vendors, and have similar approaches to energy efficiency. The mass market program is designed to provide a simple, but extensive menu of readily available energy efficiency measures with fixed rebate levels, and clear energy savings.

For some measures, the customer simply purchases and installs the measure, then submits the rebate application often on-line through "E-rebates" or obtains a "point of purchase" rebate at the store where the measure was purchased. Other energy efficiency measures will be available through contractors, who will also receive training on quality installation and maintenance to maximize equipment savings. PG&E expects that the mass market program budget will cover increased air conditioning services, based on the market potential of those services. Upstream program strategies involving manufacturers, distributors and retail vendors will be coordinated on a statewide basis.

PG&E is unable to offer on-billing financing at this time due to an ongoing upgrade to its billing system that precludes changes to billing until the upgrade is complete. However, as part of its mass market program, PG&E plans to pilot test an internet-based financing option for small business customers in 2006. PG&E believes that this approach will be less costly to develop and implement than on-bill financing—and can be available sooner to its customers. Based on evaluation of this pilot and the on-bill financing options offered by SDG&E and SoCalGas, PG&E may improve upon this option or proceed to incorporate a financing option within its energy billing system.

In addition, PG&E is organizing program strategies around the following targeted markets:

1) Agricultural and Food Processing includes food processors, wineries, dairies, greenhouses, and refrigerated warehouses;
2) Schools, Colleges and Universities includes K-12 schools, community colleges, universities and campus housing.
3) Retail includes general retail, big box retail, supermarkets, restaurants and food services;
4) Industrial includes fabrication industries, process industries (including waste water and water treatment) and heavy industrial manufacturing;
5) Medical includes hospitals, assisted living facilities, skilled nursing facilities, and medical specialty facilities;
6) Commercial includes office buildings, governmental facilities, and large institutional facilities;
7) Hospital Facilities include lodging, resort, and hotel facilities;
8) High Technology laboratories, clean-rooms, and data centers, and
9) Residential New Construction targets market actors involved in residential construction.

PG&E's program strategy for the targeted markets is to examine customers' existing facilities and expansion plans and develop a portfolio of services that best meets their needs and maximizes energy savings over time. PG&E intends to integrate both new construction and retrofit opportunities at a particular customer site. The portfolio of services would incorporate best practices, a variety of energy efficiency measures, financing, incentives, retro-commissioning, design assistance and equipment rebates. For particular large customers or customers that can serve to generate market response by other customers within the market segment, PG&E may assign an industry expert to serve as a one-point contact. The industry expert could be a third-party expert or PG&E staff, depending upon the technical expertise required.

Additional program-specific information is provided in Attachments 3 and 4.

PG&E proposes to spend $867 million (not including EM&V) over three years to save an incremental 3,020 GWh, 562 MW and 51,756 million therms (MTh) on an annual basis by 2008. The three-year portfolio is forecasted to have a TRC benefit/cost ratio of 1.61 and a PAC ratio of 2.24.

4.1.3. SDG&E and SoCalGas

The portfolio plans of SDG&E and SoCalGas reflect a standard program-oriented approach designed around customer sectors. In addition to continuing with successful information and audit services and direct install/rebate programs, SDG&E and SoCalGas will also offer new program strategies, including an on-bill financing program targeted to small businesses, local governments and multi-family building owners.

For example, to enhance participation and the comprehensiveness of measures installed under its existing multifamily rebate program, SDG&E plans to expand eligibility requirements (from 5+ units to 2+ units), offer new promotions for refrigerator and room air conditioning recycling, introduce rebates for mobile homes common areas, provide a "comprehensive approach incentive" to program participants, as well as introduce on-bill financing to this market.

SDG&E and SoCalGas also propose expanding several existing programs and market strategies. In particular, SDG&E points to the Advanced Home Program proposed by SoCalGas and SDG&E, which will target new construction "lost opportunities," including improvements to HVAC ducting and HVAC system maximum cooling capacity, which builders may not elect to incorporate into their home designs to meet the Title 24 requirements. Additionally, the Advanced Home Program will promote performance-based design levels of at least 15% more efficient than the energy code.

SoCalGas plans to expand efforts to replace standard coin-operated laundry machines with high-efficiency clothes washers and dryers, in order to meet its goal of replacing all such equipment by 2013. SoCalGas will also expand residential outreach efforts with the goal of providing all residential customers with "virtual auditors" by 2013. These interactive electronic assessment devices provide real-time energy consumption information and site-specific energy efficiency recommendations to the customer.

All of SoCalGas' programs will be closely coordinated with those offered on the electric side by SCE, and several of its core programs will be implemented in conjunction with SCE's corresponding programs.

SDG&E proposes to spend $257.5 million (not including EM&V) over three years to save an incremental 1,022 GWh , 213 MW and 9,537 Mth. SDG&E's three-year portfolio is forecasted to have a TRC benefit/cost ratio of 1.94 and a PAC ratio of 2.18.

SoCalGas' proposed energy efficiency budget is $169 million (not including EM&V) over the three-year program cycle. Natural gas savings are estimated at 60,696 Mth over the three years. SoCalGas' three-year portfolio is forecasted to have a TRC benefit/cost ratio of 1.41 and a PAC ratio of 1.80.

Additional program-specific information is presented in Attachments 3 and 4.

4.1.4. Statewide Programs and Coordination

Each of the utility portfolios includes support for statewide program activities in the areas of emerging technologies, support for codes and standards, and statewide marketing and outreach. Table 3 compares current funding for these programs with the utilities' proposed funding levels.

All four utilities propose to continue and build upon the success of existing statewide marketing and outreach activities. Current annual funding (approximately $20.5 million) for statewide marketing and outreach will not significantly increase, but future efforts will be more fully coordinated under the successful Flex Your Power umbrella of marketing and media partnerships. This program will continue to use a broad range of marketing and outreach strategies, including television, radio and newspaper ads, printed educational materials, events, a comprehensive website resource serving all parties statewide, a biweekly electronic newsletter, forums and workshops, and partnerships with businesses, local governments, water agencies, non-profits and others, including the state and federal government agencies responsible for energy and water efficiency.

The Flex Your Power statewide campaign will closely coordinate with the utilities, third-party implementers and other program providers to develop materials, events, the website and other outreach strategies that provide program information using consistent and compelling messages. Specific targeted campaigns for rural areas and to reach California's Hispanic population are also funded under the program.

The utilities and Efficiency Partnership plan to submit a joint plan on statewide marketing and outreach initiatives by the end of the year. This plan should address issues including: co-branding with third-party programs, coordination with both utility and non-utility program-specific marketing activities (particularly for non-resource programs), and marketing targeted at hard-to-reach market segments.[15]

To support improvements to building and appliance codes and standards, the utilities propose to increase their budgets for Codes and Standards advocacy work over the 2006-2008 program cycle. As indicated in Table 3 statewide annual funding will increase by 45% from approximately $2.9 million to $4.2 million per year. As part of this statewide program, the utilities will fund Codes and Standards Enhancement ("CASE") studies that will target enhancements to those standards. In addition, the utilities will work with customers and other market participants to ensure the implementation of current building codes and standards, and provide technical training and recommendations to builders, contractors, local building inspection and permitting departments to assist in implementing the new standards that took effect in October 2005.

The utility portfolios also include expanded funding for emerging technologies, in response to the Commission's direction in D.05-04-051. Emerging technologies are defined as new energy efficiency technologies, systems or practices that have significant energy savings potential but have not yet achieved sufficient market share (for a variety of reasons) to be considered self-sustaining or commercially viable. Emerging technologies include early prototypes of hardware, software, design tools or energy services.

Collectively, the utility portfolios include a total of $29.8 million in funding for emerging technologies over the three-year program cycle. This represents an

[15] See Joint IOU Case Management Statement Regarding Energy Efficiency Applications for 2006-2008 Programs and Budgets, July 18, 2005, Attachment 1; and Reply Comments of Pacific Gas and Electric Company, July21, 2005, Attachment 1, page 7.

increase of approximately 150% in annual funding, relative to the 2004-2005 program cycle. (See Table 3.) The utilities will continue to coordinate this program through the Emerging Technologies Coordinating Council, which is a group of representatives from the utilities and the CEC, charged with administrating California utility ratepayer funded programs for energy-related research and energy efficient emerging technologies.

In addition, each of the utilities will be working with upstream market participants, e.g., manufacturers, retailers and distributors, in order to increase the acceptance and availability of energy efficient measures and equipment in all market sectors. Program strategies for upstream market participants include wholesale discounts to the retailer (whereby the manufacturer receives the incentive payment based on delivery verification) and point of sale discounts provided by the retailer (whereby the retailer received the incentive payment based on sales information), among other approaches. The utilities are also coordinating to develop consistent rebate and participant rules for statewide offerings, with input from their joint PAG/PRG advisory groups.

The utilities plan to fully coordinate all of these efforts through joint meetings and the development of joint plans for these activities, as described more fully in Section 6.7 below.

4.1.5. Integrated Resource Programs

In their program offerings, the utilities also include strategies to integrate energy efficiency offerings with demand-response and distributed generation solutions. For example, for each of its targeted market segments, PG&E will include demand response and distributed generation program options in the marketing and outreach of energy efficiency offerings, in order to determine the best combination of resources to meet the particular customer's needs. In addition, PG&E will include information on customer options for participation in those programs to small customers as part of its mass market program.

SCE, SoCalGas and SDG&E are also initiating a "sustainable communities" program, which offers a higher tier incentive for sustainable building projects that significantly exceed Title 24 standards. Qualified projects will incorporate high performance energy efficiency and demand reduction technologies, along with clean on-site generation, water conservation, transportation efficiencies and waste reduction strategies. In 2006, SoCalGas will be jointly working with SCE on a sustainable communities program for the City of Santa Monica. SoCalGas and SDG&E have also incorporated sustainable design concepts, green building practices and emerging technologies into their new construction/advanced home demonstration programs.

4.1.6. Partnership Programs

The utilities plan to continue their history of partnering with local governments and other entities in order to effectively tap the energy savings potential in local communities. The partnerships are already defined in some instances, and in others they will be finalized once the competitive bid solicitations are completed.

For example, SDG&E proposes partnerships with the City of San Diego, the City of Chula Vista and the County of San Diego that will, among other things, test an expedited permit processing for construction projects that exceed Title 24 standards—as an alternative to providing financial incentives to contractors and builders. SDG&E will also collaborate with the San Diego County Water Authority and City of San Diego Water Resources to provide rebates to customers for energy efficiency clothes washers (residential and commercial) that also meet these agencies' water efficiency standards. SDG&E's

June 1 application includes a variety of partnership activities, comprising approximately 10% of its non-EM&V budget.

SCE will continue seven current partnerships with local governments and add four new ones in 2006-2008. These include partnerships with counties and cities (e.g., Kern and Riverside Counties and City of Bakersfield) to provide energy information and education and facilities retrofits, partnerships for new construction assistance and emerging technologies demonstrations (e.g., California Community College system), among others. SCE has budgeted approximately $44 million for its local government partnerships program.

PG&E has taken a two-step approach to the development of its partnership programs. First, PG&E requested and reviewed program abstracts from potential local government partners and developed a short list of partners in early summer. PG&E received approximately 40 abstracts, and has identified 17 local government partnerships and three statewide government partnerships for its 2006-2008 partnership portfolio. Eight of them are continuations of 2004-2005 successful partnerships, including the statewide partnership with the University of California/California State University system to target government facilities in the large commercial, high tech and industrial process markets.

Local partnerships include the Silicon Valley Energy Partnership and the San Francisco Peak Energy Program. Both represent partnership efforts to achieve PG&E's electric and natural gas goals for residential and non-residential customers in those geographic regions. Each local government partnership will focus on the markets that offer the greatest opportunity for energy savings in their jurisdiction. The specific blend of markets and strategies will be determined for each local partnership once the competitive bid solicitation is completed, and specific budgets and energy goals will be developed at that time.

SoCalGas has also been exploring local partnership arrangements, and plans to continue collaborations with the Energy Coalition, Bakersfield / Kern County Energy Watch, the South Bay Cities Energy Efficiency Savings Center, and the Ventura County Regional Energy Alliance, among others. SoCalGas is allocating $12 million, or approximately $4 million per year for this purpose.

SoCalGas and PG&E will finalize all partnership plans once the competitive bid solicitations are complete, and submit those plans with their compliance filing. In their view, this sequence will avoid any overlap of program offerings or delivery mechanism and will ensure that the partnership arrangements appropriately complement the portfolio.

4.1.7. Co-Branding With the Climate Change Action Registry

The policy rules adopted in D.05-04-051 for 2006 and beyond direct the utilities to "explore with their advisory groups ways in which to co-brand with the California Climate Action Registry (Registry) that will encourage the accurate reporting of emissions in California," and describe how such co-branding will be supported through their proposed programs.[16]

Each utility reports that it is a member of the Registry and plans to incorporate co-branding efforts into its program offerings during implementation. SDG&E and SoCalGas identify the statewide marketing and outreach program and their own industrial and commercial program offerings as specific opportunities for providing information about the Registry to customers,

[16] D.05-041-051, Attachment 3, p. 4.

and encouraging them to join the Registry.[17] SCE also includes references to planned co-branding activities with the Registry in the descriptions of its proposed Industrial Energy Efficiency and Local Government Partnerships Programs.[18] PG&E states that it plans to tailor co-branding efforts to each program during implementation. For this purpose, it will continue to develop the following strategies with further input from its advisory groups, along with others that may be suggested by advisory group members.[19]

- Non-utility implementers will be encouraged to join the Registry;
- All implementers will be provided training on the Registry and its programs, so that they can educate participants in energy efficiency programs about the Registry and the benefits of joining;
- Printed information materials on the Registry can be distributed to energy efficiency program participants;
- Programs that target large energy users can include a brief presentation to energy efficiency program participants about the Registry and the benefits of participation. Interested participants can be encouraged to sign up for one of the in-depth informational presentations that are conducted frequently by the Registry around the state, and
- Facilities to educate the public about energy efficiency (such as the Pacific Energy Center) can add displays about the Registry. Costs for these displays should be added to these programs.

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[17] See: *Prepared Testimony of Athena M.Besa for SDG&E,* July 1, 2005, Chapter II, pp. AMB-20 and AMB-27; *Prepared Testimony of Athena M. Besa for SoCalGas*, July 1, 2005, Chapter II, p. AMB-19.

[18] SCE's 2006-2008 Energy Efficiency Program Plans (SCE-3, Appendix 10.3), June 1, 2005, pp. 56 and 244.

[19] PG&E 2006-2008 Energy Efficiency Program Portfolio, Volume 1, Prepared Testimony, June 1, 2005, pp. 2-9 to 2-10.

4.1.8. Green Buildings Initiative

In July, 2004, Governor Schwarzenegger issued Executive Order S-20-04, also referred to as the "Green Buildings Initiative" or "GBI." Noting that commercial buildings utilize 36% of the state's electricity and account for a large portion of greenhouse gas emissions, the GBI directs the State to "commit to aggressive action to reduce state building electricity usage" by retrofitting, building and operating the most energy and resource efficient buildings by taking all cost-effective measures described in the Green Building Action Plan for facilities owned, funded or leased by the state.[20] The State is also urged to encourage cities, counties and schools to do the same.

More specifically, the GBI establishes a goal to increase State-owned building efficiencies by 20% (compared to the Title 20 and 24 non-residential standards adopted in 2003), through cost-effective energy efficiency measures and distributed generation technologies. These measures should include (but are not limited to) designing, constructing and operating all new and renovated state-owned facilities paid for with state funds as "LEED Silver" or higher certified buildings, as well as purchasing or operating Energy Star electrical equipment whenever cost-effective.[21]

The GBI solicits the active participation of government entities not directly under the Governor's direct executive authority, including the Commission, to actively participate in this effort. In particular, the GBI urges the Commission to apply its energy efficiency authority to support a campaign to inform building

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[20] Executive Order S-20-04, December 14, 2004.

[21] The "LEED" (Leadership in Energy and Environmental Design) Green Buildings Rating System is a voluntary national standard for developing high-performance sustainable building practices.

owners and operators about the compelling economic benefits of energy efficiency measures, and to improve commercial building efficiency programs "to help achieve the 20% goal." The Commission is required to submit a biennial report to the Governor commencing in September 2005, on progress towards meeting these goals.

In our energy efficiency rulemaking proceeding, R.01-08-028, the Assigned Commissioner gathered information on how currently authorized energy efficiency programs could be utilized to accomplish the goals outlined in the GBI and sought comments on how subsequent program design and funding might be modified to further support that initiative.[22] As part of the planning process for the 2006-2008 program cycle, the utilities were directed to include GBI initiatives in their 2006-2008 Energy Efficiency program portfolios, based on further discussion with their advisory groups.

In developing their portfolio plans, the utilities have incorporated strategies to improve commercial building efficiencies into the portfolio offerings that will be implemented by the utilities themselves, third parties and through the partnership arrangements with local governments and other entities. Rather than establish a separate statewide program focused exclusively on commercial and/or state buildings, each utility has integrated the GBI initiatives into the portfolio plans in a manner that can be responsive to differing customer needs across the various market sectors.

SCE's programs to support the goals of the GBI include Retrocommissioning, Savings by Design, Sustainable Communities, and

[22] *Assigned Commissioner's Ruling Requesting Information in Response to the Governor's Executive Order S-20-04*, December 29, 2004, Commissioner Susan P. Kennedy.

Education, Training and Outreach programs. These programs are designed to focus on the commercial and government sectors as well as other market sectors. SDG&E's programs include Building Operator Certification, San Diego Resource Center (Partnership with San Diego Regional Office), Savings by Design, and Sustainable Communities programs. PG&E's portfolio includes market-focused programs to support the GBI, such as Mass Market offerings to small businesses and the Targeted Market programs, particularly the Schools and Colleges, Office and Institutional Buildings, and Education and Training programs. Finally, SoCalGas' portfolio includes Building Operator Certification, Energy Efficiency Education & Training, Energy Efficiency Delivery Channel Innovation Program, Savings by Design, and Sustainable Communities programs.

Attachment 5 describes the utilities' GBI program offerings in greater detail, and presents tables with funding and projected savings levels over the 2006-2008 program cycle. As described in that attachment, and in addition to what has already been discussed, many of the utility program offerings will provide seminars, training, workshops and certification programs that educate building operators and facilities staff on how to incorporate energy efficiency practices and measures in their facilities. In addition, programs such as "Savings by Design," "Sustainable Communities Programs" and others that specifically focus on industrial, agricultural and commercial sectors will provide energy efficiency audit services and offer financial incentives for the purchase and installation of efficient equipment in both government and private buildings.

Attachment 5 also describes the statewide partnership programs with the University of California/California State University, the California Community Colleges and the California Department of Corrections that will offer incentives for retrofit and new construction projects, continuous commissioning and other initiatives to improve building efficiencies. The utilities are also developing a series of local government partnerships that will emphasize raising efficiency in local government facilities, as well as work to increase efficiency in businesses and homes. They are all increasing their efforts during 2006-2008 to support Code and Standards Enhancement Studies that promote the upgrade and enhancement to existing California building and appliance codes. Finally, the utilities anticipate that additional program services to support the GBI will also become available through the competitive solicitation process.

Overall, the utilities' portfolio plans will increase funding for GBI-related activities from approximately $170 million per year in 2004/2005 to $230 million per year during the 2006-2008 program cycle, for an increase of approximately 36% in annual program funding. The savings associated with these efforts over the 2006-2008 program cycle are projected at 526 MW, 2,843 GWh and 45,436 Mth, for all four utilities combined. Funding specifically targeted to state buildings is projected to increase by approximately 58%, from the current level of approximately $10 million to over $15 million per year over the 2006-2008 program cycle. The utilities estimate that these efforts will produce savings in state buildings of 23 MW, 135 GWh and 1,766 Mth, for all four utilities combined.

Attachment 5 presents additional information on GBI funding and associated savings, broken down between government buildings (Federal, State, Local) and private buildings (Commercial, Industrial, Agricultural).[23] The utilities will continue to report this type of information and work with Energy Division to develop the appropriate tracking mechanisms, so that the utilities, their advisory groups and Energy Division can assess whether the utility offerings and funding levels will meet the GBI efficiency improvement goals. This assessment will be included in Energy Division's biennial report to the Governor.

4.2. Competitive Bid Components and Evaluation Criteria

All four utilities plan to solicit bid proposals that will (1) enhance proposed program offerings through improved design and implementation, or (2) offer new program strategies and energy efficiency technologies designed to tap longer-term savings potential. Overall, SCE has proposed setting aside approximately 37% of total portfolio funding for this purpose over the three-year program cycle, for a total of approximately $250 million. For 2006, PG&E plans to solicit bids for a minimum of $49 million of the total 2006 budget, or a minimum of $173 million (20%) over the three-year funding cycle will be approximately 40-50%, on average. SDG&E and SoCalGas each plan to solicit third-party proposals for a minimum of 20% of their total portfolio funding, or approximately $51 million and $34 million over the three-year funding cycle, respectively.

[23] Source: Joint Utility August 18, 2005 response to Energy Division Data Request, dated August 5, 2005.

We describe the portfolio components each utility will bid out, the bid solicitation process, and the evaluation criteria they will use in the following sections.

4.2.1. SCE

SCE proposes offering three unique types of bid solicitation: (1) Targeted, (2) Innovative Design for Energy Efficiency Applications (IDEEA) and (3) Innovative Design for Energy Efficiency (INDEE). SCE plans to conduct each of these solicitations during the latter months of 2005 to allow for program implementation as early as possible in 2006. For IDEEA and INDEE, SCE proposes conducting additional solicitations during the three-year program cycle.[24] We describe these solicitations further below.

4.2.1.1. Targeted Solicitation

During the planning process, SCE identified various program areas to target under its competitive bid solicitation, where performance could be enhanced through improved design and implementation. These are: appliance recycling, home energy efficiency surveys, new homes, comprehensive HVAC, retro-commissioning, industrial energy efficiency, agricultural energy efficiency, small business direct install and education, training and outreach.[25] The solicited enhancements may include greater outreach, improved penetration, improved coordination with other programs, or a creative delivery approach which may reduce ratepayer cost. In addition to improving cost-effectiveness, winning

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[24] See Testimony of Southern California Edison Company in Support of Its Application for Approval of Its 2006-08 Energy Efficiency Programs and Public Goods Charge and Procurement Funding Requests, June 1, 2005, p. 60.

[25] Ibid., Appendix 10.1, Attachment III, Table 1.2: Competitive Bid Analysis.

proposals under the targeted solicitation should also contribute to program implementation and design through new and innovative approaches. SCE has set aside approximately $215 million to fund winning bids in targeted solicitation over the three-year program cycle.[26]

4.2.1.2. IDEEA and INDEE Solicitations

In addition to targeted solicitation, SCE proposes conducting a general solicitation seeking new program designs with potential to deliver cost-effective energy efficiency savings during the program cycle. SCE suggests that the overall IDEEA portfolio must provide cost-effective energy efficiency opportunities similar to the performance of its overall program portfolio. The winning bids must also provide installed energy savings in the years they are funded.

SCE proposes conducting two IDEEA solicitations in consecutive years beginning in 2005. Selected IDEEA program providers will be allowed up to two years to implement and complete their programs, but SCE requests that it be permitted to conclude any program sooner, or reduce its funding level, if it is not achieving appropriate results. Conversely, program funds may be increased for a particular IDEEA program if the design is so effective that it should be expanded, or “mainstreamed,” into the larger program portfolio. SCE has proposed setting aside approximately $33 million to fund winning bids drawn from the IDEEA solicitations over the program cycle.[27]

Under the INDEE solicitation, SCE will seek bids that place more emphasis on innovation and the promotion of promising technologies, than on current

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[26] *Ibid.*, pp. 61-62.

[27] See budget tables in Attachment 4.

energy savings. More specifically, SCE will search for unique and newer energy efficiency technologies and/or very distinctive approaches to capturing cost-effective energy efficiency for the next generation of energy efficiency programs. SCE has set aside approximately $5.8 million to fund winning INDEE bids over the program cycle.[28]

4.2.1.3. Bid Process and Evaluation Criteria

SCE proposes a bid process that incorporates the two-stage approach utilized during the 2004-2005 IDEEA solicitation. The bid process will begin with a pre-announcement sent to all energy efficiency providers, engineering firms, consultants, government organizations, and non-profit organizations. These organizations will be encouraged to share and forward program information to ensure widest coverage. SCE will also post an announcement on the targeted, IDEEA, and INDEE programs bidding process on its website, the Commission's website, and other energy efficiency forums as available.[29]

SCE plans to start the sealed bid process with the issuance of a RFP, which will be sent to the list used for the announcement, as revised to reflect new parties and updated information received. The RFP will also be available for download on SCE's website. SCE proposes that prospective bidders be required to register by sending an e-mail to SCE before they submit a proposal in response to the RFP.

Due to the substantial interest the RFP is likely to generate, and the subsequently large volume of submissions, SCE proposes asking bidders to first submit a program abstract with technical documentation substantiating claimed

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[28] Ibid.

[29] *Ibid.* p. 64.

energy savings. SCE program managers, analysts, and engineers will review the abstracts and make recommendations to the energy efficiency portfolio managers, based on Stage 1 review criteria. Selected abstracts will undergo a technical energy savings review from SCE's Design and Engineering group. Selected Stage I bidders will be notified of their eligibility to submit a detailed proposal based on the concepts of the abstract.[30]

Stage 2 of the evaluation process will require bidders to submit full proposals electronically and in paper form. SCE proposes assigning evaluation teams typically consisting of program management, measurement, and engineering members, who will be charged with, among other things, assessing the cost-effectiveness of particular bids and rating them on a high to low scale. After the evaluation teams have completed their rating of the proposals, they will submit them to portfolio managers for determination of the program's sustainability. If a program is selected for implementation, any changes suggested by the portfolio managers or evaluation teams must be incorporated into the program design by the winning bidder before they will be accepted.

In evaluating Stage 1 abstracts, SCE will consider the target market, the proposed method(s) for achieving the program goals, the program goal metrics (e.g., energy savings for resource programs and cost-effectiveness), program innovation and program budget. For Stage 2, SCE proposes using the evaluation criteria and weighting of those criteria presented in Attachment 6.

4.2.2. PG&E

PG&E plans to issue competitive bid solicitations for virtually all areas of its energy efficiency portfolio that are expected to produce measurable energy

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30 *Id.*

savings. One exception is upstream lighting programs, as PG&E contends that it already has a successful program in this area and does not believe that there is any real potential for additional savings. In addition, in response to PRG recommendations, PG&E plans to exclude from competitive bidding certain activities within the Mass Market program that will be consistent statewide among the utilities. Instead, PG&E proposes that such activities be managed or coordinated by the utilities or through a single or small number of coordinated contractors.[31] Nonetheless, PG&E expects to leave open for competitive bid proposals implementation strategies for services, or the selective provision of products within those statewide and upstream activities.

PG&E intends to issue RFPs in three different areas: (1) Targeted Markets, (2) Innovative Savings, and (3) Market Integrated Demand Side Management (MIDSM). The bids, once received, will be evaluated in a two-stage process similar in nature to that suggested by the other utilities.

PG&E will finalize the allocation to each area and market when it can better determine the extent to which it is able to meet its savings targets for competitively-bid third-party programs. Overall, PG&E will put to competitive bid a minimum of 20% of its total portfolio funding. PG&E expects that 45-55% of its portfolio would be open to competitive third party proposals.[32]

4.2.2.1. Targeted Markets

PG&E intends to offer an RFP for Targeted Markets, where parties will bid programs targeting one or more of the following market sectors: mass market,

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[31] See Supplement to Application of Pacific Gas and Electric Company, June 20, 2005, pp. 3-4.

[32] June 22, 2005 Prehearing Conference Reporter's Transcript, pp. 68-69.

agricultural and food processing, schools, colleges and universities, retail, heavy industry, medical, large commercial, hospitality, residential new construction, and high technology. In evaluating targeted markets proposals, PG&E will only compare like against like. Agricultural process proposals, for example, will not be compared against proposals targeting hospitals or schools.[33]

For statewide programs and upstream activities within the mass market sector, PG&E will solicit proposals for implementation strategies for services or the provision of selected products. Examples include: (1) small commercial refrigerator/freezer maintenance and tune up services (2) direct install activities consistent with the statewide programs, (3) service delivery for small air conditioners (residential and small commercial, (4) new activities linking audits and direct install, and (5) new activities targeting boiler upgrades or replacement for multifamily or small commercial facilities.[34]

In response to the Targeted Markets RFP, PG&E hopes to achieve greater market penetration, reduce costs, and minimize lost opportunities. PG&E intends to set aside approximately 70% of funds allocated for third-party bidding for Targeted Markets.[35]

4.2.2.2. Innovative Savings and Market Integrated Demand-Side Management (MIDSM)

PG&E plans to offer two RFPs for Innovative Savings programs – one each in 2006 and 2007 – seeking programs with a focus on long-term, cost-effective

[33] Pacific Gas and Electric Company 2006-2008 Energy Efficiency Program Portfolio, Volume I – Prepared Testimony, June 1, 2005, p. 5-3.

[34] June 22, 2005 Prehearing Conference Reporter’s Transcript, p. 69.

[35] Pacific Gas and Electric Company 2006-2008 Energy Efficiency Program Portfolio, Volume I – Prepared Testimony, June 1, 2005, p. 5-5.

savings. Because these activities will be new and untested, and may be expensive to implement in the short term, programs selected through these RFPs will be tested on a small scale before they are considered for implementation on a larger scale. PG&E proposes that approximately 20% of competitive bid funds be allocated to Innovative Savings programs.

PG&E also intends to offer a single MIDSM RFP, seeking programs that assist customers in choosing and implementing a package of demand side measures such as conservation, demand response, and self-generation. PG&E tentatively proposes to set aside 10 percent of third-party solicitation funds be set aside for MIDSM programs, though they note that this funding allocation is subject to change based on the responses received from the various RFPs. PG&E plans to hold this solicitation later in 2006, by which time it will have completed additional work on the development of this RFP in further consultation with the PRG.[36]

4.2.2.3. Bid Process and Evaluation Criteria

Like SCE, PG&E proposes to evaluate bids through a two-stage process, in order to minimize the burden on third-party bidders while making sure that PG&E gets all of the information needed to select the most promising proposals. For the first stage, PG&E proposes that bidders only be required to submit summary information about their program proposals. These initial submittals will then be reviewed by PG&E, and the most promising proposals will then be moved on to Stage 2. At this time, bidders will be required to submit a fully developed proposal for further evaluation. In evaluating bids, PG&E intends to

[36] CMS, Attachment 6, p. 7.

use the Stage 1 and Stage 1 evaluation criteria and weightings presented in Attachment 6.

4.2.3. SDG&E and SoCalGas

As described below, SDG&E and SoCalGas also propose to solicit competitive bids for targeted and innovative program ideas.

4.2.3.1. Targeted Solicitation

SoCalGas has developed 13 different concepts for its targeted bid solicitation, concentrating largely on residential and cross-cutting programs. For the residential segment, SoCalGas' solicitation will include requests for a mobile/manufactured home innovative outreach and measure installation program, a residential upstream central heating replacement program and a school-based residential energy efficiency program. Targeted non-residential market segments include small-medium industrial processors (e.g., food processors, metal fabricators and automotive customers) and purchasers of used foodservice equipment. SoCalGas' RFP for cross-cutting program concepts will solicit a coin-operated commercial clothes washing replacement program, a comprehensive upstream/midstream/downstream water heating replacement program, and an energy efficient equipment exchange program, among others.[37]

SDG&E identifies specific areas for targeting solicitation, including: (1) a multi-family affordable housing retrofit program, (2) an advanced home renovations program, (3) an appliance recycling program, (4) a nonresidential technology demonstration program, (5) an HVAC training, sizing, and duct

[37] Application of Southern California Gas Company for Approval of Natural Gas Energy Efficiency Programs and Budgets for Years 2005 through 2008, Chapter II – Prepared Direct Testimony of Athena M. Besa, June 1, 2005, pg. AMB-33.

services program, (6) an upstream incentive program for distributors to stock high efficiency motors and HVAC systems, and (7) a school education program.

4.2.3.2. Innovative Program Idea Solicitation

The Innovative Program Idea solicitation will provide third-parties the opportunity to submit bids to test the market feasibility for newer energy efficiency technologies and innovative market approaches. This solicitation will seek new program designs that have a longer term potential for cost-effective energy savings, and may include commercialization/demonstration projects for emerging technologies. Results of this solicitation may override submittals for the targeted solicitation if they better address a customer segment and/or offer more portfolio innovation. The winning bidders will be allowed up to two years to implement and complete their programs.

4.2.3.3. Bid Process and Evaluation Criteria

SoCalGas and SDG&E also propose a two-stage evaluation approach, similar to the Stage 1 and Stage 2 process described for SCE in Section 4.2.1 above. Their supply management and energy efficiency staff (program managers, analysts, and engineers) will review the submitted Stage 1 abstracts, based on the criteria presented in Attachment 6. Selected Stage 1 bidders will be notified of their selection and will be asked to develop a full proposal based on the concepts in the abstract. Evaluation teams comprised of program management, marketing, and engineering members will be rank proposals from high to low using the evaluation criteria listed in Attachment 6, and make final bid selections.

5. Incremental Funding Requirements, Requested Ratemaking Treatment and Projected Rate/Bill Impacts

Tables 4-7 presents the incremental funding requirements associated with the utilities' proposed 2006-2008 energy efficiency budgets (with and without EM&V), broken down by natural gas funding requirements and electric revenue requirements. The incremental funding requirement for natural gas programs is derived directly from program expense budgets since, per D.04-08-010, the Commission ruled that adjustments for franchise fees and uncollectibles (FF&U) should not be made in calculating the natural gas public purpose surcharge. The incremental electric revenue requirement, on the other hand, includes an adjustment for FF&U.

The costs associated with natural gas energy efficiency programs are currently recovered through the utility's annual gas public purpose surcharge advice letter filings. Per Assembly Bill 1002, which added Article 10, §§ 890 *et seq.* to the Public Utilities Code, revenues from the surcharge are collected by each natural gas utility and remitted to the State Board of Equalization, and ultimately appropriated back from the State Treasurer to fund the utility programs. In their applications, the utilities acknowledge that the gas energy efficiency funding requirements will continue to be recovered in this manner, as long as the statute remains in effect. They propose that such amounts be recovered through the gas public purpose program surcharge rates effective January 1 of each program year.

Costs for electric energy efficiency program expenses are currently recovered as a non-bypassable charge through public purpose program and procurement rate components authorized by the Commission.[38] The portion of the electric revenue requirement collected through electric public goods charge rate components is constant except for an annual addition equal to the lesser of sales growth or inflation. These collections are tracked via the Energy Efficiency Program Adjustment Mechanism (EEPAM). PG&E, SCE and SDG&E would continue to file advice letters by March 31 of each year to establish and recover the authorized electric public goods charge, including the annual addition.

Remaining electric energy efficiency revenue requirements are currently collected via the Procurement Energy Efficiency Balancing Account (PEEBA), established for this purpose in D.03-12-062. This account tracks the difference between the authorized procurement energy efficiency revenue requirement with actually incurred procurement energy efficiency expenses to determine the monthly over-or-under collection recorded in the PEEBA. Due to the one-way nature of the EEPAM and PEEBA, any undercollections (i.e., excess expenditures) existing at the end of the authorized program cycle are not be eligible for recovery from customers.

PG&E, SCE and SDG&E propose that all of the incremental electric revenue requirement resulting from approval of the proposed energy efficiency budgets continue to be recovered through procurement rates in this manner. They recommend that these incremental revenue requirements be consolidated in

[38] SCE's costs for electric energy efficiency program expenses are recovered through the Public Purpose Programs Charge, consistent with D.97-08-056 and D.03-12-062. For SDG&E, these expenses are currently recovered through the Public Purpose Programs and Procurement Energy Efficiency Surcharge component of rates, consistent with these decisions. For PG&E, these expenses are recovered through Energy Efficiency and Procurement Energy Efficiency rate subcomponents of the Public Purpose Programs Revenue Adjustment Mechanism.

the annual Energy Resource Recovery Account (ERRA) Forecast proceeding, or other proceedings authorized by the Commission for inclusion in their respective non-bypassable public purpose and procurement rate components effective January 1 of each program year, or as soon thereafter as possible.

Attachment 7 summarizes the rate and bill impacts associated with the 2006-2008 proposed funding requirements, including the EM&V placeholder amounts, by utility. To allocate costs among customer classes, SDG&E and SoCalGas propose modifications to current cost formulas in order to better match the forecasted spending of program funds by each customer class. PG&E and SCE make no changes to their current allocation methodology for public goods charge revenue.

It is important to clarify that these projected rate and bill impacts reflect the immediate impacts associated with increasing funding requirements for the authorized programs, and *do not* reflect the net impact on rates and bills over time. The overall impact of the programs is that customer bills will *decrease* relative to the level without the energy efficiency programs. This is evident in the more than $2.5 billion in net benefits that the programs will provide, which translates into reduced utility revenue requirements and lower bills for customers. We direct the utilities to submit estimates of the overall bill impacts expected from the portfolios in their compliance filings, working with PRG members in the meantime to develop a consistent estimating methodology.

In terms of the rate impacts associated with recovering the initial program costs, SCE estimates that funding its proposed energy efficiency portfolio will increase average rates and customer bills by approximately 0.48% over today’s levels. For the residential customer class, SCE projects that the average monthly electric bills will increase approximately 35 cents, or equal to the system percentage average change. Most of the other customer classes will experience rate and bill changes close to the system average of 0.48%, in the range of 0.47% (street and area lighting) to 0.52% (agricultural and pumping).

PG&E projects that funding the costs of its proposed portfolio of energy efficiency programs will increase system average rates and bills by approximately 0.6% over current levels.[39] This projection does not, as discussed above, reflect the overall decrease in rates and bills that result from these cost-effective energy efficiency programs--it only indicates the rate changes necessary to recover the initial investment costs. For the residential class, electric bills are projected to increase by $1.18 per month (1.6%), and bundled core gas bills are projected to increase by 13 cents per month (0.3%). Projected increases in average bill and rate impacts range from 0.2% for core/bundled small commercial customers to 2.9% for direct access customers (medium).

SDG&E's proposed portfolio plans and associated funding levels are estimated to result in average electric rate increases between 0.1 to 0.4 cents/kwh, depending on the customer class. For residential customers, average bills are projected to increase by $1.23 (1.7%) relative to current levels.

On the natural gas side, the cost reallocation recommended by SDG&E would result in a small decrease in current residential rates of approximately 1 cent/therm and an increase of 2-3 cents/therm in non-core commercial and industrial rates and bills. SoCalGas' cost allocation proposal is projected to increase non-core commercial and industrial average rates and bills by approximately 4.5%, while keeping residential bills and rates essentially constant relative to today's levels.

[39] *PG&E Prepared Testimony,* June 1, 2005, Volume I, p. 7.5.

In presenting these bill and rate impact results, SDG&E and SoCalGas argue that the resulting increases to the commercial and industrial customer classes more appropriately reflect the share of energy efficiency funding targeted to these sectors than the current allocation formulas. In particular, SDG&E points out that costs associated with natural gas energy efficiency were historically included in gas base margin revenue requirements and therefore allocated based on the "equal percentage of marginal cost" method used to recover the cost of on-going utility operations. If this allocation method were to continue, SDG&E argues that these customer groups would be assigned a disproportionate share of the program benefits relative to the costs paid by those classes.

6. Case Management Statement and Positions of the Parties

The July 15 Case Management Statement (or "CMS") describes the current status of resolved and unresolved issues, based on continued communication among the utilities, PRG members and those parties filing opening comments. We describe that status, by issue, in the following sections. Our description is intended to highlight the range of positions on a particular issue, rather than describe each party's position in detail. Additional descriptive material is presented in attachments.

At the PHC, the assigned ALJ delineated three categories of issues in Phase 1 of this proceeding. "Category 1" issues relate to the those that the Commission needs to address by Commission decision, in order to determine if the proposed portfolios are consistent with the policy rules and if the associated funding levels are reasonable to include in rates. They encompass the Phase 1 issues listed in Section 3 above.

In contrast, Category 2 issues relate to areas of specific program design or implementation that should be the subject of ongoing discussions among the utility program administrators and their advisory groups (including Energy Division) and the public as the portfolio plans and program details are being refined between now and the compliance filing, as well as during their implementation over the three-year program cycle. These are issues that are considered "below the radar" for this decision, and do not require formal Commission action.

The ALJ also identified a potential third "in-between" category of issues (Category 3) that the Commission would not address formally, but could instruct the utilities and PRGs to report back to the ALJ and Assigned Commissioner how they have worked through or addressed these issues.[40]

The body of the CMS focuses on the "Category 1" issues, and provides attachments that describe Category 2 and 3 issues raised by the PRGs or interested parties, the utilities' responses and proposed actions, as appropriate. In the following sections, we follow the general organizational format of the CMS in summarizing the positions of the parties, focusing on Category 1 issues.

All references to the Commission's policy rules for post-2005 energy efficiency programs ("Rules") refer to the Rules presented in Attachment 3 of D.05-04-051.

6.1. Portfolio Cost-Effectiveness

As stated in the Rules, the Commission's overriding goal guiding its energy efficiency efforts is to "pursue all cost-effective energy efficiency

[40] June 22, 2005 PHC Reporter's Transcript, pp. 30-33.

opportunities over both the short- and long-term."[41] Therefore, the Rules establish a threshold cost-effectiveness condition for the utilities' energy efficiency portfolios. Cost-effectiveness is measured using two different tests, referred to as the Total Resource Cost (or "TRC") and Program Administrator Cost (or "PAC") tests of cost-effectiveness.[42] In order to be eligible for ratepayer funding, each utility portfolio and the entire statewide portfolio must pass both tests on a prospective basis, considering all costs of the programs. These include costs not assignable to individual programs, such as overhead, planning, and EM&V.

The CMS indicates consensus on this issue, stating that the proposed program portfolios "are cost-effective on a prospective basis, taking a reasonable account of uncertainty with respect to key cost-effectiveness input parameters." However, as discussed further below, some parties express concerns that certain key program input parameters, such as net-to-gross ("NTG") ratios, need to be updated to provide a more accurate assessment of cost-effectiveness. NTG ratios are used to estimate and describe the "free ridership" that may be occurring within energy efficiency programs, that is, the degree to which customers would have installed the program measure or equipment even without the financial incentive (e.g., rebate) provided by the program. Only energy savings net of free riders are to be counted towards the energy savings goals or in the calculation of resource benefits (savings times avoided costs).

In its reply comments, WEM takes exception to the CMS characterization of consensus over this issue, arguing that it overlooks unresolved issues in

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[41] Rule II.1.

[42] See Section I for a brief description of these two tests. Also, see Rules IV.1-IV.3.

TecMarket Work's report as well as WEM's opening comments. We disagree. WEM refers selectively to statements that the author of the report made during the PHC before TecMarket Works finalized its report and conducted sensitivity analysis to consider the impact of lower savings assumptions on the cost-effectiveness results. Moreover, the CMS report discusses the issues that TecMarket Works raises with respect to planning assumptions throughout the document.[43]

6.2. Achievement of Energy Savings Goals

Per Rule II.5, the utilities are expected to manage their portfolios of programs to meet or exceed the short- and long-term savings goals established by the Commission "by pursuing the most cost-effective energy efficiency resource programs first, while minimizing lost opportunities."

The CMS Participants did not reach consensus on whether the utility portfolios are likely to meet or exceed these goals. Although the utilities believe that their respective portfolios are designed to meet both annual and cumulative energy savings (kWh, therm) and demand (kW) reduction goals, some PRG members and interested parties could not agree with this conclusion because of uncertainties in the underlying forecasts of net savings produced from each administrator's programs. In particular, the NTG values were criticized as too high in the TecMarket Works report and by TURN, ORA and other interested parties.

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[43] We have also carefully reviewed WEM's other comments in this proceeding, and conclude that the recommendations contained therein generally lead to the conclusion that the Commission should provide more funding to non-utilities, particularly via the California Standard Offer—a proposition that we have previously rejected in D.05-01-055.

The NTG ratios used by the utilities were those listed in a table included in a previous version of the Energy Efficiency Policy Manual (version 2), and subsequently posted to the Database for Energy Efficiency Resources (DEER) website when version 3 of the Energy Efficiency Policy Manual was issued by D.05-04-051. The instructions to this table require that a default NTG of .80 be used for any existing programs not listed (or if a proposed program design deviated substantially from past design of related programs). The utilities implemented Rule IV.11 ("use DEER assumptions, when available") with respect to NTG assumptions by utilizing the NTG table values and the table's .80 default values. The PRG assessments, the TecMarket Works Report, TURN and ORA express concern that in some cases the table NTG values (and default value) are outdated and may be too high.[44]

Additional concerns expressed in the TecMarket Works report and by interested parties include the following:

- The program delivery ramp up for such a substantial increase in program funding levels may be slower than expected, causing 2006 savings to be difficult to deliver.
- The energy savings estimates assume a growth economy consistent with the potentials study. If the economic growth projection is not realized, goal attainment is additionally at risk.
- The majority of the electric and gas per measure savings included in the statewide portfolio are based on calculated estimates of per measure load impacts that are generally uncertain until they can be confirmed via *ex post* studies.
- The very high percentages of screw-in CFLs (almost all in the residential category) have uncertain levels of retention or sustained savings over time, and

[44] See, for example, *Response of the Office of Ratepayer Advocates*, June 30, 2005, pp. 2-3.

- The manner in which residential lighting demand savings were calculating does not reflect the fact that residential lighting load is only marginally coincident with the summer peak period.

Overall, TecMarket Works estimates that if these and other uncertainties act to lower estimated savings by 20% or more, the goals may not be reached unless energy savings credits from the information, education and marketing programs are applied.[45] Specific sensitivities around the NTG ratio assumptions contained in the PG&E and SCE PRG reports, as well as in TURN's opening comments, indicate that the proposed portfolios may not meet the cumulative 2006-2008 energy (GWh) savings targets. Moreover, TecMarket Works points out in its report concerns over operating hour assumptions used by PG&E, SCE and SDG&E to estimate the expected useful lives ("also referred to as "EULs") and resulting kWh energy savings associated with certain lighting measures.[46]

To address these uncertainties, the authors of the TecMarket Works Report recommend that the Commission direct Joint Staff or its consultant to recalibrate the E3 calculators to new estimates of key parameters and re-run the estimates for all programs (or at a minimum all those that have lighting measures). Alternatively, they suggest that the Commission could direct the utilities to reexamine their estimates, make the appropriate adjustments, document the basis for their assumptions/adjustments and re-submit their savings estimates.[47]

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[45] See The California 2006-2008 Energy Efficiency Portfolio" July 1, 2005, prepared for CPUC Energy Division by TecMarket Works, p. 8. We refer to this document as the "TecMarket Works Report" throughout this decision.

[46] *Ibid*, pp. 30-31.

[47] TecMarket Works Report, p. 32.

In its reply comments, TURN supports the first approach suggested in the TecMarket Works report. TURN recommends that the Commission direct an independent agent to revise the NTG ratios used by the utilities in their June 1 filing, based on the best existing evaluation results for sector-level end-use technology. In addition, TURN would require that the utilities re-submit their portfolio plans using these updated values in a separate "post Phase 1" advice letter filing for Commission review and approval before the utilities prepare their compliance filing.[48]

ORA proposes a very different approach to addressing the uncertainty over free-ridership assumptions. ORA observes that the NTG assumptions used by the utilities, which were based on values included in version 2 of the Energy Efficiency Policy Manual, reflect the general make-up of the statewide energy efficiency portfolio as of August 2003. ORA contends that these are not useful for the Commission's purposes during this planning cycle because many of these program categories do not map directly to the 2006-2008 energy efficiency programs proposed by the utilities, and will not easily map to the third-party programs to be solicited under competitive bids.

In addition, ORA argues that recent studies indicate that free-ridership within a program can differ by end use, which renders the use of program-level NTGs much less useful. While ORA supports continuing refinements to NTG ratios in the future, it believes that for purposes of portfolio planning and bid selection, a simple default NTG value should be used. In particular, ORA recommends that the Commission instruct the utility administrators and third-

[48] Reply Comments of TURN, July 21, 2005, p. 8.

party implementers to adopt a default NTG of 0.8 across all programs and measures for the current planning cycle, with the exception of emerging technologies. Programs addressing those technologies should use the default value of 0.96.[49]

Notwithstanding these concerns, some PRG members and parties believe that there is a reasonable chance that each utility will meet its energy savings goals for 2008 (therms and GWh) and state that they are willing to help the utilities and the Commission achieve these goals. Thus, some PRG members and some parties recommend that the Commission should accept each utility administrator's filing with the knowledge that although it will be difficult to meet the goals, it is certainly possible. In particular, NAESCO and Cal-UCONs argue that the "free rider" issue appears to be consuming an unwarranted amount of time and effort by the parties. In their view, having a number of very talented parties spend their time worrying about whether the NTG for a particular measure is 10% or 15% is "unwittingly contributing to the construction of a major market barrier that will block the realization of state policy."[50]

The question of whether the proposed portfolios will meet the peak demand (kW) savings goals is also controversial, and CMS participants and interested parties respond to this question in the context of whether the proposed portfolio plans adequately address critical peak loads. Part of the controversy stems from differences in opinion over what definition of peak demand should be used when calculating the portfolio demand (kW) savings. CMS participants

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[49] See *Response of ORA*, June 30, 2005, pp. 2-4; *Reply Comments of ORA*, July 21, 2005, pp. 9-10.

[50] Reply Comments of NAESCO, p. 4. See also Reply Comments of Cal-UCONs , at p. 2.

discussed how the different interpretations of the term "critical peak loads" and different estimation processes used by the utilities to estimate the level of peak savings from the portfolios contributed to the difficulty in resolving this issue. In particular, CMS participants found it important to note the distinctions among the following terms:

- Critical Peak Loads generally refers to the highest 100 hours in a utility's load duration curve. These typically occur for a few hours a day on 8 to 12 days per year.
- Peak Loads (Daily Average) refers to the expected load on each weekday afternoon from 12 noon to 6 pm for the four summer months (20 weekdays/month x 4 months x 6 hours =480 hours per year).
- Peak Loads (Coincident) is measured as the estimated highest demand savings estimated during the five hour peak period (from 2 pm to 7 pm) on the hottest day of the year, *after* taking into account the probability that all equipment affected by the program will be operating at the time of the peak.
- Peak Loads (Non-Coincident) refers to the estimated highest demand savings on the hottest day of a normal weather year for an average program participant. This definition does not take "coincidence" (likelihood of all equipment being on) into account.

To illustrate these different ways of expressed peak loads, we present a very simplistic example, for illustrative purposes only. Assume that the estimated savings between the hours of 2:00 p.m. and 6:00 p.m. from energy efficiency measures installed in a building are as follows:

2-3 pm	3-4 pm	4-5 pm	5-6 pm
2 kW	4 kW	6 kW	2 kW

If peak demand reductions were calculated using the "daily average" definition, then 3.5 kW in peak demand reductions would be attributed to this program. (14 kW/4 hours.) For coincident peak, one would first need to determine when the specific peak for the entire system fell within this period and then estimate the peak savings at that point in time from the data above. Then, one would need to make an adjustment based on data or assumptions related to what fraction of this equipment is likely to be on at the time of system peak.

In this example, if we assume the peak occurred between 4:00-5:00 p.m., then the coincident peak impacts would be 6 KW multiplied by some adjustment for equipment coincidence (typically .7 for air conditioners) to yield a coincident peak of 4.2 kW. Non-coincident peak does not make this adjustment, so the estimate of demand savings would simply be 6 kW under this very simplistic example. Some, all or none of these savings will be counted as "critical peak" demand reductions, depending on the extent to which these savings coincide with the highest 100 hours in the utility's load duration curve.

An additional method for calculating peak load impacts was discussed in parties' comments, and termed "net CEC peak reductions" by ORA.[51] Under this definition of demand savings, total energy savings (kWh) associated with a measure/program are multiplied by a factor of 0.217, which was the conversion factor used to translate the Commission's GWh savings goals to MW peak load reductions goals. This factor was based on historic relationships between energy and peak savings, since there was no available data on the mix of programs or measures to be used in the future.

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[51] Reply Comments of ORA Joined in Part By TURN, p. 4.

Some CMS participants[52] believe that several key inconsistencies need to be resolved before the Commission can fully assess whether the utility portfolios are likely to meet the Commission's demand reduction goals. First, noting that the utilities use different definitions of peak load reductions in calculating those impacts, they recommend that the Commission adopt a common definition of peak demand savings as part of this decision. They propose that the utilities re-estimate the peak savings from their portfolio using this common definition. In addition, these participants recommend that the Commission consider adopting a definition of "winter peak savings" for use by programs being implemented in winter peaking areas. These participants further recommend that a uniform set of assumptions be developed to translate annual energy savings resulting from installations of CFLs in residential and commercial dwellings into peak savings, ideally using common load shapes.

In addition, the CMS document, as well as TecMarket Works Report, refers to a "counting period" inconsistency with respect to the calculation of peak demand savings that also needs to be addressed.[53] Each utility uses its respective "E3 calculator" to calculate the projected savings and overall cost effectiveness of their portfolios utilizing the interim avoided costs adopted by D.05-04-024 in R.04-04-025.[54] Apparently, the E3 calculator for PG&E only counts kW savings

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[52] The CMS does not identify the individual participants supporting these recommendations. See CMS, pp. 12-14. We therefore attribute these recommendations to "some CMS participants," as presented in that document.

[53] This inconsistency was identified in the TecMarket Works Report at pp. 24-35.

[54] "E3" refers to the name of the consulting firm that prepared the report *Methodology and Forecast of Long-Term Avoided Cost(s) for the Evaluation of California Energy Efficiency Programs* that the Commission considered in the avoided cost proceeding. Following the adoption of the E3 avoided cost methodologies in D.05-04-024, the utility administrators

Footnote continued on next page

for programs with a useful life five years or greater. For SDG&E and SCE, this counting period is three years and two years, respectively. CMS participants generally recommend that kW savings be counted for all measures with a useful life of two or more, across all utilities.

In sum, some parties conclude that it is difficult to make a definitive determination of whether the utility portfolios are likely to meet the Commission's peak demand goals for 2006-2008 without additional information to resolve the inconsistencies noted above. Other parties argue that the Commission has enough information before it on the record to determine that the proposed portfolios will not likely meet the peak demand goals or, as discussed further below, sufficiently target critical peak load.

6.3. Portfolio Balance Between Short- and Long-Term Savings

The utilities propose to increase funding for both emerging technologies and codes and standards activities, and include a component of the competitive solicitation that provide innovative program ideas that will assist in meeting long-term savings goals. While acknowledging and commending these plans, the PRGs expressed some concern that PG&E's and SDG&E's budgets for programs that procure long-term savings (new construction, codes and standards support and emerging technologies) fell below 20% of total portfolio funding. During the CMS discussions that followed, PG&E agreed to ensure that, after portfolio integration of the third-party winning bidders and final partnership

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contracted with E3 to develop a tool (the E3 calculator) that incorporated the new avoided costs to calculate the projected savings and cost effectiveness test results for their energy efficiency portfolios. See D.05-04-024, pp. 39-40.

plans, 20% of the portfolio will be for strategies that produce long-term savings.[55] SDG&E agreed to report and solicit feedback from its PRG as the current programs in its portfolio designed to secure longer-term savings (Advanced Home, Sustainable Communities, Saving by Design) are implemented to consider increased funding levels during the program cycle.[56] Each of the utilities have reached other agreements related to the issue of how to balance short-term and long-term program activities with their PRGs, as described in the CMS attachments. Overall, the PRG members and the utilities appear to be satisfied with the resolution of this issue in those documents.

With respect to new construction programs, ConSol recommends that the Commission adopt a minimum of 7% funding for residential new construction. In ConSol's view, the most cost-effective way to reduce residential peak load is to provide energy efficiency programs to the residential new construction market that address cooling loads. ConSol also recommends that the residential new construction programs be statewide and consistent, and that Comfortwise (of which ConSol is the owner) be funded as the contractor for that statewide program.

In response, PG&E argues that ConSol's recommendation for increased funding for residential new construction is unsupported and fails to recognize that this program has been significantly affected by changes in California's Title 20 and Title 24 standards. PG&E also argues that ConSol's concern over the lack of statewide consistency has been made moot by the statewide coordination

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[55] CMS, Attachment 6, p. 4.

[56] CMS, Attachment 7, p. 19.

efforts underway, as described in the CMS. PG&E also disagrees with ConSol's assertion that the residential new construction programs do not focus on peak load savings. In addition, PG&E contends that ConSol's recommendation that the Commission arbitrarily select Comfortwise as the residential new construction program is inappropriate, and suggests instead that ConSol provide a proposal in response to PG&E's competitive bid solicitation.

SDG&E and SoCalGas request that ConSol allow the utilities and their respective PAGs and PRGs review ConSol's program concept and cost-effectiveness assumptions. Otherwise, they recommend that ConSol submit its proposal through the competitive bid solicitations being offered by the utilities.

6.4. Sufficient Strategies to Reduce Critical Peak Loads

Rule II.5 states, in part, that "…the Program Administrators should demonstrate in their program planning applications for PY2006-PY2008 how their proposed portfolio will aggressively increase overall capacity utilization and lower peak loads through the deployment of low load factor / high critical peak saving measures."[57]

By far the most controversial issue in this phase of the proceeding is whether the utilities have included sufficient strategies to reduce critical peak loads consistent with this Rule. In particular, the PRG members of PG&E and SCE as well as individual parties (TURN, WEM, Proctor Engineering) contend that the utility portfolios overemphasize residential lighting at the expense of not

[57] A load factor is the ratio of gigawatt hours (GWhs) of consumption (or savings) divided by megawatts (MWs) of peak consumption (or savings).

achieving impacts from the measures that have the highest kW impacts, such as residential HVAC. For example, PG&E's PRG concludes in its June 8 report that the majority of PG&E's residential program savings (within the Mass Markets program) are not targeted at reducing summer utility peaks:

> "Fully 85% of the residential category demand savings and 86% of the residential energy savings are from lighting in PG&E's portfolio filing. Research shows that over 90% of residential lighting does not operate coincident with the utility peak. While achieving these savings may provide cost-effective savings, it is not likely to 'aggressively increase capacity utilization' as called for in the Policy Rules.[58]
>
> "Only 5% of forecasted demand and energy savings are projected from residential space cooling—the end use responsible for a large portion of California's utility peaks in the summer.
>
> "PG&E's proposed continued emphasis on residential lighting relative to space cooling is also largely at odds with the Kema-Xenergy potentials analysis. While PG&E's projected HVAC savings from nonresidential category are an improvement over 2004 reported savings, nonresidential HVAC savings are still low relative to the projected peak demand potential identified in the Kema-Xenergy [potentials] analysis. "[59]

SCE's PRG made similar observations in its June 1 assessment, when it concluded that SCE's proposed portfolio did not place sufficient emphasis on

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[58] PG&E's PRG Report, p. 16.

[59] See Supplement to Application Submitting the PRG Assessment of PG&E's Proposed 2006-2008 Energy Efficiency Portfolio (PG&E's PRG Report), pp. 16-17.

reducing critical load, particularly with respect to the potential for achieving reductions in residential space cooling.[60]

Overall, PRG members express concern with the reported trend in system capacity utilization factors, particularly for PG&E and SDG&E. These trends imply that despite the best efforts of energy efficiency programs to target peak demand reductions, aggregate load factors are actually getting worse because peak load use is growing faster than annual sales. They note that there are many factors that may be the cause of this deteriorating load factor (including but not limited to the strong growth in air conditioning demand from new construction in the interior valleys). PRG members, as well as individual interested parties, believe that all ratepayers would be better off if the Commission had a better understanding of the causes of this trend and to what extent demand side efforts can help mitigate the problem.[61]

TURN is particularly concerned with this issue. In its June 30 opening comments, TURN argues that despite ongoing dialogue at PAG and PRG meetings the utilities' portfolio plans continue to inadequately target residential HVAC end uses, which "are the epitome of low load factor/high critical peak savings," and instead overemphasize residential lighting measures that are only marginally coincident with the summer peak period.[62] In TURN's view, this will further hasten the erosion of the utilities' load factors, and thereby forcing ratepayers to foot the enormous bill for generation, transmission and distribution

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[60] Appendix 1s.4 to SCE's Application: Peer Review Group Report on SCE's 2006-2008 Energy Efficiency Program Portfolio (SCE's PRG Report), pp. 7-8.

[61] CMS, pp. 14-15. See also Comments on Joint IOU Case Management Statement by CSBE/SBN/SBCal, July 21, 2005, pp. 11-12.

[62] TURN Opening Comments, June 30, p. 2.

infrastructure investments required by needle peaks. TURN implores the Commission to enforce the requirement in Rule II.5 by directing applicants to revise their portfolios to place significantly greater emphasis on critical peak reduction.

In rebuttal, the utilities contend that their respective portfolio plans, inclusive of third party programs, sufficiently address opportunities to reduce critical peak loads. SDG&E points out that its targeted competitive bid component covers residential HVAC measures, including training, duct sealing and testing and anticipates that the compliance filing will reflect more savings that will be attributed to the HVAC end use based on the results of its bid solicitation. In addition, SDG&E states that more than half of its demand reduction goals will be met by demand reductions in the non-residential sectors, which are a significant portion of SDG&E's load during peak periods.[63]

Based in large part on the input from its PAG and PRG members, SCE contends that it has presented a portfolio that represents the most aggressive plan targeted towards reducing peak that it has ever proposed, and one that will increase overall capacity utilization through the deployment of low load factor/high critical peak savings measures in both the residential and non-residential sectors. In particular, SCE points to the new comprehensive packaged AC systems program it has created in response to PAG input that is focused on critical peak demand for both sectors. While SCE agrees with TURN and other parties that it is important to aggressively address critical peak loads with energy efficiency, SCE also believes that it needs to appropriately balance peak load

[63] Joint Comments of SDG&E and SoCalGas Regarding the California 2006-2008 Energy Efficiency Portfolio Final Report Prepared by TecMarket Works, pp. 3, 4.

reductions with other Commission policy objectives, including the overriding goal guiding its energy efficiency efforts: the pursuit of all cost-effective energy efficiency opportunities. In SCE's view, its proposed portfolio achieves an appropriate balance, accounting for consumer demand, market potential, energy savings and demand reduction goals, and portfolio cost-effectiveness.[64]

In response to TURN's comments, PG&E argues that the majority of its portfolio will capture critical peak energy savings, contrary to TURN's assertions. In particular, PG&E contends that virtually all of the measures installed under the targeted markets programs, which focus primarily upon nonresidential customers, will impact usage during critical peak hours. PG&E also points out that the residential new construction targeted marketing effort has always focused on reducing HVAC loads, and will continue to do so. In addition, PG&E asserts that more than 62% of mass market program rebate dollars are targeted directly at critical peak measures, not counting any of the critical peak reduction achieved from residential lighting, refrigeration, and appliance measures.

PG&E also argues that TURN's comments fail to acknowledge the fact that PG&E has recrafted and expanded its residential air conditioning initiatives in response to TURN's concerns during the months of working with TURN and other PRG and PAG members. Through its work with the statewide PAG subgroup on HVAC (referred to as the "HVAC PAGette"), PG&E points out that it is initiating several new approaches capitalizing on recently increased appliance and building standards that will increase its commitment to on-peak loads five-fold in the residential sector. Primarily at TURN's urging, PG&E states

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[64] CMS, Attachment 8, p. 1; *Reply Comments of SCE and Comments*, pp. 2-3.

that it increased the budget of the activities focused on residential air conditioning from about $4 million in 2005 to $14.8 million in 2006. In the case of the one component to those efforts, the "Quality Installation" intervention, PG&E reports that budgets were raised approximately ten-fold from 2005 to 2006.

In addition, PG&E argues that TURN completely ignores the fact that a very large portion of the potential savings associated with residential air conditioner use will be captured by the recently updated state appliance standards, which increase the minimum seasonal energy efficiency rating (SEER) for residential size systems from 10 SEER to 13 SEER. Finally, PG&E argues that TURN is focused on the wrong metric and consequently arrives at an incorrect policy recommendation, namely, to spend more on residential critical peak impact end uses, such as HVAC, in lieu of residential lighting measures.[65]

While NRDC agrees with other parties that peak demand savings are very important, NRDC argues that the state has a clear need for both baseload and peak savings, since both energy consumption and demand are growing in California. Moreover, NRDC contends that the residential lighting savings included in the utilities' portfolios are cost-effective and achievable, and therefore should not fall by the wayside in the effort to capture additional savings from HVAC. Instead, NRDC recommends that the Commission require the utilities to monitor the success of the HVAC programs on an ongoing basis with their PAGs/PRGs and ramp up the programs faster than planned and capture more savings if it is feasible and cost-effective.[66]

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[65] *Reply Comments of PG&E*, July 21, 2005, pp. 5-8. CMS, Attachment 6, p. 5.

[66] *Reply Comments of the NRDC*, July 21, 2005, pp. 4-5.

NAESCO and Cal-UCONs similarly argue that the Commission should reject the "either/or" formulation that TURN has put forth in its comments with respect to lighting measures and HVAC measures. Instead, NAESCO believes that the program portfolios should include aggressive lighting measures and aggressive HVAC retrofit measures, and all available gas and water measures, so that "we wring all available savings out of each customer premise."[67] Cal-UCONs suggest that it might be more prudent to first fully explore customer metering and tariff options before focusing more energy efficiency resources on critical peak demand reductions.

NAESCO also argues that TURN's concerns over the lower contribution of CFLs to peak demand savings are exaggerated, pointing to the experience of its members in delivering HVAC programs to residential customer facilities where lighting is used 24/7 and where HVAC loads are reduced by the use of lower wattage lighting. In sum, NAESCO and Cal-UCONs urge the Commission to exercise great care before accepting the conclusion that proven effective CFL measures should be discarded.

6.5. Allocation Among Market Sectors With Respect to Savings Potential

There appear to be no outstanding concerns with respect to this issue that are not raised in other sections of the CMS document, such as under the issue of critical peak load reductions.

6.6. Strategies to Minimize Lost Opportunities

As defined in our Rules, "lost opportunities" are energy savings options that:

[67] *Reply Comments of NAESCO*, July 21, 2005, pp. 4-5.

> "…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 hearing or photovoltaics), are lost irretrievably or rendered much more costly to achieve."[68]

Rule II.5 directs the utilities to manage their portfolio of programs to meet or exceed our adopted short- and long-term savings goals "by pursuing the most cost-effective energy efficiency resource programs first, while minimizing lost opportunities." The utilities are required to describe their strategies to minimize lost opportunities in their program plan applications.

The TecMarket Report reviewed the utilities' June 1 filings with respect to potential areas of lost opportunities that might not be addressed in the proposed programs. Overall, they found that the portfolio plans were comprehensive and diverse, noting only a few areas of potential lost opportunities. In particular, the authors observe that there is a large efficiency opportunity to replace high intensity discharge (HID) lighting with high performance T-8s and T-5s in grocery, warehouse, large retail and other places where a wattage reduction can be almost half of the installed wattage. They also note that some utilities pay more attention to the agricultural sector than others, which they believe may warrant a stand-alone or statewide focus in the future.

The TecMarket Works report also points to successful efforts in the Pacific Northwest to improve manufactured home new construction, and suggests that the utilities initiate a new program in this sector. Finally, the authors observe that while each utility includes a retrofit program for manufactured housing in

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[68] Rule II.4.

their portfolio, the different treatment of this sector (as part of the residential rebate program for SDG&E, the competitive bid component for SoCalGas, the multi-family program for SCE and the mass market program for PG&E.) made it difficult for them to evaluate the potential for lost opportunities in this sector.[69]

In the CMS, the utilities respond that they agree with the report's assessment that there are opportunities in the agricultural sector and HID replacements. SCE and PG&E, which have large agricultural regions, point out that they have proposed targeted, enhanced initiatives in their agricultural offerings that they believe will address that savings potential and minimize lost opportunities. HID replacements are included as a measure, and the utilities will be working on more detailed strategies to capture that opportunity as they develop their final program plans. The utilities also believe that the concept of a new program targeted to improvements at the manufacturer level for manufactured homes is an interesting idea that they would like to analyze beginning with a market assessment of the industry. In its reply comments, SDG&E and SoCalGas also point to the Advanced Home Program as an example of a comprehensive strategy to minimizing lost opportunities in new construction.

The attachments to the CMS documents include utility-specific PRG recommendations with regard to program comprehensiveness/lost opportunities, and the utilities' responses.

6.7. Statewide Programs and Coordination

The CMS indicates that the coordination of statewide activities in codes and standards, upstream marketing, outreach, and emerging technologies is not

[69] TecMarket Works Report, pp. 11, 37-38.

yet complete. However, the CMS participants have agreed to a statewide planning schedule that will address several coordination issues, as outlined in Attachment 8. Under the proposed schedule, the utilities will present proposed coordination plans to advisory group members and implementers at public statewide meetings, respond to recommendations and feedback, and incorporate the results of this process into additional program detail in their compliance filings.

More specifically, the utilities and Efficiency Partnership will submit of a joint plan on statewide marketing and outreach to facilitate the integration of local marketing and outreach efforts. The utilities will also continue to confer on a coordinated basis with their advisory groups to determine whether increasing the production and distribution of the mass market measures should be done at the manufacturer level, distribution level, or both. The development of consistent statewide rebate levels and participant rules, consistent with the goals described below, is also underway.

In addition, the utilities will jointly develop a statewide strategy for the integration of demand-side programs (energy efficiency, demand-response, renewable technologies and self generation/distributed generation) to end users in a manner that is cost-effective and avoids confusion to customers. They will also develop a detailed statewide 2006-2008 plan for emerging technologies, including a target list of technologies/software and services, estimated commercialization time and estimates of energy savings.[70]

[70] In its comments on the draft decision, PG&E states that the statewide PAG has met with the Emerging Technologies coordinating Council and agreed to specific coordinating language for emerging technologies. These and other developments on statewide coordination activities should be described in the utilities' compliance filings.

To coordinate their support of future codes and standards revisions, the utilities will develop a statewide plan that includes a target list of CASE studies and a projected timeline for adoption of new standards by the CEC. The utilities will also work together to develop and submit a set of program participation agreements for use across service territories, such as license agreements, site access agreements, and contractor participation agreements. Finally, they plan to coordinate to provide consistency in their RFP template documents, wherever possible.[71]

Though the details of the statewide coordination effort have yet to be determined, the parties agree that overarching guidelines and policy goals should be adopted. Disagreements remain regarding the appropriate depth and scope for Commission policies adopted to provide guidance in this coordination process. The PRG members have recommended that the Commission adopt the following five policy goals with regard to statewide coordination:

1) Ensure that all firms with a footprint or facilities in multiple service areas should have easy and consistent access to all statewide programs;
2) Develop consistent rebate levels and participant rules for products promoted in statewide programs for use in negotiating with manufacturers and suppliers;
3) Leverage private advertising dollars for more savings impact;
4) Reinforce energy efficiency investments with positive statewide message; and
5) Protect the utilities' abilities to reduce the competition among utility service territories or among programs within the same service territory.[72]

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[71] Id.

[72] *Ibid*, p. 19.

The last policy goal is intended to avoid situations among utility service territories where, for example, if one utility is offering better rebates (e.g., for lighting measures) or providing contractor incentives that the other utilities are not offering, then contractors will "migrate" to work in the service territories where the rebates/incentives are more advantageous to them. For markets where there are not enough contractors or service providers, this potentially leaves the other utilities without enough market participants to install measures in customer premises. With respect to programs within the same service territory, the same type of problem with contractor migration can occur when non-utility implemented programs (e.g., through local partnerships) offer rebates for the same measures as the statewide programs, but at different rebate levels.

6.8. Competitive Bid Components and Evaluation Criteria

There remain some disputed issues regarding the competitive bid components and evaluation criteria. As discussed in Section 6.3 above, ConSol urges the Commission to require the utilities to solicit a replacement bid for residential new construction on a statewide basis. In ConSol's view a statewide approach is needed to ensure consistency in this market sector. Some parties have also proposed that the bid criteria be consistent across the state. Others argue that some differences are appropriate, especially given the different scope and timing of PG&E's solicitation compared to the other utilities.[73]

Based on the information available to PRG members in mid-May, the PRG assessments identified several areas of concern with respect to the bid solicitation criteria and evaluation process, and made specific recommendations to address

[73] CMS, p. 20.

them. In several instances, the utilities already incorporated the recommendations into their June 1 filings, based on discussions with their respective PRG prior to filing. Overall, the CMS documents indicate that each of the utilities and their respective PRGs have worked towards near consensus on all of the competitive bid issues in the weeks that followed.

Below, we briefly describe the areas of further discussion and agreement, and note where the utility's CMS response may not have fully resolved the issue. Where the CMS documents indicate that the utility has responded to specific recommendations made by individual parties on competitive bid issues, (e.g., PG&E and CCSF), we also note that response.

6.8.1. PG&E

An overarching criticism from the PRG was that PG&E's competitive bid plan as originally submitted lacked complete information.[74] In response to this concern, PG&E has agreed to submit a full competitive bid plan for PRG review, including the RFP, bid evaluation scoresheet, instructions to bid evaluators and bid schedule. This submittal will include the plans for widely disseminating the RFP and a process description and flow charts for each evaluation phase and for final portfolio integration.[75] In response to PRG feedback, PG&E has also agreed to provide several clarifications when issuing bid solicitations, including the priority areas for each solicitation and instructions to bidders that their response to the targeted market RFP can cover multiple sectors.[76] PG&E and members of

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[74] Peer Review Group Assessment of Pacific Gas and Electric's Proposed 2006-2008 Energy Efficiency Portfolio, pg. 21.

[75] CMS, Attachment 6, pg. 14.

[76] *Ibid.*, pg. 31.

the PRG also agreed that the PRG would have input on both the formulation of the competitive bid plan and the actual analysis of bids.[77]

PG&E's PRG also made a number of recommendations for improvement and refinement of PG&E's bid evaluation and integration process. These include: (1) the creation of a set of criteria for the assessment of innovative programs (as there is no explicit definition of success in PG&E's proposal); (2) an improved "mainstreaming" process for the continuation and integration of successful third-party programs; (3) the development of a process to replace existing programs with third-party programs that are more cost effective and/or comprehensive in the program approach; (4) the establishment of measurement approaches that ensure that contributions to critical peak savings are considered as a part of the "portfolio fit" criteria; and (5) the development of a plan for the coordination of PG&E, third party and local government programs. PG&E has agreed to continue working with the PRG to realize these goals.[78]

At the request of the PRG, PG&E has also agreed to delay issuing the integrated demand-side management solicitation until 2006, by which time it should have completed additional work on demand-side management in consultation with its advisory groups.[79] In addition, in response to CCSF's comments, PG&E has agreed to add "consideration of constrained areas" to the list of factors it will consider during the portfolio integration stage.[80]

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[77] *Ibid.*, pg. 34.

[78] *Ibid.*, pp. 6-7, 32-34.

[79] *Ibid.*, pg. 7.

[80] *Ibid.*, pg. 39. See also Attachment 6.

The PRG also recommended that PG&E include building operator certification and real estate related time-of-sale program strategies (e.g., inspections and energy efficiency mortgages) in its targeted solicitation. PRG members maintain that these areas hold the potential to provide substantial long-term energy savings.[81] PG&E has agreed to allow time-of-sale programs to submit bids, but only if they are able to document savings. Additionally, PG&E has agreed to seek bids for building operator certification programs, but they note that these activities may be coordinated under a statewide bid.[82]

There appears to be only one issue related to competitive bidding between PG&E and its PRG that could not be fully resolved during the CMS process. In its June 1 application, PG&E did not propose to solicit bids for programs that do not produce measurable energy savings. The PRG recommended that PG&E modify the Target Markets RFP to accept such bids, for programs such as information and outreach efforts, audits, training, etc., and suggested a set of evaluation criteria and weights that could be used for their evaluation (see Attachment 6). In response, PG&E states that it would be willing to consider a solicitation seeking non-resource program proposals that could enhance the performance of its resource-based programs, but only after the resource-based portfolio is complete and achievement of energy savings goals is assured.[83] PG&E also indicates that it is open to the PRG's bid evaluation criteria, but believes that further discussion with the PRG regarding the timing and targets of

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[81] Peer Review Group Assessment of Pacific Gas and Electric's Proposed 2006-2008 Energy Efficiency Portfolio, pg. 21.

[82] CMS, Attachment 6, pg. 14.

[83] *Ibid.*¸ pg. 13

a non-resource program solicitation would be necessary prior to the finalization of the criteria.

6.8.2. SDG&E

The CMS documents indicate that all of the issues raised by the PRG related to competitive bidding have been resolved by SDG&E's responses.[84] In particular, SDG&E has agreed with the PRG recommendations to: (1) remove the pre-registration requirement for bidders and work with interested parties to ensure wide distribution of its RFP, (2) further clarify the criteria that SDG&E will use to assemble the final portfolio, including the considerations recommended by the PRG, (3) present and discuss with the PRG the short list of selected proposals prior to making its final selection and (4) place more emphasis on the "innovation" evaluation criteria by increasing the relative weighting of this Stage 2 criteria for it, as proposed by the PRG.[85]

However, there are two areas of possible differences between the PRG recommendations and SDG&E's final proposal for competitive bidding. The first has to do with the interpretation of what constitutes the minimum competitive bid requirement of 20%. Although SDG&E states that it intends to solicit third party bids at a dollar level that is above the 20% minimum, it defines that requirement in terms of the total portfolio minus EM&V budgets. The PRG interprets the requirement to apply to the total portfolio level of funding, including EM&V.

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[84] CMS, Attachment 9, p. 6.

[85] Apparently this increase in Stage 2 weighting for "innovation" was already reflected in SDG&E's June 1 filings, as we could find no differences between those numbers and the SDG&E PRG recommendations also submitted at that time.

In addition, the PRG recommended that SDG&E's targeted solicitation be expanded to include the following additional elements: building operator certification, retro- or continuous-commissioning, and real estate related time-of-sale (e.g., inspections and mortgages) in order to ensure a better balance between long-term and short-term savings. In the CMS, SDG&E states that building operator certification will be offered as part of the San Diego Energy Resource Center partnership, but is silent on the issue of whether the elements listed above will be included in the targeted bid solicitation.

6.8.3. SoCalGas

For the most part, SoCalGas' PRG was very supportive of the competitive bid plan, but raised selected concerns with respect to SoCalGas' proposed evaluation process. In response to these concerns, SoCalGas has agreed to (1) clarify that bidders should not limit their program design based on the proposed program description given for each of the targeted areas, (2) inform the PRG of Stage 1 results and discuss with PRG members the short list of selected proposals prior to making its final Stage 2 selections, (3) coordinate with SCE (as well as PG&E and SDG&E) if a vendor submits a solicitation for the same program in more than one utility service territory, (4) clarify the criteria that SoCalGas will use to assemble the final portfolio, including the considerations recommended by the PRG and (5) add more weighting to the innovation criteria under the innovative resource and non-resource solicitations.[86]

[86] CMS, Attachment 9, p. 6. As with SDG&E, the PRG's recommended increase in Stage 2 weighting for "innovation" was apparently already reflected in SoCalGas' June 1 filings.

SoCalGas' PRG also recommended an increase in funding allocation to comprehensive water heating replacement solicitation (under targeted markets), given the energy savings potential of that market. SoCalGas agrees to consider increased funding to this solicitation by reviewing the final statewide hot water advisory sub-group report, and then reporting back to the PRG with its decision on this issue.[87]

However, SoCalGas' interpretation of the Commission's minimum bidding requirement continues to differ from that of its PRG. Like SDG&E, SoCalGas believes that it is consistent with the policy rules to apply the minimum requirement to portfolio funding levels that do not include EM&V. SoCalGas' PRG disagrees, and expresses concern that the budget that SoCalGas has allocated to competitive bids could drop below the 20% threshold, based on the PRG's interpretation of the minimum requirement (i.e., 20% of the total portfolio funding including EM&V). Moreover, the CMS does not resolve the PRG recommendation that SoCalGas also conduct third-party competitive solicitations in 2006 and 2007, on a staggered solicitation schedule. SoCalGas responds that it will do so if ordered by the Commission.[88]

6.8.4. SCE

In general, the PRG found SCE's plan to be fair to potential bidders and to appropriately allow for both traditional and innovative proposals. Nonetheless, it recommended greater emphasis on innovation criteria in evaluating the IDEEA bids, as well as come minor modifications in the weighting of evaluation criteria under SCE's other solicitations.

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[87] Id.

[88] *Id.*

In response, SCE has agreed to modify its criteria weights to reflect the PRG's recommendations, with minor exceptions for its IDEEA non-resource solicitation. In addition, SCE has further clarified the portfolio-level factors it will consider as it finalizes the portfolio plans following Stage 2**.** (See Attachment 6.) SCE has also agreed with other PRG recommendations to work with SoCalGas and other utilities to identify areas where a joint competitive bid makes sense, and work with the PRG during the competitive bid process/selection to discuss the appropriate length of the INDEE programs.

The CMS documents also indicate that SCE and the County of Los Angeles have been working collaboratively to address the concerns that the county raised in its June 30, 2005 comments.[89]

However, there remain several issues between SCE and its PRG that have not been resolved. In particular, the PRG recommends that SCE increase the combined budget allocation to the IDEEA and INDEE programs from approximately 15% to 25% of the budget for competitive solicitations, in order to be more consistent with the Commission's intent to spur innovative ideas through competitive bidding. SCE argues that that degree of reliance on unproven program designs would not be prudent. In addition, while SCE's bid schedule includes PRG participation in reviewing Stage 1 and Stage 2 selections, SCE does not directly respond to the PRG's recommendation that SCE includes a process that allows the PRG to monitor both the Stage 1 and Stage 2 selection process.[90] In addition, SCE's CMS responses do not address the PRG's

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[89] CMS, Attachment 8, pp. 8-9.

[90] *Ibid.*, pp. 5-6.

recommendations to provide a more explicitly set of criteria for screening Stage 1 submissions.[91]

6.8.5. Fund Shifting Guidelines

Fund shifting guidelines or rules establish the level of flexibility that utility program administrators have (without prior authorization) to modify funding levels for specific energy efficiency activities as the portfolio plans are implemented. In particular, the guidelines establish the extent to which the utilities may shift funds among programs within the same program category, across program categories, carry over or carry forward funds from one program year to the next, as well as discontinue programs that are not performing or add new programs during the program cycle.

Throughout the course of this proceeding, several different sets of fund shifting guidelines were proposed for Commission consideration by the utilities and PRGs. At the direction of the ALJ, the CMS participants consolidated and narrowed the options for consideration, but were not able to come to a consensus.[92] At this time, there are four distinct proposals, described more fully in Attachment 9.

6.8.6. Funding Levels, Rate Recovery and Associated Bill/Rate Impacts

The CMS states that "parties agree that the overall funding levels proposed for the portfolio plans are reasonable."[93] However, in its reply comments, WEM contends that parties' comments on peak reduction issues call into question the

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[91] *Id.*

[92] CMS, pp. 21-31, Attachment 3.

[93] CMS, p. 31.

reasonableness of overall funding levels.[94] The PRGs and other interested parties did not submit comments on the proposed ratemaking treatment or resulting rate and bill impacts.

7. Savings Associated with Pre-2006 Codes and Standards Advocacy

In D.05-04-051, the Commission updated the policy rules for energy efficiency and addressed threshold EM&V issues. This included the establishment of the "performance basis" for resource programs, that is, the metric for evaluating energy efficiency programs designed to displace or defer more costly supply-side resources. The Commission adopted a metric that calculates portfolio-level net resource benefits (resource benefits minus costs), subject to a threshold level of performance based on the Commission-adopted energy efficiency savings goals. One of the issues raised with respect to calculating the performance basis for a particular program year was how to consider installations that result from prior-year commitments.

In the decision establishing energy efficiency savings goals (D.04-09-060), the Commission had directed that only savings from "actual" installations from program activities would count towards those goals, beginning in program year 2006 and beyond. This represented a departure from accounting practices in recent years, where savings from both actual installations and program commitments were counted towards program achievements for a particular program year, even if the savings from those commitments would not actually occur until a later program year when the measures were installed. However, the Commission recognized that it would be necessary to return to earlier

[94] WEM Reply Comments, July 21, 2005, p. 8.

practices of counting only "actuals" towards performance goals in order to avoid the need for an additional true-up process (between commitments and actual installations) when evaluating program achievements, thereby allowing for a more timely calculation of the portfolio performance basis for a given program cycle.

The Commission further clarified in D.05-04-051 how to transition from the "actual and commitments" to the "actuals only" accounting approach, and included various findings of facts, conclusions of law and ordering paragraphs that directly relate to this issue.[95] In particular, the Commission found that allowing the utilities to include savings realized in 2006 and beyond from standard performance contracting or new construction programs from commitments made before 2006 would "double count" the savings accomplishments from those goals. Therefore, the utilities were directed to exclude savings from pre-2006 commitments that resulted in actual installations in 2006 and beyond from their projections of portfolio accomplishments.

NRDC raised a corollary transition issue in its comments on the draft decision leading to D.05-04-051, namely, whether savings attributed to the codes and standards advocacy program implemented prior to 2006 should be reported by the utilities and counted towards the 2006-2008 savings goals. As discussed above, this is a statewide program that promotes enhancements to, and enforcement of, energy efficiency standards and codes. Among other things, this program funds studies that are key input to the CEC's public rulemaking process to adopt new energy efficiency standards, which occurs every three or more

[95] D.05-04-051, Findings of Fact 36-42; Conclusion of Law 3, Ordering Paragraph 17.

years. Energy savings targets or accomplishments have not been tied to this program in the past.

In the final decision (D.05-04-051), the Commission directed Joint Staff, with input from technical experts and the public, to develop protocols for attributing electricity and natural gas savings from these programs for future program years 2006 and beyond. However, the Commission declined to authorize utilities to include in their 2006-2008 program plans their estimates of savings associated with the 2002-2004 ("pre-2006") codes and advocacy work that contributed to the adoption of the new building and appliance standards effective in 2005 and 2006, respectively.[96]

By ruling dated May 11, 2005 in R.01-08-028, the Assigned Commissioner provided further clarification on energy efficiency savings issues associated with the 2006-2008 program cycle. Among other things, she directed Joint Staff to quantify savings from pre-2006 codes and standards work for resource planning purposes based on existing historical studies as part of the EM&V phase of this proceeding. In addition, she requested that Joint Staff develop recommendations on whether the Commission should reconsider its determination in D.05-04-051 and count some portion of these savings estimates toward meeting the 2006-2008 program goals.

In response to this direction and the schedule established at the PHC, Joint Staff presented the results of its review and recommendations (Joint Staff Report) to CMS participants during the development of the CMS document.[97] However,

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[96] *Ibid.* pp. 56-58, 63-64; Findings of Fact 38, 39 and 43.

[97] Codes and Standards Program Review, Joint Staff Comments, July 8, 2005 presented in CMS Attachment 4.

the CMS states that parties required additional time to fully review and develop a response to the Joint Staff Report. Therefore, the utilities and interested parties presented their positions on codes and standards savings issues in written comments.

In the sections below, we briefly describe the savings estimates for pre-2006 codes and standards advocacy work presented in this proceeding, the recommendations presented in the Joint Staff Report, and the positions of the parties.

7.1. Estimates of Savings

On July 1, 2005, the utilities filed a joint supplement to their respective applications submitting energy savings estimates for codes and standards advocacy work (Joint Supplement), after holding a public workshop on the proposed methodology. The Joint Supplement presents a report prepared by Herchong Mahone Group, Inc. (HMG) for the utilities entitled *Codes and Standards Program Savings Estimate For 2005 Building Standards and 2006/2007 Appliance Standards*, dated June 30, 2005 (HMG Report). This report supplements and expands upon a white paper on methods for estimating savings from codes and standards programs that was prepared by a team of consultants, including principals of HMG in April, 2005.

The report starts with "gross" statewide first-year savings estimates associated with the adopted codes and standards. For the most part, the savings are based on engineering estimates of per household or per square footage energy savings associated with each standard multiplied by the expected number of new homes or buildings in 2006. The methodology does not include expected growth in new building starts, population or appliance purchases over time. Instead, it conservatively assumes that 2003 levels will remain constant over the next decade. The savings calculations do include estimates of the additional savings expected due to new requirements that apply to retrofits of new windows and central air conditioning units.

The gross statewide annual savings are then adjusted by several factors. The first is an "Attribution Weighted Score" that reduces the statewide savings amounts by a factor to leave only that portion of the savings that is attributable to the efforts of the codes and standards program. This score was developed through the consideration and relative weighting of five key criteria evaluated through a joint committee interview process with core CEC and utility staff that participated in the standards development process.[98]

A second adjustment is made to annual savings based on a "Normally Occurring Standards Adoption factor." This adjustment reflects the fact that the standards adopted in 2005 by the CEC would have been adopted in the normal course of time. In other words, a primary effect of the codes and standards advocacy work is to accelerate the time it takes for the CEC to adopt or update standards. HMG assigned values for when the standards would have normally been adopted by the CEC without the program based on several considerations, including whether the particular standard was already under consideration by the CEC staff. Savings for each standard are adjusted down to zero when the year of "normally-occurring" adoption is reached.

The third adjustment results from the application of a "Naturally-Occurring Market Adoption factor" to each of the annual savings numbers. This factor is intended to capture the phenomenon that better, more energy efficient products are likely to be adopted by the market even without the codes and

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[98] *Ibid.*, pp. 5-6.

standards program activities or standards being adopted. To establish these factors, HMS developed a set of market adoption curves that grow in a linear fashion up to an ultimate adoption rate of 100% over a selected time period between the range of 3 to 24 years. Shorter time periods were assigned to those measures that were close to full market adoption, and longer time period to those that are less close. The annual savings are adjusted downward by the factor for each year, and become zero in the year of full market adoption.

The fourth adjustment factor is made by a "Non-Compliance Adjustment" factor to reflect the fact that not all buildings or appliances comply fully with the standards. HMG selected a 30% non-compliance rate for all of the standards and measure, lacking sufficient data with which to assign individual compliance rates to each.

Finally, the savings estimates are adjusted for the life of individual measures. The measure life is used to limit the time period for counting savings. After the first measure life has expired, re-installations are only credited at the rate of naturally-occurring measure installations, rather than counted indefinitely as new installations. This has the effect of bringing the program net savings estimates back down to zero after a number of years have passed.

The table below summarizes the overall results of the calculations and adjustments described above. As can be seen, the Commission's savings goals are set to increase from year to year, but the savings attributed to the codes and standards program (as a function of the savings attributed to the standards themselves) increase at an even greater rate. The HMG Report estimates that by 2008, savings from codes and standards work that led up to the new standards adopted in 2005/2006 would be responsible for meeting approximately 22% of the GWh/yr electricity savings goals, 30% of the (MW/yr) demand reduction goals, and 30% of the natural gas (Mtherm/yr) savings goals.[99]

Total Net Savings Attributable to Codes and Standards(C&S) Programs
(Within PG&E, SCE, SDG&E and SoCalGas Service Territories)

	2006			2007			2008		
	Goal	C&S	C&S%	Goal	C&S	C&S%	Goal	C&S	C&S%
Energy (GWh/yr)	2032	172	8%	2275	349	15%	2504	545	22%
Demand (MW/yr)	442	50	11%	478	104	22%	528	159	30%
Gas (Mtherm/yr)	30	5.1	17%	37.3	9.6	26%	44.4	13.5	30%

7.2. Joint Staff Recommendations

Joint Staff recommends that the utilities be allowed to credit 50% of the savings actually ***verified*** from the pre-2006 codes and standards advocacy work towards the 2006, 2007 and 2008 goals. Using the estimate of savings from the HMG Report, this would give utilities credit for GWh savings equivalent to 4% (50% of 8%) of the 2006 savings goal, 7.5% of the 2007 goals and 11% of the 2008 goals. Credit for demand reductions and natural gas savings would be somewhat higher, corresponding to 50% of the percentage contributions presented in the table above. Joint Staff notes that this contribution assumes that most or all of the *ex ante* savings are verified in 2006 and beyond. Joint Staff also notes that the contribution of codes and standards work to the goals could be up to 50% higher if the number of housing starts continues to grow over the next three years as it had in the previous three years. Overall, Joint Staff believes that counting 50% of the verified savings represents an appropriate balance between too much and too little acknowledgment for these past program efforts.

Joint Staff presents this recommendation with the following conditions:

[99] Joint Supplement, July 1, 2005; Attachment 1, p. 2.

- The utilities agree to complete a market survey to estimate actual level of code compliance from an energy savings perspective for those portions of 2005 building and appliance standards that will take effect by June 1, 2006. This study will be completed by March 1, 2007.
- The utilities agree ***not*** to heavily rely on these *ex-ante* savings estimates to meet their portfolio savings goals for 2006-2008. Instead these estimates should be treated as basically "bonus" savings, more like a hedge against inherent risks that other programs may not meet their performance goals.
- The Commission makes it clear now that it will not entertain portfolio administrator requests to dramatically reduce overall funding levels for 2007 or 2008 based on the savings booked from the codes and standards program in 2006 or beyond.

In terms of developing savings estimates on a going forward basis, Joint Staff recommends the Commission allow utilities to count 100% of the savings from 2006, 2007 and 2008 codes and standards advocacy work using the methodology proposed in the HMG Report. This recommendation is subject to the following condition:

- Utilities and CEC staff agree to turn over relevant data on the standards development process to an independent evaluator. This independent evaluator will be responsible for conducting the attribution/ interview sessions with a wide variety of participants in the process, obtaining public input, documenting the baseline assumptions used to estimate savings from the standards and then using this information to verify total savings from future revisions to Title 24 or Title 20. The independent observer and the evaluation he or she conducts, should be managed by the Energy Division.

In addition, Joint staff recommends that the Commission formally direct Joint Staff to set up an evaluation contract for 2006 that will verify parameters listed in the HMG Report and used to develop *ex ante* savings estimates for the codes and standards program, which include the following:

a. Engineering estimates of baseline operating conditions, per dwelling unit or per appliance;

b. Engineering estimate of the annual savings and load shape impacts predicted to occur after the standard took effect;

c. The actual number of housing starts and appliance sales in 2006 for relevant products;

d. Natural rate of market progress assumptions contained in the HMG Report;

e. Assumed level of compliance with key code provisions.

Finally, Joint Staff recommends that the utilities be directed to prepare *ex-ante* estimates of the likely savings from the 2006-2007 Codes and Standards Advocacy Programs for use in prioritizing or rebalancing program funds at the end of calendar year 2006.

With respect to specific savings estimates for codes and standards programs that should be used by resource planners, Joint Staff plans to develop recommendations during 2006, as part of its ongoing EM&V activities.

7.3. Positions of the Parties

The utilities jointly prepared a response to Joint Staff's recommendations. They find Joint Staff's recommendations to be reasonable, though for some different reasons than Joint Staff provides. In particular, they emphasize the reasons why the estimates of achievable energy efficiency program savings underlying the Commission's adopted savings goals were on the high side, making these goals very challenging to achieve without crediting savings from the pre-2006 Codes and Standards Advocacy Program towards them.

In sum, the utilities accept that given the uncertainty involved in measuring the realized savings associated with this program, Joint Staff's recommendations provide a rationale bound for attribution at this time. They also agree with Joint Staff that crediting these savings towards the goals, rather than adjusting the goals themselves is the preferred approach.

ORA recommends that the Commission *not* allow the utilities to count codes and standards savings attributable to pre-2006 program activities towards the savings goals because doing so could potentially lead to two undesirable outcomes. First, ORA is concerned that the utilities may decide to cut back on the overall energy efficiency budget if they no longer perceive a need to fund the full $2.1 billion worth of energy efficiency programs to meet the savings goals. In ORA's view, such an outcome would conflict with the "loading order priority" given to energy efficiency that requires the utilities to aggressively pursue cost-effective energy efficiency savings.

Second, ORA is concerned that the utilities may not be as motivated to optimize their program design (including customer incentives) if they already have a comfortable safety margin to meet the goals. As long as the portfolio stays ahead of the assigned goals, in ORA's view the utility would remain indifferent to program changes that lower the projected savings. ORA also questions how savings from these pre-2006 activities would be treated in the calculation of performance basis, if they were indeed considered as "bonus savings" with respect to the 2006-2008 savings goals as Joint Staff recommends. TURN joins in ORA's comments on this issue.[100]

While noting the importance of the pre-2006 Codes and Standards Advocacy Program, NRDC recommends that the Commission defer resolution of this issue because of conflicting concerns and unresolved issues related to the design of a risk/reward incentive mechanism for resource programs. On the one

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[100] See Reply Comments of ORA Joined in Part by TURN, July 21, 2005, pp. 3-4; Comments of ORA to Joint Utility Supplement on Codes and Standards Issues, July 8, 2005, pp. 2-4.

hand, NRDC is concerned that not counting the savings associated with pre-2006 codes and standards advocacy towards the 2006-2008 goals would create a disincentive for codes and standards work during the upcoming program cycle. On the other hand, NRDC is concerned that crediting these savings towards the 2006-2008 goals could reduce utility motivation to pursue all cost-effective savings during that funding period. Moreover, NRDC argues that the Commission should first resolve issues related to how utility earnings and penalties will be specifically linked to their achievements of the savings goals, before finalizing a decision on whether to count these savings.

CCSF supports in principle the concept of attributing savings to codes and standards advocacy work because it constitutes an effective, low-cost method of reducing overall energy use and peak demand. Unless these savings are recognized, CCSF is concerned that the utilities will have a disincentive to aggressively pursue further development, strengthening and compliance support of codes and standards. CCSF urges the Commission to put into place a rigorous methodology to quantify the savings impacts from these activities, without delay. In CCSF's view, the scope of the methodology should be expanded to estimate savings for the development and implementation of local codes and standards, as well as the savings from local enforcement efforts to improve state code compliance rates.[101]

8. Discussion

Before addressing the specific issues in this proceeding, we must commend all those who have worked so diligently, and under very challenging time

[101] Comments of CCSF on the Investor Owned Utilities' Energy Savings Estimates for Codes and Standards Advocacy Work, July 8, 2005, pp. 1-5.

constraints, to develop the portfolio plans for our consideration today. In particular, the utility program administrators, advisory group and PRG members, our Joint Staff[102] and their consultant TecMarket Works, all burned the midnight oil for many weeks to develop and analyze portfolio plans that were responsive to the new energy efficiency rules adopted in April, 2005. By all accounts, the advisory group process established by D.05-01-055 was constructive and collaborative, and based on the filings in this proceeding, has served this Commission well.

Our primary task today is to determine whether or not it is reasonable to move forward with the portfolio plans and funding levels proposed by the utilities, including those modifications agreed to by the utilities in response to further dialog with PRG members and interested parties since the June 1 filings. In doing so, we recognize that the very nature of portfolio management will require that the energy efficiency program activities initiated by today's decision will—and should—evolve over the program cycle to accommodate changes in the market, real-time feedback about program design in the field, the results of EM&V studies completed during program implementation, and other factors. The administrative structure for energy efficiency adopted in D.01-05-055 anticipates that ongoing interaction among program administrators, implementers, advisory group members, customers and other members of the public will serve to identify these changes and develop program modifications to effectively to respond to them. Therefore, we are looking to assess the portfolios

[102] "Joint Staff" refers to the following Energy Division and CEC staff members working jointly on energy efficiency matters at the Commission: Zenaida Tapawan-Conway, Tim Drew, Ariana Merlino, Peter Lai (Energy Division) and Mike Messenger (CEC).

in terms of overall consistency with our policy rules, rather than "fix" the portfolio composition at this time.

8.1. Threshold Issue of Portfolio Cost-Effectiveness

As discussed above, our policy rules establish a threshold requirement that the utility portfolios are cost-effective, on a prospective basis, in order to be eligible for ratepayer funding. Based on the record in this proceeding, we find that the utilities' proposed portfolios meet this requirement. Even with the concerns expressed over certain key input assumptions, such as net-to-gross ratios, the analysis of cost-effectiveness presented in this proceeding is quite robust. In particular, Energy Division's consultant TecMarket Works performed sensitivity analysis in its final report that indicates that each of the utilities' portfolios will be cost-effective even if they only achieve 60% of the projected savings. For SCE and SDG&E, the portfolios would still be cost-effective at 40% of projected savings. TecMarket Works concludes, as do we, that "from a cost-effectiveness consideration, the current portfolios are a relatively safe risk as submitted."[103]

8.2. Achievement of GWh and Therm Savings Goals

We are less certain, however, that the proposed portfolios will meet or exceed the Commission's energy savings goals for 2006-2008. With respect to the energy (GWh and therm) savings associated with the portfolios, the risk that the

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[103] TecMarket Works Report, pp. 26-27. We disagree with WEM's assertion in its reply comments that a finding concerning overall portfolio cost-effectiveness cannot be made without updating or further evaluating all input assumptions. As discussed above, TecMarket Works' final report presents a reasonable assessment of uncertainty (via sensitivity analysis) to support our conclusion.

portfolios will not meet these goals revolve around uncertainties in key input assumptions. These include, in particular, estimates of the number of program participants, the fraction of those likely to be free riders (reflected in NTGs) and the estimated useful lives associated with certain lighting measures. Parties have proposed different ways for the Commission to address these uncertainties. (See Section 6.2 above.)

NRDC suggests that some of the disagreement over how best to address uncertainties with respect to NTG assumptions reflects differences in opinion over what D.05-04-051 had to say (or not) about "truing up" those values, and requests Commission clarification on this issue.[104] Our decision today on how best to bound the uncertainty associated with this key savings parameter for planning purposes is predicated on the expectation that NTGs *will* in fact be adjusted (trued-up) on an *ex post* basis when we evaluate actual portfolio performance. We believe that this is entirely consistent with the resolution of threshold EM&V issues in D.05-04-051.

In that decision, we determined that *ex ante* savings estimates should be trued up based on the results of *ex post* load impact studies. As NRDC observes, we did not explicitly state whether or not that would include a true up of net-to-gross ratios to reflect free ridership. However, since many load impact studies evaluate the free ridership parameter as an integral component of their evaluation methodology (e.g., through the use of a non-participant control group in billing analyses), we did not consider it necessary to specify that the NTG assumptions would be trued up as part of that process. So that there is no further confusion on this issue, we clarify today that NTG assumptions should be trued-

[104] CMS, p. 1; *Reply Comments of NRDC*, July 21, 2005, p. 3.

up in evaluating the performance basis of resource programs. The types of studies to perform, frequency of true-up and specific methodologies are to be developed as part of the EM&V protocols. In fact, it is our understanding that Joint Staff has already circulated among interested parties a proposal on those issues.[105]

In considering the concerns about the planning assumptions in this proceeding, we agree in principle with TecMarket Works, TURN, ORA and others that NTG ratios must be refined to reflect the findings from recent evaluation studies and appropriately mapped to the new generation of programs in 2006 and beyond. Clearly, there are other refinements to input assumptions that need to be made as we continue to update and improve upon our estimating methodologies. We have already directed that the EM&V protocol development currently underway address the frequency and process for updating key input assumptions, such as EULs and NTG assumptions. Joint Staff has been conducting workshops on these and other EM&V-related issues during the concurrent EM&V phase of this proceeding. Refinements of these estimates over time, using a consistent set of EM&V protocols, will enable us to improve our ability to estimate the impacts of energy efficiency programs for both program planning and resource planning purposes.

However, postponing the implementation of the cost-effective portfolio plans in order to first review and debate each specific *ex ante* input assumption places unwarranted emphasis on these issues for the purpose of evaluating the

[105] Our discussion in D.05-04-051 recognizes, however, that it may not be necessary to true-up the performance basis using *ex post* studies for some measures and/or programs. *See* D.05-04-051 p. 52.

uncertainties associated with the portfolio plans. In addition, the amount of effort that would be put into such an approach (by Joint Staff or its consultant, the utilities, interested parties and PAG/PRG members) would be redundant to (and possibly prejudge) the efforts already underway in our EM&V phase to develop protocols for all key parameters related to the estimation and evaluation of energy efficiency savings and net resource benefits. Moreover, we simply do not agree with TURN that the extensive work that it recommends for an additional "Post Phase 1/Pre-Compliance" filing is even feasible to accomplish in the coming weeks, let alone desirable for the reasons stated above.

While moving to the standard NTG values as ORA recommends may make it easier for planning and analysis, we concur with TecMarket Works' observation that this approach usually also increases the risk of overstating savings forecasts within the portfolio.[106] In sum, the proposals of TURN, ORA and the authors of the TecMarket Works for addressing the uncertainty associated with the utilities' forecasts of savings have significant shortcomings that we cannot overlook.

However, the CMS document does present an additional option for our consideration. In particular, the CMS describes an alternative that PG&E has proposed in response to PAG recommendations: PG&E plans to recalculate its portfolio cost-effectiveness after the competitive bid solicitation is completed, and it has finalized its proposed program plans (including partnership programs) during the compliance phase. In doing so, PG&E will also conduct sensitivity analysis to assess whether the portfolio will still be cost-effective and meet the Commission's energy goals if key parameters (e.g., NTG ratios and input

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[106] TecMarket Works Report, Finding 10, p. 9; and p. 22.

assumptions for key measures such as lighting) are lower than expected after evaluation.[107]

We believe that this approach provides us with both a practical and effective way to assess the robustness of energy savings estimates before we authorize the final program plans. We will adopt this approach for all four utilities. In presenting this analysis for our consideration, the utilities should jointly develop a consistent set of sensitivity scenarios, with input from their PRGs. The use of sensitivity analyses to bound the uncertainties over key input assumptions will provide us with sufficient information to assess whether the portfolio plans are likely to meet our goals and remain cost-effective when the compliance plans are submitted for review.

Nonetheless, we are not satisfied for purposes of evaluating portfolio performance with the EUL assumptions contained in the utilities' June 1 filings--particularly for lighting measures, which comprise a significant portion of their proposed portfolios. Since this performance parameter will not be further adjusted on an *ex post* basis when we evaluate 2006-2008 program achievements, per D.05-04-051, it is particularly important that we make sure that the *ex ante* EULs that we use to calculate performance basis are consistent with the evaluation studies currently at hand. The TecMarket Works report indicates that this is not the case.[108]

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[107] CMS, Attachment 6, p. 4.

[108] TecMarket Works Report, pp. 30-31. "It appears that the non-DEER estimates do not take into account recent EM&V studies results that were used to update DEER…The non-DEER workpapers also use the same assumptions for CFL and non-CFL lighting; this is known to be significantly in error for some occupancy types."

EUL values that reflect recent evaluation studies, including updated operating hour assumptions for CFLs, were posted to the Commission's DEER website on July 15, 2005, and further updates to EULs are scheduled to be posted on the site in August, 2005.[109] The utilities are required to utilize these *ex ante* EUL values when reporting actual installations during program implementation and when submitting calculations of savings, portfolio cost-effectiveness and performance basis during the 2006-2008 program cycle. Joint Staff is directed to ensure that inputs to the E3 calculator are appropriately adjusted, so that these calculations will reflect the *ex ante* EUL values referenced above.

For this purpose, Joint Staff may hire a consultant, and/or direct the utilities to submit updated EUL values consistent with today's direction, subject to Joint Staff review, or take other steps as necessary to ensure that these updated DEER EUL values will be used consistently in reporting portfolio performance and in calculating the performance basis for the 2006-2008 program cycle. We expect Joint Staff to complete this work as soon as practicable in 2006. In consultation with Joint Staff, the assigned ALJ shall establish a schedule for completion of these activities.

8.3. Peak Demand Reductions and Related Issues

With regard to the estimates of demand (kW) reductions presented in this proceeding, it is clear from parties' comments that there are several unresolved issues. In particular, there is still considerable debate over the appropriate definition of peak savings that should be used in the evaluation of energy efficiency resources. While some CMS participants characterize the "daily

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[109] Those values can be viewed under "supporting documents" at www.cpuc.ca.gov/deer.

average" definition of peak demand as the most valid for reflecting the procurement costs of reducing energy usage during the peak period, others assert that this definition is not consistent with the intent that energy efficiency demand reductions reflect the marginal impact on the electric system during system peaks, or meet the needs of resource adequacy and long-term resource planning.[110] PG&E also raises the issue of whether this or any of the definitions discussed in the CMS document are consistent with the resource adequacy counting rules, and argues that such rules should be considered when they are finalized later this year.

The draft decision attempted to reconcile the conflicting points of view based on the CMS presentation of the issues and comments on that document. However, based on the comments on the draft decision, we are persuaded that the issue requires further deliberation in coordination with updates to our avoided costs and E3 calculator refinements, as discussed further below.

More generally, TURN urges us to also defer interim authorization of the 2006-2008 portfolio plans (or the start of the compliance phase) until, among other things, the utilities have rebalanced their proposed portfolios "to significantly increase the level of verified and retained residential and small commercial space cooling savings."[111] This specific recommendation, as well as the overall thrust of TURN's comments, reflects a fundamental policy perspective that is clearly not shared by all parties to this proceeding, as evidenced by the reply comments of NRDC, NAESCO and the utilities.

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[110] See, for example, the CMS discussion on p.13 and the September 6, 2005 comments of SDG&E/SoCalGas on the draft decision.

[111] TURN Reply Comments, p. 15.

The perspective is that energy efficiency should primarily be deployed as a resource that reduces critical peak loads (i.e., the needle peaks in kW demand) because it is those loads that establish the maximum capability requirements for California's energy infrastructure (generation, transmission and distribution). However, as NRDC points out, this perspective does not acknowledge that California has a clear need for both baseload and peak savings:

> "While TURN, the TecMarket report, and others correctly point to a near-term need for peaking resources, we strongly urge the Commission to maintain its focus on energy efficiency as a *long-term* resource….Energy efficiency is best suited to meet the state's resource needs ten to twenty years out because energy efficiency savings take time to accumulate to provide sizable savings that can have a substantial impact.
>
> "While the efficiency programs certainly can and should help contribute to meeting near-term needs, it would be unwise to frequently shift the primary focus of the programs to meet short-term resource needs. In the long-run, California needs *both* baseload and peaking resources. One need only look at the more than two-dozen baseload coal plants proposed throughout the West, many aiming to serve California, to understand the importance of the efficiency programs' baseload savings. [footnote omitted.] And contrary to TURN's assertion that building intermediate and baseload generation is often the most efficient and low polluting way to generate electricity, one cannot make a clear-cut statement about what load is most efficient and least polluting to serve: baseload needs can be met with anything from the cleanest renewable resources to the dirtiest coal-fired plants."[112]

We agree with NRDC that the Commission should continue to require that efficiency programs target both peak and base load savings. Our intent in adding the language regarding critical peak loads to the draft policy rules was not to

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112 *NRDC Reply Comments*, July 21, 2005, p. 4.

send the signal that reducing critical peak loads should be the focus of energy efficiency, at the expense of cost-effective base load reduction measures. Rather, it was intended to address specific concerns raised by TURN and Proctor Engineering that (1) current avoided cost valuation measures might not fully capture the value of critical peak reductions and (2) the relatively high load factor reflected in the adopted savings goals could provide the utilities with an incentive to overemphasize lighting programs relative to others with low load factor/high critical peak savings.[113] Until these issues could be fully addressed in our avoided cost proceeding and when we updated our demand reduction goals for the next program cycle, we added language to Rule II.5 that was intended to ensure that the utilities considered a wide range of strategies to increase overall capacity utilization/reduce peak loads within the full context of our adopted Rules.

As NAESCO and others point out, that context is established by our "overriding goal" to "pursue all cost-effective energy efficiency opportunities over both the short- and long-term." (Rule 2.) We believe that TURN's insistence that we hold up approval of the portfolio plans until funds are redirected towards residential space cooling applications ignores that context, and focus too narrowly on the perspective that measures with low load factors (e.g., efficient air conditioners) should take precedence over higher load factor measures (e.g., efficient refrigerators) simply by definition. In fact, TURN criticizes the utilities for even attributing any critical peak savings to measures such as efficient refrigerators because they operate continuously, even though improved

[113] D.05-04-051, pp. 18-20.

efficiencies in refrigeration end use technologies clearly does reduce demand during critical peak demand periods and can do so cost-effectively.

PG&E provides numerical calculations that cause us to further question the validity of TURN's position in this proceeding. In particular, PG&E calculates that if it reduced spending on the top four residential CFL measures by 50% and shifted those rebate dollars to the top four residential HVAC measures, "annual kWh savings for the residential component of the Mass Market program would fall by 28%, a 65 million kWh reduction. Peak demand savings would fall by 10% (5 MW) and TRC net benefits would fall by almost $22 million, a 26% reduction."[114] Even with disagreement over input assumptions for this calculation, it raises questions concerning the premise of TURN's recommendations, namely, that ratepayers would be better off if PG&E's portfolio shifted more rebate dollars to energy efficiency efforts targeted at HVAC end-uses at this time.

We also observe that TURN's assessment of the utilities' compliance with Policy Rule II.5, as well as the assessments provided by the PG&E and SCE PRGs, fail to recognize that a very large portion of the potential savings associated with residential air conditioner use (and identified in the Kema-Xenergy potentials analysis referenced in the PRG reports) will be captured by the increased state appliance standards for 2006 and beyond. As discussed in PG&E's comments, these standards increase the minimum efficiency rating required for residential size air conditioners by 30%, which will affect both new installations and retrofit applications. We believe that TURN ignores this context in making its claim that

[114] Reply Comments of PG&E, pp. 8-9.

the three electric utilities have placed inadequate emphasis on residential HVAC in their program offerings.

Moreover, a careful review of those offerings reveal that, in addition to increasing the savings from (and funding for) residential HVAC relative to prior years, each of the utilities has proposed substantial increases in statewide efforts to support more aggressive codes and standards in the future. In fact, in direct response to the recommendations of TURN, Proctor Engineering and other members of the statewide PAG group on HVAC end-uses (the "HVAC PAGette"), the utilities propose to implement programs that provide market support for the new 2006 standards that are the first of their kind in scope and scale.[115] As NRDC suggests, the utilities should monitor the success of these HVAC programs on an ongoing basis with their advisory groups and ramp up the programs faster than planned and capture more savings if it is feasible and cost-effective to do so.

The bottom line is this: Yes, we are concerned about the reported trends concerning increasing peak demands relative to baseload requirements on the utilities' systems, and we do want the utilities to identify and aggressively pursue the most cost-effective energy efficiency, demand-response and/or distributed generation options that can serve to improve system load factors, . However, rather than require the utilities to arbitrarily "rebalance" their energy efficiency portfolios based on unresolvable disputes among parties over how much program funding should be focused on HVAC end-uses, we believe that the best way to ensure the optimal result over time is to: (1) clearly establish the parameters by which the utilities' portfolio performance in terms of peak load

[115] See CMS, pp. 33-34; *Reply Comments of PG&E*, pp. 19-21.

reductions will be evaluated, (2) properly value demand reductions that occur during critical peak periods for all peak reduction resource options, and (3) update our peak savings goals for 2009 and beyond based on studies of peak savings potential, rather than historical program performance.

The record in this phase of the proceeding is not sufficient for us to resolve the issues related to these tasks, nor was it the intended forum for a full debate on these issues. As the comments indicate, even the specific definition of "daily peak" (e.g, the specific hours of the day to include, the length of the summer peak season and whether that period differs among utilities) warrants further discussion and consideration, should we decide that this definition is the most appropriate metric for evaluating energy efficiency peak demand reductions on either an interim or permanent basis. In addition, the comments convince us that shifting to this common definition of peak at this juncture raises transition and implementation issues that will take more time and effort to resolve than anticipated in the draft decision. In particular, it requires the availability and sufficiency of hourly and/or time-of-use load shapes that can be used to compute average peak reductions for the peak hours over the summer peak period.

As the utilities point out in their comments, and Joint Staff have also confirmed, this disaggregated level of hourly load shape data is not consistently available for all measures at this time. Where there are gaps in the underlying load shape data (e.g., for new measures), we will also need to consider what computation methods might produce satisfactory approximations of peak reductions, and how to obtain more complete data in the future. In addition, requiring the utilities to re-estimate the estimated peak load reductions associated with their portfolio plans based on the daily peak definition will also require consideration of what modifications/calibrations are required to the

DEER data utility system load shapes to conform to this definition. In sum, even if we were persuaded that this definition of peak is appropriate to use on an interim or permanent basis, it would take more time and effort than anticipated in the draft decision to resolve remaining definitional issues and to consider, develop and review the underlying data and computational requirements.

More importantly, the comments raise important questions concerning the appropriateness of using the daily average peak reduction metric of performance in the broader context of how we should value energy efficiency across proceedings: Is this definition of peak load reductions appropriate in the context of resource planning and resource adequacy counting rules? Is there another definition that is more appropriate that we should work towards incorporating into the E3 calculator? Do we need to have identical definitions of peak demand reductions for all purposes (e.g., energy efficiency cost-effectiveness evaluation, establishment of energy efficiency peak reduction goals and evaluating achievement of those goals and resource adequacy counting), or do we just need to ensure that there are clear and consistent crosswalks between them to meet both program and resource planners' needs? These are fundamental issues that we should consider before adopting a common definition of peak for energy efficiency planning and evaluation purposes. As discussed further below, we will address these and other related issues in conjunction with the process we establish in today's decision for updating avoided costs and making necessary refinements to the E3 calculator. (See Section 8.8 below).

We recognize that until these longer-term definitional and methodology issues are fully addressed, we will need to move forward with calculations of peak demand reductions during the compliance phase that are subject to modification when we resolve these issues in 2006. However, we prefer this situation to one where we attempt to impose a common definition of peak load reductions now that will also be subject to change, and in doing so, cause potentially significant delays in roll out of the 2006 program plans as we sort through the issues outlined above. Moreover, as described in this decision, we will be updating other inputs for our assessment of the performance basis for the 2006-2008 program cycle after the bid solicitation cycle is complete, i.e., avoided costs and EUL assumptions. (See Sections 8.2 and 8.8.) We will also be making corrections/refinements to the E3 calculator model and consider improvements to the underlying load shape data, as part of this updating process.

Given the considerations outlined above with respect to the definition of peak, we believe it is more prudent to include this issue in the post-compliance phase updating process as well. In this way, we can develop the performance basis for this next three-year program cycle that incorporates all the updating discussed in this decision, based on a careful and coordinated consideration of the issues. This will enable us to establish a performance basis for the 2006-2008 program cycle that provides a solid foundation for performance incentive mechanism discussions.

We plan to complete this updating process by mid-2006. As discussed in Section 8.8 below, the updated performance basis parameters and definition of peak savings that result from this process will be used to evaluate performance for the 2006-2008 program cycle.

The utilities may need to rebalance some of their program offerings and budget allocations based on these updates, using the funding shifting rules adopted by this decision. We recognize that this introduces some uncertainty with respect to program planning and budgeting during the upcoming compliance phase competitive solicitations. However, this is unavoidable unless we completely delay the solicitations until we have completed our updates to performance basis inputs (including avoided costs), refinements to the E3 calculator and consideration of peak demand definition issues. These efforts will take several months, even on an expedited schedule.

We do not believe that it is in the public interest to forgo the savings that can be achieved with the completion of the compliance phase and roll out of the portfolio plans in early 2006, while we undertake necessary refinements to the performance basis that will require more time to complete. As discussed in this decision, we expect that the portfolio plans (including the measures offered) will be adjusted continually throughout the program cycle in response to market feedback and other information. It is therefore unrealistic on the part of third-party bidders and other stakeholders to expect that once the compliance phase is complete, there will be no changes to the program offerings or the budgets allocated to them. Instead, those program offerings and budget allocations will change overtime, and in this instance, some of those changes may be necessitated by improvements in our valuation of avoided costs, in our definition of peak savings and the other refinements we discuss in this decision.

In the meantime, the utilities should meet with interested parties to discuss all the cost-effectiveness inputs in the E3 calculators, as suggested in their comments. This meeting should be held by the utilities, led by the E3 consultant that developed the calculators under contract to them, within 15 days from the effective date of this decision. It should be structured similarly to the April 18, 2005 workshop in our avoided cost proceeding, where all the energy efficiency avoided costs and cost-effectiveness calculator details were discussed. However, in anticipation of the level of detail that will be of interest to participants to this proceeding, each utility is directed to make available the underlying load shape data used to develop the inputs to their respective E3 calculator model to all interested parties several days prior to the workshop. The E3 consultant should be prepared to describe in the workshop how the 8760 hours of adopted avoided costs were mapped to that load shape data, particularly for the summer peak hours.

We believe that there is considerable value in further information exchange at this juncture, so that interested parties become more familiar with how the calculator produces peak savings estimates for the portfolio as a whole, as well as for specific types of measures, as the utilities move into their compliance phase solicitations and filings. There will clearly be continued disagreements over what elements of the E3 calculator model, underlying load shape data and avoided cost "mapping" approaches (in addition to the peak demand definitional issues) need to be revised for the future. This workshop is not the forum for debating or resolving these disagreements. Rather, its primary purpose is informational. However, we expect that the discussions will also help Joint Staff and interested parties begin to identify what issues should be addressed during the post-compliance phase updating process, described further in Section 8.8 below.

Another purpose of the workshop discussion will be to identify any E3 calculator (model or input) "fixes" that are relatively easy to implement and where there is general consensus that such modifications are appropriate. For example, the CMS document indicates (based on the TecMarket Works report) that there are existing counting period inconsistencies with respect to how the E3 calculator accounts for peak load reductions. There were also anomalies identified with respect to how the E3 calculator produces the Standard Practice Manual cost-effectiveness results. These may be areas where the utilities and their E3 consultant, after further input from workshop participants, can easily resolve the inconsistencies in time for the upcoming competitive bid solicitations. There may be other examples that emerge from this informal process of information exchange.

After the informational portion of the workshop is concluded, workshop participants should engage in discussions on what improvements can be made relatively quickly to the E3 calculator model. The utilities are authorized to make further refinements to the E3 calculators based on the feedback that they receive during the workshop, and are directed to describe those changes in the November 1 filing discussed below. However, we will hold over to the updating process described in Section 8.8 the longer-term improvements/refinements that need to be considered with respect to the calculation of energy efficiency peak load reductions.

Regardless of the final definition of peak savings we choose to adopt (e.g., daily average, coincident, non-coincident), the Commission will need the E3 calculator and cost-effectiveness calculations in general to be based on the best available data related to the shape or pattern of energy savings over at least the four to seven hours of the peak period. This type of data is also needed to establish resource adequacy and for resource planning in general. In particular, as we move to refine our accounting of energy efficiency savings for resource planning purposes, including resource adequacy, it will not be sufficient to simply multiply annual savings by one factor (e.g., the 0.217 conversion factor used to translate the Commission's GWh savings goals to MW peak load reduction goals) without any knowledge of what is happening during the hours of the peak period.

Therefore, Joint Staff and the utilities, with input from interested parties, should also use this workshop process to begin to identify for which measures/programs additional or better quality hourly data needs to be collected. We expect such improvements to be reflected in ongoing data collection activities throughout the program cycle, and reflected in specific evaluation and measurement projects under the EM&V plans.

By November 1, 2005, the utilities shall file a report summarizing the workshop discussion and reporting the E3 calculator refinements that they have made in response. Based on the workshop discussion, the report should also present a preliminary list of issues that participants recommend be addressed during the updating process described in Section 8.8. The report should also present the workshop discussion on the data collection needs discussed above. The utilities are encouraged to hold additional workshops in October, as time permits, to further discuss the data collection and longer term updating issues with their PRGs and interested parties before preparing their report. The Assigned Commissioner or ALJ will solicit written comments on the final report to assist in scoping the issues for the 2006 updating process.

In addition to any other refinements to the E3 model that results from these workshops, the utilities should incorporate a correction to the erroneous demand reduction estimate for lighting currently contained in DEER that was identified during the course of this proceeding. In particular, SDG&E acknowledges that it needs to reduce residential CFL impacts by a factor of 2.34 in upstream lighting because DEER erroneously incorporated the wrong demand reduction.[116] If this error is applicable to lighting measures in the other utilities' portfolio plans, they

[116] See Joint Reply Comments of SDG&E and SoCalGas on Parties' Comments, July 21, 2005, pp. 2-3; CMS, p. 11.

are also required to make the appropriate adjustments for the compliance phase filings.

In response to concerns over our current avoided cost valuation of peak demand reductions,[117] in particular for those hours that are considered "critical peak," we take immediate steps today to evaluate the issues raised in this proceeding as part of the avoided cost updating process anticipated by D.05-04-024. The proper valuation of peak load reductions, however we may define those hours, is needed whether such reductions are achieved through energy efficiency measures, distributed generation or demand response. As we observed in D.05-04-051, it is far from clear how critical peak avoided costs should be used in the context of energy efficiency measures that are not fully dispatchable. This issue will need to be explored during the updating process. We describe that process in Section 8.8 below.

Finally, as the updating process for our energy savings goals for 2009 and beyond gets underway, we direct Joint Staff to take the concerns of Proctor Engineering and others regarding the existing conversion factors into consideration by carefully evaluating the peak load savings potential of energy efficiency programs across all sectors.

8.4. Competitive Bidding

As described in the various filings in this proceeding, and summarized above, the utilities have been very responsive to the suggestions of advisory group members, individual parties and the general public in crafting competitive

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[117] "Current avoided costs" are those avoided costs calculated using the E3 avoided cost methodology, as specified in D.05-04-024, and as set forth in the

Footnote continued on next page

bid proposals that are consistent with our policy rules. In all but a few instances, each utility has also responded to recommendations of their respective PRG, to their mutual satisfaction. Therefore, there are only a few issues related to the competitive bid solicitations that we believe this decision should resolve and/or clarify, before the utilities proceed in developing their compliance filings.

First, we note that each utility has indicated that their PRG will be involved in the bid evaluation process during the compliance phase. However, the language of their response to the related PRG recommendations lacks sufficient specificity (especially in the case of SCE) to convince us that our expectations will be reflected in that process. By D.05-01-055, we directed that PRG members (including the independent consultant(s) that Energy Division may hire to assist it as a PRG member) are to "observe" the utilities' selection process "to ensure that the criteria are applied properly."[118] We further directed that the utilities "discuss the proposed results of their bid review process with the PRGs (and Energy Division's independent consultants)" before finalizing their selections:

> "For this discussion, the [utilities] will provide the program implementation plans, timelines and goals of the bidders in as much detail as available, along with any other bid evaluation information that the PRGs may request. This group will have an opportunity to ask questions about how the criteria were applied and provide feedback on the selection process, and otherwise help to ensure that the bid process is fair. It is the [utilities] responsibility to describe in their compliance filing…how they have responded to criticisms presented by the PRG (and Energy Division consultants) during this process."[119]

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associated May 2005 compliance Advice Letter filings by PG&E, SCE, and SDG&E.

[118] D.05-01-055, p. 103.

[119] Ibid.

In our view, this will require the utilities to establish a process that allows the PRG members (including Energy Division's consultant, if applicable) to monitor both Stage 1 and Stage 2 selections. Whether that involves physically being "in the same room" or setting up a process whereby the utilities present all the abstracts to PRG members and discuss the proposed selection of those that will go on to Stage 2 (for example), will be left up to the utilities and PRGs to work out to their mutual satisfaction. The sheer volume of Stage 1 abstracts that PG&E receives relative to SoCalGas, for example, may warrant different procedures to accomplish the same goal, namely, to allow the PRG to effectively monitor the bid selection process. However, we do clarify today that each utility should expect and facilitate the active involvement of PRG members in this monitoring process, per the direction in D.05-01-055.[120]

In terms of the bid evaluation criteria themselves, we agree with NRDC that they do not have to be identical across the state. As NRDC points out, each of the utilities has developed its criteria through a transparent and cooperative process with its PAG and PRG members, and the result reflects a great deal of consensus around the evaluation criteria proposed for the specific solicitations being undertaken within each service territory. We also note that PG&E's "targeted" solicitation is much broader than those of the other utilities and, as a result, the factors that PG&E will need to consider to evaluate and integrate

[120] We also intend for PRG members to be similarly involved in monitoring subsequent competitive bid solicitations that the utilities undertake during the 2006-2008 program cycle, but we will not require the PRGs to submit written assessments or (as discussed in section 8.9) the utilities to submit compliance filings for our review and approval for these mid-cycle solicitations.

third-party programs into the overall portfolio will be more involved than those required for the other utilities.

Although not identical across utilities, we find that the evaluation criteria for each proposed solicitation have achieved overall consistency with the objectives stated in our policy rules, with only a few exceptions noted below. In particular, each resource solicitation will be evaluated during Stage 2 with criteria that place significant weight on performance metrics that directly support our resource planning and cost-effectiveness objectives for energy efficiency. In the case of SCE, SoCalGas and SDG&E, the criteria are specified as "kWh and kW potential" and "cost-effectiveness," whereas for PG&E they are termed "portfolio fit/improved performance" and "levelized costs"—but they address similar priorities.

We also observed in D.05-01-055 that the most important benefit of competitive solicitations is to "help identify innovative approaches or technologies for meeting savings goals with improved program performance that might not otherwise be identified during the program planning process."[121] Appropriately, the utilities will value "innovation" when reviewing all the bid solicitations—for resource and non-resource programs alike, with added emphasis on this criteria for those bid solicitations specifically seeking new ideas for tapping energy efficiency potential.[122] Moreover, with only one exception, the evaluation criteria reflect our direction that potential lost opportunities be

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121 D.05-01-055, p. 86.

122 Here again, there are some differences in the metrics used to evaluate this attribute, that we do not find significant. For example, PG&E does not explicitly list "innovation" as an evaluation criteria under its targeted solicitation for resource programs, but includes "improved performance" as a criteria along with "portfolio fit" instead.

addressed in the portfolio plans by including consideration of the "comprehensiveness" of each bid proposal, and/or how it addresses "lost opportunities."

However, in two instances we find that the bid evaluation criteria require minor modification to be more consistent with our policy direction. First, unlike the other utilities, SDG&E (and its PRG) do not recommend considering "cost efficiencies" in the evaluation of non-resource program bids, either for the targeted or innovative idea solicitations. Instead, they propose to consider "budgets" (administration, direct implementation, marketing and outreach), giving it the same weight (25%) as the other proposals would place on cost-efficiencies. The filings are not very descriptive as to these two terms, but we believe that "cost efficiencies" is a more appropriate aspect to evaluate than the "budget" of a non-resource program. Accordingly, we direct SDG&E to make this change to their Stage 2 evaluation criteria.

In addition, we note that SCE's revised evaluation criteria for non-resource programs under its targeted solicitation have dropped any consideration of "lost opportunities" in order to respond to the recommendations of its PRG. We believe that its original proposal for this solicitation is preferable because it does include "innovation" as an evaluation criterion, and is also more consistent with the review criteria proposed by the other utilities and their PRGs for this type of solicitation. Therefore, we will adopt SCE's original proposal for non-resource programs under its targeted solicitation.

In the draft decision, we directed SCE to further specify its Stage 1 review criteria and associated weights or scores as the other utilities have done in response to PRG recommendations. Subsequent to the issuance of that draft, SCE and its PRG reached agreement on an explicit set of Stage 1 review criteria and weightings, and SCE presented that agreement in its opening comments. We adopt that proposal today, and have incorporated the SCE Stage 1 review criteria into Attachment 6.

We note that there is still a minor difference between SoCalGas and its PRG with respect to the manner in which “skill and experience” should be evaluated under the innovative emerging technologies and innovative resource solicitations. We believe that the utility’s preference for combining the consideration of a bidder’s skill and experience within the “program implementation and feasibility” criteria is no less reasonable than considering skill and experience as a separate criterion. Moreover, under the proposed weightings, there appears to be very little substantive difference between the two approaches. Finally, we note that the SoCalGas PRG recommends different approaches to this issue, depending on the type of solicitation—without any obvious reason. We will adopt SoCalGas’ proposed approach.

With respect to the one remaining area of disagreement on competitive bidding between PG&E and its PRG, we find PG&E’s request to defer consideration of a non-resource bid solicitation until after the resource portfolio is complete to be reasonable. PG&E is already undertaking the most extensive solicitation process of the four utilities for 2006. We see no obvious benefit to requiring an additional solicitation at this juncture, as the PRG recommends. Instead, PG&E and its PRG should continue to explore this issue as PG&E prepares for the additional solicitations it plans to conduct during the upcoming program cycle.

Nor do we see any benefit to ConSol’s proposal for a statewide replacement bid for residential new construction, except perhaps to ConSol if we also adopt its proposal to be the statewide contractor for this program. As PG&E

points out in its reply comments, the utilities will be offering a statewide consistent California Energy Star New Homes program that has been recognized by the Environmental Protection Agency and won awards for excellence during the past three years. In coordination with the Sacramento Municipal Utilities District, the utilities will continue to offer this performance-based program with a minimum requirement of 15% better than code, as well as offer a variety of prescriptive measures.[123] Arbitrarily granting ConSol responsibility for the residential new construction program is an unnecessary limitation on a successful program and would be unfair to other potential third-party implementers.

We note that nothing precludes ConSol from submitting a proposal in response to the utilities' competitive bid solicitations specifically targeted to residential new construction (e.g., PG&E and SCE), or to their solicitations for innovative proposals in the residential sector (e.g., SDG&E). However, we do not find any support on the record for ConSol's assertion that its Comfortwise new homes program should replace the statewide Energy Star New Homes program, which has successfully involved many builders and contractors throughout the state. In fact, as PG&E points out, ConSol's claims of high cost-effectiveness is likely a function of the limited market focus and lack of prescriptive measure options under ConSol's current program offerings.[124]

As SCE notes in its reply comments on the draft decision, ConSol and any other potential program implementer have an opportunity to propose energy efficiency programs through the utilities' program solicitations, including bids

[123] Reply Comments of PG&E, pp. 14.

[124] *Ibid.*, p. 13.

which may be implemented in all of the utilities' service territories. The results of this first round of competitive bids may, as the winning bidders roll out their programs and program performance is evaluated in one or more service territories, reveal program designs that could also be well-suited to a single statewide competitive bid in the future. However we cannot predict at this time what program designs would best lend themselves to this approach. As part of their statewide coordination activities, the utilities should establish a process and schedule for reviewing the performance of the winning bidders in their respective service territories with each other and with their PRGs, with the objective of considering single statewide bids and associated statewide review criteria for certain market sectors or programs for future solicitations during the 2006-2008 program cycle. We direct that the utilities and their PRGs jointly report back to the Assigned Commissioner and ALJ by October 15, 2006 with the results of this review.

The PRG assessments and CMS also reflect differences of opinion with respect to how the 20% minimum competitive bidding requirement should be calculated. In D.05-01-055, we articulated this requirement in the context of discussing the "portfolio of programs" that the utilities would propose to reflect "continuation of successful [utility] and non-[utility] implemented programs and new program initiatives designed to meet or exceed the Commission's savings goals with cost-effective energy efficiency."[125] In that context, we directed the utilities to identify a minimum of 20% of funding for the "entire portfolio" to be put out to competitive bid.[126] We believe that SDG&E's and SoCalGas'

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[125] D.05-01-055, p. 88.

[126] *Id.*

interpretation that the 20% applies to the non-EM&V portion of portfolio funding levels is fully consistent with this language.

As described in Section 6.8**,** there are few additional issues between the PRGs and the utilities that remain unresolved. In particular, SCE's PRG recommends a modification to the allocation of funding for SCE's bid solicitation, SDG&E's PRG recommends the expansion of SDG&E's targeted solicitation to include some additional program elements, and SoCalGas' PRG suggests that the utility conduct a series of solicitations throughout the program cycle. We believe that the utilities have taken the PRGs' views under consideration on these issues, and should be allowed to make a final determination on each of them in the context of developing their final program plans during the compliance phase.

Attachment 6 presents the adopted evaluation criteria for each utility, by type of solicitation and evaluation stage. This includes a brief description of each utility's proposed approach to portfolio integration after the Stage 2 evaluation stage is complete, based on agreements reached during the CMS process. We will approve these approaches, noting that each of the utilities is expected to continue to work with and involve their PRGs in this final integration phase. The PRG assessments of each utility's competitive bid process should address all stages of bid evaluation, including how the bid results are considered in the context of portfolio plan integration.

In its comments on the draft decision, CCSF requests that we direct PG&E to add "consideration of constrained areas" to the list of factors it will consider during the portfolio integration state. We note that this direction was already reflected in the adopted evaluation criteria for PG&E (Attachment 6 "Approach to Portfolio Integration after Stage 2 Process is Complete), so no further direction to PG&E is required. However, we agree with CCSF that other utilities should consider constrained areas as well during the portfolio integration stage, and have added that requirement more generically in Attachment 6.

8.5. Codes and Standards Savings

Before addressing the specific savings issues related to codes and standard work, we emphasize that these activities 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. Therefore, as we recognized in D.05-04-051, we need to develop updated EM&V protocols to quantify the resource savings attributable to the Codes and Standards Advocacy Program, and to verify those savings. That process is currently underway in the EM&V phase of this proceeding, and we expect to have protocols established for this purpose and associated EM&V plans for the 2006-2008 cycle by the end of the year.

In the meantime, we agree with the Assigned Commissioner that we should reconsider the exclusion of savings associated with pre-2006 codes and standards advocacy work in this proceeding.[127] As we noted in D.05-04-051, counting the savings from this work towards our 2006-2008 goals does not raise the same transition issues as counting pre-2006 commitments from new construction and standard performance contracting programs. This is because

[127] Assigned Commissioner's Ruling Providing Clarification on Energy Efficiency Savings Issues Associated with the 2006-2008 Program Cycle, May 11, 2005 in R.01-08-028.

energy savings have never been explicitly attributed to this work in previous program years or linked to performance goals for those years. Therefore, there would be no double counting in this respect if we chose to count them in the years when the savings are actually realized, i.e., during the 2006-2008 program cycle.

Our decision in D.05-04-051 to defer the issue of quantifying energy savings from these programs for the purpose of counting them towards our energy efficiency goals was prompted by other concerns. These included concerns over the expediency with which reasonable attribution estimates could be developed for prior year program efforts, as well as over potential inconsistencies between the years in which program investments are made and considered in calculating performance basis. We were also not persuaded that counting some portion of savings attributed to pre-2006 codes and standards advocacy work was a reasonable response to the accounting transition from "commitments and actuals" to "actuals only" in evaluating achievements towards our goals.[128] The record developed in response to the Assigned Commissioner's ruling convinces us that this is indeed a reasonable response, for the following reasons.

In particular, the record confirms that the 2005/2006 code and standards revisions were not accounted for in the studies of economic potential that led to the establishment of our savings goals for 2006 and beyond.[129] Now that the new standards are in place, this means that those standards may actually work against the utilities with respect to their ability to tap that economic potential with other

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[128] See D.05-04-051, pp. 56-60.

[129] Joint Supplement, Attachment 2, p.7.

types of energy efficiency activities. While Joint Staff points out that this alone may not have greatly overestimated the savings potential, because of other technical aspects of those potential studies,[130] it is also the case that changing the accounting to "actuals only" works in the same direction.

This is because the analysis conducted by Joint Staff to develop its recommendations for the 2006-2008 savings goals was based on a "commitments and actuals" accounting basis. More specifically, Joint Staff's analysis of the amount of "achievable" economic potential that could be tapped with energy efficiency programs was based on past program effectiveness (kWh/dollar) factors that included commitments from both new construction and retrofit applications. As the Assigned Commissioner points out, this is a short-term transitional issue, and not a long-term problem, because commitments made in 2006 and 2007 for both retrofits and new construction programs will become "actuals" in the program years that follow, thereby assisting in the achievements of the adopted cumulative goals for later years. Moreover, the savings goals updating process that will occur in time for the 2009-2011 program cycle will reflect the "actuals only" accounting practice adopted in D.04-09-060.[131]

Nonetheless, the method of accounting for program accomplishments towards our goals ordered in D.04-09-060 and clarified in D.05-04-051, in combination with the method by which Joint Staff developed estimates of achievable potential, does create a short-term transitional inconsistency between the two that should be addressed. One option for addressing this inconsistency

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[130] Attachment 4, pp. 11.

[131] Assigned Commissioner's Ruling Providing Clarification on Energy Efficiency Savings Issues, May 11, 2005, pp. 6-7.

would be to re-open the goals decision and make some sort of adjustment to the short-term goals in that context. However, we agree with the utilities that this is not the preferred approach. As they point out, if the goal decision is to be revisited, every stakeholder will have multiple reasons for changing the goals—is simply is not feasible to expect that only one reason for change will be considered, in isolation from all other reasons. Furthermore, a great amount of resources and time have been devoted to planning and decision-making based on these 2006-2008 cumulative goals. Several months of reconsideration and redoing would be required to meet different goals. As a result, the whole timetable for launching the 2006-2008 programs in time to achieve the desired savings would be threatened.

Instead, we believe it is reasonable to allow the utilities to credit some portion of the savings attributable to pre-2006 codes and standards advocacy work towards our savings goals during this transition (i.e., for program cycle 2006-2008), as Joint Staff recommends. However, we must further consider whether to count these savings towards the savings goals in subsequent years, in the context of how we update the savings potential and associated goals for those years. As illustrated in Attachment 10 our resolution of this issue will depend a great deal upon the manner in which we establish the baseline for the next round of potentials studies. Therefore, we defer consideration of whether the savings attributed to pre-2006 codes and standards work should also be credited towards our savings goals for 2009 and beyond, pending further discussion of these issues.

In fact, we believe that the record in this proceeding has raised a fundamental issue that we must consider with respect to that baseline, namely: Should our future energy efficiency savings goals be established based on the economic potential associated with *the combination* of codes and standards update work and other energy efficiency programs that can defer or replace the need for supply-side resources? If this approach is taken, the baseline for our potentials studies might not need to be modified with each update to reflect the latest revisions in state codes and standards. In addition, this approach would provide strong incentives for state staff and the utilities to work together to achieve the mutual savings goals. Alternatively, should we remove the impact of recently adopted higher codes and standards (and the associated economic potential) when we develop the savings goals for utility energy efficiency portfolios? Under this approach, the baseline for our potentials studies would be adjusted to reflect the impact of ever higher codes and standards. (See Attachment 10)

We believe that the concept of estimating the potential for the combination of all program efforts (including codes and standards advocacy work) and establishing energy efficiency portfolio goals on that basis has considerable appeal. Doing so could better enable us to assess the economic potential of improved codes and standards along side direct installation and other resource programs, as well as their associated savings achievements. It would also remove conflicting signals to the utilities that arise if the savings potential of energy efficiency is ratcheted downwards to reflect the higher codes and standards that their advocacy work in previous years has produced. Accordingly, we direct Joint Staff to consider this issue and present recommendations during the goals updating process, which will be underway during the 2006-2008 program cycle.

In terms of the level of savings to credit towards the 2006-2008 goals from these pre-2006 program activities, we agree with Joint Staff that the HMG methodology has a logical coherence and covers the developmental steps that most outside observers agree are important in estimating the savings impacts of codes and standards advocacy work. Nonetheless, as Joint Staff also points out, there are inherent and potentially significant uncertainties associated with the approach taken to attribute savings to this pre-2006 work.[132] Moreover, specific input assumptions used by HMG to develop the *ex ante* savings estimates would benefit from further evaluation and verification before we can rely on them with confidence.[133] Given the uncertainty involved in measuring the realized savings associated with this pre-2006 program, we find that Joint Staff's recommendation provides a rationale bound for the attribution of savings to pre-2006 codes and standards advocacy work. In addition, it strikes a reasonable balance among the various concerns with respect to the motivation and perceptions of the various stakeholders surrounding the value of codes and standards advocacy work.

With respect to the potential undesirable outcomes that ORA, TURN and NRDC identify in their comments, we believe that the conditions Joint Staff placed on its recommendation, and the utilities' response to them, have laid these concerns to rest. In particular, the utilities point out that they have not relied on these codes and standards savings attributed to pre-2006 advocacy work in their June 1, 2005 applications, and have agreed that they will not proposed to reduce the activities and efforts in those applications in response to our determination

[132] CMS, Attachment 4, pp. 8-10.

[133] In particular, see Joint Staff's recommendation for verifying parameters used by HMG to develop its *ex ante* savings estimates. Rather than formally direct Joint Staff to set up an evaluation contract to verify these parameters in today's decision, as Joint Staff suggests, the specifics of such EM&V activities should be established via the process we established for the EM&V phase in D.05-04-051.

on this issue.[134] Joint Staff's conditions on its recommendation to count these savings towards the 2006-2008 goals is predicated on conditions that further ensure that the utilities may not cut back on their funding levels or program efforts in response to today's decision.

Moreover, it is our intent to put in place a financial risk/reward incentive mechanism that directly speaks to ORA's second concern, namely, that the utility would remain indifferent to program changes that lower the projected savings as long as the portfolio stays ahead of the goals. With the adoption of a performance basis for resource programs based on net resource benefits (resource savings minus costs) we have actually taken a major step towards removing this potential indifference and, more importantly, in motivating the utility program administrators to maximize *actual* program savings as cost effectively as possible. The next step in this process, as discussed in Section 9 below, is to fully develop the risk/reward incentive mechanism associated with this performance basis, as well as further define the minimum performance threshold we adopted in D.05-01-055.

With respect to the performance basis issues that ORA and NRDC raise in their comments, we do not believe that it is necessary to either reject Joint Staff's recommendations or completely defer addressing them until these performance basis issues are resolved. Specifically, ORA asks how the savings attributable to pre-2006 codes and standards work would be treated in the calculation of performance basis, if they are considered as "bonus savings" with respect to the 2006-2008 savings goals, as Joint Staff recommends.

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[134] Joint Utilities Response to Joint Staff Comments on Codes and Standards Program Energy Savings Assessment, July 21, 2005, p. 6.

As discussed in Attachment 10, the general concept would be to fully count the stream of savings attributable to each round of codes and standards work that leads to increased efficiency codes and standards in the calculation of the "net resource benefits" performance basis.[135] However, this approach would *not* be appropriate for the resource benefits attributed to pre-2006 codes and standards advocacy work. This is because counting the savings associated with this work towards performance basis, upon which a risk/reward performance mechanism would be based, creates a fundamental policy inconsistency with respect to the cessation of shareholder earnings during the program years when these pre-2006 investments were made. This same policy issue would also arise if we counted towards performance basis the actual installations for 2006 and beyond that were the result of commitments made prior to 2006. In D.05-04-051, we explicitly excluded such savings from the calculation of performance basis.[136]

In Attachment 10, we also discuss the issue of how savings attributable to codes and standards advocacy work performed during a prior program cycle might be considered when estimating the cost-effectiveness of proposed program plans in a subsequent cycle, after the resulting new standards take effect. According to the policy rules we adopted for 2006 and beyond, the costs of this work would be counted during the program cycle in which they occur. The actual savings would be counted in the calculation of portfolio cost-effectiveness

[135] More specifically, the performance basis is a calculation of net resource benefits that weights the resource benefits and cost components of the TRC test by 2/3 and the PAC test by 1/3. See D.05-04-051, p. 40. Also, see the discussion in Attachment 10 concerning the various timing issues for calculating the performance basis for codes and standards work conducted during a program cycle, and associated options and considerations.

[136] D.05-04-051, p. 56.

when the standards are put into effect, similar to the manner in which the savings from actual installations associated with commitments made in 2006 and beyond will be counted.

While this would be the general approach for activities undertaken in 2006 and beyond, we conclude that this should not be the approach for savings attributed to pre-2006 codes and standards advocacy work. This is because cost-effectiveness calculations need to be developed on a consistent basis with performance basis. It simply makes no sense, and would also create undue confusion, to calculate the TRC and PAC tests of cost-effectiveness for the utilities portfolio plans including those savings, when the resource savings used to calculate the net benefits performance basis will excludes those savings for the reasons discussed above. Moreover, we note that the cost-effectiveness calculations (and performance basis) for the 2006-2008 program cycle and beyond will similarly exclude resource benefits associated with program investments made prior to 2006 from standard performance contracting and new construction activities, per our direction in D.05-04-051.

In sum, the cost-effectiveness calculations and net resource benefit calculations for 2006 and beyond (for the calculation of performance basis or other purposes) should be calculated on a consistent basis, i.e., by excluding the savings associated with pre-2006 codes and standards advocacy work. However, the savings attributable to codes and standards work undertaken *during 2006 and beyond should be counted* in both cost-effectiveness and performance basis calculations on a going forward basis. As we discuss in Attachment 10, there are timing issues related to the calculation of the performance basis for codes and standards work that need to be further explored during the EM&V phase.

NRDC's comments raise an additional issue with respect to how savings from pre-2006 activities should be credited, in particular, whether they should count towards the minimum threshold for performance that will be tied to our adopted kW and kWh goals, per D.05-04-051. We will be addressing the specifics of how to tie the minimum threshold requirement to our goals when we have an opportunity to evaluate all aspects of a risk/reward mechanism.[137] At that time, we will address this issue, which may also depend upon the baseline considerations we discuss in Attachment 10.

So that there is no confusion over how and when the savings attributed to pre-2006 codes and standards advocacy work will be considered we clarify that:

- Per Joint Staff's recommendation, these savings will be considered as "bonus" savings, e.g., a hedge against inherent risks that other programs may not meet their performance goals, as we consider the final program plans during the compliance phase of this proceeding. For this purpose, in addition to the sensitivity analysis on key input parameters discussed in this decision, the utilities should assess whether the 2006-2008 portfolio plans are expected to meet the savings goals using a "with and without" scenario with respect to savings from pre-2006 codes and standards. The "with" scenario should credit 50% of the *ex ante* GWh, MW and Mth estimates presented in the HMG Report towards the goals.
- In evaluating whether the 2006-2008 portfolios actually meet or exceed our adopted goals for that program cycle on an *ex post basis*, the utilities should credit 50% of the *verified* savings associated with pre-2006 codes and standards advocacy work towards the goals.
- We defer consideration of whether savings from pre-2006 codes and standards advocacy work will also count towards the updated goals for 2009 and beyond, pending further consideration of the baseline issues discussed in this decision.

[137] *Ibid.*, p. 43.

- On a forward looking basis, savings from codes and standards advocacy work undertaken in 2006 and beyond *will be counted* when calculating either net resource benefits ("performance basis") or cost-effectiveness (TRC or PAC tests). The final protocols for estimating these savings and verifying them will be established during the EM&V phase. The timing issues for calculating the performance basis discussed in Attachment 10 will also be considered during the EM&V phase.

- However, for the reasons discussed in this decision, savings from pre-2006 codes and standards advocacy work will *not* be counted when calculating net resource benefits ("performance basis") or cost-effectiveness (TRC or PAC tests) associated with portfolio plans for 2006 and beyond, either on a prospective or *ex post* basis. In terms of the compliance phase filings, this means that the cost-effectiveness scenario analysis should *not* include a "with" scenario (only a "without") with respect to these savings.

In terms of the methodology for developing estimates of resource savings for codes and standards advocacy work on a forward looking basis, the specific methods for verifying those savings and other associated evaluation activities, we do not adopt Joint Staff's specific recommendations at this time. Rather, we believe that these recommendations and associated EM&V plans should be considered as part of the EM&V phase of this proceeding, per the review process we established in D.05-01-055.[138] With regard to Joint Staff's specific recommendation regarding portfolio rebalancing, we observe that such rebalancing could occur in any direction among various program activities (e.g., direct installation, codes and standards and other statewide programs) throughout the program cycle. That process should be informed by ongoing

[138] This would also be the forum for ORA and TURN to raise the issues presented in their comments on the draft decision regarding the use of consistent assumptions (e.g., compliance rates) for future evaluations of Codes and Standards Advocacy Program impacts.

EM&V work as well as continued communication among utility program administrators, their advisory groups (including Joint Staff) and the interested public. We therefore decline to direct the timing and specifics of such rebalancing efforts in today's decision.

In principle, we agree with CCSF and NRDC that there is value in establishing EM&V protocols to count savings from both local and statewide codes and standards efforts. While statewide efficiency codes set minimum requirements for new construction, local efficiency codes can set minimum efficiency requirements for buildings at the time they are sold. As such, local efficiency codes have the potential to capture a significant energy savings in existing buildings, and can complement statewide codes by capturing savings in existing buildings at the time of sale. However, the timing and priority for EM&V studies specifically addressing local efforts must be considered in the context of the overall EM&V priorities and associated budgets being developed during the EM&V phase. Therefore, we encourage CCSF and other interested program implementers to continue to actively participate in EM&V phase on these and related EM&V issues.

8.6. Funding Levels and Ratemaking Treatment

We find that the level of program funding proposed by the utilities over the three-year program cycle is reasonable and supported by the record. As discussed above, their portfolio plans to engage market participants in all aspects of energy efficiency improvements to homes, commercial buildings, and industrial/commercial processes are projected to be highly cost effective, taking reasonable account of uncertainty with respect to key cost-effectiveness input parameters. The competitive bid results and final program selections should enhance this expected portfolio performance, both in the short- and longer-term.

While we have directed further work to more accurately and consistently project the contribution of these program plans to our savings goals, particularly in terms of peak demand reductions, we disagree with WEM that this calls into question the overall level of portfolio budgets. The utilities, with input from their advisory groups and the public, will continue to rebalance and modify the specific program plans to enhance portfolio performance throughout the three-year program cycle. If greater savings per dollar can be achieved than currently projected, today's authorized funding levels will be used in the pursuit of "all cost-effective energy efficiency opportunities over both the short- and long-term," consistent with our Rules.[139]

We have also reviewed the utilities' proposed cost allocation and ratemaking treatment for the incremental revenue/funding requirements required to fund 2006-2008 energy efficiency activities at today's authorized levels. We find that the utilities have allocated the costs of these programs to customer classes in a manner that appropriately assigns costs relative to the expected share of program benefits, and that the resulting rate and bill impacts are reasonable. Accordingly, we authorize the utilities to recover the incremental revenue/funding requirements costs (not including EM&V) via their proposed ratemaking treatment once we have approved the final compliance plans. By separate decision later this year we will address the EM&V portion of portfolio plans and associated funding for the 2006-2008 program cycle.

With our approval of the compliance plans, the 2006-2008 program budgets proposed by the utilities and associated incremental revenue/funding requirements, will serve to fund their energy efficiency activities during the three

[139] See D.05-04-051, Attachment 3, p. 2, Rule II.2.

year program cycle, including those activities implemented under the interim authorization we grant today. (See Section 9)

8.7. EM&V-Related Issues

Several EM&V-related issues were raised in TecMarket Works report, the CMS documents and in parties' comments, some of which have already been mentioned in other sections of this decision. In general, the EM&V phase is the appropriate forum for fully considering the EM&V related recommendations contained in those submittals. However there is one EM&V issue raised by CMS participants in conjunction with the Governor's GBI that warrants clarification today.

In particular, the utilities seek guidance on whether their portfolio plans to increase efficiencies in commercial buildings during 2006-2008 will be discounted by "free ridership" in light of the GBI. In considering this issue, we note that the aggressive energy efficiency savings goals we established by D.04-09-060 on September 23, 2004 clearly speak to the Governor's July 2004 directive to apply our "energy efficiency authority" to "improve commercial building efficiency programs to help achieve the *20% goal*" articulated in the GBI.[140]

In this context, it is reasonable to consider the GBI's 20% goal for improved efficiencies in the commercial building sector as a subset of the overall savings goals we have established for the utility service territories, rather than as a state code or standard used to establish project-specific baselines. In other words, utility efforts that support the GBI goal for the commercial building sector will work towards achieving the statewide goals we adopted for the portfolio plans, and vice versa. Accordingly, for the purpose of our EM&V protocols, and the energy savings and demand baselines established under them, we clarify that utility programs that assist with the design of, or provide incentives for, the energy efficiency measures on a project that achieve a 20% improvement over Title 24 should not be disallowed the claimed savings on the basis of GBI free ridership.

8.8. Avoided Costs/E3 Calculator Related Issues

During the course of this proceeding, the following issues were raised with respect to current avoided costs and the E3 calculator model used to calculate cost-effectiveness:

- The E3 calculator presents cost-effectiveness results that are inconsistent with the California Standard Practice Manual. For example, when an incentive equals the full cost of the measure, such as when a refrigerator is given away at no cost to the participant or when a program is offering incentives above the incremental cost of the measure.[141]
- Each of the utility E3 calculator models uses a different "counting period" with respect to the calculation of peak demand savings, whereby the calculator for PG&E only counts kW savings for programs with a useful life of five years or greater. For SDG&E and SCE, this counting period is three years and two years, respectively.[142]
- The E3 calculator does not easily display the underlying load shapes being used to estimate the peak savings.[143]

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[140] See Executive Order S-20-04, paragraph 4. (Emphasis added.)

[141] TecMarket Works Report, p. 9. See also CMS, p. 1. Our policy rules direct the utilities and implementers to perform cost-effectiveness analyses that are consistent with the indicators and methodologies included in the Standard Practice Manual. (See Rule IV.1.)

[142] TecMarket Works Report, pp. 24-25; CMS, p. 13.

[143] Id.

- The current avoided costs do not value savings during critical peak periods for each utility (top 100 hours of peak demand each summer, typically occurring for a few hours a day on 8 to 12 days per year) differently from saving energy during the summer peak period.[144]

Parties disagree on how to address these issues, particularly with respect to the valuation of critical peak load reductions. SDG&E, for example, contends that the current avoided cost methodology appropriately values avoided costs during critical peak periods, and the problem lies solely with the manner in which the E3 calculator needs to be modified when the full 8760 hour load shape for an energy efficiency measure is not available.[145] In contrast, the comments of TURN and Proctor Engineering imply that current avoided costs do not adequately reflect the demand reduction value during the top 100 hours of demand, i.e., they are too low. PG&E, on the other hand, suggests that there are more fundamental changes to avoided cost valuation (and the definition of peak or critical peak) that should be considered in order to properly value capacity consistently across all resource options, and in the context of the resource adequacy counting rules that are being developed in our procurement proceeding.[146]

The debate over the E3 calculator and associated avoided cost valuation also raises the following corollary issue: What load shape data currently underlies the E3 calculations, and how can we establish a more uniform set of assumptions/methods that are appropriate for translating annual energy savings

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[144] Id.

[145] Joint Reply Comments of SDG&E and SoCalGas on Parties' Comments, July 21, 2005, pp. 3-4; Comments of SDG&E and SoCalGas on Interim Opinion, September 6, 2005, pp. 2-3.

[146] *Comments of PG&E on the Draft Decision*, September 6, 2005, pp. 7-8, 10-11.

from energy efficiency measures into peak savings? The first part of this question will be addressed in the informational workshop we discuss in Section 8.3. The second part will be addressed as part of the updating process described below. As part of this process we intend to develop a common E3 calculator for use by all implementers, in order to facilitate an apples-to-apples comparison of projected savings and cost-effectiveness calculations. As ORA points out, a common calculator ensures consistency in assumptions (e.g., end-use load shapes, expected useful lives, net to gross values) while alleviating program implementers from the burden of carrying out data-intensive calculations involving hourly avoided costs and end-use load shapes.

The interim E3 avoided cost methodology adopted in D.05-04-024 clearly represents a vast improvement over the prior use of statewide average values that did not reflect on-peak vs. off-peak reductions, or utility-specific cost differences. At the same time, we fully anticipated that we would "continue to refine the E3 methodology and forecast" in Phase 3 of that proceeding:[147]

> "As discussed in this decision, we intend to consider the permanent adoption of the E3 methodology for generating avoided cost energy forecasts for use in [Standard Practice Manual] cost-effectiveness tests used to evaluate energy efficiency programs. We will also consider any potential revisions to the E3 methodology in Phase 3 of this rulemaking.[148]

Based on the record in this proceeding, we believe that further consideration of the E3 methodology with respect to peak valuation, as well as the E3 calculator model-related issues outlined above, should be undertaken without delay. We recognize that of the tasks outlined above, refining avoided

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[147] D.05-04-024, p. 37

[148] *Ibid.*, p. 3.

costs with respect to the value of savings during peak hours on the utility system is likely to be the most difficult and controversial. However, this clearly needs to be undertaken in order to more accurately evaluate the relative cost-effectiveness of various energy efficiency measures, as well as demand-response and distributed generation options in the future. How further refinements to avoided cost values will be used in the context of energy efficiency measures that are not fully dispatchable, should also be addressed.

Commissioner Kennedy is assigned to both our generic energy efficiency rulemaking (R.01-08-028) and our avoided cost rulemaking (R.04-04-025). Therefore, she is in the best position to coordinate the development of these avoided cost/E3 calculator refinements in consultation with the assigned ALJs. For this purpose, we believe that the most cost-effective and expeditious approach is to build upon the E3 work conducted in the avoided cost rulemaking. Consistent with the approach we have taken in that proceeding, we direct the utilities to contract with the appropriate expertise in consultation with Energy Division staff. The costs of the contract(s) will be paid for out of the utilities' portion of EM&V budgets for the 2006-2008 program cycle.

The contractor(s) will be tasked with developing a draft report with specific recommendations on (1) the definition of peak (and critical peak or other terms, as appropriate) demand reductions to use in evaluating energy efficiency resources, (2) refinements to avoided cost methodology/E3 calculator, and (3) improvements to the consistency in underlying load shape data and the methods by which that data is translated into peak savings estimates. In addressing these issues, the contractor(s) should take into consideration the specific issues and concerns raised in comments in this phase of the proceeding and during the informational workshops**.** The contractor(s) draft report will be due by February 20, 2006. Energy Division will hold public workshops on the draft report. The contractor(s) will be present to respond to feedback and questions concerning the proposed refinements. Based on that feedback, the contractor(s) will develop a final report addressing the issues discussed above.

Energy Division will then develop recommendations on these issues for Commission consideration. For this purpose, Energy Division may solicit pre- and post-workshop written comments from interested parties, obtain input from additional technical experts and/or take other steps as necessary to consider the recommended avoided costs/E3 calculator refinements. In consultation with Energy Division, the Assigned Commissioner or assigned ALJ will establish the schedule for the submission of Energy Division's recommendations for comments on those recommendations that will enable us to issue a decision on these issues during the first half of 2006 or as soon thereafter as practicable. Nothing in today's decision precludes the Assigned Commissioner or ALJ from taking additional steps to address these issues, including soliciting further input from technical experts or scheduling additional workshops, as they deem appropriate.

All reports, notices of availability, notices of workshops or other filings related to the avoided cost/E3 calculator refinements discussed above should be distributed to the service list in this proceeding, the energy efficiency rulemaking (R.01-08-028), the distributed generation rulemaking (R.04-03-017), the avoided cost rulemaking (R.04-04-025), the procurement proceeding (R.04-04-003), including any separate service list established in that proceeding that is specific to resource adequacy issues**,** and the demand response rulemaking (R.02-06-001.) Our draft decision will be issued for comment in our avoided cost proceeding. All those who are not currently parties to R.04-04-025 (i.e., listed as an appearance on the service list) and wish to reserve the right to comment on that draft decision should file a motion to intervene with the assigned ALJ in R.04-04-025 as soon as possible.

Even under an expedited schedule for this effort, we will not be able to consider Energy Division's recommendations and parties' comments in time to make our final determinations on them before we complete the compliance phase and program roll-out for 2006 begins. We note that strict application of our performance basis "true-up" procedures would require that the results of these efforts be used only on a prospective basis, and not to evaluate the performance results of activities undertaken during a prior program cycle. However, as explained below, we believe that the unique circumstances facing us as we embark on the 2006-2008 program cycle warrant a limited exception to this requirement.

In particular, the practice of using the same set of avoided cost assumptions for both planning and for performance evaluation makes sense when an established avoided cost methodology is in place, where updates generally reflect new forecasts of what generation resources are on the margin and their associated fuel costs. The risk of these types of forecasting errors is applicable to any resource decision made using the planning assumptions, and these errors generally move in either direction (over-estimation and under-estimation) without systematic bias over time. Therefore, we have ruled in the past that we would not adjust projections of avoided costs on a retrospective basis, to reflect these forecasting errors.

In contrast, the updates we are considering to avoided costs at this juncture relate to fundamental aspects of the interim avoided cost methodology that need to be addressed, i.e., whether that methodology appropriately values savings during critical peak periods and related issues that have been raised with respect to the appropriate definition of peak for energy efficiency across all proceedings. It would be unreasonable to ignore the resolution of these and the E3 calculation issues just because the timing for completion of this update, relative to the upcoming three-year program cycle, is off by a few months. Moreover, it is important that program administrators know that these improvements are in the making, and that they will be incorporated into the evaluation of 2006-2008 portfolio performance as they finalize their program selections during the compliance phase of this proceeding.

Accordingly, we put the utilities and all interested parties on notice that we will use the common definition of peak load reductions, improvements to avoided cost methodology and refinements to the E3 calculator that are developed through the process described above to assess the performance basis of the 2006-2008 portfolio and programs. We will also incorporate adopted improvements to the consistency in underlying load shape data and the methods by which that data is translated into peak savings estimates into the E3 calculators. The EM&V protocols being developed in a separate phase of this proceeding, will identify how and when this load impact data should be trued up to calculate performance basis for the 2006-2008 program cycle, per our direction in D.05-04-051.

8.9. Fund Shifting Guidelines

As described in Attachment 9**,** the four fund shifting proposals before us are similar in some respects, and quite different in others. Rather than adopt one of the four proposals in its entirety, we believe that it is more appropriate to consider each type of fund shifting flexibility, and pick the option for each type that best meets our objectives for portfolio management.

Those objectives are as follows: First, utility program administrators need the flexibility to make decisions, without undue restrictions or delays, so they can effectively manage their portfolios to meet or exceed the Commission's savings goals cost-effectively. Second, portfolio management should involve obtaining feedback from advisory groups on a wide range of implementation issues, including fund shifting and program design changes, so that program administrators can benefit from the broad range of expertise provided by individual advisory group members. We note that all of the utilities have clearly stated that they will continue to involve their advisory groups in these issues throughout program implementation. Third, a review/approval process should be triggered for situations that affect the broad portfolio balance issues discussed in the Rules and in this decision, such as ensuring sufficient funding for programs geared toward longer-term savings and maintaining the minimum competitive bid requirement. Finally, the review/approval process should utilize an efficient administrative approach, so that a timely decision on the fund shifting request can be made.

With respect to "fund shifting among budget categories," we think that the approach that best meets these objectives is the one proposed by PG&E. Under this approach, utilities could shift funds among budget categories within a specific program (e.g., between marketing and training, or audits and rebates) without restriction, with the exception of the EM&V program category. For EM&V, shifts between the utility and Energy Division EM&V budget categories should be subject to review and approval, through the process described below. We do not adopt the approach presented in two of the proposals that would trigger a review process if administrative costs exceed a certain threshold (e.g., 105% of budgeted levels on a portfolio basis). Although we will continue to monitor administrative costs through our reporting requirements, and audit those costs as necessary to verify them, we believe that program administrators should have discretion to move funds between training, marketing, overhead and other budget categories to achieve the Commission's goals. This is consistent with the shift in our oversight paradigm from one that focuses on "cost control" to one that encourages the achievement of a maximum level of net resource benefits to ratepayers and verifies portfolio performance on an *ex post* basis.

With respect to "fund shifting among program categories," as defined and discussed in Attachment 9, all of the proposals appropriately recognize that fund shifting out of emerging technologies, codes and standards and statewide marketing and outreach should trigger a review process. This is consistent with our goal of maintaining an appropriate balance between short-term and long-term program activities throughout the program cycle. The budget levels approved in today's decision for these three program areas reflect the need to significantly expand efforts in emerging technologies and codes and standards, and maintain our current commitment to statewide marketing and outreach. Accordingly, as proposed by two of the CMS fund shifting options, we will limit fund shifting out of these programs to no more than 1% of budgeted levels, absent prior approval. We also adopt restricts for shifts out of the EM&V budget category in order to ensure that the final EM&V plans we adopt in this proceeding will be sufficiently funded throughout the program cycle.

That leaves us with the issue of fund shifting among the "Resource/Non-Resource" program categories described in Attachment 9. PG&E proposes the greatest degree of fund shifting discretion for these program categories. In particular, under PG&E's approach and definition of "programs" and "program categories" there would be no review or pre-approval requirement for shifts between any of PG&E's targeted program areas, such as between Residential New Construction and Industrial market sectors. The other three proposals provide for considerable flexibility (e.g., up to 25% of budgeted amounts or a fixed dollar level on an annual basis) for shifts between Residential and Non-Residential program categories before a review process is triggered.

In addition, under PG&E's proposal there would be no review triggered if there are major shifts in funding away from the third party programs selected via competitive bidding, whereas the other three proposals would require some form of review if the allocation drops below the 20% minimum threshold.

While we believe that the utilities should have considerable discretion in making portfolio management decisions because they are the entities held accountable for portfolio performance, the degree of flexibility that PG&E requests would provide essentially no opportunity for Commission review during the three-year program cycle for major shifts of focus relative to the portfolio plans submitted for approval today or after the final portfolio plans are approved based on the competitive bid results during the compliance phase. In our view, the other three proposals, with some modifications, provide a more balanced approach to fund-shifting for the Resource/Non-Resource program categories.

In particular, we agree with SCE and the PRGs that a review/approval process should be triggered if funds are shifted away from competitively selected programs which cause a reduction in funding below the 20% minimum requirement. As discussed in Section 8.4, we define the 20% minimum threshold in terms of total portfolio funding levels, excluding EM&V budgets. This fund shifting restriction is consistent with the overall approach to quality control we adopted in D.05-01-055 to safeguard against bias in program selection.[149]

We also agree with the PRGs that some threshold for review should be established when there are major funding shifts among Residential, Non-Residential and Cross-Cutting programs, since each of these categories represent significantly different market strategies or focus for achieving the energy savings goals. At the same time, we believe that the threshold should be set to trigger review only in the case of major shifts in funding so that the utilities can manage their portfolios without undue restrictions or delays, per our objectives outlined above. We believe that a 25% annual (50% cumulative) threshold for shifts among these major categories of Resource/Non-Resource programs in either direction accomplishes this balance. In our view, a percentage trigger is preferable to a dollar level approach because it provides a degree of flexibility that is directly proportional to the approved budget levels.

This requires redefining PG&E's program categories somewhat, relative to the definition presented in its fund-shifting proposal. For the purpose of fund-shifting rules, we will define the Resource/Non-Resource Program categories for PG&E as (1) the "crosscutting" program of Mass Markets, (2) the residential targeted market sectors within Targeted Markets (e.g., Residential New Construction) and (3) the non-residential targeted market sectors within Targeted Markets (e.g., Industrial, Commercial, Agricultural and Food Processing). This creates a more consistent corollary to the categories defined in the fund shifting proposals for the other utilities.

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[149] See D.05-01-055, p. 10, 86.

Within each program category, as defined above, we believe that the utilities should be able to shift funds without triggering a formal Commission review/approval process. In other words, the utilities should be able to modify their allocation of funds among the various non-residential program offerings based on feedback from market assessments, field experience, program advisory group input, and other information that indicates the best way to tap the potential for short- and long-term savings cost-effectively in the non-residential sector. Similarly, the utilities should be able to adjust their strategies within their residential and cross-cutting programs (not including emerging technologies, codes and standards and statewide marketing and outreach) without triggering a formal review.

At the same time, we believe that the utilities should inform and solicit input from their PRGs when major shifts in programs within each Resource/Non-Resource program category (as defined above) are contemplated, as proposed under the SCE/SoCalGas PRG fund shifting proposal. Accordingly, we will require the utilities to notify their PRG fifteen days prior to making shifts in programs within each category that exceeds the 25% annual (50% cumulative) limit and to solicit comment from the PRG members before making a final decision.

This means that if PG&E wants to shift more than 25% of funding in a single year from the Industrial to Agricultural targeted market sectors within the Non-Residential program category defined above, they will need to inform and solicit comment from their PRG members before making their final decision. This also means, for example, that SCE would need to solicit feedback from its PRG if it is contemplating shifting more than 25% of budgeted amounts from the Business Incentive Program to their Retro-Commissioning Program within the

Non-Residential category. We do not anticipate frequent instances of shifts of this magnitude, but if they do occur, we believe that the PRG members should provide their input as non-financially interested members of the PAG. This is not intended to preclude the utilities from seeking input from the broader PAG membership when contemplating such changes, in fact such outreach is encouraged. However, we recognize that non-PRG members may have a significant financial interest in the outcome, and therefore will not require the utilities to solicit comment from the broader advisory group before making its final decision on funding shifts of this magnitude.

For adding new programs, except for those chosen during a competitive bid process, we adopt SCE's suggestion that the utilities file an advice letter. In this way, all interested parties will have an opportunity to comment not only on the merits of the new program, but whether a competitive bid solicitation should be issued for third-party implementation.[150] With respect to changes in incentive levels or modifications to program design (such as changes to customer eligibility requirements) we do not believe that approval from Energy Division staff or this Commission is required, as some parties recommend, with the exceptions noted below. We expect many program design parameters to change and evolve as implementation strategies are tested in the field. As clearly indicated in CMS documents, the utilities will be conferring with their program advisory groups to solicit input on the most effective program design strategies throughout the program cycle, and are actively coordinating those designs and incentive levels

[150] As discussed elsewhere in this decision, the PRGs will still monitor the selection process for these mid-cycle solicitations, but we will not require an advice letter filing or written PRG assessments.

for statewide programs.[151] In addition, the EM&V plans for market assessments, process evaluations and other studies will provide program administrators with feedback during the program cycle on how to modify program design to increase the effectiveness of their market strategies.

In our view, putting Energy Division staff or this Commission in the role of reviewing and approving what we anticipate to be relatively frequent program design modifications is a retreat to the oversight paradigm of the last few years that we rejected in D.05-01-055. We prefer to let the process described above take its course to reveal the best practices in program design over the program cycle.

For similar reasons, we reject other proposed rules for fund-shifting presented for our consideration. In particular, the SCE and SoCalGas PRGs originally contemplated a trigger for Commission approval with reductions of 10% or more in certain program offerings within the program categories listed above. ORA and TURN jointly propose a very detailed prescriptive set of rules governing customer incentive design that would trigger a Commission review/approval process for any exceptions to those rules. In addition to imposing a level of restrictions to portfolio management that we find questionable, there are other significant drawbacks to these proposals. For example, the SCE and SoCalGas PRG recommendation identifies specific programs that are not included in PG&E's portfolio, so it would be unclear what elements of that portfolio should be subject to the 10% trigger, and therefore how to effectively monitor compliance.

In our view, the ORA/TURN joint proposal imposes a level of prescriptive design requirements that would require extensive (and costly) monitoring for

[151] See Attachment 8.

compliance, and it is far from clear that those requirements are appropriate for the next generation of energy efficiency programs. For example, they propose a restriction that only freezer and refrigerator units built before 1990 could qualify for recycling incentives when, in fact, the Commission has recently ruled that such restriction should not apply to SCE's 2005 summer program—a position that we note both ORA and TURN supported in that proceeding.[152] It is also not evident that their proposed requirements for early equipment retirement are appropriate to adopt at this time, since such issues are currently being considered by Joint Staff in developing their recommendations in the EM&V phase of this proceeding, per D.05-04-051.[153] We will not adopt these proposed rules.

However, in their comments on the draft decision, TURN and ORA make the point that the absence of any procedures for review and/or approval of incentive level changes could undermine the ongoing statewide coordination efforts to ensure consistent incentive levels for measures within statewide programs. For example, what happens if PG&E wants to raise a rebate level by 60% and SDG&E wants to reduce the rebate level for the same measure? The utilities respond that such procedures are unnecessary. In particular, SDG&E argues that the utilities have worked together and with the joint PRGs to develop statewide consistent incentive levels, and that there is no reason to believe that they will not continue to work together to ensure consistency to the greatest extent practicable. While that is certainly the expectation, we share TURN and ORA's concern that our funding flexibility rules could undermine the steps taken

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[152] See D.05-05-012, pp. 21-23.

[153] D.05-04-051, pp. 30-31; Ordering Paragraph 14; See also D.05-05-012, footnote 13 beginning on page 22.

to date to coordinate incentive levels statewide, if there is no review process for major changes to those levels. At the same time, we want to provide the utilities with sufficient flexibility to manage their portfolios effectively, as discussed above.

We think that the TURN/ORA proposal presented in their comments on the draft decision strikes an appropriate balance. Under this proposal, an advice letter filing would be required only if the proposed incentive level change impacts a statewide program offering and is more than 50% of the original incentive level on a cumulative basis over the three-year cycle. For all other incentive level changes to statewide program offerings, the program administrator will inform and solicit comment from the joint PRGs prior to the change taking place. In any case, they would notify their PAG members of all incentive level changes that do take place. We think these requirements are reasonable and appropriate to ensure the continuation of careful coordination of incentive levels on a statewide basis, and will adopt them.

Finally, with respect to carryover/carryback funding flexibility, we adopt the approach recommended under all of the proposals, namely, to allow for such flexibility without triggering a Commission or PRG review/approval process. In their comments on the draft decision, the utilities note that the language is unclear as to fund shifts back into 2005, and recommend that such shifts be specifically authorized. In particular, with seasonal energy use for residential space heating about to increase, they argue that program continuity is essential. As PG&E explains: "increasing winter natural gas usage could combine with expected high gas costs to motivate customers to upgrade energy using equipment. Providing for program continuity at a time when certain programs may exhaust their funds will capture savings now, and maintain momentum at a time when savings must be ramped up to meet the Commission's ambitious targets."[154] In addition, the utilities request that the fund shifting rules be clarified to recognize that activities will need to be undertaken in 2005 for programs (e.g., on-bill financing) that have a long start-up period to ensure timely implementation in 2006. No parties have objected to these proposed clarifications.

We believe that these recommended clarifications to the carryback funding rules have merit. It makes no sense to limit program offerings or close down programs in the final months and weeks of this year when 2005 dollars are exhausted, when those programs would otherwise be continued or expanded during the 2006-2008 program cycle with the funding we authorize today. This is particularly important, as PG&E and the other utilities point out, in light of the increased costs of natural gas heating anticipated for this winter.

We also find it reasonable that the savings should be counted on an "actuals" basis towards the 2006 goals, if 2006 funding is needed during the rest of the year to maintain the continuity of 2005 programs. Otherwise, during this unique transition year for energy efficiency, we could be sending program managers mixed messages, namely, to keep the successful 2005 programs going with 2006 program funds as needed for continuity purposes, but if they are very successful in this effort, they might undermine the utility's ability to meet the aggressive goals established for 2006 (or to have those efforts count towards the performance basis used to establish risk/rewards under a future incentive mechanism). We note, however, that this approach to counting savings associated with carryback funding is unique to shifts back to 2005, necessitated

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[154] Reply of PG&E to Comments on the Draft Decision, September 12, 2005, p. 2.

by the fact that we are moving to a very different policy and performance framework for energy efficiency in 2006 than the one currently in place for 2005. For future program years, savings associated with "actuals" will count towards the goals established for the year in which the installations occur, even if funded through carryback or carryforward fund shifting.

SDG&E's proposed language specifically states that utilities may use authorized funds "to continue successful 2005 programs that are approved for implementation in this decision to avoid a hiatus in program availability *provided that all other funding options have been exhausted*."[155] We clarify that "exhausting" other funding options should include the use of all unspent funds from prior years as well as any anticipated unspent 2005 program funding authorizations. In other words, the utilities are authorized to use those funding sources for the program continuity and start-up activities discussed in this decision, without requiring a filing (e.g., petition or motion) for Commission or ALJ approval, and should do so *before* tapping 2006 program budgets.[156] For all practical purposes, we may not know until the books are closed on 2005 whether the utilities actually required (or if so, how much) carryback funding from 2006 budget authorizations. Energy Division and the utilities should develop procedures for establishing the amount of 2006 funding authority that was actually carried back to 2005 (after considering the balances in unspent funds from prior year carryforwards as well as program year 2005 authorizations) and for identifying

[155] Comments of SDG&E and SoCalGas on Interim Opinion, September 6, 2005, Appendix B (emphasis added.)

[156] Today's authorization to use prior year unspent funds or unspent 2005 authorizations during 2005 for the purposes described herein supersedes any previous order or ruling to the contrary.

the installations and associated costs (for example, by date and kind of activity) that were funded out of 2006 authorized budgets. Energy Division should also work with the utilities to establish reporting requirements during and after the 2005 program period with respect to the 2006 carryback funding. If agreement can not be reached between Energy Division and the utilities, the ALJ should rule on these matters.

For the instances in which Commission review is triggered under the fund-shifting rules we do adopt today, the utility is required to file an advice letter. We note that the current procedures in place for review and approval of fund shifting or program modification proposals vary by utility and type of fund shift. For example, per D.03-12-060, requests for proposed increases to customer incentive levels must be approved by Energy Division staff following 20-day notice to staff and the service list. On the other hand, at least for PG&E, requests for reallocations of funds collected via procurement rates are reviewed by Energy Division staff within 10 days. If staff needs additional information, the approval period is lengthened by 10 days from the date Energy Division receives the additional information.[157] Other rules are currently in place for different types of fund shifts, creating a patchwork of procedures that are difficult to understand and follow.

With the exception noted below, we believe that a single and consistent advice letter procedure for the review and approval of fund shifting proposals should be established for 2006 and beyond. We believe that the advice letter procedures adopted in D.05-01-032 are appropriate for this purpose. Those

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[157] Letter dated May 13, 2005 from Sean Gallagher, Director, Energy Division, to Roland Risser, PG&E.

procedures call for a 20-day comment period and 30-day initial review period by Energy Division. In our view, this provides a reasonable timeframe for interested parties and Energy Division staff to review and respond to the large shifts in funding or new program proposals that trigger review under today's adopted fund shifting rules. At the same time, they provide a mechanism for the proposed changes to go into effect relatively quickly if there are no protests. Specifically, unless suspended, advice letters that are not protested or acted upon in some way by the Commission within 30 days are "deemed approved."[158] The advice letter filings required by today's decision shall be served on the service list in this proceeding and in R.01-08-028, or its successor rulemaking, unless otherwise directed by the assigned ALJ.

We make one exception to this process for shifts between utility and Energy Division EM&V budget allocations, or shifts out of the EM&V category. Such changes need to be carefully considered in the context of the Commission's EM&V oversight role described in D.01-05-055. The advice letter process does not specifically provide for Joint Staff input or consultation with the Assigned Commissioner or ALJ on these matters. Therefore, for proposals to reallocate funding between utility and Energy Division EM&V budgets, or out of the EM&V category, the utilities will be required to file a motion. The assigned ALJ or Assigned Commissioner will address such motions by ruling, after consultation with Joint Staff.

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[158] D.05-01-032, Appendix, Rule 4.7: "Advice letter that is subject to Public Utilities Code Section 455 or that implements a rate increase previously approved by the Commission is deemed approved if, at the end of the initial review period, the Industry Division has not suspended the advice letter (as provided for in Rule 4.6)."

We reject proposals to have a PRG "vote" to exempt the utility from review by the Commission, where such review would otherwise be appropriate. The PRG is an advisory group only, and its consensus or non-consensus views on an issue should not substitute for the review and approval process adopted by this decision. Nonetheless, consistent with the ongoing role we have established for the advisory groups, including the PRGs, the utilities are expected to seek informal review with advisory group members for all significant shifts in funding or modifications in program design, whether or not an advice letter filing is triggered. For those shifts in which Commission review/approval is required, the utilities should also meet and confer interested stakeholders so that their concerns can be communicated, and possibly addressed, before the advice letter is filed.

As discussed above, our objective is to enable the program administrators to make program funding modifications without undue restriction or delays, but at the same time to require the appropriate level of review for major changes in program allocations. In our opinion, today's adopted fund-shifting rules and associated review/approval processes strike the appropriate balance. Our adopted fund shifting rules are presented in Table 8. This table shall be appended to the Appendix A of version 3 of the Energy Efficiency Policy Manual adopted by D.05-04-051. Energy Division shall post the updated Appendix A to the Commission's website as soon as practicable. As provided for in the Rules adopted by D.05-04-051, the assigned ALJ in consultation with the Assigned Commissioner may provide necessary clarifications to the fund-shifting rules adopted today, or consider modifications to those rules, during the 2006-2008 program cycle.[159]

8.10. Other Issues

The CMS documents identify a range of issues related to program design that were raised in the PRG assessments, and responded to by the utilities on a point-by-point basis the attachments. As indicated in those documents, many of the issues have been resolved between the utility program administrators and the PRG members to their mutual satisfaction. We also note that the utilities have responded in writing to the specific comments raised during the meetings with PAG members and the general public leading up to the applications, and again, in many instances have directly incorporated these suggestions into their portfolio plans.[160] Still, some parties request that we intervene on specific program design issues, clarify partnership arrangements or funding allocations to specific partnerships, address contract terms and other implementation details as part of today's decision. In some instances, these specific requests appear to be motivated by the interest of specific implementers in having their program offering sanctioned by the Commission prior to the final selection of partnership programs or third-party competitive bid proposals during the compliance phase.

As discussed at the PHC and in the Assigned Commissioner's scoping ruling, today's decision is directed towards the policy level "Category 1." As directed by the ALJ, issues related to areas of specific program design or implementation ("Category 2") should be addressed as part of the ongoing collaborative process among the utilities, advisory group members and the public

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[159] See D.05-04-051, Rule XI.

[160] See Attachment 2 to this decision and CMS Attachments 6-9.

to develop the best portfolio plans that meet the objectives we have set forth in our policy rules, and further clarified today. To the extent that the Assigned Commissioner or ALJ believes it necessary to instruct the utilities and PRGs to report back to them on how they have worked through or addressed specific issues ("Category 3"), they may do so by ruling at any time during the program cycle.

Nonetheless, there are a few comments on other issues that we feel compelled to respond to today.

In particular, CCSF requests that we modify our procedures established in D.05-01-055 concerning the compliance phase filing, at least for PG&E. Under that procedure, we will allow the compliance filing to be submitted as an advice letter if the utility and its PRG are in full agreement on the final program plans and bid selections. If not, the utility will submit a compliance filing in this consolidated application docket requesting Commission approval of the final programs.[161]

CCSF recommends that those local governments on PG&E's short list must give their consent in order for PG&E to proceed with its filing as an advice letter. As a procedural matter, we observe that this is not a Phase 1 issue, and CCSF should have filed a petition for modification of D.05-01-055 in our rulemaking proceeding if it wanted to suggest such a change to the procedures adopted by that decision. On a substantive basis, we find no merit to this recommendation. By definition, PRG members have no financial interest in the outcome of the final program plans—either the selection of third-party bidders or, in the case of partnerships, the final allocation of budgets to local government entities or other

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[161] D.05-01-055, pp. 103-104.

aspects of the partnership arrangements. Therefore, it is appropriate to consider their assessment of whether the utilities have developed those final program plans and partnership arrangements in compliance with our policies, in deciding the procedural vehicle for this compliance filing. In contrast, CCSF is clearly not a disinterested stakeholder in this process, nor are the other short-listed local governments being considered as partners for this program cycle. Their withholding of consent could clearly reflect specific financial interests, rather than an objective assessment of compliance issues. Apparently, CCSF's recommendation stems from a worry that they would not have the opportunity for a "full fledged filing" in response if an advice letter filing is made.[162] This is simply not the case. Our Advice Letter rules allow 20 days for written protests, which presents such an opportunity to all interested parties.

In its comments, WEM alleges that the utilities are "double-dipping" and rewarding non-compliance when they provide funds for codes and standards programs and also provide incentives for developers whose offerings are non-compliant with those standards.[163] The CMS documents and other parties' comments respond to this allegation, and we believe that these responses should be duly noted.[164] They clearly indicate to us that at least over the short-term, code compliance market support has potential to tap energy savings opportunities that would otherwise be irretrievably lost, particularly for HVAC

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[162] Reply Comments of CCSF, p. 4.

[163] WEM Reply Comments, pp. 9-10.

[164] See CMS, pp. 33-34; Reply Comments of Proctor Engineering, July 20, 2005, p.6; Reply Comments of PG&E, pp. 20-21; Joint Comments of SDG&E and SoCalGas Regarding the California 2006-2008 Energy Efficiency Portfolio Final Report Prepared by TecMarket Works, July 21, 2005, p. 5.

end-uses. We encourage the utilities to continue to work with the HVAC PAGette and other interested stakeholders to refine their program strategies to address these lost opportunities during program implementation.

At the same time, consistent with TecMarket Works and Joint Staff's recommendations on this issue, the utilities will be required to complete a market survey to estimate the actual level of code compliance. We agree with TecMarket Works recommendation that the issue of code compliance be further investigated as a longer-term program strategy, as enforcement effects begin to take effect. To this end, Energy Division should include an evaluation plan for this issue in its proposed 2006-2008 EM&V budget.

The CMS notes that most parties consider the establishment of both the PRG and to be a success in helping the utility portfolio administrators design strong portfolio plans and improve the competitive bidding proposals.[165] However, it also notes that the Commission was silent in its previous decisions about the future role of the non-financially interested PRGs. Most PRG groups have requested that the Commission clarify their future role and some have provided specific language. Some parties have also expressed their views on the future role of the PRG in their comments.

We agree with NRDC that the ongoing involvement of the PRGs for each utility throughout each program cycle is essential to the administration of the energy efficiency portfolios. In particular, such involvement is essential for matters best dealt with by non-financially interested parties, such as fund shifting and ensuring non-bias in the selection and ongoing implementation of utility and non-utility implemented programs. We also note that PG&E and SCE have

[165] CMS, p. 37.

proposed to have staggered solicitations at different times within the 2006-2008 program cycle for non-utility implemented programs. We believe that the PRG should be involved during each of these solicitations to continue to advise the utilities during the selection process.[166] The continuation of this advisory support to the utilities can help ensure that there is no bias between utility and non-utility programs at any point during program implementation, and that all programs are evaluated and chosen for continuation based on their ability to meet the Commission's objectives for energy efficiency.

Therefore, we clarify today that the PRG's role should not stop with the upcoming selection of the third-party programs. We encourage PRG members to continue their work with each utility program administrator to implement the recommendations provided in the respective PRG assessments and strive to jointly achieve our energy savings and policy goals. In particular, each utility administrator should meet with or confer with their PRG members to decide how frequently the PRG's should meet and for what purpose. In addition, members should discuss to what extent frequent meetings would constitute a financial hardship or time commitment problem. After these meetings, the utilities should inform the assigned ALJ of its proposed schedule for the next 12 months. Per D.05-01-055, the assigned ALJ, in consultation with the Assigned Commissioner, may provide additional clarification and direction with respect to these and other advisory group issues.[167]

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[166] As discussed elsewhere in this decision, the PRGs will continue to monitor the selection process but we will not require written PRG assessments or an advice letter filing by the utilities for these mid-cycle solicitations.

[167] D.05-01-055, Ordering Paragraph 3.

9. Interim Authorization and Next Steps

The compliance phase now begins as the utilities (with input from the PRGs) finalize their competitive bid solicitations, select winning bidders and develop final program plans for our consideration. Per the schedule set forth in the CMS, the utilities will also present additional program detail to reflect their statewide coordination plans currently under development, and report on their statewide coordination activities in their compliance filings. To guide this process, the utilities and their PRGs should utilize the five policy objectives for statewide coordination presented in the CMS, as described in Section 6.7.

The utilities have submitted their proposed schedule for these compliance phase activities to the assigned ALJ. SCE, SDG&E and SoCalGas plan to submit their compliance filings on December 9, 2005. For PG&E, the date of the compliance filing is currently scheduled for February 2, 2006.[168]

As directed in today's decision, the utilities will conduct sensitivity analysis to assess whether the compliance phase plans remain cost-effective and meet our savings goals if key parameters are lower than expected. We also require the utilities to hold a workshop with interested parties within 15 days of the effective date of this decision to discuss the energy efficiency avoided costs and cost-effectiveness calculator details used to estimate peak demand reductions. As discussed in this decision, besides being informational, this workshop should facilitate the identification of improvements to the E3 calculator that are relatively easy and quick to implement by the utilities, without causing delays to the current bid solicitation schedule. In addition, we expect that the workshop discussions will help Joint Staff and interested parties begin to

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[168] See Assigned Commissioner's Ruling and Scoping Memo, Attachment 1.

identify (1) data collection requirements to improve load shape data and (2) what issues should be addressed during the post-compliance phase updating process described in today's decision.

In response to concerns over our current avoided cost valuation of peak demand reductions, in particular for those hours that are considered "critical peak," we take immediate steps today to evaluate the issues raised in this proceeding as part of the avoided cost updating process anticipated by D.05-04-024. In addition to considering refinements to the current avoided cost methodology with respect to the valuation of peak load reductions and related issues, this updating process will also consider (1) a common definition of peak demand reductions (and critical peak demand reductions or other terms, as appropriate) to use in evaluating energy efficiency resources, (2) refinements to the E3 calculator model that produces cost-effectiveness results and projections of peak load savings, and (3) improvements to the consistency in underlying load shape data and the methods by which that data is translated into peak savings estimates. As discussed in this decision, we intend to address these issues during the first half of 2006, or as soon thereafter as practicable.

Because we will not be able to address the compliance filings until after the 2006 program year has commenced, the utilities have submitted requests for interim authorization to implement the non-competitive bid portions of their portfolio plans. More specifically, the utilities seek to begin implementing their own programs, continuing third-party programs, and local government partnerships—on January 1, 2006. As the utilities acknowledge, there will likely need to be adjustments to individual program budgets and some rebalancing of the portfolio plans during the compliance phase. But we believe that this can be accomplished without holding up the roll out of the entire portfolio, an outcome that we believe would greatly jeopardize the achievement of our savings goals and overall energy efficiency objectives.

Accordingly, we authorize the utilities to begin implementing their non-competitive bid programs, as identified in their respective 2006-2008 energy efficiency program applications and supplements thereto, effective January 1, 2006. This interim authorization will be in effect until we approve the final program plans, which will be submitted during the compliance phase after the competitive bid solicitation process is complete. The program accomplishments of the portfolio plans achieved during this period of interim authorization shall be counted toward 2006 savings goals.

With our approval of the compliance plans, the 2006-2008 program budgets, and associated incremental revenue/funding requirements proposed by the utilities, will serve to fund their energy efficiency activities during the three year program cycle, including those activities implemented under the interim authorization we grant today.

In a separate phase of this proceeding (Phase 2), we will address EM&V plans and funding levels for the 2006-2008 program cycle. As discussed in D.05-02-055, this process is being informed by the EM&V protocol development activities coordinated by Joint Staff in our rulemaking proceeding, R.01-08-028. Our goal is to issue a decision on those plans and associated funding levels before the end of the year.

Finally, we believe that the roll out of this next generation of energy efficiency programs in early 2006 should be closely followed by a determination on the risk/reward incentive mechanism that will apply to, at a minimum, the energy efficiency programs that are designed primarily to replace more costly supply-side options ("resource programs"), including codes and standards advocacy programs. We have accomplished the groundwork for fully developing such a mechanism by addressing administrative structure issues and threshold EM&V issues related to performance incentives earlier this year in R.01-08-028.

We recognize that there are many steps to complete with respect to the 2006-2008 program plans, including the adoption of final EM&V plans and funding levels, before we can refocus our efforts on the remaining work needed to develop a risk/reward incentive mechanism. However, we believe that this should be the next priority for our energy efficiency, and direct the Assigned Commissioner in R.01-08-028 to establish a schedule for addressing this issue in that proceeding, or its successor proceeding, as soon as practicable. Per D.03-12-062, we will closely coordinate with our other resource proceedings, in order to ensure that the development of an energy efficiency risk/reward incentive mechanism is consistent with the overall procurement incentive policies being developed in R.04-04-003. We will also coordinate the development of a risk/reward mechanism with the post-compliance phase updating process we have established today.

10. Comments on Draft Decision

The draft decision of ALJ Gottstein on this matter was mailed to the parties in accordance with Public Utilities Code §311(g)(1) and Rule 77.7 of the Commission's Rules of Practice and Procedure. Comments were filed on September 6, 2005 by ConSol, County of Los Angeles, CCSF, TURN, ORA/TURN (joint comments), PG&E, Proctor, NRDC, jointly by SDG&E and SoCalGas, SCE and WEM. Reply comments were filed on September 12, 2005 by CCSF, jointly by ORA and TURN, PG&E, NRDC, SCE and jointly by SDG&E and SoCalGas.

In response to these comments, we have made a number of clarifications and corrections to the decision text, tables and attachments. Our discussion in Section 8.3 and 8.8 reflect the major areas of modifications to the draft decision, namely, with respect to the process by which we will address the issues related to the definition of peak demand, the E3 calculator and avoided cost updating.

There are other proposed changes to the draft decision that we do not adopt, based on our careful consideration of the issues raised by them and the reply comments. One in particular warrants some further discussion. We do not adopt the proposal of NRDC and CCSF to authorize in today's decision the counting of "embedded energy savings" in reducing water usage towards the 2006-2008 savings goals. As NRDC explains it, when energy efficiency programs save water, the only associated energy savings that are currently "counted" are those saved due to reduced on-site water heating. However, NRDC quotes a recent CEC 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 argue should also explicitly count towards the savings goals.

We have no record in this proceeding to address the merits of this proposal, as it was not presented for our consideration in the CMS documents or in comments on that document. As a procedural matter, therefore, we believe that it is problematic to consider the counting of embedded energy savings based solely on the very brief comments presented by NRDC and CCSF on the draft decision. Moreover, the issue of counting the embedded savings associated with water has broader implications for energy efficiency policy that should be considered. In particular, it raises the issue of how far beyond the site-specific end-use (water heating or any other) we should extend the definition of “energy efficiency” to capture upstream reductions in energy inputs. There are also significantly new EM&V-related issues associated with this approach to defining energy savings that we would need to consider. Moreover, even if we determined that these types of upstream or embedded savings should be counted in the future, it seems to follow that before we start counting them towards specific numerical goals, the potential studies underlying those goals would need to be broadened to consider embedded savings potential as well.

At the same time, assuming that the value of embedded energy savings in water efficiency is substantial, then we should explore the issues raised above in a forum that provides for their full consideration with adequate notice to all interested parties. As NRDC points out, the type of policy clarification it seeks with respect to water efficiency measures is similar to clarifications provided by D.05-04-051 in R.01-08-028 with respect to the eligibility of solar water hearings as an energy efficiency measure. We believe that the energy efficiency rulemaking, where we address policy rules and definitions for energy efficiency applications on a generic basis, is the appropriate forum for considering these embedded energy savings issues. Consistent with the procedures we have established for updating those rules and definitions,[169] we will direct the Assigned Commissioner to explore the issue of counting embedded energy savings associated with water efficiency by informal or formal procedural vehicles in our rulemaking proceeding, as she deems appropriate, in order to fully address the issues associated with the NRDC/CCSF proposal. We recognize that there are many tasks and priorities for the coming weeks and months set forth in today’s

[169] See D.05-04-051, Rule XI.

decision, and therefore leave to the Assigned Commissioner to determine the appropriate schedule for considering this issue further.

11. Assignment of Proceeding

Susan P. Kennedy is the Assigned Commissioner and Meg Gottstein is the assigned ALJ in this proceeding.

Findings of Fact

1. The sensitivity analysis performed in this proceeding indicates that each of the utility's proposed portfolios will be cost-effective even if they only achieve 60% of the forecasted program savings. For SCE and SDG&E, the portfolios would still be cost-effective at 40% of projected savings.

2. The utilities' portfolio plans to engage market participants in all aspects of energy efficiency improvements to homes, commercial buildings, and industrial/commercial processes are projected to be highly cost effective, taking reasonable account of uncertainty with respect to key cost-effectiveness input parameters. The competitive bid results and final program selections should enhance this expected portfolio performance, both in the short- and longer-term.

3. To achieve the cost-effective savings presented in the portfolio plans, annual ratepayer investments in energy efficiency will need to approximately double on an annual basis by 2008.

4. Although the projected savings from these portfolios are substantial, the record indicates some risk that the portfolio plans may not meet the Commission-adopted GWh and therm energy savings goals, due to uncertainties over free ridership assumptions and the estimated useful lives associated with certain lighting measures, among others.

5. As discussed in this decision, counterbalancing this risk is the contribution of savings from pre-2006 codes and standards advocacy work that led to the revised codes and standards effective in 2005 and 2006.

6. Conducting sensitivity analysis with respect to key input parameters, such as net-to-gross ratios, during the compliance phase provides a practical and effective way to assess the robustness of energy savings estimates before we authorize the final program plans.

7. Uncertainties over the specific net-to-gross ratios used for planning purposes will be further addressed through *ex post* true-up of these ratios in performance basis evaluation, consistent with our direction in D.05-04-051.

8. Postponing implementation of the cost-effective portfolio plans in order to first review and debate each specific *ex ante* input assumption, as some parties propose, places unwarranted emphasis on these issues for the purpose of evaluating the savings estimates uncertainty associated with the portfolio plans. Moreover, these efforts would be redundant to and possibly prejudge the efforts underway in the EM&V phase to develop protocols for all key parameters related to the estimation and evaluation of energy efficiency savings and net resource benefits.

9. ORA's proposal to adopt a single default net-to-gross value for essentially all energy efficiency activities may make it easier for planning and analysis, but the record indicates that this approach has the potential for increasing the risk of overstating savings forecasts within the portfolio.

10. While sensitivity analysis around estimated useful life assumptions will assist us in the program planning process, it is particularly important that the ex ante assumptions adopted for these parameters be based on the most recent evaluation studies, since they will not be further adjusted based on ex post

studies when we evaluate 2006-2008 portfolio performance per D.05-04-051. This is especially important for the expected useful life assumptions for lighting measures, since they comprise a significant portion of the proposed portfolios.

11. TecMarket Works report indicates that the utilities' estimated useful life assumptions do not consistently take account of recent EM&V studies that were used to update DEER.

12. The *ex ante* assumptions for expected useful lives should be revised as needed to reflect the DEER August 2005 update, as directed in this decision. These updated values should be used when reporting actual installations during program implementation, and when submitting calculations of savings, portfolio cost-effectiveness and performance basis during the 2006-2008 program cycle.

13. Several unresolved issues must be addressed before we can fully assess whether the proposed portfolio plans will meet our demand reduction goals, including the appropriate definition of peak savings that should be used in the evaluation of energy efficiency resources. While parties' comments and the CMS provides significant insights into possible definitions of peak, the issues raised with respect to the use of a single common metric require further deliberation in coordination with updates to our avoided costs and E3 calculator refinements, as discussed in this decision.

14. The perspective of some parties that the utility portfolios must be significantly rebalanced towards critical peak load reductions appears to be based on the perspective that energy efficiency should primarily be deployed as a resource that addresses the needle peaks in demand. This perspective does not acknowledge that California has a clear need for both baseload and peak savings.

15. Energy efficiency should continue to target both baseload and peak loads, within the context of our overriding goal to pursue all cost-effective energy

efficiency opportunities over both the short- and long-term. TURN's insistence that we hold up approval of the portfolio plans until funds are redirected towards residential space cooling applications ignores this context.

16. TURN's recommendations focus too narrowly on the perspective that measures with low load factors should take precedence over higher load factor measures—even if those higher load factor measures can reduce demand during critical peak hours and can do so cost-effectively.

17. The assessment provided by TURN and some of the PRGs with respect to compliance with Rule II.5 (critical peak loads) fail to recognize that:

- A very large portion of the potential savings associated with residential air conditioner use will be captured by the increased state appliance standards for 2006 and beyond,
- Each of the utilities has proposed portfolios that increase the savings from (and funding for) residential HVAC relative to prior years,
- The utilities propose substantial increases in statewide efforts to support more aggressive codes and standards in the future, and propose to implement programs that provide market support for the new 2006 standards that are the first of their kind in scope and scale.

18. The best way to ensure the optimal level of funding for various energy efficiency activities over time is to (1) clearly establish the parameters by which the utilities' portfolio performance in terms of peak load reductions will be evaluated, (2) properly value demand reductions that occur during peak periods for all peak reduction resource options and (3) update our peak savings goals for 2009 and beyond based on studies of peak savings potential, rather than historical program performance.

19. For the reasons discussed in this decision, before we adopt a common definition of peak load reductions for energy efficiency, either on an interim or

permanent basis, we should further consider transition and implementation issues, as well as the broader context of how we should value energy efficiency across proceedings.

20. Given the transition and implementation issues associated with the "daily peak" definition of peak demand, adopting this definition and requiring the utilities to update their E3 calculator results based on it could cause potentially several months in delay in the roll out of 2006 program plans. Moreover, this definition and the associated calculations would be subject to subsequent change during our post-compliance phase updating process.

21. The performance basis for this next three-year cycle should be developed by incorporating all the updating discussed in this decision in a consolidated and coordinated manner, including updates to avoided cost and expected useful life assumptions. For the reasons discussed in this decision, this approach is preferable to requiring selected updates to the cost-effectiveness calculations before the compliance filings, and others a few months later.

22. It would not be in the public interest to forgo the savings that can be achieved with the completion of the compliance phase and roll out of the portfolio plans in early 2006, while we undertake necessary refinements to the performance basis that will require more time to complete.

23. There is considerable value in further information exchange during the compliance phase, so that interested parties become more familiar with how the utilities' E3 calculators produce peaks savings estimates for the portfolio as a whole, as well as for specific types of measures. This information exchange can also serve to identify any E3 calculator (model or input) "fixes" that are relatively easy to implement and where there is general consensus that such modifications

are appropriate. It can also serve to help Joint Staff and interested parties begin to identify (1) data collection needs to improve load shape data and (3) the issues to be addressed during the post-compliance phase updating process described in this decision.

24. While the E3 methodology adopted in D.05-04-024 represents a vast improvement over the use of statewide values that do not reflect on-peak vs. off-peak reductions, or utility-specific cost differences, the Commission also recognized in D.05-04-024 that further refinements would be considered before final adoption of that methodology in Phase 3 of that proceeding.

25. The record in this proceeding indicates that the E3 calculator model presents cost-effectiveness results that are inconsistent with the California Standard Practice Manual, which is the methodology to be used by program administrators and implementers, per our adopted policy rules.

26. The record in this proceeding indicates that there are other corrections and refinements that may be needed to the E3 calculator model in order to improve the accuracy and consistency with which it calculates peak demand savings and cost-effectiveness calculations.

27. A common E3 calculator developed for use by all implementers will facilitate an apples-to-applies comparison of projected savings and cost-effectiveness calculations. It will also ensure consistency in assumptions while alleviating program implementers from the burden of carrying out data-intensive calculations involving hourly avoided costs and end-use load shapes.

28. The parties present conflicting views on how to address the issues raised in this proceeding with respect to current avoided costs and the E3 calculator model used to calculate cost-effectiveness. The debate over these issues raises

questions concerning what load shape data underlies the E3 calculations, and how to establish a more uniform set of assumptions/methods to translate annual energy savings from energy efficiency measures into peak savings.

29. The most cost-effective and expeditious approach to addressing the avoided cost and E3 calculator-related issues raised in this proceeding is to build upon the E3 work conducted in R.04-04-025 and continue with the approach we have taken there for contracting with the appropriate expertise.

30. The timing for addressing the avoided cost and E3 calculator issues raised in this proceeding, even on an expedited schedule, will not permit the incorporation of resulting refinements into the *ex ante* estimated of avoided costs and other performance basis parameters before the compliance phase is complete. However, a final Commission decision on the issues is expected within just a few months following the roll-out of 2006 programs.

31. The direction in D.05-01-055 requires the utilities to establish a process that allows PRG members (including Energy Division consultant(s), if applicable) to monitor both the Stage 1 and Stage 2 selection process. Each utility should expect and facilitate the active involvement of PRG members in this monitoring process.

32. The bid solicitations differ with respect to overall scope and size, particularly between PG&E and the other utilities. As a result, the factors that PG&E will need to consider to evaluate and integrate third-party programs into the overall portfolio will be more involved than those required for the other utilities.

33. Although not identical across utilities, the evaluation criteria for each proposed solicitation have achieved overall consistency with the objectives stated in our policy rules, with the following minor modifications:

a. SCE's original Stage 2 evaluation criteria for its targeted solicitation should be adopted instead of the "SCE Revised" (or SCE PRG) proposal, because the latter proposals do not include any consideration of "lost opportunities."

b. SDG&E should evaluate "cost efficiencies" rather than "budgets" when evaluating its non-resource programs during Stage 2.

34. Given the scope and size of PG&E's proposed resource solicitation, it is reasonable to defer consideration of the PRG recommendation to also include a non-resource solicitation until the resource portfolio is complete. PG&E and its PRG should continue to explore this issue as PG&E prepares for the additional solicitations it plans to conduct during the upcoming program cycle.

35. The utilities' plan to offer a statewide California Energy Star New Homes program will ensure statewide consistency and coordination in the residential new construction market.

36. Arbitrarily granting ConSol sole responsibility for residential new construction, as it proposes, is an unnecessary limitation on a successful program and would be unfair to other potential third-party implementers.

37. As discussed in this decision, the results of the compliance phase bid solicitations may, as the winning bidders roll out their programs and program performance is evaluated in one or more service territories, reveal program designs that could also be well-suited to a single statewide competitive bid in the future. However, we cannot predict at this time what designs, and what sectors or programs might best lend themselves to this approach.

38. The interpretation of SDG&E and SoCalGas that the 20% minimum bid requirement applies to the non-EM&V portion of portfolio funding levels is consistent with the language of D.05-01-055.

39. Codes and standards advocacy work has been an essential and valuable component of the energy efficiency program portfolio in the past, and continues to be recognized as such in the energy efficiency policy rules.

40. 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.

41. As discussed in this decision, the record in this proceeding supports the reconsideration of D.05-04-051 with respect to the treatment of savings associated with pre-2006 codes and standards advocacy work.

42. In particular, the record confirms that the 2005/2006 code and standards revisions were not accounted for in the studies of economic potential that led to the establishment of our savings goals and beyond. Now that the new standards are in place, this means that those standards could actually work against the utilities with respect to their ability to tap that economic potential with other types of energy efficiency activities.

43. The record also clarifies that the adopted "actuals only" method of accounting for program accomplishments towards our goals, in combination with the method by which Joint Staff developed estimates of achievable potential, creates a short-term transitional inconsistency between the two that should be addressed.

44. Over the longer-term, this inconsistency will resolve itself because commitments made in 2006 and 2007 will become "actuals" in the program years that follow, thereby assisting in the achievements of the adopted cumulative goals for later years. Moreover, the savings goals updating process that will occur in time for the 2009-2011 program cycle will reflect the "actuals only" accounting practice adopted by the Commission.

45. Reopening the goals decision (D.04-09-060) to make an adjustment to the short-term goals is an option that has significant drawbacks, as discussed in this decision.

46. Joint Staff's recommendation provides a more reasonable alternative, namely, to allow the utilities to credit some portion of the savings attributable to pre-2006 codes and standards advocacy work towards the Commission's savings goals during this transition, i.e., for program cycle 2006-2008.

47. As discussed in this decision and Attachment 10, the issue of whether to count these pre-2006 savings towards the goals in subsequent years must be considered in the context of how we update the savings potential and associated goals for those years. Resolution of this issue will depend a great deal upon the manner in which the baseline is established for the next round of saving potential studies.

48. The record in this proceeding raises the following questions with respect to the baseline to use in future savings potential studies: Should future energy efficiency savings goals be established based on the economic potential associated with *the combination* of codes and standards updates and other energy efficiency programs that can defer or replace the need for supply-side resources? Or should the impact of higher codes and standards (and the associated

economic potential) be removed in developing the savings goals for utility energy efficiency portfolios?

49. The HMG methodology for estimating the savings attributable to pre-2006 codes and advocacy work has a logical coherence and covers the developmental steps that most outside observers agree are important in estimating the savings impacts of codes and standards advocacy work. However, there are inherent and potentially significant uncertainties associated with the approach taken to attribute savings to this pre-2006 work. In addition, specific input assumptions used by HMG to develop the *ex ante* savings estimates would benefit from further evaluation and verification in order to rely on them with confidence.

50. Given the uncertainty involved in measuring the realized savings associated with this pre-2006 program, Joint Staff's recommendation provides a rationale bound for the attribution of savings to pre-2006 codes and standards advocacy work. In addition, it strikes a reasonable balance among the various concerns with respect to the motivation and perceptions of the various stakeholders surrounding the value of codes and standards advocacy work.

51. The conditions that Joint Staff places on its recommendation for counting pre-2006 codes and advocacy work towards the 2006-2008 goals, as well as the utilities' response to them, address concerns expressed by ORA and others in this proceeding.

52. As discussed in this decision, addressing the performance basis and related issues raised by ORA and NRDC does not require that we reject or completely defer consideration of Joint Staff's recommendation.

53. In general, the stream of savings attributable to each round of codes and standards work that leads to increased efficiency codes and standards should be

counted in the calculation of net resource benefits performance basis. Per D.05-04-051, these calculations would then be used as the basis for the risk/reward incentive mechanism that will be developed in a subsequent phase of our energy efficiency rulemaking.

54. As discussed in this decision, applying this general approach to performance basis for pre-2006 codes and standards advocacy work creates a fundamental policy inconsistency with respect to the cessation of shareholder earnings during program years when these pre-2006 investments were made.

55. This same policy inconsistency would arise if we counted towards performance basis the actual installations for 2006 and beyond that were the result of commitments made prior to 2006. These savings are explicitly excluded from the calculation of performance basis and cost-effectiveness calculations for 2006 and beyond, per D.05-04-051.

56. In general, the savings from codes and advocacy work would be counted in the calculation of portfolio cost-effectiveness when the standards are put into effect, while the costs of this work would be counted during the program cycle in which they occur, per our adopted policy rules.

57. Cost-effectiveness calculations should be developed on a consistent basis as net resource benefits for each program cycle. It makes no sense, and would also create undue confusion, to include the savings from pre-2006 codes and advocacy work in the former calculation, but not the latter.

58. As discussed in this decision, the timing and priority for EM&V studies specifically addressing local codes and standards efforts must be considered in the context of the overall EM&V priorities and associated budgets being developed during the EM&V phase.

59. As discussed in this decision, it is reasonable to consider the GBI 20% goal for improved efficiencies in the commercial sector as a subset of the overall savings goals we have established for the utility service territories, rather than as a state code or standard used to establish project-specific baselines. In that context, projects that achieve a 20% improvement over Title 24 should not be disallowed the claimed savings on the basis of GBI free ridership.

60. Today's direction for further work to more accurately project the contribution of the utilities' program plans to our savings goals, particularly in terms of peak demand reductions, does not call into question the overall level of portfolio budgets, as WEM contends. As discussed in this decision, the utilities, with input from their advisory groups and the public, will continue to rebalance and modify the specific program plans to enhance portfolio performance throughout the three-year program cycle. If greater savings per dollar can be achieved than currently projected, the authorized funding levels should be used in the pursuit of "all cost-effective energy efficiency opportunities over both the short- and long-term," per the Commission's policy rules.

61. The utilities have allocated the costs of their energy efficiency portfolios to customer classes in a manner that appropriately assigns costs relative to the expected share of program benefits, and the resulting rate and bill impacts are reasonable.

62. The issues raised in this proceeding concerning the valuation of critical peak load reductions in cost-effectiveness calculations warrants the limited exception to our general rule of not truing up avoided costs to evaluate the performance basis of prior program years, as discussed in this decision. It would also be unreasonable to ignore the resolution of related issues, such as the common definition of peak savings and E3 calculation issues just because the

timing for the completion of this update, relative to the upcoming three-year program cycle, is off by a few months. Moreover, it is important that program administrators know that these improvements are in the making, and that they will be incorporated into the evaluation of the 2006-2008 portfolio performance as they finalize their program selections during the compliance phase of this proceeding.

63. The fund shifting rules adopted by today's decision considers each type of fund shifting flexibility and selects the option for each type that best meets the following objectives:

- Provide utility program managers with the flexibility to make decisions, without undue restrictions or delays, so they can effectively manage their portfolios to meet or exceed the Commission's savings goals cost-effectively.
- Involve advisory groups on a wide range of implementation issues, including fund shifting and program design changes, so that program administrators can benefit from the broad range of expertise provided by individual advisory group members.
- Address situations that affect the broad portfolio balance issues discussed in the Rules and in this decision, such as ensuring sufficient funding for programs geared toward longer-term savings and maintaining the minimum competitive bid requirement.
- Utilize an efficient administrative approach, so that a timely decision on the fund shifting request can be made.

64. CCSF's recommendation that local governments on PG&E's short list should give their consent in order for PG&E to proceed with its compliance filing as an advice letter is beyond the scope of this proceeding and, as discussed in this decision, lacks merit on substantive grounds.

65. At least in the short-run, code compliance support has the potential to tap energy savings opportunities that would otherwise be irretrievably lost, particularly for HVAC end-uses.

66. WEM's allegations that the utilities are "double dipping" and rewarding non-compliance by providing code compliance market support is not supported by the record.

67. As a longer term program strategy, the issue of code compliance should be further investigated, as recommended in the TecMarket Works report.

68. Continued involvement of the PRGs is essential for matters best dealt with by non-financially interested parties, such as fund shifting and ensuring non-bias in the selection and ongoing implementation of utility and non-utility implemented programs. This involvement will help to ensure that all programs are evaluated and chosen for continuation based on their ability to meet the Commission's objectives for energy efficiency.

69. The groundwork has been accomplished for full consideration of an energy efficiency risk/reward incentive mechanism.

Conclusions of Law

1. The utilities' 2006-2008 portfolio plans meet the Commission's threshold requirement of prospective cost-effectiveness, per the policy rules set forth in the Energy Efficiency Policy Manual adopted by D.05-04-051 ("Rules").

2. The utilities' 2006-2008 portfolio plans are consistent with other aspects of the Commission's Rules, as discussed in this decision. Remaining uncertainties over the ability of the portfolios to meet our savings goals can be adequately addressed in the short-term by conducting sensitivity analysis during the compliance phase, as discussed in this decision. Over the longer term, key uncertainties related to the utilities' peak demand reduction estimates will be

addressed during the post-compliance updating process directed by this decision.

3. The competitive bid components proposed by the utilities in their June 1 applications and supplements thereto are reasonable and should be adopted. With the modifications discussed in this decision, the utility proposals for bid evaluation criteria and weightings presented in the Case Management Statement should be adopted.

4. Joint Staff's recommendations regarding the level of savings from pre-2006 codes and standards advocacy work that should count towards the 2006-2008 savings goals are reasonable, and should be adopted. Whether these savings should also be credited towards our savings goals for 2009 and beyond should be addressed in a later phase of R.01-08-028, or its successor proceeding, pending further consideration of the baseline and related issues described in this decision.

5. Today's determinations on how the savings from pre-2006 codes and standards work should be considered in performance basis and cost-effectiveness calculations are reasonable and should be adopted.

6. The level of program funding proposed by the utilities over the three-year program cycle, as well as their proposed cost allocation and associated ratemaking treatment, is reasonable and supported by the record.

7. As discussed in this decision, once we have approved the final compliance plans, the utilities should recover the incremental revenue/funding requirements associated with the non-EM&V portion of their proposed 2006-2008 portfolio funding levels.

8. The record in this proceeding supports further consideration of the E3 methodology with respect to critical peak values, as well as the E3 calculator model issues discussed in this decision, without delay. The *ex ante* avoided costs

that will be used to evaluate the performance basis of 2006-2008 energy efficiency portfolios and programs should be updated, as appropriate, to reflect the Commission's final determinations on these issues. In addition, the common definition of peak load reductions and refinements to the E3 calculator developed during the post-compliance phase updating process should be used to assess the performance of 2006-2008 portfolios and programs. Improvements to the consistency in underlying load shape data and the methods by which that data is translated into peak savings estimates should also be incorporated into the calculations of cost-effectiveness and projections of energy and peak demand reductions. The EM&V protocols being developed in a separate phase of this proceeding will identify how and when this load impact data should be trued up to calculate performance basis for the 2006-2008 program cycle, per the Commission's direction in D.05-04-051.

9. The fund shifting rules approved today are consistent with the objectives for portfolio management described in this decision.

10. The EM&V budgets for the 2006-2008 program cycle and associated cost recovery should be addressed in the separate EM&V phase of this proceeding.

11. Ongoing involvement of the PRGs should continue throughout the program cycle, as discussed in this decision.

12. The next priority for energy efficiency should be the development of a risk/reward incentive mechanism, as discussed in this decision.

13. In order to proceed with the compliance phase as expeditiously as possible, this decision should be effective immediately.

INTERIM ORDER

IT IS ORDERED that:

1. Effective January 1, 2006, Pacific Gas & Electric Company (PG&E), Southern California Edison Company (SCE), San Diego Gas & Electric Company (SDG&E) and Southern California Gas Company (SoCalGas), collectively "the utilities", are authorized to implement their non-competitive bid programs, as identified in their 2006-2008 energy efficiency program applications and supplements filed in this proceeding.

2. This interim authorization shall be in effect until the Commission approves the final program plans, which will be submitted during the compliance phase after the competitive bid solicitation process is complete. The program accomplishments of the portfolio plans achieved during this period of interim authorization shall be counted toward 2006 savings goals.

3. Funding authorization and associated budgets for evaluation, measurement and verification (EM&V) plans for the 2006-2008 program cycle shall be addressed in the EM&V phase of this proceeding.

4. The 2006-2008 program budgets proposed by the utilities, and associated incremental electric revenue/natural gas funding requirements, shall serve to fund energy efficiency activities during the three-year program cycle, including those activities implemented under the interim authorization we grant today. The authorized program budgets are presented in Attachment 4 under the "without EM&V" columns, by utility and year. The associated incremental electric revenue and natural gas funding requirements are presented in Tables 4 through 7. Upon approval of their compliance plans, the utilities are authorized to recover the non-EM&V incremental electric revenue and natural gas funding requirements under the following ratemaking treatment:

(a) Incremental natural gas funding requirements shall be recovered through the gas public purpose program surcharge rates effective January 1 of each program year. The utilities shall continue to make requests for cost recovery through their annual gas public purpose surcharge advice letter filings.

(b) Incremental electric revenue requirements will continue to be collected in part through the electric public goods charge, and in part through procurement rates, as follows:

(i) For the fixed portion collected via the public goods charge, the utilities shall continue to file advice letters by March 31 of each year to establish and recover the authorized electric public goods charge, including the annual addition. This portion shall continue to be tracked via the one-way Energy Efficiency Program Adjustment Mechanism.

(ii) The remaining portion shall continue to be collected via the one-way Procurement Energy Efficiency Balancing Account established for this purpose in D.03-12-062. Recovery of the incremental electric revenue requirements booked to this account shall be consolidated in the annual energy Resource Recovery Account Forecast proceeding, or other proceedings authorized by the Commission for inclusion in each utility's respective non-bypassable public purpose and procurement rate components effective January 1 of each program year, or as soon thereafter as possible.

(iii) Until the compliance plans of the utilities for the 2006-2008 programs are approved, each utility are authorized to continue to collect funds through their existing procurement energy efficiency surcharge mechanisms at the currently authorized level.

5. For the purpose of this decision, "Joint Staff" shall refer to the Energy Division and California Energy Commission staff team that has been assigned to work on energy efficiency issues in this and related proceedings.

6. As discussed in this decision, utilities are authorized to expend 2006 monies to fund activities in 2005 for programs that have a 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 decision to avoid a hiatus in program availability provided all other funding options have been exhausted, as discussed in this decision. The utilities are authorized to use unspent funding authorizations for 2005 and prior program year carryover funding for the program continuity and start-up activities authorized in this decision, without requiring a filing (e.g., petition or motion) for Commission or Administrative Law Judge (ALJ) approval, and shall do so before tapping 2006 program funding budgets.

Program accomplishments from 2006 funds used for the 2005 program activities authorized by this decision shall be counted toward 2006 savings goals on an "actuals" basis. As directed in this decision, Energy Division and the utilities shall establish procedures for determining the amount of 2006 funding authority that was actually carried back to 2005 (after considering the balances in unspent funds from prior year carry forwards as well as program year 2005 authorizations) and for identifying the installations and associated costs (for example, by date and kind of activity) that were funded out of 2006 authorized budgets. If agreement can not be reached between Energy Division and the utilities, the assigned ALJ shall rule on these accounting matters.

7. Per D.01-05-055, the utilities shall submit compliance filings consistent with today's determinations. The compliance filings shall include

(a) The results of the competitive bid solicitations and the final program plans.

(b) Calculations of portfolio cost-effectiveness based on the final program plans, including scenario analysis around key input assumptions as directed by this decision.

(c) Projections of energy savings and demand reductions that will be achieved by the final portfolio plans, including the scenario analysis directed by this decision.

(d) Additional program detail to reflect the statewide coordination plans, and a report on the status of the statewide coordination efforts described in this decision. These efforts shall be guided by the following policy goals:

(i) Ensure that all firms with a footprint or facilities in multiple service areas should have easy and consistent access to all statewide programs;

(ii) Develop consistent rebate levels and participant rules for products promoted in statewide programs for use in negotiating with manufacturers and suppliers;

(iii) Leverage private advertising dollars for more savings impact;

(iv) Reinforce energy efficiency investments with positive statewide message; and

(v) Protect the utilities' abilities to reduce the competition among utility service territories or among programs within the same service territory

(e) Estimates of the overall bill impacts expected from the portfolios, working with PRG members to develop a consistent estimating methodology across utilities.

(f) The assessments of the utilities' Peer Review Groups (PRGs)

8. For their competitive bid solicitations, the utilities shall use the adopted evaluation criteria presented in Attachment 6. As discussed in this decision, each of the utilities shall continue to work with and involve their PRGs in the final integration phase, as well as Stage 1 and 2 bid evaluations. The PRG assessments of each utility's competitive bid process shall address all stages of bid evaluation, including how the bid results are considered in the context of portfolio plan integration.

9. The utilities shall hold a workshop within 15 days of the effective date of this decision to describe the energy efficiency avoided costs and cost-

effectiveness calculator details used to estimate peak demand reductions. Besides being informational, this workshop should be structured to facilitate the discussion of improvements to the E3 calculator that are relatively easy and quick to implement by the utilities, without causing delays to the current bid solicitation schedule. Notice of the workshop shall be served on the service list in this proceeding and R.04-04-025, our avoided cost proceeding. As discussed in this decision, the utilities shall make available the underlying load shape data used to develop the inputs to all interested parties several days prior to the workshop. The workshop should be led by the E3 consultant, and he or she should be prepared to describe at the workshop how the 8760 hours of adopted avoided costs were mapped to that load shape data, particularly for the summer peak hours.

10. By November 1, 2005, the utilities shall file a report summarizing the discussion at the workshop described in Ordering Paragraph 9 above, and report the E3 calculator refinements they have made in response. Based on the workshop discussion, the report shall also present a preliminary list of issue that participants recommend be addressed during the updating process described in this decision. The report should also present the workshop discussion on further data collection that is needed to improve load shape information. The final workshop report will be issued for comment, as discussed in this decision.

11. In addition to any other refinements to the E3 model that result from the workshops described in Ordering Paragraph 8, the utilities shall incorporate the correction to the erroneous demand reduction estimated for lighting currently contained in DEER that is discussed in Section 8.3 of this decision.

12. As discussed in this decision, the utilities are required to use the August 2005 updates to *ex ante* expected useful life (EUL) assumptions posted to

DEER when reporting actual installations during program implementation, and when submitting calculations of savings, portfolio cost-effectiveness and performance basis during the 2006-2008 program cycle. Joint Staff shall ensure that inputs to the E3 calculator are appropriately adjusted, so that these calculations will reflect the *ex ante* EUL values referenced above.

For this purpose, Joint Staff may hire a consultant and/or direct the utilities to submit updated EUL values consistent with today's direction, subject to Joint Staff review, or take other steps as necessary to ensure that these updated DEER EUL values will be used consistently in reporting portfolio performance and in calculating the performance basis for the 2006-2008 program cycle. Joint Staff shall complete this work as soon as practicable in 2006. In consultation with Joint Staff, the assigned ALJ shall establish a schedule for completion of these activities.

13. The assigned ALJ in R.01-08-028 or its successor proceeding, in consultation with the Assigned Commissioner and Joint Staff, shall establish the schedule and scope for updating the energy efficiency savings goals for 2009 and beyond. As part of the updating process, Joint Staff shall prepare a report to the ALJ with recommendations on the baseline and other issues related to the methodology for updating the savings potential studies and savings goals. As discussed in this decision, Joint Staff shall ensure that the methodology for estimating peak load savings potential is consistent with the definition of peak demand adopted in this decision, and that it is based on a careful evaluation of peak load savings potential for energy efficiency programs across all sectors. Joint Staff shall hold public workshops on these and other issues related to the updating of savings goals, prior to submitting its written recommendations. The

ALJ shall issue Joint Staff's recommendations for written comment to the service list in R.01-08-028 or its successor proceeding.

14. As discussed in this decision, the savings attributed to pre-2006 codes and standards work shall be treated as follows:

(a) In addition to the sensitivity analysis on key input parameters discussed in this decision, the utilities shall assess whether the 2006-2008 portfolio compliance plans are expected to meet the savings goals using a "with and without" scenario with respect to savings from pre-2006 codes and standards. The "with" scenario shall credit 50% of the *ex ante* estimates presented in this proceeding towards the goals. Per Joint Staff recommendations, including the savings from pre-2006 codes and standards work in assessing 2006-2008 portfolio savings shall be conditioned as follows:

(i) The utilities shall not rely heavily on these *ex ante* savings estimates to meet their portfolio savings goals for 2006-2008, or dramatically reduce overall funding levels during the program cycle based on these estimates.

(ii) Rather, these savings shall be considered as "bonus" savings, e.g., a hedge against inherent risks that other programs may not meet their performance goals, during the compliance and implementation phases of this proceeding.

(iii) The utilities shall complete a market survey to estimate actual level of code compliance from an energy savings perspective for those portions of 2005 building and appliance standards that will take effect by June 1, 2006. This study shall be completed by March 1, 2007 and funded out of the utility portion of the EM&V budgets established for the 2006-2008 program cycle.

(b) In evaluating whether the 2006-2008 portfolios actually meet or exceed our adopted goals for that program cycle on an *ex post basis*, the utilities should credit 50% of the *verified* savings associated with pre-2006 codes and standards advocacy work towards the goals, subject to the conditions described above.

(c) Whether savings from pre-2006 codes and standards advocacy work should also count towards the updated goals for 2009 and beyond, shall be determined after further consideration of the baseline and related issues discussed in this decision**.**

(d) Whether these savings should count towards the minimum performance threshold for performance that is tied to our savings goals, per D.05-04-051, shall also be addressed at a later date, in the context of addressing the specifics of that threshold and evaluating all aspects of a risk/reward mechanism. Consideration of this issue may also depend upon the baseline issues discussed in this decision.

(e) On a forward looking basis, savings from codes and standards advocacy work undertaken in 2006 and beyond *shall be counted* when calculating either net resource benefits ("performance basis") or cost-effectiveness (TRC or PAC tests). The final protocols for estimating these savings and verifying them shall be established during the EM&V phase. The timing issues for calculating the performance basis discussed in Attachment 10 shall also be considered during the EM&V phase.

(f) For the reasons discussed in this decision, savings from pre-2006 codes and standards advocacy work shall *not* be counted when calculating net resource benefits ("performance basis") or cost-effectiveness associated with portfolio plans for 2006 and beyond, either on a prospective or *ex post* basis. In terms of the compliance phase filings, this means that the cost-effectiveness scenario analysis shall only include "without" scenario with respect to these savings.

15. As discussed in this decision, the Commission shall consider updating the avoided cost methodology adopted in D.05-04-024 ("E3 methodology") with respect to the valuation of peak load reductions. This updating process will include consideration of the appropriate definition of peak demand to use in evaluating energy efficiency across proceedings. For this purpose, the utilities shall contract with the appropriate expertise to update avoided costs and refine the E3 calculator model they have developed for use in calculating cost-effectiveness, in consultation with Energy Division staff. The costs of the contract shall be paid for out of the utilities' portion of EM&V budgets for the 2006-2008 program cycle.

The utilities shall ensure that the contractor(s) retained for this purpose develops a draft report by February 20, 2006 with specific recommendations on the refinements to be made to the avoided costs/E3 calculator discussed in this decision. In particular, the draft report should focus on the following tasks, taking specific account of the parties' comments in this phase of the proceeding and during the informational workshops:

(a) Correcting calculation anomalies that cannot be resolved during the workshops directed in Ordering Paragraph 9, with respect to the Standard Practice Manual cost-effectiveness indicators and methodologies.

(b) Converting annual savings to peak savings for all measures using a consistent counting period (e.g., useful lives greater than two years), to the extent that this issue is not resolved during the workshops directed in Ordering Paragraph 8.

(c) Improving the consistency in underlying load shape data and the methods by which that data is translated into peak savings estimates,

(d) Developing a common definition of peak demand reductions (as well as "critical peak" reductions or other terms, as appropriate) to use in evaluating energy efficiency resources across proceedings,

(e) Updating the interim avoided cost methodology adopted in D.05-04-024 to more accurately reflect the impact of energy efficiency on peak loads, as defined above.

(f) Identifying areas where further refinements of input assumptions or model algorithms may be needed to create a common E3 calculator for use by all implementers.

Nothing in this decision is intended to preclude the Assigned Commissioner or ALJ from directing the utilities to broaden the scope of the consultant(s) work, or take any other steps that may be necessary to address to develop the record for our consideration during this post-compliance updating process.

16. After public workshops on the draft report submitted pursuant to Ordering Paragraph 15, Energy Division shall develop recommendations on the avoided cost/E3 calculator refinements for Commission consideration in R.04-04-025, as described in Section 8.8 of this decision. The assigned ALJ or Assigned Commissioner to R.04-04-025 shall establish the schedule for the submission of Energy Division's recommendations and for comments on those recommendations. All reports, notices of availability, notices of workshops or other filings related to the avoided cost/E3 calculator refinements discussed in this decision shall be distributed to the service list in this proceeding, the energy efficiency rulemaking (R.01-08-028), the distributed generation rulemaking (R.04-03-017), the avoided cost rulemaking (R.04-04-025), the procurement proceeding (R.04-04-003), including any separate service list established in that proceeding that is specific to resource adequacy issues, and the demand response rulemaking (R.02-06-001). The draft decision on these matters shall be issued for comment in the avoided cost rulemaking. Interested individuals or organizations who are not currently parties to R.04-04-025 are hereby placed on notice that they should file a motion to intervene with the assigned ALJ in R.04-04-025 as soon as possible, if they wish to reserve the right to comment on the draft decision in R.04-04-025 with respect to these issues.

17. As discussed in this decision, the common definition of peak load reductions, improvements to avoided cost valuation methodology and refinements to the E3 calculator that are developed through the process described above shall be used to assess the performance of the 2006-2008 portfolio and programs.

18. The fund shifting rules adopted in this decision, and presented in Table 8, shall apply to all energy efficiency program budgets adopted for 2006 and

beyond, unless otherwise modified. Table 8 shall be appended to Appendix A of the Energy Efficiency Policy Manual (version 3) adopted by D.05-04-051. Energy Division shall post the updated Appendix A to the Commission's website as soon as practicable. As provided for in the policy rules adopted by D.05-04-051, the assigned ALJ in consultation with the Assigned Commissioner may provide necessary clarifications to the fund-shifting rules adopted today, or consider modifications to those rules, as appropriate.

19. Energy Division shall include a plan and associated budget for evaluating the issue of code compliance as a longer-term program strategy, and include this information in the EM&V plans being developed during the EM&V phase of this proceeding.

20. The utilities shall continue to work with Energy Division to develop the appropriate tracking mechanisms to determine progress towards meeting the Green Building Initiative efficiency improvement goals. This work and associated schedule, to be established by Energy Division, shall be incorporated into the EM&V roadmap that is issued and periodically updated by ALJ ruling per D.05-04-051.

21. Involvement of the PRGs in an advisory capacity to the utilities shall continue throughout the 2006-2008 program cycle, as discussed in this decision. Each utility program administrator shall meet with or confer with their PRG members to decide how frequently the PRG's should meet and for what purpose. After these meetings, the utilities shall inform the assigned ALJ of its proposed schedule for the next 12 months. Per D.05-01-055, the assigned ALJ, in consultation with the Assigned Commissioner, may provide additional clarification and direction with respect to these and other advisory group issues.

22. As soon as practicable, the Assigned Commissioner in R.01-08-028 shall establish a schedule for developing a risk/reward incentive mechanism for energy efficiency in that proceeding, or its successor proceeding. Per D.03-12-062, this effort shall be closely coordinate with other resource proceedings, in order to ensure that the development of an energy efficiency risk/reward incentive mechanism is consistent with the overall procurement incentive policies being developed in R.04-04-003. It shall also be coordinated with the post-compliance phase updating process described in today's decision.

23. As discussed in this decision, by October 15, 2006, the utilities and their PRGs shall jointly submit a report addressing whether single statewide bids and associated statewide review criteria should be developed for certain market sectors or programs, based on the results of the competitive bid solicitations and program performance observed during 2006. If such an approach is recommended, the report should also describe a schedule and associated implementation steps for developing a single statewide bid. This report shall be filed in Rulemaking (R.) 01-08-028, or its successor proceeding, and served on the service list in R.01-08-028 and this proceeding.

24. As discussed in this decision, the Assigned Commissioner in R.01-08-028, or its successor proceeding, shall determine the appropriate schedule for considering the issue of counting embedded energy savings associated with water efficiency towards energy savings goals and portfolio performance.

25. For all tasks assigned to Energy Division and/or Joint Staff in this decision, Energy Division may solicit the services of a consultant (or consultants) and/or staff or services from other agencies through interagency agreements to assist in these tasks, the cost of which shall be paid for out of energy efficiency program funds.

26. All submittals by Energy Division or Joint Staff required by this decision shall be served as an attachment to an ALJ ruling.

27. The Assigned Commissioner or ALJ may, for good cause, modify the due dates established by this decision.

28. To the extent that the Assigned Commissioner or ALJ finds it necessary to instruct the utilities and PRGs to report back to them on how they have worked through or addressed specific issues related to energy efficiency program design and implementation, they may do so by ruling at any time during the program cycle.

29. Unless otherwise indicated, all reports, formal filings or other submittals required by today's decision shall be served on the service list in this proceeding pursuant to the Electronic Service Protocols attached to the Assigned ALJ's ruling dated June 8, 2005, and consistent with Rules 2.3 and 2.3.1.

30. This proceeding remains open to address ongoing issues related to the 2006-2008 portfolio plans.

31. The Executive Director shall serve a copy of this decision on the parties whose names appear in the service list of R.04-04-025, the Commission's avoided cost proceeding.

This order is effective today.

Dated September 22, 2005, at San Francisco, California.

MICHAEL R. PEEVEY
President
GEOFFREY F. BROWN
SUSAN P. KENNEDY
JOHN A. BOHN
Commissioners

Comr. Grueneich recused herself
from this agenda item and was not part
of the quorum in its consideration.

D0506043 Tables and Attachments