Application No: A.12-07-XXX
Exhibit No: SCG
Witness: Gillian Wright
Kevin Shore
Frank Spasaro
Lance DeLaura
Andrew Steinberg

Application of Southern California Company (U-902-M) for Approval of Natural Gas Energy Efficiency Programs and Budgets for Years 2013 and 2014	Application 12-07-XXX

TESTIMONY OF

SOUTHERN CALIFORNIA GAS COMPANY

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

July 2, 2012

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SOUTHERN CALIFORNIA GAS COMPANY 2013–2014 ENERGY EFFICIENCY PORTFOLIO

INTRODUCTION

In compliance with the California Public Utilities Commission (Commission or CPUC) Rules of Practice and Procedure, specifically Rule 3.2 and the terms of Decision (D.) 12-05-015, Decision Providing Guidance on 2013–2014 Energy Efficiency Portfolios and 2012 Marketing, Education, and Outreach, Southern California Gas Company (SoCalGas) hereby files its Application for Natural Gas Energy Efficiency Programs for Years 2013–2014. As discussed below, this Application complies with the Decision and will be instrumental in realizing energy savings goals as well as the vision described by the Commission in the California Strategic Energy Efficiency Plan (Strategic Plan).

Along with the state's other investor-owned electric and gas utilities (Pacific Gas and Electric Company, Southern California Edison Company, San Diego Gas & Electric Company, and SoCalGas, jointly referred to as "the Joint IOUs"), which are submitting similar Applications, SoCalGas requests that the Commission to approve the SoCalGas Energy Efficiency Portfolio as submitted herein and specifically requests the following:

- Approval of the SoCalGas Energy Efficiency programs and sub-programs as summarized in this testimony in Chapter 3 and described in detail in the Program Implementation Plans found in Appendix C;
- Approval of the SoCalGas Energy Efficiency Portfolio overall budget of $175,958,559 as shown in Table 3 in Chapter 1, an OBF loan pool of $1 million each year as described in this testimony and detailed in the Program Implementation Plan in Appendix C, and the revenue and rate changes and related proposals as submitted in Chapter 6;

- Approval of budgets by area as submitted in Tables 9A-9C as submitted in Chapter 4, and summarized in Table 3 in Chapter 1;
- Approval of the SoCalGas Alternative Energy Efficiency Portfolio Proposal as submitted in Chapter 2.B;
- Approval of the SoCalGas Workpapers as submitted in Appendix B.

SoCalGas' Application is structured following the guidance outlined in D.12-05-015 and is supported by the testimony of several witnesses. Gillian Wright, Director of Customer Programs and Assistance, provides testimony regarding the Executive Summary of the Application (Chapter 1), how the proposed portfolio reflects the guidance of D.12-05-015 (Chapter 2), and on a proposed alternative scenario that enhances the effectiveness of several programs within the Portfolio (Chapter 2.B). Kevin Shore, Commercial and Industrial Mass Markets Segment Manager, provides testimony on how the portfolio fulfills energy efficiency goals (Chapter 3). Mr. Shore also provides a summary of continuing, new, and eliminated programs. Frank Spasaro, Energy Efficiency Partnerships Manager, provides a summary of the financing and local government partnership programs. Lance DeLaura, Market Strategy and Codes & Standards Manager, provides a summary of the Codes & Standards program. Andrew Steinberg, Regulatory Policy and Reporting Manager, offers testimony that addresses the reasonableness of the funding request (Chapter 4), evaluation plans and budgets (Chapter 5),and the proposed revenue requirements and cost recovery (Chapter 6).

The witnesses' prepared direct testimony is served concurrently herewith, incorporated in the Application by reference, and summarized below:

Executive Summary (Chapter 1)

In Chapter 1, SoCalGas witness Wright summarizes SoCalGas' policy and purpose in filing its Application; SoCalGas' energy efficiency (EE) portfolio savings and budget; activities designed to strengthen the energy efficiency portfolio and increase benefits to customers; and innovations to overcome challenges that SoCalGas faces in delivering gas-only energy efficiency measures. It also discusses specific areas for collaborating with the Commission to develop the portfolio for the cycle beginning in 2015 and changes that would increase the cost-effectiveness of the portfolio.

Portfolio Reflects Guidance (Chapter 2)

In Chapter 2, SoCalGas witness Wright summarizes how the Application responds to the specific guidance in the authoring decision. This testimony is supported by a Table of Compliance presented in Appendix G.

Alternative Energy Efficiency Portfolio Proposal (Chapter 2.B)

In response to D.12-05-015, Ordering Paragraph (OP) 171, witness Wright presents an alternative program proposal that outlines modifications to several programs in order to serve customers better, increase cost-effectiveness, enable deeper retrofits, prompt higher participation, and/or decrease risk.

Portfolio Fulfills Energy Efficiency Goals (Chapter 3)

In Chapter 3, SoCalGas witness Shore discusses how SoCalGas' Application fulfills energy efficiency goals and discusses market potential. This testimony also provides an overview of the Program Implementation Plans (PIPs) by witnesses Shore, Spasaro and DeLaura presented in Appendix C.

Funding Request is Reasonable (Chapter 4)

In Chapter 4, SoCalGas witness Steinberg provides information regarding the proposed budget by program and discusses spillover as addressed in D.12-05-015, pp. 362 – 363.

Evaluation Plans and Budgets (Chapter 5)

In Chapter 5, SoCalGas witness Steinberg presents statewide testimony regarding the Evaluation, Measurement & Verification work plan and related considerations..

Revenue Requirements and Cost Recovery (Chapter 6)

In Chapter 6, SoCalGas witness Steinberg presents the revenue and cost recovery information regarding the proposed portfolio and discusses unspent funds from previous cycles.

Appendices to the testimony will be supported by several witnesses. Kevin McKinley, Customer Programs Measurement & Evaluation Supervisor, will submit information on cost-effectiveness requirements (Appendix A). Eric Kirchoff, Engineering Support Customer Programs Supervisor, will present workpaper submittal requirements (Appendix B). Witnesses Shore, Spasaro, and DeLaura will submit the Program Implementation Plan requirements (Appendix C). Mr. McKinley will submit Placement budget and savings requirements (Appendix D), and sponsor the majority of testimony application tables (Appendix E). Witnesses Shore and Spasaro will provide additional program requirements (Appendix F), and witness Wright will submit the Table of Compliance (Appendix G). Mr. McKinley will provide Market Transformation Indicators and supporting material (Appendix H).

CHAPTER 1. EXECUTIVE SUMMARY

1. The Proposed Portfolio Achieves Energy Efficiency Goals Cost-Effectively

SoCalGas' proposed 2013–2014 Energy Efficiency Portfolio demonstrates strong support of energy efficiency as a core source of value to California and of the vision of the Commission. The SoCalGas proposals are summarized and demonstrated in greater detail in Chapter 2, Chapter 3, and Appendix A. For a brief description, the proposed portfolio includes the following elements:

- Statewide Residential, Commercial, Industrial, and Agricultural Energy Efficiency Programs with diverse initiatives and measures to enable these large and critical energy customer sectors to achieve deeper energy savings;
- A Statewide Emerging Technologies (ET) Program aimed at accelerating the path of the most promising innovations into customers' homes and businesses through adoption into energy efficiency programs;
- A Statewide Codes and Standards (C&S) Program that works with other organizations, both in-state and nationwide, to increase energy efficiency overall through strategic use of codes and standards;
- A Statewide Workforce Education and Training (WE&T) Program focused on increasing the knowledge of contractors, enhancing the quality of energy efficiency installations, and helping train a new generation of energy efficiency installers;

- A Statewide Marketing, Education, and Outreach (ME&O) Program aimed at increasing overall understanding and awareness of energy efficient products and strategies;[1]
- A Statewide Integrated Demand-Side Management (IDSM) Program that coordinates efforts and resources to enable customers to apply the full range of beneficial energy efficiency strategies;
- A Statewide Finance Program seeking deeper customer energy savings through innovations in financing of energy efficiency projects;
- Local Institutional Partnerships that work with statewide colleges and universities with state agencies to implement system-wide energy savings strategies;
- Local Government Partnerships (LGPs) that leverage local leaders and institutions to increase energy efficiency implementations in community homes, businesses, and buildings;
- Third-Party Programs that leverage the targeted skills, ideas, and expertise of contractors to fill the needs of niche markets, reach customers that may be underserved, and bring beneficial innovations to customers.

Together these programs will enable SoCalGas to deliver significant energy savings cost-effectively. SoCalGas' proposed annual budget of $88.0 million is 5.3% less than the equivalent

[1] Pursuant to D.12-05-015, the utilities are required to file, by no later than August 3, 2012, a separate application that addresses their planned statewide ME&O activities and expenditures. Thus, the statewide program and budget will be addressed in that application. Local ME&O activities are included in the instant application with the associated EE program.

annual budgets $92.9 million for the 2010–2012 period.[2] SoCalGas has adjusted budgets for its continuing core programs to reflect the costs experienced during the 2010–2012 cycle and SoCalGas' best estimate of likely costs for 2013–2014. During the 2010–2012 cycle, SoCalGas has been able to meet the Commission's energy savings goals with program expenditures significantly below the amounts originally budgeted. Lower energy savings goals have also allowed some reduction in costs. Reduced budgets for continuing program activities and measures have allowed SoCalGas to add new measures, expand Energy Upgrade California (EUC), and accommodate the direction to expand financing and local government partnership activities in the proposed budget without increasing customer rates. The proposed budget does not include any costs for Regional Energy Network (REN) proposals that may be submitted July 16 per the ALJ Ruling issued June 20.[3] To the extent that any approved REN proposals are incremental to utility proposed programs, the final adopted budget may be higher than that requested by SoCalGas.

SoCalGas' proposed portfolio is cost effective with a Total Resource Cost (TRC) benefit/cost ratio of 1.23 and a Program Administrator Cost (PAC) benefit/cost ratio of 1.80. The TRC includes estimated statewide ME&O costs**,** although the statewide ME&O budget will be determined separately, per guidance from the Commission. The TRC and PAC ratios do not include spillover adjustments. The TRC benefit/cost ratio would increase to 1.34, and PAC

[2] Per D.09-09-047, p. 226, the SoCalGas allocation of statewide ME&O for the 2010–2012 period was $6.341 million, or $2.114 million on an annual basis. The values shown are for revenues recovered through the gas PPP Surcharge, and do not include funds in gas transportation rates for the On-Bill Financing Program loan pool.

[3] R.09-11-014, Administrative Law Judge's Ruling Regarding Procedures for Local Government Regional Energy Network Submissions for 2013 – 2014 and for Community Choice Aggregators to Administer Energy Efficiency Programs.

benefit/cost ratio would increase to 2.24 with the inclusion of spillover-adjusted net-to-gross values.

This TRC is lower than in prior cycles primarily due to reductions in savings from the most cost-effective programs and measures, combined with additions of less cost-effective measures, such as expansions to the financing and Energy Upgrade California programs. In particular, changes to the custom programs that reduce savings from early replacement projects and reduction of the net-to-gross ratio have a large negative impact on the TRC.

Further, SoCalGas' proposed portfolio and key measures groupings present are well-balanced in that they achieve the savings goals cost-effectively for the Portfolio as a whole. Table 1 shows the therm savings by end use for the entire Portfolio, and Table 2 shows therm savings by end use within each of the major sectors.[4] The requested budget for the Portfolio is $175,958,559, including EM&V but excluding statewide ME&O, per guidance. For programmatic detail on budgets, please see Table 3 in the following section.

Table 1. Therm Savings by End Use

End Use	Therm Savings	%
Clothes Washer	1,822,201	3.4%
Cooking	651,551	1.2%
Other	22,238,735	41.8%
Process Heat	14,098,589	26.5%
Pumps	335,200	0.6%
Space Heating	6,982,271	13.1%
Water Heating	7,119,846	13.4%
Grand Total	53,248,393	100.0%

[4] The numbers shown are for both years, because the savings are the same in 2013 and in 2014. The savings for Codes & Standards differ slightly from year to year, but this difference is not significant.

Table 2. Therm Savings for Key Measures by Major Sectors

Sector/End Use	Therm Savings	%
Agricultural	**1,983,825**	**3.7%**
Other	43,200	0.1%
Process Heat	623,826	1.2%
Pumps	180,799	0.3%
Space Heating	1,136,000	2.1%
Codes & Standards	**5,395,135**	**10.1%**
Other	5,395,135	10.1%
Commercial	**10,661,477**	**20.0%**
Cooking	590,053	1.1%
Other	2,834,801	5.3%
Process Heat	4,170,464	7.8%
Pumps	154,400	0.3%
Space Heating	1,450,207	2.7%
Water Heating	1,461,552	2.7%
Industrial	**25,529,086**	**47.9%**
Cooking	61,498	0.1%
Other	13,965,599	26.2%
Process Heat	9,304,299	17.5%
Space Heating	2,197,690	4.1%
Residential	**9,678,869**	**18.2%**
Clothes Washer	1,822,201	3.4%
Space Heating	2,198,374	4.1%
Water Heating	5,658,293	10.6%
Grand Total	**53,248,393**	**100.0%**

2. Portfolio Elements, Budgets, and Savings Support the Commissions Goals and Guidance

a. Portfolio Elements

In line with Commission guidance and as detailed in Chapter 2, SoCalGas proposes to strengthen several areas of our portfolio that are working well. For example, SoCalGas plans to enhance connections to municipal utilities within our service area, mirroring the successful collaborations between the Joint IOUs. These stronger connections should extend the reach of SoCalGas' offering and will help the municipal utilities increase the links between electricity and gas in their local service offerings. Likewise, SoCalGas proposes to enhance collaboration with

local governments by creating a Virtual Energy Center (VEC) dedicated to providing local governments with a variety of resources, including information, technical assistance, and templates for grants and proposals, to enhance efforts to increase energy efficiency in their facilities.

In addition, SoCalGas continues its support of the Commission's focus on deeper retrofits. To this end, the utility will continue to encourage engaged customers to consider additional measures to maximize savings and maintain our long-held practice of always presenting a prioritized IDSM suite of options to customers. Further, this portfolio will offer increased incentives for audits and for the addition of measures to ongoing projects. In addition, a commercial Whole Building Approach demonstration will test various ways to gather and present information to customers on prioritized actions they can take to reduce their energy use**.** However, the transition period may not be long enough to fully understand the impact, benefits, and issues of a complex measurement and verification–based Whole Building Approach.

SoCalGas also endorses the intent of an expanded financing effort to test whether this will encourage deeper retrofits with fewer ratepayer dollars. As the designated statewide program lead, SoCalGas is eager to engage with the consultant hired to begin developing and designing the four pilots required in the Decision so that the Commission and the Joint IOUs can begin to gather and analyze data about the benefits and weaknesses of the pilots. SoCalGas is concerned, however, that the transition period may not be long enough to fully understand the impact, benefits, and issues of a larger and more complex financing program. The utility therefore cautions against enlarging the pilot until the challenges can be addressed to create a program customers will use and the financial industry will support. The SoCalGas alternative program proposal (Chapter 2.B) addresses this issue.

Moreover, the proposed portfolio highlights SoCalGas' conviction that energy efficiency provides environmental, economic, and quality of life benefits to our customers, local governments, and local businesses. Because of these benefits, SoCalGas deliberately plans its outreach to help ensure that all customers are served equitably across such dimensions as geography, market sector, and demographics. For example, SoCalGas will better serve historically difficult-to-reach multifamily and small business customers through richer offerings and lower barriers to direct installations. The utility will also combine electric and gas options for small business customers, with the expectation that the stronger potential for energy savings will promote greater participation. In addition, the moderate income direct install (MIDI) program will bring energy efficiency measures to customers who may not have been adequately addressed in previous program cycles.

To further extend customer benefits, SoCalGas will continue to administer the energy efficiency portfolio in ways that help the local economy. The utility's third-party energy efficiency contracts will now include requirements for hiring a portion of employees locally, depending on feasibility, and the direct install programs, which are being expanded, employ local companies. In addition, enlarging the financing program could lead to more retrofits, which would in turn create more jobs for contractors.

Energy efficiency programs satisfy customers and ensure that SoCalGas remains a strong local employer and community leader. However, creating a compliant and balanced portfolio presents challenges for SoCalGas as a gas-only utility. Gas equipment generally has relatively high up-front costs and low operating costs. Standard efficiencies for gas equipment have increased over the years, and the incremental efficiency of high efficiency equipment versus standard equipment is getting smaller, while the cost increment is generally high, particularly for

new technologies. The narrow margin of savings puts a limit on the amount of the incentive that SoCalGas can offer. For example, it can be extremely difficult to convince customers to invest in efficiencies above California code, which already mandates very high efficiency levels for new gas products—such as the 78% AFUE required for gas furnaces.[5] The high product cost, coupled with low natural gas prices and low incentive amounts, can extend the return on investment to years or even decades—a difficult proposition for most customers.

Compounding the problem, because current cost-effectiveness calculations recognize only *energy* benefits for customers—and not the many other important benefits that play into the customer's decision to purchase—the vast majority of gas measures for the residential and commercial sectors are not deemed cost-effective. It is possible to provide these offerings due to the contribution of benefits attributable to SoCalGas' industrial programs. New and emerging technologies that may present a possible solution to this conundrum must offer sufficient reward for the needed research and development.

SoCalGas is seeking to overcome the barriers to adopting gas energy efficiency measures through program design innovations. In 2013–2014 period, the utility is proposing to increase the installation of low-cost gas measures, such as low-flow shower heads and faucet aerators, through its direct install programs, anticipating that these measures will show customers the value of gas savings and encourage them to look for other gas opportunities. The company also plans to develop richer offerings, streamline program application processes, and enlarge the direct install program to include middle income customers. In addition, the utility is encouraging a renewed focus on gas in the Emerging Technologies Program. SoCalGas has helped to form a national gas emerging technologies collaborative through the Gas Technologies Institute. The

[5] California Energy Commission, *2010 Appliance Efficiency Regulations*, Table E-6, p.144.

collaborative helps to show manufacturers and technology innovators a larger market and more utility partners to help promote new efficient technologies.

The utility is also advocating for policy changes that could increase customer adoption of gas measures. For example, SoCalGas' alternative program proposal recommends a change in the calculated programs process to provide better certainty to customers regarding eligibility and incentive levels (Chapter 2.B).

b. Estimates of Budgets and Energy Savings

To summarize the budgets and energy savings for SoCalGas' portfolio, Table 3 shows the estimated portfolio budget and savings.

Table 3. Program Budgets and Savings

Program Budgets and Savings

Program	2013-14 Budget	2013-14 Gross Therm Savings
Agricultural	5,254,633	1,983,825
Codes & Standards	1,674,228	5,395,135
Commercial	36,918,227	10,661,477
Cross Cutting	15,965,433	
DSM Coordination & Integration	650,000	
Emerging Technologies	4,831,302	
Industrial	33,075,776	25,529,086
Local Government Partnership	9,525,433	
Local Marketing & Outreach	1,337,693	
Residential	53,372,775	9,678,869
Workforce, Education & Training	6,154,553	
Evaluation Measurement & Verification	7,198,505	
Total	**175,958,559**	**53,248,392**

3. Energy Savings from the Major Sectors and from the Top Energy Efficiency Measures Will Provide Extensive Benefits to California

Figure 1 shows projected therm savings for each of the major sectors for the program cycle, and Figure 2 shows projected therm saving from the top energy efficiency end uses. This information, along with the details and descriptions in this testimony and the appendices, demonstrates the extensive benefits to be delivered the SoCalGas 2013-2014 portfolio.

Figure 1. Projected Therm Savings by Market Sector Over 2013-2014

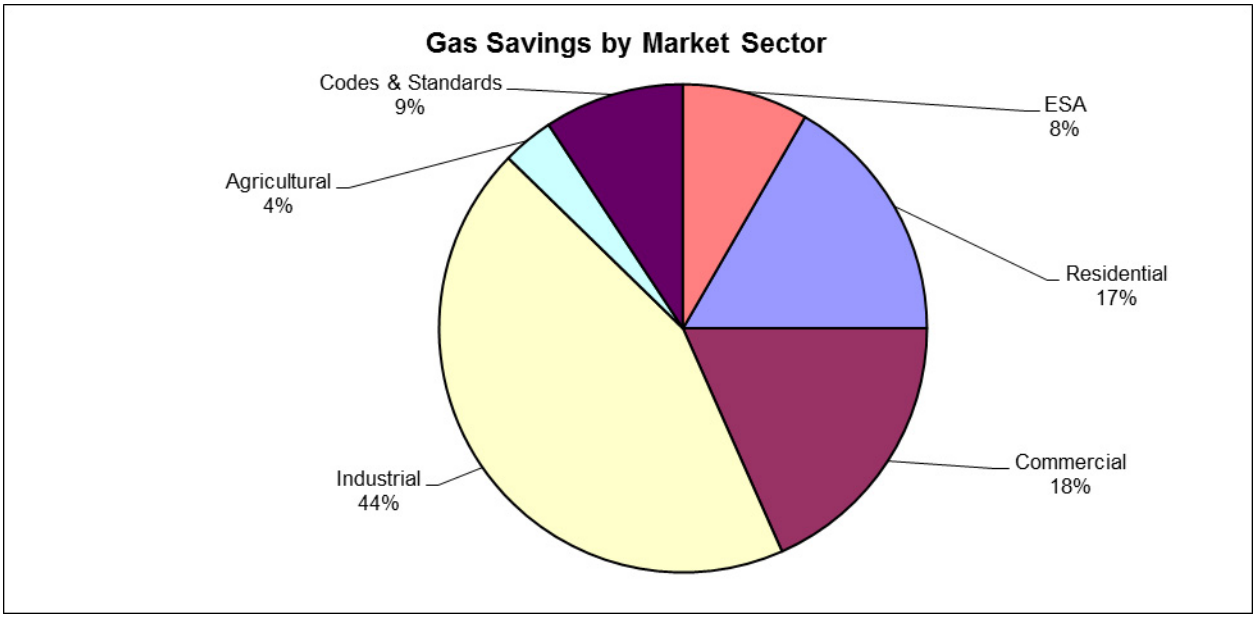
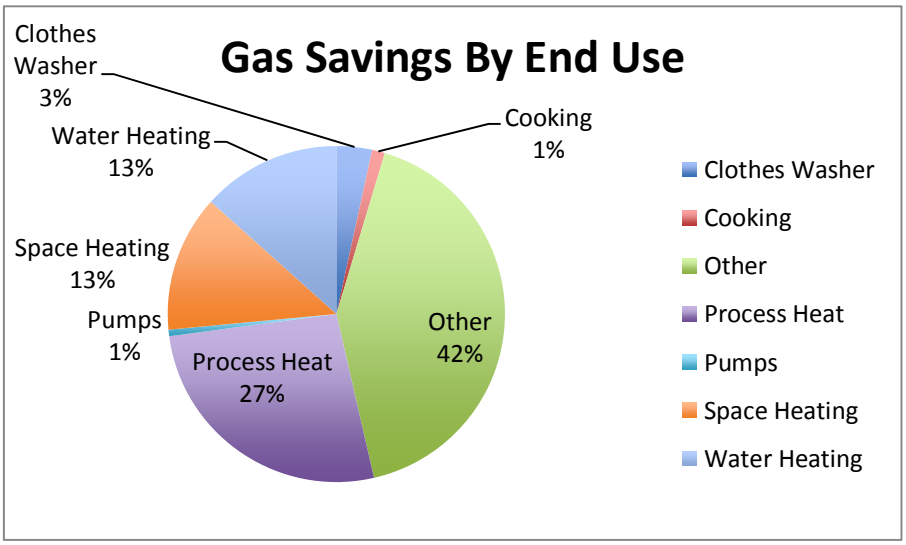


Figure 2. Projected Therm Savings by Top End Use Over 2013-2014



In summary, SoCalGas appreciates the opportunity presented by this transition period to gather and analyze more data on the effectiveness of new and existing measures and to work with the Commission to prepare for the next program cycle. We expect this collaboration will lead to still more improvements that simplify and improve the cost-effectiveness of the portfolio, while reaching more customers and encouraging the deeper retrofits and other customer initiatives needed to help California achieve the goals of the Strategic Plan.

Specific areas of collaborative focus can include continuing the effort to simplify and reduce the number of programs, evaluating models to increase the adoption and impact of gas measures, and testing the impact of strengthened programs, such as the Whole House Upgrade Program - Energy Upgrade California (WHUP-EUC), financing, and SoCalGas' stronger programs with local governments and municipal utilities.

CHAPTER 2
PORTFOLIO REFLECTS GUIDANCE

1. SoCalGas' 2013–2014 Energy Efficiency Portfolio Is Responsive to the Authorizing Decision

SoCalGas' 2013–2014 Energy Efficiency Portfolio continues the many successful programs and initiatives begun in 2010–2012 while reflecting the lessons learned and responding to guidance from the Commission. This chapter provides an overview of high priority changes in the Portfolio that respond directly to the Commission's latest guidance, as set forth in the Ordering Paragraphs of D.12-05-015. These summaries are supplemented by the Table of Compliance, found in Appendix G, a line-by-line accounting of where SoCalGas' Application is responsive to the dicta and/or Ordering Paragraphs from the Decision, as well as through the detailed descriptions found in the Program Implementation Plans in Appendix C.

a. Energy Savings Goals for the 2013–2014 Application

Pursuant to D.12-05-015, p. 96, the SoCalGas energy savings goals for 2013 and 2014 with are 25.8 and 24.9 MMMth/year, respectively. SoCalGas' portfolio is designed to exceed these goals for the program cycle. The reduction in energy savings goals for 2013 and 2014 compared to those for 2010–2012 reflects the findings of Navigant Consulting Inc.'s *Analysis To Update Energy Efficiency Potential, Goals, And Targets For 2013 And Beyond*. While the potential study includes behavioral energy savings, SoCalGas is required to implement a behavioral energy savings program as part of its Advanced Meter Infrastructure (AMI) deployment, as described in Section 2.1.n.

b. Financing

As directed, SoCalGas will hire an expert financing consultant no later than August 1, 2012, to design an innovative financing program via four pilots. Even before this hire, SoCalGas has been working, and will continue to work, with the Commission and stakeholders to start the program design. This program will be funded by the Joint IOUs with at least $200 million over two years and will include the components required by the Commission: improvements to the existing on-bill financing (OBF) program, continuation of successful programs funded by the American Recovery and Reinvestment Act (ARRA), a set of new programs to be offered as pilots in 2013, and, as lessons learned are gathered and changes made, offered on a larger scale subsequently. SoCalGas notes that the Ordering Paragraphs call for expansion of the pilot as early as 2014, but cautions against moving forward until sufficient data has been gathered and analyzed to enable development of programs that will be supported by consumers and financial institutions and that will prove successful in the market.

As ordered, and according to the direction of the expert consultant, SoCalGas expects that the pilot will include a credit enhancement strategy for single-family residences; a program for multifamily residences that includes credit enhancement, on-bill repayment (OBR), or a tariff-based reimbursement mechanism (that may require legislative action to implement); credit enhancement for small business customers, and OBR for non-residential customers. Thus, per the Decision OP 23, SoCalGas in its Finance PIP has suggested credit enhancements and also makes administrative recommendations.

SoCalGas and the other Joint IOUs will also set up and populate a financing database.

c. Local Government Partnerships and Third-Party Delivery

In response to the Commission's directives, SoCalGas sought and shared input, feedback, and conclusions with a variety of partners and stakeholders, including SoCalGas and Southern California Edison Company (SCE) LGPs, labor groups, environmentalists, academics, and members of the Local Government Sustainable Energy Coalition (LGSEC). This led to a list of success criteria deemed core to any partnership, including use of audits to plan municipal retrofits, achievement of cost-effective energy savings goals for municipal utilities, and the ability to increase community awareness of, and participation in, energy efficiency programs. SoCalGas determined the existing LGPs meet these criteria and are anticipated to complete the targeted goals set forth in the 2010–2012 program cycle. Therefore, SoCalGas proposes to continue all programs in 2013–2014. Because no programs were rejected, SoCalGas will not be attaching PIPs of any rejected programs pursuant to OP 33.

To build on this success, SoCalGas and the Joint IOUs have identified expansion criteria to be addressed by partnerships in the 2013–2014 cycle:

- Deeper retrofits;
- Workforce education and training;
- Codes and Standards enforcement and training;
- Emerging technologies deployment;
- Water-Energy nexus.

For example, LGPs will continue to promote WHUP-EUC (described below), and deep energy retrofits in residential and commercial buildings will be a priority, as will workforce education and training. SoCalGas will also close a gap by adopting those 2012 SCE LGPs that did not include SoCalGas as a formal partner into the SoCalGas' 2013–2014 LGP Program.

Aligned with direction from the Commission, SoCal Gas proposes to continue Third-Party Program contracts that have proven their success over the 2010–2012 cycle. Further, SoCalGas has strategically selected these contracts to take full advantage of contractor areas of specific expertise, address niche markets, influence hard-to-reach customers, or fill gaps in the SoCalGas portfolio. SoCalGas will also conduct a competitive bid process, after Application approval, that will ensure that at least 20 percent of the funding for the portfolio is awarded to third-party contractors with innovative ideas that can assist in meeting portfolio savings goals and support Commission initiatives.

d. Reducing the Number and Complexity of Programs

SoCalGas supports the guidance to reduce the number and complexity of programs. As directed, SoCalGas and the Joint IOUs have made a number of changes involving heating, ventilation, and air conditioning (HVAC) programs:

- Integration of the HVAC Residential and Commercial Quality Maintenance, Residential Quality Installation, and Commercial Quality Installation sub-programs into the relevant Residential and Commercial statewide programs;
- Integration of the HVAC Technology and System Diagnostics and WE&T sub-programs into the statewide ET and WE&T programs, respectively;
- Identification of the elements of the statewide HVAC and new construction programs that should be maintained and where these activities are housed.

The Joint IOUs have also consolidated the existing Residential and Commercial New Construction programs into the Statewide Residential and Commercial Programs.

Moreover, SoCalGas welcomes the opportunity to work with the Commission to further streamline the categorization of programs in preparation for the next program cycle to begin in 2015.

e. Program Guidance for the Residential Sector

SoCalGas and the Joint IOUs have incorporated the many directives in D.12-05-015 aimed at enhancing the effectiveness of programs for the residential sectors, as described in Appendices C and G. Some of the most significant changes relate to the WHUP-EUC Program, which, in alignment with the Commission, the Joint IOUs consider as a Market Transformation program.

WHUP-EUC is designed to build customer and contractor awareness of the house-as-a-system approach to residential retrofits and the many corresponding benefits of improving the energy savings potential and dwelling comfort. It promotes the concept of accounting for the interactive effects of EE measures to gain the strongest benefits. WHUP-EUC moves customers from a prescriptive, single measure–based approach to one of deeper retrofits that recognize a house is a series of interdependent systems that must be considered holistically. Customer outreach and education efforts for the WHUP-EUC will be coordinated with other program offerings to leverage multiple customer touch points.

Changes in response to the Decision include greater cross-marketing to customers of the WHUP-EUC program and other residential energy efficiency programs, working with EnergySoft to find solutions to pool pump modeling, and incorporating lighting and appliance options as a more predominate feature in standard assessment reports to customers. In addition, the Joint IOUs will meet at least twice during the 2013–2014 transition cycle with statewide stakeholders to develop a 10-year stepwise incentive structure for WHUP-EUC, which will be

triggered at defined market transformation milestones starting with the EE portfolio cycle beginning in 2015.

f. Program Guidance for the Commercial Sector

SoCalGas and the Joint IOUs have incorporated the many directives in D.12-05-015 aimed at enhancing the effectiveness of programs for the commercial sector, as described in Appendices C and G. Some of the highest priority changes include the potential development of a marketing and outreach campaign with Business Improvement Districts (BIDs) to educate and increase engagement in this hard-to-reach customer segment. In addition, the program will include a whole building approach that integrates both customized retrofit and retro-commissioning in a single, performance-based program offering. The Joint IOUs also plan to deliver audit assistance through a number of program elements to encourage customers to opt for deeper retrofits by demonstrating greater energy savings.

g. Lighting Programs

As a gas-only utility, SoCalGas will not deliver any lighting programs.

h. Codes and Standards

In response to Commission guidance, this program has been modified for the 2013–2014 transition period. Specific changes include consolidation of all compliance improvement activities into the Compliance Improvement Sub-program, as well as the addition of a statewide Planning and Coordination Sub-program. Other changes pursuant to the Decision OPs, noted in Appendices C and G, include such initiatives as targeting low-compliance areas, maintaining a Codes and Standards Collaborative to conduct strategic planning, and collaborating with the WE&T Centergies sub-program. The latter is intended to prepare contractors and technicians to

implement current codes and provide technical training on advanced technologies that are projected to become part of reach codes and, subsequently, the statewide code.

i. Emerging Technologies Program

SoCalGas and the Joint IOUs have incorporated the many directives in D.12-05-015 aimed at enhancing the effectiveness of the Emerging Technologies Program (ETP), as described in Appendices C and G. A high priority effort will be leveraging research to obtain robust market potential estimates for targeted technologies and systems. Similarly, ETP will conduct or leverage targeted research on customer behavior, decision making, and market behavior to gain a qualitative and quantitative understanding of customer perceptions, customer acceptance of new measures, and market readiness and potential for new measures. The ETP PIP also shows how program elements will be used to meet goals and provides a planning budget allocation by market sector and end use for program elements.

j. Workforce Education and Training

SoCalGas and the Joint IOUs have incorporated the many directives in D.12-05-015 aimed at enhancing the effectiveness of the WE&T Program, as described in Appendices C and G. The highest priority change includes developing a plan to expand educational efforts to more directly affect trade organizations involved in installing and maintaining commercial HVAC systems. The Joint IOUs will carry out this plan during the 2013–2014 period.

In addition, the Joint IOUs will generate a plan to roll out a non-residential HVAC sector strategy pilot, including a multi-stakeholder partnership. The partnership will develop a full implementation plan to apply an approach based on the California Advanced Lighting Controls Training Program (CALCTP) strategy to the HVAC non-residential industry (beginning with

Quality Maintenance to provide the foundation and a subsequent extension into a Quality Installation sub-strategy).

Further, the Joint IOUs will collaboratively develop a statewide memorandum of understanding (MOU) with the California Division of Apprenticeship Standards to provide a framework (that resembles the CALCTP program) for partnering with labor, trade, and professional organizations. Such an MOU will help reinforce cooperation to achieve the objectives of making certified training modules available. It is also expected to encourage increased contractor use of performance-based principles to a) test and diagnose the HVAC system and b) use on-site information to design and implement solutions that directly address customer comfort and efficiency. Further, this training would aim to take HVAC technicians to a heightened level of expertise and give them the tools to maximize efficiency, comfort, and safety of customers in the construction of new systems.

k. Water-Energy Nexus

A number of measures within SoCalGas' portfolio respond to Commission directives to save both water and energy by concentrating on their points of connection. As an example, SoCalGas will target efficiency measures for agricultural and industrial customers, the largest water users in the state. The utility will also explore and document the calculation of ancillary water benefits as part of calculated energy savings programs, and examine opportunities for rehabilitation and optimization of engine and pump efficiency. In addition, SoCalGas will collaborate with municipal utilities as appropriate and focus its outreach on small- and medium-sized water and wastewater agencies that use gas engines as their main source of delivering water. Additional details on SoCalGas' efforts in this area can be found in Appendices C and G.

l. Marketing, Education, and Outreach

In a separate Application, due August 3, 2012, SoCalGas will outline the statewide ME&O approach for all demand-side programs and energy education.[6] This separate filing will also describe an approach focused on transforming the Energy Upgrade California brand into an umbrella brand that residential consumers and small businesses can come to associate with learning about energy use and taking energy efficiency and other demand-side management actions, with an emphasis on activities that will lead to deep retrofits.

SoCalGas' proposed program- and utility-specific marketing reflected in this Application is focused on leveraging the statewide marketing efforts to drive customers to specific actions through the utility and third party programs. The budget proposal explains how this narrow approach relates to the general Energy Upgrade California umbrella approach and why it is needed.

m. Continuation of 2010–2012 Programs Not Addressed Elsewhere in this Decision

The Commission outlines numerous directives concerning other programs, which SoCalGas responds to in various PIPs.

In response to guidance pertaining to the support of Continuous Energy Improvement (CEI), plans for 2013–2014 commercial, industrial, and agricultural CEI efforts are found in respective PIPs in Appendix C. As noted there, CEI is an integral step to helping customers engage in long-term, strategic energy planning that optimizes savings through an ever-deepening upper management commitment to energy.

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[6] Consistent with the other IOUs, the ME&O funding level will be included in the Application due by August, 3, 2012. However, for purposes of presenting cost effectiveness information for the entire EE portfolio, estimated ME&O funding is included in the instant Application.

Further, SoCalGas will renew efforts related to the statewide IDSM program and integration goals. As can be seen in Appendix C, the revised IDSM PIP includes a clear plan to obtain input from stakeholders concerning each of the eight tasks identified in Commission D.09-09-047. Attachment D (from D.12-05-015) contains a detailed accounting of all integrated IDSM pilot programs and projects. As needed, the PIP includes a scope and budget for revamping Integrated Demand-Side Management programs in the 2013–2014 portfolio. SoCalGas will also continue efforts to develop an integrated audit tool for IDSM activities, harmonizing timelines and approaches with the Joint IOUs. The revised IDSM PIP also provides a plan to disseminate and utilize the IDSM audit tool, once it is completed, and for incorporating mid-cycle any additional data and lessons learned from the 2010–2012 evaluation, when finalized.

n. Other Portfolio Direction

i. Behavior

Ordering Paragraph 16 of the Decision sets a 5 percent behavioral program household participation minimum for each IOU portfolio. SoCalGas will comply with this requirement through the conservation activities associated with its Advanced Metering Infrastructure (AMI) deployment. Funding and associated requirements for SoCalGas' AMI system was approved in D.10-04-027. The cost effectiveness of SoCalGas' AMI efforts is contingent upon behavioral conservation benefits that are expected to flow from operation of the AMI system in conjunction with associated conservation marketing and information efforts. Furthermore SoCalGas is required to report on conservation benefits attributable to AMI deployment (Col 7, OP 4, OP 5) and the conservation benefits achieved that are directly linked to the risk sharing mechanism enacted by the AMI Decision (OP 2, OP 5). Due to the direct linkage between behavioral

conservation expenditures and the AMI risk-sharing mechanism, it is inappropriate for SoCalGas to fund behavioral program efforts using gas surcharge energy efficiency funds. To do so would run counter to the risk-sharing mechanism established in D.10-04-027.

SoCalGas expects to have over 800,000 advanced meters in place by the end of 2013 and more than 2 million advanced meters in place and operational by the end of 2014. Conservation marketing and outreach efforts supporting behavioral-based energy savings reductions will proceed alongside meter deployment efforts. Given that 2 million meter installations represent almost 40% of SoCalGas households, the utility is confident that it will exceed the D. 12-05-015 behavioral programs participation minimum of 5 percent of households.

ii. HVAC

D.12-05-015 OPs 50, 51, 52 and 53 require the IOUs to modify, as necessary, their program rebate/incentive applications to comply with SB 454. SDG&E's Upstream HVAC Equipment incentive program ("Program") is currently compliant with SB 454, which is codified at Public Utilities Code Section 399.4 and thus no further changes are required. Section 399.4 (b) (1) refers to rebates or incentives for installed energy efficiency measures. The transaction for which an incentive is paid in the above-mentioned Program is for the sale, rather than the installation, of HVAC equipment. No permits are required at point of sale. The Program does not come in direct contact with the equipment installation process by the contractor or end-user; therefore it does not violate the permitting and licensing requirements in PUC Section 399.4.

D.12-05-015 OP 51 requires the customer or contractor to certify that he/she has obtained a permit and utilized a licensed contractor. Pursuant to a multi-party settlement of issues related

to SB 454[7], the IOUs' applications for incentives for HVAC replacements or installations already require the person applying for the incentives to certify that a contractor is licensed and a permit has been obtained, if applicable. Thus, no further changes are needed to SDG&E's applications to comply with this requirement.

D.12-0-015 OP53 requires the IOUs to institute the following changes to their documentation for programs involving HVAC installations or replacements: (a) submittal of the permit number for the HVAC-related work; and (b) a contractor certification that appropriate permits have been obtained. SDG&E will update its residential, multi-family, and business customer rebate applications, including rebates for the installation or replacement of a HVAC unit.

iii. Program Advisory Groups

The Decision at OP 167 directs the IOUs to include proposals to potentially utilize Program Advisory Groups as a consultative resource for mid-cycle or future program changes. In order to receive input to assist with formulating the 2013–2014 portfolio recommendations, SoCalGas held a local external stakeholder meeting on May 1, 2012. The company is very appreciative of the participant contributions and held a follow up meeting on June 29, 2012 to share how the input was incorporated into its proposed portfolio.

SoCalGas was also a co-host for a statewide meeting to share information and receive input from external stakeholders, held in San Francisco on May 29, 2012.

SoCalGas proposes to hold semi-annual meetings for stakeholder input. Historically, Program Advisory Group meetings were joint meetings hosted by both SoCalGas and Southern

[7] Letter from Office of Attorney General, California Energy Commission, CPUC, and Contractors State License Board to Janice Berman, dated October 18, 2010.

California Edison. SoCalGas proposes to hold at least two meetings as SoCalGas-only meetings, in order to address the approximately 40% of the service territory not served by SCE for electric service and ensure sufficient attention to gas-specific programs and measures.

o. Evaluation

As discussed in Chapter 5 and in compliance with the D.12-05-015, the Joint IOUs' evaluation, measurement, and verification (EM&V) budget proposal for 2013–2014 is 4 percent of their respective total portfolio budgets. This budget will support all EM&V activities conducted by the Joint IOUs and Commission staff at the prescribed levels of 72.5 percent for Commission studies and activities and 27.5 percent for IOU studies and activities. For SoCalGas, the 4 percent budget proposal equals approximately $7.2 million. Also as directed, Commission staff and the Joint IOUs will work together to update and modify the existing EM&V work plan to meet the needs of the 2013-1014 portfolio.

p. Shareholder Incentive Mechanism

The Decision requires the Joint IOUs to reflect any guidance that is proposed or adopted regarding a shareholder incentive mechanism for 2013/2014. In a ruling issued June 15, 2012 in R.12-01-005, Administrative Law Judge (ALJ) Pulsifer requested further extensive comments and declined to provide further guidance pending review of those comments. Therefore SoCalGas has not reflected any guidance here. As this proceeding and R.12-01-005 continue in parallel, SoCalGas will supplement its showing as necessary to allow clear understanding of the implications of proposed incentive structures on the portfolio, along with portfolio impacts on any incentive mechanism.

q. Next Steps and the Process for 2013–2014 Utility Portfolio Application and Review

SoCalGas will comply with Commission guidance and Ordering Paragraphs concerning the next steps and process for the Portfolio Application, as outlined in the Table of Compliance in Appendix G. For example, the SoCalGas Application and supporting documentation follow a common format as that used by the other Joint IOUs, and the utility has included a line item in its proposed budget for meeting the requirements for compliance with standardized tracking data. Included in the Application are details on the energy savings assumptions and costs that were used to derive the cost-effectiveness values in the summary tables; documentation on these assumptions will be supplied to facilitate review by Commission staff and parties.

SoCalGas has also included one alternative energy efficiency program portfolio proposal. OP 171 indicated the application should contain (a) a full cost-effectiveness analysis of the second scenario portfolio, (b) a detailed explanation of the extent to which the additional portfolio does or does not comply with any of the foregoing ordering paragraphs, (c) an itemized summary of the differences between the two portfolios, and (d) a detailed discussion of the rationale for each area in which the two portfolios differ. A number of the alternative proposals are qualitative in nature and intended to enhance programmatic value, but do not translate to a measurable adjustment to the cost-effective analysis at this time. The testimony provided in Chapter 2.B, following, is intended to satisfy the other requirements, along with any referenced attachments.

CHAPTER 2.B ALTERNATIVE ENERGY EFFICIENCY PORTFOLIO PROPOSAL

In response to OP 171 of D.12-05-015—which authorizes the Joint IOUs to file, in addition to a portfolio of programs that is compliant with all of the Decision's ordering paragraphs, one "additional alternative" EE portfolio proposal—SoCalGas presents in this chapter an alternative 2013–2014 Energy Efficiency Portfolio (alternative program proposal).

In so doing, SoCalGas recognizes the extraordinary efforts taken by Commission staff to direct the Joint IOUs in creating portfolios that would enable cost-effective action to meet energy savings goals, while aiming toward the higher goals of the Strategic Plan. As this Application shows, SoCalGas' portfolio is in compliance with these directives. However, SoCalGas, along with the Joint IOUs and many stakeholders, maintain that some programs could be more even more effective with modification to serve customers better, provide a basis to achieve deeper retrofits and/or prompt higher participation, and/or decrease risk. Key elements of the Preferred Portfolio follow:

1. **Enhance Customer Experience (Joint Proposal):** To improve the predictability of the customer experience while providing the Commission ample review time, SoCalGas presents recommended enhancements for custom measures and projects.
2. **Improve Opportunity for Deeper Benefits (Joint Proposal):** To further market transformation efforts for WHUP-EUC, SoCalGas makes a series of proposals in support of effective program implementation and evaluation.
3. **Local Government Partnership Offerings (Joint Proposal):** To provide greater options for local governments seeking to more aggressively pursue EE in their communities, SoCalGas proposes to provide local governments with additional technical resources as an alternative to Regional Energy Networks (RENs). This

model would maintain market stability while the Commission embarks on planning for future cycles.

4. **Other Suggested Improvements:**

   a. **Marketing, Education, and Outreach:** SoCalGas believes the function prescribed by the Commission for the California Center for Sustainable Energy (CCSE) would have been arranged for by the utilities in the normal course of contracting for resources. The company endorses a competitive solicitation for a vendor to assist with such activities during the 2013 – 2014 EE period to assure the most qualified firm is retained to provide services.

   b. **Financing Program:** To lower risk and increase program effectiveness, SoCalGas' alternative program proposal would continue On-Bill Financing (OBF) and work with interested parties and the other IOUs to develop an OBR payment option for customers that does not require pro-rata payment (i.e., disconnection), and limits financing program participation to utility program measures. These changes would accelerate the movement toward private capital and away from rate-payer funded financing.

   c. **Custom Measures and Projects Net to Gross Value:** To allow SoCalGas to create a more balanced portfolio for all customers, the SoCalGas alternative program proposal recommends using a net-to-gross ratio of 0.63 for custom programs, which more accurately represents gas-only measure cost-effectiveness and accounts for changes in SoCalGas processes and policies to decrease free-ridership.

As the descriptions below underscore, SoCalGas' alternative program proposal is intended to build a more innovative and effective transition to the next program cycle.

1. Enhance Customer Experience

In D.11-07-030, Appendix B, the Commission established a process by which ex ante energy savings estimates from custom measures and projects (hereafter, the "Custom Program") are reviewed. The Joint IOUs[8] and a collective of interested parties (hereafter, the "Joint Parties")—including Natural Resources Defense Council, the National Association of Energy Service Companies, the California Energy Efficiency Industry Council, all of whom are parties to this proceeding, and Onsite Energy—propose provisions intended to enhance the Custom Program, with a particular emphasis on improving the customer experience.

The Joint Parties came together with an interest in creating a collaborative paradigm that may be applied for future program proposals, by which collective efforts prior to the submission of testimony could improve the quality of proposals and increase administrative efficiency. As such, this proposal represents ideas and interests of a diverse group of stakeholders. Along with this testimony, the Joint Parties submit a redlined version of Attachment B that they respectfully ask the Commission use to implement the program for the 2013–2014 transition period (see Attachment 1, and Attachment 2 for a "clean" version of the proposed document). The remainder of this section will summarize the proposed changes in Attachment B, and the associated rationale and benefits of the recommendations.

Custom measures and projects are energy efficiency efforts where the customer financial incentive and the *ex ante* energy savings are determined using a site-specific analysis of the customer's existing and proposed equipment, and an agreement is made with the customer to pay the financial incentive upon the completion and verification of the installation. Since custom

[8] Utility parties include Pacific Gas & Electric, Southern California Edison, San Diego Gas & Electric, and the Southern California Gas Company.

measures and projects each have unique characteristics, parameters that determine estimated energy savings are more variable and less predictable without a site-specific analysis than the more common deemed measures for which savings parameters can be predetermined.

The Joint Parties focused on developing an alternative scenario for the Custom Program because they represent a critical element of the IOUs EE service offerings. Custom Program projects are some of the largest energy savings in the IOU program portfolios. As such, these projects are a key contributor to the EE portfolio cost effectiveness and ensuring the program in its entirety (including non-resource programs which do not directly contribute savings) is compliant with the Commission requirement to have a net Total Resource Cost ("TRC") above 1.0.

As implied by the significant savings impact upon EE portfolios, the Custom Program is one of the more valued programs by utility customers. In general, Custom Program projects provide an opportunity for businesses to replace existing commercial and industrial processes and / or equipment to increase energy efficiency, resulting in energy savings. In particular, certain Custom Program projects are specifically designed to retire older, less efficient equipment earlier than would otherwise occur without custom incentives. The rebates and incentives provided by Custom Programs are a necessary catalyst responsible for incenting the customer to change its current business model for equipment replacement (which often amounts to using old, inefficient equipment indefinitely), leading to overall energy reductions and utility bill savings, which over time result in a net cost benefit to ratepayers and all interested parties. With this in mind, the Joint Parties believe improvements that specifically take into account factors directly affecting customers and their inclination to make custom project commitments are one of the top priorities for program improvements.

The adjustments described herein are intended to result in such enhancements and the Joint Parties ask the Commission to adopt them accordingly. The changes also arrange for standardized timelines for the Commission to review projects in the interest of enhancing the review process and in support of the goal of receiving meaningful feedback on required systematic changes to the IOU project development and implementation process.

a. Custom Program: Customer Experience

The Joint Parties have identified certain adjustments to the Custom Program process that will accommodate review of projects without impeding the ability of customers to proceed with energy efficiency projects in a timely fashion. The Joint Parties' observations, based on almost a year of implementing projects with the current review process is that the timing of the current process is uncertain, some projects have experienced delays of up to nine months, and there have been difficulties identifying required documentation. The Joint Parties thus believe it would be in the best interests of all stakeholders to separate the review and project approval process for projects meeting certain conditions[9] in a manner that can allow customers to proceed with energy efficiency projects in a timely fashion, and yet preserve and enhance the review process. Proposed modifications are intended to ensure that the Energy Division has adequate time to collect data, analyze project results, and systematically apply the conclusions of the reviews prospectively, to allow a thorough quality control evaluation that will better inform savings estimates as the programs move forward, prospectively.

[9] As described herein, these include Commercial projects below 500MWh or 250MTh, and Industrial projects below 1MMth.

b. Proposal: Annual Evaluation Plan

The Joint Parties propose to amend Appendix B so the review process is conducted according to an annual Evaluation Plan developed by stakeholders that outlines areas of concentration for the year's work (such as technologies, types of customers, and industries to be reviewed, among others). The plan would clarify documentation requirements and discovery expectations for the project being reviewed, including early retirement parameters, incremental costs, baseline considerations, and data collection expectations. These defined expectations are expected to improve responsiveness, and ultimately, the timeliness of project disposition with maximum customer convenience.

Mapping out project review guidelines will improve customer understanding of the process and help set reasonable expectations, and should thus enhance administrative efficiencies for interactions between Commission staff and the utilities processing projects on behalf of customers. In addition, specifying the criteria for projects selected for review will allow all parties to focus on parameters, projects, and technologies which the Commission views as important and worthy of the resources being expended. The Joint Parties note that a similar approach is being used in New York for custom and deemed measures.

c. Proposal: Pre-Installation/Concurrent Reviews

The Joint Parties also suggest modifications to Appendix B that provide a greater degree of certainty regarding the pre-installation review process. First, for Commercial projects selected for review above 500MWh or 250Mth, and Industrial projects above 1MMth, the Joint Parties propose up to two rounds of discovery and a determination to be provided within twenty business days after receiving the requested information. These conditions continue to allow for

sufficient Commission review of selected projects, and also provide a clear timeline for the customer to receive a project disposition.

Second, for Commercial projects selected for review below 500MWh or 250Mth and Industrial projects below 1MMth, the Joint Parties propose that comments resulting from such reviews would be applicable only prospectively, with explicitly directed comments applied to future project calculations. Comments on Commercial projects above the 500 MWh and 250Mth and Industrial projects above 1MMth in size are considered parallel review and comments by the Commission would apply to the larger project currently under review. Prospective review would provide certainty regarding incentive levels for projects below a certain level and facilitate those ready to proceed, avoiding potential for modification of the incentive following the review process that may materially degrade customer satisfaction. Application of comments to incentives for the largest projects would continue.

d. Proposal: Conditional Approvals

The Joint Parties propose to eliminate conditional approvals that rely on post installation data for custom projects, as these may defer executing agreements. Written dispositions for the post-installation review would be required to state whether the project is acceptable or if future similar projects should be updated as indicated. Consistent with the other proposed enhancements, this change would increase the clarity of project evaluations.

e. Proposal: Post-Installation Review

The Joint Parties furthermore propose enhancements to the post-installation review that are intended to allow for verification that equipment installed by the customer is consistent with approvals from the pre-installation review. Again in the interest of increasing the level of certainty for customers who commit to installations, it is proposed that the already-approved

methodologies, used to calculate *ex ante* energy savings values, should not be modified for a post installation review of the specific project under evaluation. If the post-installation review does, in fact, result in greater or lower savings than the estimated *ex ante* values, the utility would incorporate these directions from the Commission into the calculations of savings and incentives for future agreements on similar projects.

f. Proposal: Baseline Setting Process and EM&V

The Joint Parties believe it is possible to make significant strides forward in the administration of custom projects by standardizing the baseline energy usage (or, "baseline") measurement protocol, and scheduling periodic EM&V studies to validate or change existing baselines.

The chart in Attachment B, Appendix 1, titled "Custom Project Decision Tree," is proposed as an alternative to the baseline determination flow chart, as summarized herein:

For early retirement or retrofits, it is proposed that the baseline for retro-Commissioning projects or for equipment that is repaired indefinitely be the existing site specific condition with savings annualized for the equivalent useful life, unless explicit policy or information otherwise dictates.

For early retirement projects with more than one year remaining useful life, a dual baseline would apply. The existing site specific conditions would apply for the remaining useful life, and the appropriate code or industry standard practice would apply for the balance of the equipment life.

For applications identified as replace on burnout, natural turnover, or new construction, a code requirement or industry standard practice baseline would apply for the life of the equipment. Industry standard practice is defined as an accepted/approved EM&V study for the

specific industry or application. In the absence of such study, the baseline defaults to the existing equipment.

The proposal includes conducting periodic Evaluation, Measurement & Verification ("EM&V") studies to determine if custom measure baselines should be modified. Any changes would be applicable prospectively. To guide appropriate practices, for requests to perform EM&V on projects that would not otherwise be required to undergo an evaluation, the cost shall not exceed 10 percent of the incentive being offered by the IOU.

Each of these recommendations is intended to streamline the process of establishing a baseline so that projects may move forward in a timely manner and with certainty for the customer. The EM&V activities would inform the savings calculations for future projects, while not altering the assumed conditions by which a customer has agreed to undertake the installation, enabling the program to implement projects reliably for customers, and realize improvements on a going forward basis.

g. Proposal: Dispute Resolution

In the interest of further assuring customer satisfaction is not negatively impacted by processing complications, the Joint Parties propose a neutral dispute resolution process. For selected smaller projects (see criteria above) with disputes regarding prospective comments, or adjustments to a larger project's *ex ante* values that cannot be resolved within two weeks, the utility and reviewer will split the difference in the estimated *ex ante* value if it is within +/- 20%. For instances where the recommendation exceeds +/- 20 percent of the utility estimated *ex ante* value, an independent third party not associated with the project shall be contracted to determine the outcome.

h. Conclusion

The Joint Parties propose the above noted enhancements to the Custom Program in order to improve the customer experience and to further enable customer participation to achieve a deeper level of realized savings. It is once again noted the proposals represent the collective efforts of many parties with the common interest of supporting the success of the Custom Program, and who believe a collaborative approach may improve the quality of proposals and increase administrative efficiency. In the event the Commission does not find this proposal acceptable in its entirety, the Joint Parties request consideration of the each provision on its own individual merits, rather than dismissing the proposal in whole. As noted above, along with the explanations provided in this testimony, a redline version of Appendix B from D.11-07-030 is provided to satisfy the conditions set forth by the Commission to consider the alternative EE program portfolio proposal.

2. Improve Opportunity for Deeper Retrofits

The Commission has set forth important policy goals for energy efficiency. In support of the Commission's goals and policy directive to achieve deeper savings, the IOUs[10] recommend the following alternative in order to demonstrate a new approach to achieving the highest level of energy benefits and cost efficiencies possible by piloting a market transformation approach to designing, developing, implementing, evaluating, and improving programs, focused on the Whole Home Upgrade Program (WHUP) (formerly known as Energy Upgrade California) during the transition period. In particular, this alternative approach will:

[10] IOUs refer to SoCalGas, San Diego Gas & Electric, Southern California Edison, and Pacific Gas & Electric.

- Encourage longer-lived savings;
- Be developed and carried out in a collaborative manner; and
- Lay a foundation for the 2015 cycle.

Most energy efficiency experts believe that whole-house and whole-building efforts are important "next-generation" energy efficiency programs, and the proposals below are intended to identify improvements to the program, the cost effectiveness calculations, and the evaluation processes. Given the importance of this program, this new collaborative model can offer diverse viewpoints for improvements that will be incorporated to improve customer program participation. The following proposal has been developed in close collaboration with DRA and NRDC over the past few weeks. However given the tight timeline, which did not allow for their full management review, they will provide their response to our proposal in the forthcoming party comments.

a. Employ Market Transformation Best Practices

The IOUs have a long history of running successful Market Transformation (MT) programs and seek to incorporate best practices from other jurisdictions to further their MT goals. Therefore, along with the repurposed WHUP Steering Committee, the Commission should approve having the IOUs competitively solicit and hire a consultant with deep MT experience to offer guidance on MT program design, implementation, and evaluation. The entity should have experience with gas technology, and preferably with whole building retrofits. The consultant will provide the IOUs best practices from other MT efforts, including natural gas MT efforts, from around the country and offer insights into how MT programs can best be used in the whole building retrofit market. Incorporating best practices has proven to be a successful element of collaborative stakeholder efforts in the past.

b. Improve market transformation planning and measurement

The MT consultant will also assist in the utilities' efforts to improve the WHUP measurement and evaluation. Utilities will work with the MT consultant and other stakeholders, and leverage the best practices from other regions, to design a new process to assess progress and measure success of the WHUP. This process will describe the program from inception through implementation (including evaluation), and will address such issues as baseline measurement, setting targets and milestones, and appropriate MT indicators. The use of an outside consultant to help with this process is consistent with the direction given in the Guidance Decision to "focus evaluation and research to provide regular feedback to the program."

c. Modify Cost-Effectiveness Assumptions

The Commission is well aware of the challenges with the current cost-effectiveness methodology and already initiated stakeholder workshops to further address this issue. In an effort to demonstrate how modification to the cost-effectiveness assumptions would improve the program offering and illustrate ways to more accurately account for the benefits of efficiency, the IOUs propose that this alternative test out various modifications. For example, building on the expertise of the hired MT consultant, we propose to explore adjusting various inputs such as:

- Market spillover benefits;
- Non-energy costs and benefits;
- Discount rate that values long-term savings;
- Measure cost.

The experience from this effort will provide additional input to the Commission for future planning improvements for 2015 and beyond.

d. Provide for advisory stakeholder participation

In order to ensure a collaborative, transparent, and effective process, the IOUs propose setting a strategic system of short-term and ongoing working groups with clear objectives, roles and responsibilities, and processes for integrating information into the record, if necessary. The two proposed groups as outlined below build on existing or previous approaches employed by the Commission and offer the opportunity to re-establish a more constructive approach to resolving issues outside of the formal proceeding filings.

First, there are a number of exciting and challenging components to the WHUP that would benefit from hearing ideas from experts and implementers in the field, in addition to working with the hired MT consultant. Second, when key policy issues arise, the second proposed group will provide a confidential forum where non-financially interested stakeholders can have open conversation about the issues and strategize ways to resolve differences.

i. Program Advisory Groups (PAGs) to engage a larger stakeholder group for discussion of specific program improvements. These PAGs would include market and non-market actors, non-party experts (similar to the initial strategic planning meetings), and non-CA EE experts. The advisory groups could also incorporate other existing groups such as the Strategic Plan working groups (e.g., HVAC Committee), the proposed WHUP Steering Committee, and already established sector specific groups (e.g., CA Commissioning Collaborative).

ii. Non-market participant review group (PRG) to ensure candid conversations and feedback about the programs, logic models, delivery approaches, and challenges. This collaborative, small, and confidential working group of non-financially

conflicted members will serve in an advisory capacity to the IOUs with the aim of building consensus and addressing key issues in advance of filings.

While these groups are advisory in nature, the intent of these groups is to provide an opportunity to build on collaboration and to come to resolution whenever possible.

3. Local Government Partnership Offerings

SoCalGas and SDG&E propose an alternative to Regional Energy Networks (RENs) that will maintain market stability while the Commission embarks on planning for future program cycles.

Implementation of competing models for such a short period of time will offer little or no value to the planning conversation for 2015, and if anything, would only confuse it. Further, IOU territory and LGP structure differences beg different solutions; what is successful at one utility may not be successful at another utility. Instead of adopting the REN model, the Commission should pursue a strategy for 2013 that facilitates options for partnering and leveraging of resources. The focus of such efforts should be limited to providing financing (i.e., ARRA programs) and technical support services for local governments.

SoCalGas proposes some additions to their application. In contrast, SDG&E, because of its unique territory, size, and LGP structure, has taken an alternative stance on additional REN activities based on comments from current LGPs. Both utilities agree, however, on the continued and evident need for utility oversight and coordination to attain goals, effectively coordinate activities, ensure the provision of funding, and achieve cost effectiveness.

In previous comments in this proceeding, SoCalGas proposed a "virtual energy center" ("VEC") approach to organizing resources to support local governments (both partners and non-partners) that would both complement and leverage resources. SoCalGas continues to believe,

where applicable, that applying VEC strategy is a more prudent approach for 2013–2014. SoCalGas proposes that the VEC effort described in the LGP PIP be the basis for expanded efforts to bridge the service gap that exists for many local governments, which, driven by the current economic environment, have had to eliminate or reduce basic services to their constituents. Unlike the REN effort, the VEC effort does not have to be considered separately from the Joint IOUs' Applications. SoCalGas will simply participate with the Local Governments in its region, where a REN is not expected to be requested.

The SoCalGas Virtual Energy Center addresses the matter of securing energy and sustainability resources—a key issue that the majority of local governments struggle with now and that is unlikely to be resolved in the foreseeable future. Reduced staff, lack of specific skills, and geographical constraints limit local government's ability to engage in hands-on energy efficiency. SoCalGas intends to start building resources to fill the noted gaps through the VEC center as an expansion of its current Local Government Partnership program offerings. The Program will be piloted in one region initially with the intent to roll out service territory-wide in 2013-14 program cycle.

The VEC will support local governments (both partners and non-partners) to advance increased comprehensive energy efficiency and will create deep energy savings by local governments by complementing and leveraging resources, as well as filling gaps within local government organizations, and within CEC, CPUC, and SoCalGas energy efficiency programs. These gaps prevent local government from successfully implementing higher value energy efficiency projects that demonstrate energy efficiency leadership to the community and increase community-wide energy efficiency participation.

Lessons learned from past partnership initiatives highlighted the need for improved resources that provide cost-effective, on-demand energy management services and expertise to enable local governments to create responsive, sustainable, and widespread public-sector energy management results. The virtual center approach will provide turnkey resources through hands-on support, results-oriented energy management, and augmentation of existing Local Government Partnerships. The suite of resources will include project management support, engineering and analytical support, and a library of standard agreements and templates that can assist local government with the RFP process and securing financing from various sources. Providing these resources will result in improved energy management activity and increased program participation.

4. Other Suggested Improvements

a. Marketing, Education & Outreach Program

The Commission ordered the utilities to contract with CCSE for statewide ME&O implementation, with a funding allowance for the remainder of 2012, and budget for 2013-2014 to be proposed in the applications due on August 3, 2012.[11] As noted in earlier comments on this matter, and echoed by Commissioner Simon in his concurrence to the Decision, a sole source award to CCSE was not justified.[12] The unique qualification identified in D.12-05-015 that led the Commission to award a sole-sourced contract to CCSE was CCSE's experience as an

[11] D.12-05-015, OP 123.

[12] Commissioner Simon's Concurrence to D.12-05-015 states in part: "I am deeply concerned, however, that the CCSE contract, itself, was awarded without competitive solicitation and, believe **the CCSE contract should have been won via competitive bid.** While I am not opposed to negotiated transactions achieved consistent with State contracting rules, I caution that we must be cognizant of the signals we send to markets and, in my view, the instant CCSE contract suggests the Commission considers itself above the rules it imposes on its practitioners. **In this respect, D.12-05-015 is crucially deficient."** (*emphasis added)*

administrator and program implementer of several programs.[13] CCSE is not unique in the area of marketing, outreach and communications on energy efficiency, clean energy, and sustainability programs and issues: there are multiple for-profit and non-profit organizations engaged in these activities, including a fairly rich field of diverse business enterprises. As just one example, through a competitive bid process Fraser Communications, a certified woman-owned business, has been contracted to run the statewide marketing, education and outreach campaign for the California Solar Initiative – Thermal program. CCSE may be unique as a non-utility administrator of Commission-mandated public purpose programs. However, the relevance of this qualification is not immediately obvious. A competitive solicitation would provide CCSE and other potential bidders the opportunity to make the case for their unique capability in an open, transparent forum.

A competitive bid process need not delay statewide ME&O activities. The program design and campaign budgets to be filed in the ME&O applications on August 3 must be reviewed and approved before 2013/2014 activities can start. Transition activities by the utilities and local governments authorized to continue ARRA marketing programs, as well as CCSE's 2012 activities, will preserve the current Energy Upgrade California brand until the statewide brand transition can be designed and launched.

b. Financing Programs

SoCalGas recommends changes to the Finance Program that allows the Commission to adopt a more measured plan that enables activities to be tested and carefully phased in over the two-year transition period to ensure that the program meets the needs of customers and the

[13] D.12-05-015 p.303. "Third, as we state above, we are confident that CCSE's experience as both an administrator and an implementer of programs qualifies the organization uniquely; there is no other similar organization that we are aware of in the state."

financing community. Because financing concepts are so new and so complex, creating a successful program will necessarily require trial and error. Cautious scaling of the pilots will limit the potential impact of inevitable errors—which will be critical to identifying what works and what doesn't work—and enable time for the analysis and adjustments needed to ensure greater market success. To accommodate a phased approach, the funding for the pilot programs in 2013–2014 will be lower than envisioned—$20 million rather than approximate $80–$100 million envisioned in the Decision—thus reducing risk while meeting the overall goal of creating a program that can accelerate the transfer of funding for finance programs from ratepayers to the private sector.

Under this alternative plan, the Joint IOUs and the expert consultant would complete all of the tasks outlined in the Decision over a longer timeframe to be developed with the consultant in collaboration with the Commission. The results of that effort could then be presented as part of one or more workshops beginning as early as the fourth quarter 2012 and vetted thoroughly before taking next steps. As part of that process, budgets and goals would be developed and adopted. Issues to be addressed and better understood in this process would be:

- The ratepayer and shareholder risks of on-bill repayment (OBR), such as direct costs, liabilities, and impact on "uncollectibles;"
- The value and options with various risk management strategies, such as bill neutrality;
- The full costs and implications of modifying billings systems for OBR;[14]

[14] The impacts to uncollectibles of such an OBR structure were not considered in filings currently before the Commission.

- The implications of disconnecting service where a third-party charge is involved, even for non-residential customers;
- How to implement an OBR-based nonresidential program to ensure the significant investment the utilities have already made in OBF is fully leveraged—and avoid an unnecessarily complicated financing offering due to any overlap of OBR and OBF;
- The implications of a provision for pro-rata allocation of partial payments, which implies that the Commission is authorizing the utilities to shut-off non-residential customers for a third-party charge;
- The rationale and impact for designating financing programs as resource programs;
- Whether it is appropriate to support loans for measures that are not energy-related (i.e. from ratepayer subsidized financing); until a decision is made, the recommendation is that the Commission should only allow EE measures that are rebated and/or incented by the utility to be supported by ratepayer-subsidized financing.

Concurrently, SoCalGas and the Joint IOUs continue to believe there is merit in testing its "Line Item Billing" product, as an alternative to OBR (as described in the Guidance Decision). This option seems relatively easy to design and implement and a good mechanism for engaging with private lenders. Notably, such an approach avoids the many complicated issues associated with OBR, including shut-off, prorating partial payments, and consumer lending laws, and it can be fairly quickly deployed in the commercial segment. The Joint IOUs suggest issuing such an RFP by October 1st, with the intent to begin implementation in early 2013.

Additionally, SoCalGas proposes financing programs continue to be defined as non-resource programs (as they are in 2010–2012), and additional research conducted and vetted

before it is determined to make financing and incentives an "either-or" proposition for customers, which would be particularly limiting in light of the Commission's desire to pursue deeper retrofits.

c. Custom Measures and Projects Net to Gross Value

The SoCalGas alternative program proposal employs a net-to-gross ratio (NTGR) of 0.63 rather than the Decision NTGR of 0.5 for commercial and industrial custom natural gas programs.[15] The company believes a 0.5 NTGR significantly underestimates the SoCalGas-specific factor (as the Commission acknowledged when considering the NTGR), impacting SoCalGas' ability to field a cost-effective portfolio.

As SoCalGas underscored in it comments and rationale to the DEER Study draft,[16] an NTGR of 0.63 is a more accurate and defensible factor. Using this NTGR significantly impacts SoCalGas' portfolio: the TRC goes from 1.23 to 1.34 and the net benefits increase from $57.6 million to $87.8 million.

In its comments to the DEER study, SoCalGas noted that analyzing the raw data put the SoCalGas NTGR at 0.54, as presented in the DEER 2011 Update. However, the utility then illustrated that using a more accurate approach to determining the intra-utility allocations resulted in a NTGR of 0.63.

The DEER Study approach heavily discounts SoCalGas' efforts to avoid free-ridership by combining the very different program experiences of two utilities: a combined electric-gas

[15] D.12-05-015, p. 62.

16 Comments of San Diego Gas & Electric Company (U 902 M) and Southern California Gas Company (U 904 G) on Administrative Law Judge's Ruling Regarding 2013-14 Energy Efficiency Goals; Attachment – "Comments on DEER Technical Appendix"; Section A – "NTGR for Commercial and Industrial Custom Calculated Gas Projects"; filed with the California Public Utilities Commission on January 12, 2012 (http://www.cpuc.ca.gov/EFILE/CM/158469.pdf).

utility and a gas-only utility. For several reasons, it is inappropriate to combine electric and gas results:

- **Customer fuel costs:** Since the cost of electricity experienced by the customer tends to be higher than that of gas, an electric-based energy savings measure will result in greater financial benefit than will an equivalent similar gas measure.
- **Capital cost:** Gas measures tend to have relatively higher cost of capital investment relative to electric measures, especially for residential and commercial/retail customers.
- **Free ridership**: Because of the inherent higher capital investment requirement for larger projects, the notion of free ridership and customer influence is not the same for gas projects as for smaller electric projects. The DEER Study NTGs heavily weight results on the *number of* smaller projects, not the *savings* from projects.

Consequently, when the DEER Study melds results from a dual-fuel utility with those of a gas-only utility, results for the single-fuel quickly become diluted and may not even be meaningful.

Because of the lower relative customer benefit-to-cost ratio associated with gas measures, SoCalGas focuses on ensuring that the portfolio is cost-effective overall. In other words, certain beneficial measures are needed to "subsidize" a variety of non-cost-effective measures that are still desirable to have in the portfolio. Taken in whole, larger-scale projects are more likely to be cost-effective, and therefore serve to maintain overall portfolio cost-effectiveness.

It's also important to note that the NTGR was determined based on a fairly outdated program approach. Specifically, the 2006-2008 EM&V Studies were accepted by the Commission in January 2010, *after* the current cycle programs were already designed, submitted

to, and approved by the Commission. The DEER study fails to account for changes made by SoCalGas to better address free ridership going forward:

- SoCal program policies and procedures are now more rigorous than during the time period used to develop the net-to-gross values (2006-2008);
- SoCalGas data in the DEER study includes customers who were categorized as free-riders because they were replacing their equipment in response to jurisdictional (e.g., air quality) requirements. As of June 2011, SoCalGas has adopted a process for screening applications to identify and disallow the participation of potential air quality candidates;
- SoCalGas is incorporating new procedures to better align its field engineering application reviews with staff engineering reviews.

As a result, the proposed DEER updated NTGR values are not wholly representative of the current and future program cycles. Given these factors, a 0.63 NTGR is more accurate and representative of the SoCalGas Portfolio, and its use would allow SoCalGas to create a more balanced portfolio that better serves all customers.

CHAPTER 3
PROPOSED PORTFOLIO FULFILLS ENERGY EFFICIENCY GOALS

This chapter provides narrative and data to demonstrate that SoCalGas' proposed 2013–2014 Energy Efficiency Portfolio has been designed to exceed 2013 and 2014 annual therm goals and capture market potential. This chapter also summarizes the proposed Portfolio programs, which are described in detail in the PIPs found in Appendix C.

1. Portfolio Meets Energy Efficiency Goals

a. Portfolio Exceeds 2013 and 2014 Annual Goals

SoCalGas' recommended portfolio exceeds the annual therm savings goals set by the Commission for 2013 and 2014. SoCalGas' 2013–2014 Energy Efficiency Portfolio is designed to achieve 58.1 million therms, which is 115 percent of SoCalGas' proposed 2013–2014 therm savings goals. The savings shown in Table 4 include projected gross therms saved from statewide, local, third party and low-income programs, as well as net savings from codes and standards efforts (Table 1 excludes low-income program savings). Expected savings from behavioral programs are not included, given that they are claimed in required reporting for SoCalGas' AMI efforts.

Table 4. Portfolio Energy Savings and Goals

2013-14 Gas Goals	Minimum Required by Commission		Actual Proposed by Utility	
	2013	2014	2013	2014
Annual natural gas savings with interactive effects (MMMT/yr)				
IOU program targets	24.0	22.3	23.9	23.9
Codes and Standards Advocacy	1.8	2.5	2.6	2.8
Total Annual Targets	**25.8**	**24.9**	**29.0***	**29.1***
Annual natural gas savings without interactive effects (MMMT/yr)				
IOU program targets	24.0	22.3	23.9	23.9
Codes and Standards Advocacy	4.5	4.7	2.6	2.8
Total Annual Gas Targets	**28.5**	**27.1**	**29.0***	**29.1***

*Includes 2.42 million therms in 2013 and 2.43 million therms in 2014 for ESA

The savings for SoCalGas programs are derived from savings estimates for each of the measures that a given program is proposing to promote. The individual measure savings and other load impact estimates (e.g., therm savings per unit, program net-to-gross ratios, incremental measure costs, and useful lives) are based on the DEER 2011 update (ver. 4.11); SoCalGas workpapers for non-DEER deemed measures submitted as part of this Application; and historic estimates for calculated/custom measures (adjusted for the .9 gross realization rate requirement and DEER 2011 NTGRs).

In developing its proposed 2013–2014 portfolio, SoCalGas shows that its portfolio exceeds the proposed goals by at least 15 percent over the two-year period. SoCalGas believes

the projection of savings above goal addresses the directive in OP 20 to make up one-half of the decay associated with credit for 100% of the evaluated savings from 2006–2008 that persist into the upcoming program cycle. Furthermore, SoCalGas has employed a very conservative assumption regarding level of construction activity during the cycle; construction activity consistent with the Commission's C&S goals would, if it occurred, further increase savings beyond those forecast by SoCalGas.

2. Market Potential

SoCalGas has reviewed the service area–specific information provided in Navigant Consulting Inc.'s *Analysis To Update Energy Efficiency Potential, Goals, And Targets For 2013 And Beyond,* as well as historic program performance, to guide the development of its sector and end-use allocations. Funds allocated to resource programs represent about 62 percent of the total budget, with the balance of 38 percent funding non-resource efforts. Approximately 45 percent of the resource program budget is for residential sector program efforts, 22 percent for commercial programs, 28 percent for industrial programs, and 5 percent for agricultural programs. The proposed measure mix is consistent with the measures shown in the potential study, albeit with the more cost-effective measures within each sector strongly represented in order to maintain the overall cost-effectiveness of the portfolio.

Table 5 shows the total economic potential therm savings through 2024 in SoCalGas service area.

Table 5. Net Economic Potential Through 2024

	GWh	Peak MW	Therms (Millions)
Overall program	NA	NA	9,769

Table 6 compares estimated therm savings with market and economic potential by sector.

Table 6. Estimated Savings, Market Potential, and Economic Potential by Sector

Major Sector	Estimated therm savings 2013–2014 (millions)	Market Potential (million therms)	% of Total Market Potential (million therms)	Economic Potential (million therms)	% of Total Economic Potential million therms)
Residential	9.68	11.9	24%	320.7	31%
Commercial	10.66	15.0	30%	246.0	24%
Industrial	25.53	18.7	37%	439.4	43%
Agricultural	1.98	0.7	1%	20.0	2%
Codes and Standards	5.40	4.3	9%	-	
TOTAL	53.25	50.69	100%	1,026.01	100%

3. Proposed Portfolio Design

As described below, SoCalGas has developed a proposed Portfolio that achieves energy efficiency savings goals cost-effectively, meets the needs of SoCalGas' diverse customer base, and promotes activities aimed at realizing the goals of the Strategic Plan. Summaries of major portfolio components follow.

a. Continuing Programs from 2010–2012 (Programs using the PIP addendum process)

i. Resource Programs

California Statewide Program for Residential Energy Efficiency

The 2013–2014 residential sector program, part of the overall Energy Upgrade California program, is designated the California Statewide Program for Residential Energy Efficiency (CalSPREE). By encouraging adoption of economically viable energy efficiency technologies, practices, and services, CalSPREE will employ strategies and tactics to overcome market barriers while delivering services that support the Strategic Plan. Ultimately, CALSPREE aims to achieve the following objectives:

- Facilitate, sustain, and transform the long-term delivery and adoption of energy-efficient products and services for single-family and multifamily dwellings;
- Cultivate, promote, and sustain lasting energy-efficient behaviors by residential customers through a collaborative statewide education and outreach mechanism;
- Meet customers' energy efficiency adoption preferences through a range of offerings, including single-measure incentives and more comprehensive approaches.

As noted in Chapter 2, SoCalGas will be complying with the implementation and reporting requirements of OP 16 of the Decision, which sets a 5 percent behavioral program household participation minimum for each IOU portfolio, through the conservation activities associated with its AMI deployment, as approved in D.10-04-027.

The six CALSPREE sub-programs are described below.

Energy Advisor

This sub-program will use interactive tools designed to engage customers and encourage participation in innovative initiatives that will heighten their ability to understand and manage

their energy use, as well as encourage program participation. Further, the sub-program will guide customers, where appropriate, towards IDSM opportunities and whole-house energy solutions. The Joint IOUs share similar Energy Advisor sub-program theory, design, and goals, but may implement sub-program logistics differently because of their different service territories.

Plug Load and Appliances

This sub-program merges the previous Home Energy Efficiency Rebate (HEER), Business Consumer Electronics (BCE), and Appliance Recycling sub-programs to offer recycling strategies, whole house solutions, and plug load efficiency options. It develops and builds upon existing retailer relationships and opportunities for integration with local government, water agencies, and publicly owned utilities.

Multifamily Energy Efficiency Rebates (MFEER).

This continuing sub-program will promote energy efficiency by providing equipment rebates to owners of multifamily properties, including residential apartment buildings, condominium complexes, and mobile home parks. It will be coordinated with the Energy Savings Assistance Program and the Whole Home Upgrade Program.

Whole Home Upgrade Program

For 2013–2014, this sub-program consolidates the previously separate Prescriptive Whole House Retrofit and Local Whole House Retrofit programs, and introduces a multifamily and moderate income direct install components that will bring energy efficiency measures to customers who may not have been adequately addressed in previous program cycles. The sub-program is designed to build customer and contractor awareness of the house-as-a-system approach to residential retrofits and the many benefits of improving the comfort, safety, and energy savings potential of the house. The WHUP approach promotes both Basic and Advanced

Paths to retrofitting; these complementary paths will be presented to customers as one comprehensive offering.

Residential Heating, Ventilation, and Air Conditioning Program

This sub-program aims to drive high quality levels in California's market for HVAC technology, equipment, installation, and maintenance. An additional objective is to increase customer awareness of the value of quality HVAC installation and maintenance practices in achieving energy efficiency and peak load reductions. This sub-program will incorporate revised measures and incentives, policies and procedures, quality assurance, marketing materials, website, and contractor training in performing HVAC installation services for residential customers.

Residential New Construction Program

This sub-program consists of the California Advanced Homes Program (CAHP) and, in Southern California, the Energy Star Manufactured Homes (ESMH) Program. The sub-program is designed to help guide builders produce the most efficient homes in the most cost-effective manner, and will examine methodologies for supporting the Strategic Plan target of creating a base of zero net energy (ZNE) homes by 2020.

Statewide Commercial Energy Efficiency Program

The Statewide Commercial Energy Efficiency Program offers California's commercial customers a statewide-consistent suite of products and services to overcome the market barriers to optimized energy management. The program targets integrated energy management solutions—including energy efficiency and distributed generation—through strategic energy planning support; technical support services, such as audits and design assistance; and financial support through rebates, incentives, and financing options.

Targeted end users include all commercial sub-segments, such as distribution warehouses, office buildings, hotels, motels, restaurants, schools, trade schools, municipalities, universities, colleges, hospitals, retail facilities, and entertainment centers.

The program includes six core statewide sub-program elements, described below, as well as local program elements, such as Third-Party Programs and LGPs that have close ties to BIDs. Per Commission directives, the IOUs will strengthen their relationships with local BIDs and develop opportunities for BIDs to participate in the marketing and delivery of direct install and deemed commercial incentives. In addition to the above sub-programs, the utilities will consider one or more demonstrations of a comprehensive whole building approach (WBA) to commercial building energy efficiency.

Commercial Energy Advisor Program

This sub-program brings together the audit services needed to support customer education and participation in energy efficiency and self-generation opportunities, and help them gain heightened awareness of greenhouse gas (GHG) and water conservation activities. These services include benchmarking, an online energy audit tool, nonresidential audits, pump efficiency services, and retro-commissioning (RCx), as well as coordination with CEI, as described below.

Commercial Calculated Incentives Program

This sub-program provides standardized incentives for customized and integrated energy efficiency projects for retrofit, and RCx projects while also providing technical and design assistance. Because the customized calculation method can consider system and resource interactions, it will be the preferred approach for supporting the integrated, whole system, water-energy nexus, and multi-resource management strategies of the Strategic Plan. Calculated

savings for the Savings By Design Program are achieved through the commercial new construction component.

Commercial Deemed Incentives Program

This sub-program offers utility representatives, equipment vendors, and customers an easy-to-use mechanism to cost-effectively subsidize and encourage adoption of mass market efficiency measures through fixed incentive amounts per unit/measure.

Commercial Continuous Energy Improvement Program

A consultative service that targets long-term and strategic energy management planning, CEI is designed to encourage customers to seek deeper energy savings through a program that looks beyond traditional project-focused efforts and reintroduces the importance of implementing comprehensive energy management that will transform the market and help reduce energy intensity. CEI will address technical and management opportunities for commercial customers while creating sustainable practices through a high-level commitment to energy from executive and board-level management. CEI applies the principles of well-known business continuous improvement programs. At each stage of customer engagement, a variety of complementary utility and non-utility products and services can be customized to fit different customer profiles and optimize the cost-effectiveness of delivered energy management solutions.

Nonresidential HVAC Program

This sub-program delivers a comprehensive set of upstream strategies that are built on education, marketing efforts, and leveraged relationships within the HVAC industry geared to transform the market towards sustainability and high quality installation and maintenance.

Commercial Direct Install Program

This sub-program provides small business customers the opportunity to have a third-party contractor retrofit existing systems to energy efficient systems at no cost to the customer. SoCalGas delivers its Direct Install program through its Local Government Partnerships (LGP) and Third-Party Programs for small business.

Statewide Industrial Energy Efficiency Program

The Statewide Industrial Energy Efficiency Program offers California's industrial segment a statewide-consistent suite of products and services designed to meet customer needs, overcome market barriers to optimize energy management, enhance adoption of IDSM practices, and advance the industry toward achieving the goals of the Strategic Plan. The program overcomes barriers through strategies that provide integrated solutions to the customer; create heightened awareness through education and outreach; and by fostering continuous energy improvement. The program also promotes use of commonly accepted standards and supports training to create a highly skilled energy efficiency workforce that is accessible to industry.

The Statewide Industrial Energy Efficiency Program includes four statewide sub-program elements, described below, that together comprise the core product and service offerings.

Industrial Energy Advisory Program

This sub-program combines audit services needed to support the customer's education; participation in energy efficiency and self-generation energy-reducing opportunities and benefits; and awareness of greenhouse gas and water conservation activities. These services include Benchmarking, an Online Energy Audit Tool, Nonresidential Audits, Pump Efficiency Services, and RCx, as well as coordination with CEI, as described below.

Industrial Calculated Energy Efficiency Program

This sub-program features incentives based on calculated energy savings for measures installed as recommended by comprehensive technical and design assistance for customized and integrated energy efficiency initiatives in new construction, retrofit, and RCx projects. Because it presents a calculation method that can consider system and resource interactions, the program will become the preferred approach for supporting the integrated, whole system, water-energy nexus, and multi-resource management strategies of the Strategic Plan.

Industrial Deemed Energy Efficiency Program

This sub-program features rebates per unit-measure for installed energy-saving projects. It provides IOU representatives, equipment vendors, and customers an easy-to-use mechanism to cost-effectively subsidize and encourage adoption of mass market efficiency measures through fixed incentive amounts.

Industrial Continuous Energy Improvement Program

This sub-program features a consultative service that targets long-term and strategic energy management planning. Specifically, CEI is designed to encourage customers to seek deeper energy savings through a program that looks beyond traditional project-focused efforts and reintroduces the importance of implementing comprehensive energy management that will transform the market and help reduce energy intensity. CEI will address technical and management opportunities for industrial customers while creating sustainable practices through a high-level energy commitment from executive and top-level management. CEI applies the principles of well-known business continuous improvement programs. At each stage of customer engagement, a variety of complementary IOU and non-IOU products and services can

be customized to fit different customer profiles and optimize the cost-effectiveness of the delivered energy management solution.

Statewide Agricultural Energy Efficiency Program

The Statewide Agriculture Energy Efficiency Program facilitates the delivery of integrated energy management solutions, including energy efficiency, demand response, and distributed generation, to California's agriculture customers. The program offers a suite of products and services through rebates and incentives, including strategic energy planning support, technical support services, facility audits, pump tests, calculation/design assistance, financing options, and financial support. In addition, the program adopts and supports the strategies and actions of the Agriculture and Industrial chapters of the Strategic Plan.

The Statewide Agriculture Energy Efficiency Program targets end-users such as irrigated agriculture growers (crops, fruits, vegetable, and nuts), greenhouses, post-harvest processors (ginners, nut hullers, and associated refrigerated warehouses), and dairies. It also provides services to some food processing facilities that are that are integrated with growers and their products and some water distribution customers. To meet the potential in these markets, the program offers four sub-programs, described below.

Agriculture Energy Advisor Program

This sub-program provides online and on-site audits, including benchmarking (offices and other "commercial" building areas), focused and integrated comprehensive energy audits, pump tests, and CEI audits and services (depending on SoCalGas' market segment potential/ available resources). The program provides an inventory of technical project opportunities and financial analysis information for a customer's short- or long-term energy plan, and overcomes both informational and technical customer barriers.

Agriculture Calculated Energy Efficiency Program

This sub-program offers customers a standardized incentive approach for customized and integrated energy efficiency and RCx projects, which may include comprehensive technical and design assistance. The program is intended to address information, technical, and financial barriers across the agricultural segment. Because the customized calculation method can consider system and resource interactions, it will also be the preferred approach for supporting the integrated, whole system, water-energy nexus, and multi-resource management approach to the Strategic Plan.

Agriculture Deemed Energy Efficiency Program

This sub-program provides IOU representatives, equipment vendors, and customers with an easy-to-use mechanism to cost- effectively subsidize and encourage adoption of mass market efficiency measures through fixed incentive amounts per unit.

Agriculture Continuous Energy Improvement

This non-resource sub-program includes a collection of strategic planning tools and resources for long-term integrated energy planning energy management planning. CEI is designed to encourage customers to seek deeper energy savings through a program that looks beyond traditional project-focused efforts and reintroduces the importance of implementing energy management which will transform the market and help reduce energy intensity. CEI serves as a launching platform for other IOU and non-IOU programs and services. CEI offers analysis, benchmarking, long-term goal setting, project implementation support, and performance monitoring. It aims to transform the market from a "project-to-project" approach toward a continuous improvement pathway. In support of the Strategic Plan, the CEI approach

also sets the stage for non-energy resource integration, such as greenhouse gas reduction, water conservation strategies, and regulatory compliance.

ii. Non-Resource Programs

Statewide Integrated Demand-Side Management Program

This program addresses the Strategic Plan's call for integrating the full range of demand-side management options, including energy efficiency, demand response, and distributed generation, to achieve California's strategic energy goals.

To complement individual IDSM pilots, projects, programs, and activities, the Joint IOUs established a Statewide Integration Task Force to take responsibility for two Strategic Plan strategies: stakeholder coordination and new technologies. During 2010–2012, the IDSM Task Force acted as a coordinating body across many proceedings and programs, as well as across the IOUs to identify gaps and best practices and to improve efficiencies around delivery of programs in a comprehensive manner to customers.

In the 2013–2014 period, the program will follow the direction of D.12-05-015 by expanding efforts in the following areas:

- **Increased Coordination** across different proceedings with the IDSM Task Force as lead;
- **IDSM Funding**: Consideration of appropriate funding from the other proceedings to support IDSM efforts;
- **Increased involvement of Stakeholders**: Inclusion of stakeholders and experts in the efforts of the IDSM Task Force;
- **Information on IDSM Projects**: Detailed information on the Pilot programs and projects;

- **Audits**: Continued development of the integrated audit tool;
- **IDSM Marketing**: Increased integrated marketing efforts and improved reporting/communicating with Commission staff;
- **IDSM Tracking Databases:** Improved databases for tracking integrated projects.

Local Sustainable Communities Pilot Program

SoCalGas' Sustainable Communities (SC) program is a continuing program transferred to the IDSM program category for 2013–2014. This pilot program provides the framework for the design and building of communities that support the environment through energy- and resource-efficiency. SC helps to enhance quality of life by protecting and preserving natural resources and improving economic development. Incentives and other assistance are available to developers, building owners, and design teams that construct highly energy-efficient buildings with sustainable design and long-term energy-efficiency.

This highly innovative program will be SoCalGas' flagship program providing the path for others in meeting California's long-term energy efficiency goals, including ZNE homes by 2020. This program is formulated to enable market transformation resulting in measurable energy efficiency, integrated demand response, distributed generation, renewables and natural resource savings while optimizing long term ecological, social and economic health of California. This approach also calls for a unique partnership between SoCalGas and the Master Developer, by developing early market interventions deployed by third-party implementers who operate upstream of the usual core programs. This innovation produces more productive and resilient market change with greater cost-effectiveness. The program comprises three elements, described below.

Sustainable Design and Construction Training

A training program and training materials will be developed for participating builders and contractors. The training, for both residential and non-residential buildings, will cover all relevant issues, including sustainable design and construction impacting energy efficiency, solar energy, water, waste, utility infrastructure, and transportation. The incorporation of a Learning Center is proposed to help educate and build awareness of energy efficiency, renewable generation and sustainable measures that have been incorporated into dwelling development. The Learning Center will create a powerful teaching tool due to its interactive software and real time graphics.

Sustainable Design Assistance

Design assistance will be provided to participating engineers, architects, planners, and builders. The program will encourage innovative and less traditional approaches to meeting and exceeding sustainability goals. Design assistance will occur much earlier in the development process than in traditional utility offerings to reflect this flagship program's cross-cutting nature and better leverage its holistic ambitions and goals.

Residential Modeling Procedure and Protocol Development

This program will develop the modeling procedures and other requirements that builders need to submit documentation illustrating how designs will meet sustainability requirements. Sustainability targets will be set at 35 percent above Title 42 for all residential building and will include participation in the New Solar Homes Partnership program—a statewide program that provides support and financial assistance to builders that construct energy efficiency solar homes—to foster development of renewable energy on each building. Similar energy performance targets would be established for commercial projects with corresponding

participation in the California Solar Initiative Program, an IOU program that offers incentives for solar installations.

Local Institutional Partnerships

Institutional Partnerships are designed to create dynamic and symbiotic working relationships between the Joint IOUs and state or local governments and agencies or educational institutions. The objective is to reduce energy usage through facility and equipment improvements, share best practices, and provide education and training to key personnel. SoCalGas' 2013–2014 institutional partnership portfolio will focus strongly on supporting the key Strategic Plan goals of demand-side management integration and coordination, and will concentrate on innovative delivery channels and funding mechanisms to meet current economic conditions and achieve program integration and savings.

Since the 2006-2008 program cycle, SoCalGas successfully implemented four statewide institutional partnership programs: California Community Colleges (CCC), University of California and California State University (UC/CSU), California Department of Corrections and Rehabilitation (CDCR), and the State of California Department of General Services (DGS), which was added to the program in 2010. Each program was managed in conjunction with the other IOUs. The 2013–2014 Institutional Partnerships will leverage past successes and strive to enhance offerings to meet the unique challenges of our institutional partners.

California Community Colleges (CCC) Partnership

The CCC/IOU Energy Efficiency Partnership has been a successful collaboration. The CCC system comprises 110 two-year public colleges statewide organized into 72 self-governing Districts. It serves more than 2.6 million diverse students, and represents the largest system of higher education in the world. This partnership will continue to share best practices and

implement energy efficiency programs and projects for immediate- and long-term energy savings and peak demand reduction.

This partnership provides a unique opportunity to deliver cost effective energy savings while leveraging the CCC's local and statewide new construction bond funding. The 2013–2014 Partnership will expand its efforts for the implementation of energy-efficient retrofits, new construction design assistance facilitated by the Savings By Design program, Demand Response, RCx, and Monitoring-Based Commissioning (MBCx) projects. The program will also focus its efforts on training and education, which will expand existing education programs by training faculty and staff in best practices on energy efficient technology implementation and energy management.

UC/CSU Partnership

The University of California, California State University (UC/CSU), SoCalGas and the other Joint IOUs are collaborating to continue to share energy efficiency best practices and to implement energy efficiency projects for immediate and long-term energy savings and peak demand reduction in the 2013–2014 program cycle. The UC/CSU/IOU Partnership is a natural fit with the goals, objectives and strategies articulated in the Strategic Plan. The partnership was designed to achieve immediate energy and demand savings and establish a permanent framework for sustainable, comprehensive energy management programs. It will continue to offer and coordinate incentives for retrofit projects, monitoring-based commissioning, and training for campus energy managers.

California Department of Corrections and Rehabilitation (CDCR) Partnership

SoCalGas and the California Department of Corrections and Rehabilitation (CDCR) are collaborating to continue the CDCR/IOU Partnership for the 2013–2014 program cycle. The

CDCR/IOU partnership is a customized statewide energy efficiency partnership program that accomplishes immediate- and long-term peak energy demand savings and establishes a permanent framework for sustainable, long-term comprehensive energy management programs at CDCR institutions served by California's four large IOUs. This program capitalizes on the vast opportunities for efficiency improvements and utilizes the resources and expertise of CDCR and IOU staff to ensure a successful and cost-effective program that meets all objectives of the CPUC. The program also leverages the existing contractual relationship between CDCR and Energy Service Companies (ESCOs) to develop and implement energy projects at CDCR facilities statewide. CDCR is comprised of Adult Institutions, Parole Offices, Community Conservation Camps, and Juvenile Facilities which encompass an estimated 47,714,415 square feet of occupied space.

State of California/IOU Energy Efficiency Partnership

SoCalGas and the state of California are collaborating to continue the State of California/IOU Energy Efficiency Partnership program for the 2013–2014 program cycle. This program's goals include sharing energy efficiency best practices and implementing projects to capture immediate and long-term energy savings, to uncover opportunities for retro-commissioning and retrofits by leveraging IOU incentive programs, and to produce mechanisms for peak demand reduction. This will be achieved by developing creative strategies to maximize the implementation of energy efficiency opportunities throughout the state. Through the partnership, the state can increase the value that agencies receive on their investments in energy efficiency measures. In addition to financial benefits, the partnership provides a mechanism for the state to receive technical assistance from IOU staff and consultants, and additional effort will be placed on accessing SoCalGas' On-Bill Financing program.

iii. Third-Party Programs

The Third-Party (3P) programs are a diverse set of resource and non-resource programs offered by outside vendors to SoCalGas customers. The budget allocated to these programs will meet or exceed the Commission's requirement that utilities dedicate at least 20 percent of their energy efficiency budgets to 3P programs. However, specific proposed budgets and goals remain subject to completion of contract negotiations with vendors. SoCalGas' 3P programs are an integral part of the energy efficiency portfolio and SoCalGas seeks to leverage the unique skills and nimbleness of these partners to provide innovative programs and deep savings. We will continue to use 3Ps to address the hard-to-reach markets for comprehensive turnkey programs using a pay-for-performance approach. A complete list of third party programs that were identified for potential implementation is available in the 3P Program Implementation Plan in Appendix C.

In compliance with the Commission's requirement in OP 38, Appendix F contains a Third-Party Procurement Table that identifies all current contracts/agreements between SoCalGas and third parties funded through energy efficiency balancing accounts.

SoCalGas' 2013–2014 transition period proposes to renew third-party programs that have demonstrated the ability to meet program goals and/or deliver cost effective energy savings and eliminate programs that were not deemed successful or no longer fit the company's portfolio.

To ensure that each program was evaluated fairly and consistently, SoCalGas utilized the following process:

- Review for portfolio fit and continuing applicability: Each program was reviewed for fit within the revised SoCalGas energy efficiency portfolio and applicability to the particular customer segment and technology.
- Review for overall program effectiveness: Each program was reviewed based on the following criteria adopted by the IOUs:
    - Performance to goal accomplishment - An evaluation of whether the program has delivered energy savings or met its non-resource objectives relative to goal as defined in the third-party contract.
    - Cost-Effectiveness - A measurement of the program's cost effectiveness either using the Total Resource Cost (TRC) or $/kWh or $/therms to determine the cost-effectiveness of the program.
    - Customer satisfaction - An evaluation of the satisfaction level of customers who have participated in the program.
    - Market and program potential - For resource programs, an evaluation of the program's backlog of projects to determine whether the number of remaining customers to serve is sufficient to justify continuation of the program and whether the technology marketed by the third party has sufficient mainstream appeal.
    - Other Factors - This is a determination of whether the program is able to reach customers who may have been underserved due to remote location or other circumstances and whether other energy efficiency measures could viably be added to the program to make it more successful while avoiding overlap with other programs.

The proposal also contemplates the issuance of RFPs to solicit new and innovative programs from the energy efficiency community. Areas likely to be targeted in this solicitation:

- Commercial and industrial RCx
- Energy efficiency programs targeting small and medium business, lodging customers, and healthcare facilities
- Commercial HVAC program targeting segmented regions and climate zones
- IDSM audits
- Tenant/landlord split incentive
- Water-energy nexus focused measures that affect gas consumption, such as thermostatic control valves, low flow showerheads and faucet aerators, pumping and irrigation systems

To meet the goal of completing contract negotiations by October 1, 2012 for continuing programs, SoCalGas will adhere to the following process:

- Begin negotiations, including development of preliminary budgets (July 2012);
- Update budgets and E3 calculators (begin July 2012 and continuing through September 2012);
- Update statements of work and technical documentation (begin July 2012 and continuing through September 2012);
- Negotiate final rates and terms (begins August 2012 and continuing through September 2012).

Contracts will be finalized contingent upon Commission approval.

Descriptions of continuing third party programs are provided below and organized by Program category.

Cross-Cutting Third-Party Programs

California Sustainability Alliance

The California Sustainability Alliance is an innovative cross-cutting market transformation program designed to increase and accelerate adoption of cost-effective energy efficiency. It employs a number of key strategies, including increasing understanding of the costs and benefits of energy efficiency and sustainability; creating value for early adopters through a comprehensive program of awards, rewards and recognition; and increasing the cost-effectiveness of energy efficiency programs by packaging them with other sustainability measures, such as climate action, water efficiency, renewable energy, smart land use, and waste management.

Specifically, the Alliance conducts pilot programs to develop and test strategies to overcome barriers to sustainability. Customer services range from sustainability audits and assessments of new and planned systems and facilities, to helping pilot participants identify best sustainability development, planning, and operations practices. Drawing on findings, the Alliance creates web-based databases, models, and tools for use by other California organizations, and documents experience gained through the pilots as case studies.

PACE Energy Efficiency Ethnic Outreach Program

This program actively promotes the energy efficiency programs of SoCalGas to residential and small business customers who belong to the Chinese, Korean, Hispanic, Filipino, and Vietnamese communities. The program also encourages targeted small businesses to take more concrete steps to saving energy—and then follows-up to determine the extent to which customers practiced or employed energy savings in their homes or work places. Outreach to

areas such as the Orange, Riverside, San Bernardino, and Ventura counties is an important facet of this program.

Portfolio of the Future

The Portfolio of the Future leverages and enhances SoCalGas' ET efforts by identifying and accelerating the market adoption of emerging technologies that can significantly improve energy efficiency in Southern California. To this end, the program helps validate technologies, demonstrate benefits, build the necessary market infrastructure, and promote and encourage early adoption by concurrently providing assistance, defining the value proposition, and addressing market barriers. It also leverages SoCalGas resources and those of other utilities, potential R&D partners (including the U.S. DOE and the California Energy Commission) private equity, and venture capital funds.

SaveGas Hot Water Control with Continuous Commissioning

This program addresses gas savings in SoCalGas' service area by implementing domestic hot water control systems in hotels, motels, resorts, and senior care facilities. The controller will help identify existing system malfunctions that result in excess gas use and provide a programmable setback feature that has demonstrated its ability to garner significant gas savings. An addition, the program implements sensor and data loggers and Continuous Commissioning®, which enables long-term maintenance of energy savings.

Residential Programs

Community Language Efficiency Outreach

The Community Language Efficiency Outreach Program (CLEO) is a residential energy efficiency marketing, outreach, education, and training program specifically targeted to the

Vietnamese, Indian, Chinese, Korean, Hispanic, and African American communities of SoCalGas and SCE.

The Program markets SoCalGas efficiency programs and offers energy efficiency education and training using local ethnic media (radio and newspapers) and community-based organizations and events to garner greater interest and participation in residential seminars. CLEO targets SoCalGas customers in the areas of Los Angeles, San Bernardino, and Orange Counties with high concentrations of Asian, Hispanic, and African American customers, as well as SoCalGas customers from the LADWP, Anaheim, Pasadena, Glendale, Burbank, and Riverside service areas.

HERS Rater Training Advancement

The HERS Rater Training Advancement Program promotes, develops, and delivers training to currently certified Home Energy Rating System (HERS) raters, energy consultants, and other professionals involved in construction of new and retrofit housing in the SoCalGas service area. The curriculum addresses technical and administrative elements of Home Energy Ratings and energy efficiency, covering both the new requirements and changes based on Title 24 requirements in the 2010 code and the new code that will go into effect January 1, 2014. This program helps create more consistency and comparability of new construction performance.

Living Wise™

LivingWise™ is a residential energy savings program delivered to sixth-grade students at their schools that is sponsored by SCE and SoCalGas, with water agency funding. The program provides a proven blend of classroom activities and take-home retrofit and audit projects (provided free of charge) that students complete as homework assignments with their families. Among the non-incentive customer services provided are water temperature check cards or

thermometers, stickers and magnets for new behaviors, mini tape measures, flow rate test bags, resource fact slide charts, toilet leak detector tablets, drip gauges, and installation instructions. Audit data and installation reports are collected via surveys, tabulated, and stored. Teacher enrollment is very high, and overall satisfaction of participant program (including parents) is excellent.

The Multifamily Direct Therm Savings Program

This Multifamily Direct Therm Savings Program, marketed and branded as "Energy Smart," is a field sales and direct installation program for multifamily dwellings and apartment buildings in the Los Angeles, Ventura, and Santa Barbara counties. The program activities include marketing, conducting site audits and making recommendations, as well as installing showerheads and faucet aerators in tenant units.

On-Demand Efficiency

The On-Demand Efficiency program seeks to decrease natural gas consumption in multifamily buildings while improving customer satisfaction with hot water delivery through the use of demand (recirculation) controls of central domestic hot water systems. Specifically, the innovative "D'Mand Pump" will turn off the system's recirculation pump when it is not needed, reducing heat loss from the loop and boiler run time, which in turn decreases fuel consumption. This program finds sites with potential savings and installs controls that are appropriate and sustainable. An incentive is delivered to the manufacturer, who in turn passes on the cost savings to the consumer.

Comprehensive Manufactured and Mobile Home Program

The Comprehensive Manufactured and Mobile Home Program complements the SoCalGas Residential Energy Efficiency Portfolio by targeting manufactured and mobile home

customers, an often hard-to-reach market that offers rich potential for cost-effective energy and demand savings. The program is designed to maximize energy efficiency opportunities by promoting electricity, therm, and water savings and creating new and measurable direct savings via the installation of energy efficient measures.

Multifamily Home Tune-up Program

This program delivers energy savings and education to multifamily customers located in Orange, San Bernardino, and Riverside counties and in parts of San Luis Obispo, Fresno, Kern, Kings, Tulare, and Imperial counties. Activities include performing building audits at multifamily properties, identifying a comprehensive list of gas, electricity, and water savings opportunities, and delivering education and training on the benefits of efficiency and proper maintenance to property owners and managers. The program also installs low-flow showerheads and faucet aerators in tenant units and delivers efficiency education in a one-on-one setting with available multifamily tenants.

Non-Residential

Energy Challenger

The Energy Challenger program engages new small- and mid-sized businesses in a web-based energy audit/business assessment (delivered through the SoCalGas website), providing each business with an immediate action plan with direct links to SoCalGas rebates and implementation services. This information enables the business to identify and meet their priority energy management needs and the most appropriate services and rebates. The assessment tool used has demonstrated a high success rate: more than 80 percent of businesses that start the assessment complete it and receive an action plan. This non-resource program is

designed to serve the SoCalGas service area. This program will be replaced by the Integrated Customer Energy Audit Tool (ICEAT), when the tool becomes available.

Program for Resource Efficiency in Private Schools (PREPS)

This PREPS program encourages qualifying schools and colleges in SoCalGas' service area to install energy efficient measures with the goal of reducing costs and greenhouse gas emissions while improving the learning environment. Customers that enroll receive a variety of services—project analysis support, facility evaluations, comprehensive energy audits, energy efficiency recommendations, technical support, cash incentives, and implementation assistance—to support the identification and implementation of energy efficiency upgrades. Energy efficiency measure recommendations developed from audits provide a lifecycle energy and cost analysis for each individual measure and for all measures on a total-project basis. Measures can include pool heaters and covers, storage and instantaneous water heaters, pipe and tank insulation, steam traps, space heating and commercial boilers, natural gas food service equipment, and other measures as appropriate.

Small Industrial Facility Upgrades Program

The Small Industrial Facility Upgrades Program helps SoCalGas industrial customers become more energy efficient and productive through the adoption of existing technologies, including low-penetration products. It targets small customers with annual gas usage less than 50,000 therms, but is available to all industrial customers. The Program offers proven measures currently used in SoCalGas' Calculated and Deemed Programs, including process improvements for heat recovery; process equipment replacement and modernization; furnace and oven improvements; and excess air reduction. The Program also includes deemed measures, such as boilers, water heaters, and steam trap replacements, along with insulation improvements. This

program is intended to shift the focus of small industrial customers from repair and maintenance to installation of new energy efficient equipment and practices that also provide a financial benefit to the customer.

iv. Local Government Partnerships (LGP)

The SoCalGas Local Government Partnership (LGP) program for 2013–2014 reflects, as did the 2010–2012 LGP program, the complex and multi-dimensional nature of these partnerships. First, local governments are a distinct customer segment that operates with a unique set of challenges and needs related to energy efficiency. Second, when they implement partnership programs, local governments serve as a delivery channel for specific products and services. Finally, local governments have a unique role as community leaders. Increasingly, local governments are interpreting their moral responsibility for community well-being to include reducing GHG emissions, increasing renewable energy usage, protecting air quality, creating green jobs, and making the community more livable and sustainable. Depending upon the activity, SoCalGas may play a different role with the local government, ranging from service provider to supporter to equal partner.

As noted in Chapter 2, SoCalGas responded to the Commission's directive to develop criteria for determining LGP program success and to use these criteria to select LGPs to continue in the 2013–2014 cycle. All the 2010–2012 LGPs met these criteria and are proposed to therefore be continued.

Further, the Joint IOUs developed expansion criteria, also presented in Chapter 2, that will be addressed in the 2013–2014 program cycle. For example, LGPs will continue to promote WHUP-EUC, and deep energy retrofits in residential and commercial buildings will be a

priority, as well workforce education and training. SoCalGas will also seek to close a gap by adopting SCE LGPs into its 2013 – 2014 LGP program.

SoCalGas also proposes to initiate a Virtual Energy Center (VEC) to help local governments face the specific challenge of securing the resources they need given their increasingly limited budgets and staff. The VEC approach will provide a suite of resources, including project management support, engineering and analytical support, and a library of standardized agreements and templates that can support local government with the RFP process as well as assistance securing financing. Providing these resources will result in improved energy management activity and increased program participation.

Below are summaries of the core elements—Government Facilities, Strategic Plan Support, and Core Program Coordination—of the LGPs, followed by brief descriptions of the individual Local Government Partnerships, which include:

1. County of Los Angeles Partnership;
2. Kern County Energy Watch Partnership;
3. Riverside County Partnership;
4. County of San Bernardino Partnership;
5. Santa Barbara County Partnership;
6. South Bay Partnership;
7. San Luis Obispo County Energy Watch Partnership;
8. San Joaquin Valley Partnership;
9. Orange County Cities Partnership;
10. Statewide Energy Efficiency Collaborative (SEEC Partnership) Community Energy Partnership (CEP);

11. Desert Cities Partnership;

12. Ventura County Regional Energy Alliance.

Core LGP Elements

Government Facilities

The Government Facilities element will be implemented by most of the unique individual LGPs. If an individual LGP has a distinctive or targeted approach to Government Facilities, that LGP's PIP will contain additional information. The individual LGPs will primarily target local government facilities/sites that are owned or leased by public agencies, including city halls, administrative offices, recreation centers, fire stations, and libraries.

While all local governments have access to SoCalGas programs and incentives to save energy, SoCalGas' Government Partnership Program will work closely with the LGPs to build local capacities to achieve deep retrofits to gain greater energy savings in government facilities and to place these projects in the context of sustainability and climate change initiatives.

Strategic Plan Support

The Strategic Plan Support element will be implemented primarily through various strategies described in the Menu of Local Government Strategies for the Strategic Plan. The ultimate goal for local governments in the Strategic Plan is to embed and institutionalize energy efficiency in their policies, programs, and processes.

Individual LGPs will also play an important role in furthering the Strategic Plan. If an individual LGP has a different or targeted approach to the Strategic Plan, that LGP's PIP will contain additional information.

Core Program Coordination

The Core Program Coordination element will be implemented to some degree by all of the unique individual LGPs. If an individual LGP has a distinctive approach to Core Program Coordination, that LGP's PIP will contain additional information.

Core Program Coordination is important to the effectiveness of each individual LGP. A key to SoCalGas' coordination effort is its market segment planning approach. That is, it will coordinate LGPs with all other energy efficiency portfolio efforts to reach agricultural, commercial, industrial, residential, and small business customers.

In addition, LGPs will promote the WHUP-EUC program in 2013–2014 through collaboration with local its stakeholders to support marketing and outreach. LGPs will continue to coordinate with ongoing local regional efforts, ongoing public workshops to promote EUCA to the community, and support of contractor recruitment.

In addition, LGPs coordinate with each other, with SoCalGas, and with other implementers to support energy efficiency programs across the SoCalGas portfolio, and particularly with respect to outreach education for residential and small business customers, third party programs, and technical assistance. By utilizing the outreach channels of the local government, these programs target customers and fully canvas neighborhoods that may not be targeted by Core Programs.

Individual Local Government Partnerships

County of Los Angeles Partnership

The 2013–2014 SCE/SCG/County of Los Angeles Partnership is a continuation of the existing, successful programs dating back to 2004. The Partnership will build on the lessons

learned and will continue to focus on identifying energy efficiency activities in county facilities in support of the recently adopted county of Los Angeles Energy and Environmental Plan.

The Partnership program will identify projects and strategies to reach the 38 different county departments that the Internal Services Department (ISD) serves. In addition, several departments and public agencies affiliated with the county (Public Housing, Sanitation Districts, School Districts County Metro Transit Authority, and Waterworks and Wastewater utilities) have not participated in past Partnership programs. By tailoring outreach and implementing innovative ways to participate (emerging technologies, integration with state-wide pilots, e.g. water districts, and flexible funding) the Partnership will increase energy efficiency participation in these departments.

Kern County Energy Watch Partnership

The Kern County Energy Watch Partnership continues a Partnership between the City of Bakersfield, Kern County, SCE, PG&E, SoCalGas, and the cities of California City, Delano, McFarland and Tehachapi which will be expanded to include the city of Ridgecrest, and the implementing partner, Kern Council of Governments (Kern COG).

Building upon the success of the Kern County Energy Watch Partnership, the 2013–2014 partnership establishes a disciplined, concentrated approach to create consistency in program offerings and improve clarity and ease of participation in community partnerships. The Partnership's comprehensive portfolio of activities is designed to seek innovative approaches to energy efficiency by implementing best practices for municipalities and by establishing a wave of energy efficiency activities through focused educational and outreach events. This will also increase effective delivery of technical and financial energy services to residents and businesses.

Riverside County Partnership

In the 2013–2014 program years, SoCalGas will join an existing partnership to implement the Riverside County/SCE/SCG Energy Efficiency Partnership Program. The partnership's goal is to build an infrastructure that delivers cost-effective energy efficiency projects and provides a comprehensive outreach and education element. Projects will adopt a comprehensive approach by including retrofits and three DSM alternatives as applicable: demand-response, distributed generation (renewable self-generation), solar hot water and water efficiency.

County of San Bernardino Partnership

The 2013–2014 program cycle will see the continuation of this Partnership between SCE, SoCalGas, and the County of San Bernardino aimed at increasing energy efficiency through state-of-the-art new construction and retrofits of existing buildings. This Partnership will assist the County in achieving its green policy by delivering an integrated support model that maximizes use the entire portfolio of energy programs and services, as well as other resources. This will include coordination with Demand Response, the California Solar Initiative (CSI), new construction, and the provision of comprehensive outreach and education elements. County facilities will be targeted for the retrofit, RCx and new construction elements.

Santa Barbara County Energy Watch Partnership

The Santa Barbara County Energy Watch Partnership is a joint project of SoCalGas, PG&E, SCE, the County of Santa Barbara, and the cities of Santa Maria, Guadalupe, Buellton, and Solvang. The Partnership leverages partner resources to reduce energy use, increase energy efficiency awareness and reduce greenhouse gas emissions in northern Santa Barbara County and partnering cities.

South Bay Energy Efficiency Partnership

The South Bay Energy Efficiency Partnership brings together the South Bay Cities Council of Governments, Southern California Edison, and Southern California Gas Company, and numerous cities including: Carson, El Segundo, Gardena, Hawthorne, Hermosa Beach, Inglewood, Lawndale, Lomita, Manhattan Beach, Palos Verdes Estates, Rancho Palos Verdes, Redondo Beach, Rolling Hills, Rolling Hills Estates, and Torrance. The Partnership is implemented by the South Bay Cities Council of Governments through the South Bay Environmental Services Center.

Through the participation of SoCalGas, the West Basin Water District, and the LA County Sanitation District in the Partnership, a comprehensive and integrated approach to energy efficiency, natural gas efficiency, water efficiency as well as wastewater, storm water and potable water capital projects will be identified and developed, ensuring that the municipalities are as energy efficient as possible.

San Luis Obispo County Energy Watch Partnership

San Luis Obispo County Energy Watch is a partnership between the County of San Luis Obispo, SoCalGas, and PG&E. The Partnership will manage the administration, marketing, integration and implementation components of this program. It will also focus on outreach to the Cities and Special Districts within San Luis Obispo County to assist them in improving the energy efficiency of their facilities, and integrating energy efficiency throughout the local communities.

San Joaquin Valley Partnership (a.k.a. Valley Innovative Energy Watch, or VIEW)

This Partnership brings together SoCalGas, SCE, eight local governments, and the implementing partner, the San Joaquin Valley Clean Energy Organization.[17] Due to its geographic location, the partnership is a case study for addressing hard-to-reach residential and non-residential markets. It will target markets through a collaborative effort with the local government leaders and the various IOU departments, including Energy Efficiency, Demand Response, Business Customer Development, and Public Affairs. The partnership's comprehensive portfolio of activities is designed to seek innovative approaches to energy efficiency in California's San Joaquin Valley, increase adoption of deep energy savings measures, and increase the effective delivery of technical and financial energy services to residents and businesses.

Orange County Cities Partnership

The five cities in the Orange County Partnership are implementing an Enterprise Energy Management Information system and are developing measures from the intelligence gathered from this effort. Gas savings opportunities include RCx and gas-fired water pumping measures as integrated into each city's Capital Improvement Programs. Other buildings have been audited by the California Energy Commission, and the Partnership is awaiting the findings from these efforts. Municipal facilities energy efficiency is a large component of Huntington Beach's local government partnership.

[17] The eight local governments include Kings County, City of Hanford, County of Tulare, City of Lindsay, City of Porterville, City of Tulare, City of Visalia, and the City of Woodlake. PG&E is another entity that may join this partnership.

Statewide Energy Efficiency Collaborative (SEEC Partnership) Community Energy Partnership (CEP)

The Statewide Energy Efficiency Collaborative (SEEC) Community Energy Partnership (CEP) is a collaboration between Local Governments for Sustainability, U.S.A., Inc. (ICLEI), the Institute for Local Government (ILG), the Local Government Commission (LGC), and the joint IOUs. This Partnership is the statewide vehicle to provide an array of coordinated resources, including workshops, technical assistance, and a recognition program, to allow local governments to share best practices associated with energy management and reducing greenhouse gas emissions. This collaborative effort is structured to leverage the unique resources, assets, relationships, communications channels, programs, training, models and tools brought by each organization.

South County Energy Efficiency Partnership (SCEEP)

The Partnership is a joint project of SoCalGas, SCE, the County of Santa Barbara, and the cities of Santa Barbara, Goleta and Carpinteria. The Partnership leverages partner resources to reduce energy use, increase energy efficiency awareness and reduce greenhouse gas emissions in Santa Barbara County and partnering cities.

Desert Cities Energy Partnership

A new partnership in the SoCalGas and SCE suite of programs, the Desert Cities Partnership Program comprises the Coachella Valley Association of Governments (CVAG) with cooperation from Imperial Irrigation District, a local public utility. CVAG is a local government agency that includes 10 cities, Riverside County, and three tribal governments (collectively referred to as Jurisdictions). Through its existing communication network and working with the utilities, CVAG will provide outreach to the member jurisdictions and the larger Coachella Valley community about energy efficiency. SoCalGas and SCG will provide energy information,

technical assistance, and assist the jurisdictions with implementation of municipal facilities retrofits and energy efficiency upgrades.

Ventura County Regional Energy Alliance (Ventura Partnership Program)

The Ventura County Regional Energy Alliance (VCREA) consists of 10 public agencies: the County of Ventura, the cities of Camarillo, Fillmore, Oxnard, Santa Paula, Thousand Oaks, and Ventura; and Ventura County Community College District, Ventura Unified School District and Ventura Regional Sanitation District. The Alliance implements its program of comprehensive energy savings organized through a single energy office for public agencies as well as non-profit service providers with strong community service connections. Based on work in the prior cycles, the organization has placed emphasis on strategic planning, energy finance options, support for energy education, and job creation in the energy/utility sector. As the local partner and based on past experiences, VCREA developed an innovative regional process and program methodology which generated significant energy savings and demand reduction in prior cycles and thus is proposed to continue in the 2013 – 2014 transition period.

v. Statewide Codes and Standards

The Codes and Standards (C&S) Program saves energy on behalf of ratepayers by working directly with standards and code-setting bodies to strengthen energy efficiency regulations, improving compliance with existing codes and standards, and working with local governments to develop ordinances that exceed statewide minimum requirements. C&S program advocacy and compliance improvement activities extend to virtually all buildings and potentially any appliance in California.

The C&S Program conducts advocacy activities to improve building and appliance efficiency regulations. The principal audience is the California Energy Commission (CEC) which conducts periodic rulemakings, usually on a three-year cycle (for building regulations), to update building and appliance energy efficiency regulations. C&S also seeks to influence the United States Department of Energy (DOE) in setting national energy policy that impacts California.

In response to CPUC guidance, this program has been modified for the 2013–2014 transition period. Specific changes include consolidation of all compliance improvement activities into one sub-program, the Compliance Improvement Sub-program, the addition of a statewide Planning and Coordination Sub-program, and responses to the ordering paragraphs. These responses, which are noted in Appendices C and G, include such initiatives as targeting low-compliance areas, maintaining a Codes and Standards Collaborative to conduct strategic planning, and collaborating with the WE&T Centergies sub-program to prepare contractors and technicians to implement current codes and provide technical training on advanced technologies that are projected to become part of reach codes and, subsequently, the statewide code.

Codes and Standards Sub-programs

Building Energy Codes Advocacy Sub-program

The Building Energy Codes Advocacy sub-program primarily targets improvements to Title 24 Building Efficiency Regulations, which are periodically updated by the CEC. The sub-program also seeks changes to national building codes that impact California building codes. Advocacy activities include development of code enhancement proposals and participation in public rulemaking processes, as well as additional activities as appropriate. The program may

coordinate with, or intervene in, ratings organizations that are referenced in Title 24, such as the National Fenestration Rating Council, and the Cool Roof Rating Council.

Appliance Standards Advocacy Sub-program

The Appliance Standards Advocacy sub-program targets both state and federal standards and test methods: improvements to Title 20 Appliance Efficiency Regulations by the CEC, and improvements to Federal appliance regulations by the U.S. DOE. Advocacy activities include development of code enhancement proposals and participation in the public rulemaking process (Title 20); development of comment letters based on IOU research and analysis (U.S. DOE); and participation in direct negotiations with industry. Additionally, the program monitors state and federal legislation and intervenes, as appropriate.

Compliance Improvement

The new Compliance Improvement sub-program combines the previous Extension of Advocacy and Compliance Enhancement sub-programs. It provides education, training, and other activities, targeting building departments and other industry actors responsible for compliance with Building Energy Code and Appliance Standards requirements. Activities may include development of best practices tools and other infrastructure elements that serve multiple compliance improvement objectives, collaboration with the CEC on an outreach campaign to improve code compliance, and collaboration with building industry organizations.

Reach Codes

The Reach Codes sub-program provides technical support to local governments that wish to adopt ordinances that exceed statewide Title 24 minimum energy efficiency requirements for new buildings, additions, or alterations. Support for local governments includes research and analysis for establishing performance levels relative to Title 24 and cost effectiveness per

Climate Zone, drafting of model ordinance templates for regional consistency, and assistance for completing and expediting the application process required by the CEC. The sub-program also supports local governments that seek to establish residential or commercial energy conservation ordinances for existing buildings.

Planning and Coordination

The Planning and Coordination sub-program provides a formal process that aligns planning activities across the IOU energy efficiency portfolio within the Codes and Standards program activities. This sub-program supports efforts to prepare the market for future code adoption (i.e., improve code readiness), to ensure higher code compliance rates and advance the Strategic Plan ZNE goals.

vi. Programs with Market Transformation Initiatives

D.12-05-015 highlights the Commission's continued emphasis on continuing the trajectory toward increased market transformation to capture deep and consistent energy saving. In line with that emphasis and with additional direction from the CPUC, below are brief summaries of SoCalGas programs focused on Market Transformation.

1. HVAC QI/QM

HVAC QI/QM is included in the Residential HVAC sub-program of the CalSPREE Program, and the Non-Residential HVAC sub-program of the Commercial Energy Efficiency Program - see section3.a.i, under California Statewide Program for Residential Energy Efficiency and "Commercial Energy Efficiency Program. This subprogram is designed to drive high quality levels in California's HVAC market for technology, equipment, installation, and maintenance. It delivers a comprehensive set of upstream strategies that are built on education,

marketing efforts, and leveraged relationships within the HVAC industry. It also seeks to increase customer awareness of the value of HVAC installation and maintenance practices toward driving energy efficiency and peak load reduction. The Residential HVAC subprogram will incorporate revised measures and incentives, policies and procedures, quality assurance, marketing materials, website, and contractor training in performing HVAC installation services for residential customers.

2. ZNE Pilots

ZNE Pilots provide customers resources for projects that move toward deeper integration and energy savings. In 20113-2014, the emphasis will shift to increased incentives offered through the residential and commercial new construction subprograms.

3. Savings By Design

Savings By Design is included in the commercial new construction component of the Commercial Calculated Incentive Program (see section3.a.i, under "Commercial Calculated Incentive Program"). To foster market transformation, it offers a variety of services aimed at achieving deeper energy savings, such as integrated building design assistance, whole building, individual systems, and simplified approaches to construction, and integrated design training for architects, engineers and owners. It also continues and develops partnerships and collaboration with industry groups like The California Council of American Institute of Architects and the California Energy Commission, among others. Also included are ZNE design services, such as consultation services, student design competitions, research activities, and 2010–2012 pilot success adoptions.

4. Residential New Construction

This sub-program of the Residential Energy Efficiency Program is summarized in section 3.a.i above. Details are provided in the PIP in Appendix C. In support of Market Transformation, this subprogram provides incentives, technical education, and design assistance aimed at increasing plug load efficiency, identifying whole-house solutions, changing occupant behavior, and leveraging the market demand for green building standards.

5. Plug Load and Appliances

This subprogram of the Residential Energy Efficiency Program is summarized in section 3.a.i above. Details are provided in the PIP in Appendix C. Specific activities targeting Market Transformation include working with manufacturers and Codes & Standards bodies to influence code development and approval process; and collaborating with industry partners as the measures transition through different market adoption stages.

vii. Statewide Workforce Education & Training (WE&T)

The Statewide IOU Workforce Education and Training (WE&T) Program is a portfolio of education, training and workforce development for EE planning and implementation. WE&T has become an important crosscutting activity that not only educates and trains current workers, but also prepares future workers to successfully perform the jobs needed to help achieve increased energy savings targets for the IOUs.

WE&T creates a comprehensive sector strategies approach that leverages the potential of key stakeholders with the resources, knowledge, and commitments to implement an education and training strategy. It focuses on integrating existing workforce skills with new workforce needs, and on expanding outreach efforts to increase awareness and demand for green careers.

This effort requires concerted planning among secondary and post-secondary educational leaders, technical and professional organizations, state agencies, economic and labor development organizations, utilities, and construction and manufacturing businesses that deliver energy management and efficiency solutions.

The Joint IOUs have planned several initiatives in direct response to the directives in D.12-05-015, including the following:

- Developing a plan to expand educational efforts toward more direct effect on trade organizations involved in installing and maintaining commercial HVAC systems;
- Generating a plan to roll out a non-residential HVAC sector strategy pilot;
- Collaborating on an effort to develop a statewide memorandum of understanding (MOU) with the California Division of Apprenticeship Standards that will provide a framework for partnering with labor, trade, and professional organizations.

Workforce Education and Training Sub-programs

WE&T Centergies

WE&T Centergies is generally organized around market sectors and cross-cutting segments to facilitate workforce education and training appropriate to achieve the energy savings, demand reductions and related energy initiatives required of the IOUs. This training is delivered through Energy Education and Testing Centers (Centers) located in the IOU's service territories. These Centers draw on decades of experience in creating and disseminating high-quality programs to provide a variety of deliverables—training courses, seminars, workshops, clean energy technology demonstration, equipment efficiency testing, and interactive training

exhibits and lectures—to promote industry trends and advance energy efficiency as a professional discipline.

This sub-program also includes a Statewide Building Operator Certification (BOC) Training Partnership that will continue to play a major role in improving and maintaining California's energy efficient green collar building workforce stock of building engineers, stationary engineers, maintenance supervisors, maintenance workers, facility coordinators, HVAC technicians, electricians, and others in the facility operation and maintenance field. BOC's competency-based training and certification results in improved job skills and more comfortable, efficient facilities. Operators earn certification by attending training and completing project assignments in their facilities. Training topics include facility electrical, HVAC and lighting systems, indoor air quality, environmental health and safety, and energy conservation.

WE&T Connections

This sub-program is organized around downstream and upstream IOU relationships with the educational sector, entry and intro-level community-based training efforts that support workforce development in energy efficiency, energy management, and new emerging green careers. It focuses on education curriculum and related activities that inspire interest in energy careers, new and emerging technology, and future skills development to advance the energy initiatives and goals of the state. IOUs will work with education institutions, businesses and communities to nurture interest in green careers by K-12, community college, occupational, vocational, and major university students, as well as assist in growth of low-income and transitional workforce-targeted clean energy training programs.

WE&T Planning

This sub-program involves the management and execution of several strategic statewide planning tasks and project implementation actions initiated by the Strategic Plan. It is anticipated these will be instrumental in delivering mechanisms and protocols that facilitate on-going momentum and focus on the achievement of workforce, education and training long-term goals. This sub-program focuses on four key tasks identified in the Strategic Plan to drive long-term WE&T development: form an IOU/CPUC WE&T task force, conduct a needs assessment, create a WE&T-specific web portal, and facilitate bi-annual WE&T public workshops.

b. New or Substantially Changed Programs

i. Statewide Lighting

Not included in the SoCalGas Application.

ii. Energy Upgrade California

In response to the Commission directive, SoCalGas is proposing activities under the WHUP-EUC subprogram of the Residential PIP, described in Chapter 3.a.i. Substantial changes include, for example, a new component that addresses multifamily housing.

iii. New Third-Party Programs

IDEEA365

The Joint IOUs propose a new cross-cutting third party program, the IDEEA365 Program, designed to allow for continuous introduction of innovative ideas and technologies into the EE portfolio. Specifically, the IDEEA365 Program will create a mechanism to solicit competitive offers year-round (until the budget is depleted) for programs that produce cost-effective energy savings. All submitted abstracts will be scored using consistent statewide

criteria, such as cost-effectiveness, innovation, feasibility, portfolio fit, comprehensiveness, opportunities for deep savings, and supplier diversity.

The Joint IOUs propose to design two types of solicitation. The first, Targeted Solicitation, will support identified program and market needs and technologies, such as, the water-energy nexus and hard-to-reach markets. The second type of solicitation promotes innovation on the part of third parties, seeking service providers who develop and deploy emerging technologies, or have promising new ideas for creating energy savings.

The goal of this program is to address the expansion and quality of energy efficiency programs implemented by third parties and to streamline the solicitation process and subject to Commission approval, allow for a rolling portfolio. This program will provide resources and accessibility to the solicitation process by third parties and will encourage comprehensive innovative programs. It will also assist in overcoming the participation barriers to third parties who may be qualified for, but new to the energy efficiency bidding process.

iv. Local Government Regional Pilot

SoCalGas is not submitting PIPs on local government regional pilots. These are being proposed and submitted to the Commission by regional local government teams.

c. New or Substantially Changed Programs with Unique PIP templates

Below are brief summaries of SoCal programs that are new or substantially changed that use a unique PIP template.

i. Statewide Finance Program

The Statewide Finance Program is designed to help achieve a number of major benefits, such as overcoming the first cost barrier of energy efficiency upgrades, leveraging ratepayer funds by bringing in private capital, and encouraging customers to invest in projects that will achieve deeper energy saving. It will include financing offerings intended to ultimately support all types of demand-side investments and be funded at a level of at least $200 million statewide over 2013–2014. It complies with D.12-05-015, which requires financing to be a statewide resource program starting in 2013.

In response to the Commission directive, an expert financing consultant will be hired by SoCalGas/SDG&E no later than August 1, 2012. The expert financing consultant is expected to convene a set of two or more working groups designed to address design issues for new financing programs and energy project and loan performance data collection and dissemination issues. The consultant will then design financing pilot programs in 2012 to be launched in 2013 and scaled up in 2014. These programs will benefit from lessons learned throughout the state and will comply with the direction from the Commission.

In addition, the Joint IOUs will develop for California or possibly in collaboration with a possible national approach, a database of financing-related project performance and repayment data that will become the repository of all of the data agreed-upon in the working group that should be collected and shared.

Statewide Finance Sub-programs

On-Bill Financing (OBF)

OBF offers interest-free, utility financed, unsecured energy efficiency loans to qualified non-residential customers with qualified projects. OBF allows customers to achieve energy savings through the purchase and installation of efficient equipment and to repay loans through a fixed monthly installment on their utility bills.

To meet the anticipated demand during 2013–2014, SoCalGas requests an additional $2 million for its non-PPP ratepayer-funded On-Bill Financing loan pool. Funding of $1 million per year will be collected during the 2013–2014 program cycle and will be recorded in the On-Bill Financing Balancing Account (OBFBA), similar to the treatment of the original funding authorized to establish the On-Bill Financing Program. The OBFBA mechanism was approved in D.09-09-047 and made effective January 1, 2010 via Advice Letter 4035.

American Recovery and Reinvestment Act (ARRA) Originated Financing Programs

These are financing programs originally funded by ARRA stimulus funding and implemented by third parties, local governments, and/or via the California Energy Commission. Successful ARRA-originated programs will be selected based on a number of criteria, including the potential for scalability to larger markets, the ability to leverage ratepayer funds with private capital, and the ability of offer low interest rates to consumers. The utilities will provide continued funding and administrative support for the selected programs in 2013–2014, as well as in 2012.

As directed in OP 28 and OP119, SoCalGas worked with the other IOUs to ensure that a minimum of $5 million and no more than $10 million of the remaining 2010–2012 statewide ME&O budget is provided to local governments by August 1, 2012, to fund the most successful

or replicable programs previously implemented by local governments with ARRA funding. The IOUs presented selection criteria, including the criteria provided in Conclusion of Law 26, to Commission and California Energy Commission staff, as well as local governments, at the May 24, 2012, EUC Steering Committee meeting. In addition to inviting funding proposals from meeting participants, each IOU directly contacted local governments who were known to have ARRA-funded EUC financing, marketing, and/or workforce education programs.

SoCalGas is planning to fund programs with the County of Los Angeles, the County of Santa Barbara, and potentially two or three other entities. Due to the complexity of the various ARRA programs, SoCalGas will file a supplemental Advice Letter when the program budgets and funding allocations between the utilities are determined.

New Financing Offerings

Per D.12-05-015, SoCalGas will offer new, scalable, and leveraged statewide financing products designed to help customers produce deeper energy savings, including:

- A credit enhancement strategy for the single-family residential market;
- A multifamily residential market strategy that includes both credit enhancement and an on-bill repayment option that may require legislative change to fully implement;
- A credit enhancement strategy for the small business market;
- An on-bill repayment strategy for all non-residential customers.

These financing offerings are intended to ultimately support all types of demand-side investments, including energy efficiency, demand response, distributed generation, and storage. The Finance PIP in Appendix C includes SoCalGas' suggestion for initial credit enhancements as required by the Decision.

ii. Emerging Technologies Program

The mission of the Emerging Technologies Program (ETP) is to support increased energy efficiency market demand and technology supply by contributing to the development, assessment, and introduction of new and under-utilized EE technologies, practices, and tools, as well as by facilitating their adoption as measures supporting California's aggressive energy and demand savings goals.

ETP will leverage all complementary efforts and entities in support of its mission, including other statewide and local IOU EE programs and EE innovation activities by external organizations, such as private industry, industry trade organizations, corporate laboratories, the CEC Energy Research & Development Division, the U.S. Department of Energy and national laboratories, and regional, national and international ETP partners.

To achieve success, the ETP will consolidate the six elements in the 2010–2012 portfolio into three sub-programs, as shown in Table 7 below.

Table 7. Mapping of the 2010-2012 "Elements" into the New 2013-2014 Sub-programs

Sub-program #1 Technology Development Support Subprogram	Increased EE technology supply (Support the development of new technologies)	- Technology Development & Support - TRIO - Market Studies and Behavioral Studies
Sub-program #2 Technology Assessments Subprogram	Increased number of measures offered by EE programs (Identify promising technologies for EE programs)	- Technology Assessments - Demonstration Showcases - Market Studies and Behavioral Studies - Technology Test Center (SCE only)
Sub-program #3 Technology Introduction Support Subprogram	Support technology introduction and whole-building deep-energy reduction solutions ("Seed" market demand among targeted end users)	- Scaled Field Placements - Demonstration Showcases - TRIP Solicitations (implemented in 2012 by SCE only. New to ETP in 2013-2014) - Market Studies and Behavioral Studies

Below are brief summaries of these newly consolidated subprograms.

Emerging Technologies Sub-programs

Technology Development Support (TDS)

This sub-program focuses on screening, selecting, and implementing targeted technology development support projects to benefit EE measure development. It also conducts outreach to technology developers through workshops.

Technology Assessments (TA)

This sub-program assesses EE measures, including IDSM measures, and works to transfer measures from the ETP into the EE programs, with the goal of producing energy savings or demand reductions.

Technology Introduction Support (TIS)

In this sub-program, the Joint IOUs will conduct a variety of technology introduction activities and solicit projects that leverage innovative EE or IDSM technologies and approaches for the Technology Resource Innovation Program (TRIP). The awarded TRIP Programs will be transferred to, and administered by, SoCalGas' third party programs.

Table 8 highlights the various parameters to highlight the distinctions between the new three ETP subprograms for 2013-2014

Table 8. Distinction between ETP subprograms

Parameter	**Technology Development Support**	**Technology Assessments**	**Technology Introduction Support**
Purpose	specifications, outreach → mid- to long-term EE technology supply	performance, cost data, market potential → EE programs	market exposure
Theme	spur technology development	evaluation	first-hand experience/Exposure
Units installed	none to one lab evaluation in some cases	one to a few (exceptionally, many) or entire floor/building/facility	a few to many (or entire floor/building/facility)
Number or sites	none to one	one to a few (exceptionally, many)	one to a few (exceptionally, many) as strategically valuable
Unique measures	one up to whole system	one up to whole system	one up to whole system or whole building
Customer involvement	none	one or a few users	few to many users or viewers
Duration	short to medium	medium to long	as needed (typically long)
Data collection	detailed	detailed	none to moderate
Preferred Dissemination mechanism	printed report, outreach, & other media	printed report & other media	printed report & other media along with first-hand experience and word of mouth

iii. Marketing, Education & Outreach

As directed in D.12-05-015, the Joint IOUs will file a separate Application outlining their approach to the statewide ME&O for all demand-side programs and energy education by August 3, 2012. As noted in Chapter 2, this approach will include transforming the EUC (now WHUP-EUC) brand into an umbrella brand that residential and small commercial customers will

associate with as a source for information on energy efficiency and other demand-side management actions, with an emphasis on actions that lead to deeper retrofits.

d. Eliminated Programs

SoCalGas is eliminating the following third-party programs in the 2013–2014 Portfolio because they did not meet the evaluation criteria described in Chapter 3.a..iii. Third-Party Programs:

- Upstream High Efficiency Gas Water Heater
- Steam Trap and Compressed Air Survey
- Gas Cooling Retrofit
- Multifamily Solar Pool Heating

Other programs were eliminated to comply with the Decision, as follows:

- Local Strategic Develop & Integration
- HVAC Core
- SW Marketing, Education & Outreach (Core)

CHAPTER 4: PROPOSED FUNDING REQUEST IS REASONABLE

1. Proposed Funding Levels are Reasonable and Should be Adopted

a. Details of Funding

SoCalGas' proposed 2013-2014 energy efficiency program portfolio budget is intended to fund energy efficiency programs that will achieve the Commission's energy savings targets. In addition, to providing program budgets, the Commission requires that a minimum of 20 percent of the entire portfolio of programs be allocated for third-party programs. SoCalGas interprets this to be 20 percent of the total budget allocated for implementing all programs, excluding the EM&V budget. SoCalGas budgeted a minimum of 20 percent of the total program budget for third parties.

EM&V costs are the labor and material expenses incurred to conduct process and measurement studies required to evaluate the program. As discussed in further detail in Chapter 5 below, SoCalGas has allocated 4 percent of its total budget to EM&V in order to meet Commission guidelines. The SoCalGas EE portfolio budget is shown in further detail below.

1. Breakdown of Proposed Budget by Program

Tables 9-A through 9-C provide a breakdown of SoCalGas' proposed budget by program.

Table 9-A

Program	Sector/Category	2013-14 Budget	2013-14 Gross Therm Savings
SW-AG-Calculated Incentives	Agricultural	4,045,232	1,496,799
SW-AG-CEI	Agricultural	64,221	
SW-AG-Deemed Incentives	Agricultural	1,067,167	487,026
SW-AG-Energy Advisor	Agricultural	78,013	
Total Agricultural		**5,176,620**	**1,983,825**
SW C&S-Appliance Standards Advocacy	Codes & Standards	332,773	
SW C&S-Building Codes & Compliance Advocacy	Codes & Standards	417,252	5,395,135
SW C&S-Compliance Enhancement	Codes & Standards	499,128	
SW C&S-Planning Coordination	Codes & Standards	255,423	
SW C&S-Reach Codes	Codes & Standards	169,652	
Total Codes & Standards		**1,504,576**	**5,395,135**
3P-CA Sustainability Alliance	Commercial	1,600,000	
3P-CA Sustainability Alliance (Utility)	Commercial	60,902	
3P-Energy Challenger	Commercial	68,500	
3P-Energy Challenger (Utility)	Commercial	17,645	
3P-On Demand Efficiency	Commercial	4,600,000	1,129,204
3P-PREPS	Commercial	1,200,001	
3P-PREPS (Utility)	Commercial	63,702	
3P-SaveGas	Commercial	980,001	515,255
3P-SaveGas (Utility)	Commercial	50,665	
SW-COM-Calculated Incentives	Commercial	9,239,848	5,844,240
SW-COM-CEI	Commercial	399,999	
SW-COM-Deemed Incentives	Commercial	6,964,101	1,822,777
SW-COM-Energy Advisor	Commercial	1,016,008	
SW-COM-NonRes HVAC	Commercial	655,965	
SW-FIN-New Financing Offerings	Commercial	10,467,622	
SW-FIN-On-Bill Financing	Commercial	1,727,378	750,001
Total Commercial		**39,112,338**	**10,061,477**

Table 9-B

Program Budgets and Savings - 2

Program	Sector/Category	2013-14 Budget	2013-14 Gross Therm Savings
3P-New Programs	Cross-Cutting	8,172,325	
CRM	Cross-Cutting	1,497,811	
Total Cross Cutting		**9,670,136**	
SW-IDSM-IDSM	DSM Coordination & Integration	650,000	
Total DSM Coordination & Integration		**650,000**	
3P-PoF	Emerging Technologies	2,256,218	
3P-PoF (Utility)	Emerging Technologies	58,357	
SW-ET-Technology Assessment Support	Emerging Technologies	1,006,034	
SW-ET-Technology Development Support	Emerging Technologies	125,757	
SW-ET-Technology Introduction Support	Emerging Technologies	1,384,936	
Total Emerging Technologies		**4,831,302**	
3P-Small Industrial Facility Upgrades	Industrial	1,428,000	678,762
3P-Small Industrial Facility Upgrades (Utility)	Industrial	44,047	
SW-IND-Calculated Incentives	Industrial	27,658,191	21,902,488
SW-IND-CEI	Industrial	645,999	
SW-IND-Deemed Incentives	Industrial	2,083,532	2,947,836
SW-IND-Energy Advisor	Industrial	1,216,007	
Total Industrial		**33,075,776**	**25,529,086**
LGP-Community Energy Partnership	Local Government Partnership	252,647	
LGP-Desert Cities Partnership	Local Government Partnership	50,600	
LGP-Kern Co Partnership	Local Government Partnership	208,464	
LGP-LA Co Partnership	Local Government Partnership	433,946	
LGP-LG Regional Resource Placeholder	Local Government Partnership	644,867	
LGP-New Partnership Programs	Local Government Partnership	2,787,899	
LGP-Orange Co Partnership	Local Government Partnership	271,938	
LGP-Regional Energy Efficiency Pilots	Local Government Partnership	-	
LGP-Riverside Co Partnership	Local Government Partnership	294,117	
LGP-San Bernardino Co Partnership	Local Government Partnership	289,717	
LGP-San Joaquin Valley Partnership	Local Government Partnership	194,289	
LGP-San Luis Obispo Co Partnership	Local Government Partnership	214,563	
LGP-Santa Barbara Co Partnership	Local Government Partnership	229,294	
LGP-SEEC Partnership	Local Government Partnership	295,394	
LGP-South Bay Cities Partnership	Local Government Partnership	307,932	
LGP-Ventura County Partnership	Local Government Partnership	336,161	
Total Local Government Partnership		**6,811,828**	

Table 9-C

Program	Sector/Category	2013-14 Budget	2013-14 Gross Therm Savings
3P-PACE	Non-Resource Mkt. & Outreach	1,300,000	600,000
3P-PACE (Utility)	Non-Resource Mkt. & Outreach	37,693	
Total Non-Resource Marketing & Outreach		**1,337,693**	**600,000**
3P-CLEO	Residential	450,000	
3P-CLEO (Utility)	Residential	37,323	
3P-HERS Rater Training Advancement	Residential	1,143,480	
3P-HERS Rater Training Advancement (Utility)	Residential	113,029	
3P-LivingWise	Residential	1,914,000	1,450,790
3P-LivingWise (Utility)	Residential	58,357	
3P-Manufactured Mobile Home	Residential	5,400,000	1,006,815
3P-Manufactured Mobile Home (Utility)	Residential	122,069	
3P-MF Direct Therm Savings	Residential	3,940,000	1,168,960
3P-MF Direct Therm Savings (Utility)	Residential	122,669	
3P-MF Home Tune-Up	Residential	2,040,000	582,093
3P-MF Home Tune-Up (Utility)	Residential	60,602	
3P-On Demand Efficiency (Utility)	Residential	101,187	
SW-CALS-Energy Advisor	Residential	1,710,997	
SW-CALS-EUC WHUP	Residential	10,696,979	684,288
SW-CALS-MFEER	Residential	2,411,550	1,157,850
SW-CALS-Plug Load and Appliances (incl. POS)	Residential	17,131,897	3,245,009
SW-CALS-Residential HVAC	Residential	306,436	
SW-CALS-RNC	Residential	5,713,387	383,064
SW-FIN-ARRA-Originated Financing	Residential	4,000,000	
Total Residential		**57,473,962**	**9,678,869**
LInstP-CA Department of Corrections Partnersh	Statewide Partnership	518,394	
LInstP-California Community College Partnershi	Statewide Partnership	703,435	
LInstP-State of CA/IOU Partnership	Statewide Partnership	545,717	
LInstP-UC/CSU/IOU Partnership	Statewide Partnership	946,060	
Total Statewide Partnership		**2,713,605**	
SW-WE&T-Centergies	Workforce, Education & Training	4,999,972	
SW-WE&T-Connections	Workforce, Education & Training	854,580	
SW-WE&T-Strategic Planning	Workforce, Education & Training	300,001	
Total Workforce, Education & Training		**6,154,553**	
Total w/o EM&V		**168,512,389**	
EM&V-Evaluation Measurement & Verification	EM&V	7,198,505	
Total w/ EM&V		**175,710,894**	**53,248,393**

2. Cost-Effectiveness Calculations

The savings for EE programs are derived from estimates for each of the measures that the program is proposing to promote. The individual measure savings and other load impact estimates (e.g., therm savings per unit, program net-to-gross ratios, incremental measure costs and useful lives) are primarily derived from the 2011 DEER. If the measure is not documented in DEER, SoCalGas provides documentation in its workpapers (see Appendix B) to support its estimates of the measure's load impacts. Documentation includes, but is not limited to, load impact evaluations of past programs, market data, engineering model outputs, or manufacturer test data. This is consistent with Policy Rule IV.11 of the Commission's Energy Efficiency Policy Manual ("Policy Manual") Version 4.0.5 SoCalGas provides its non-DEER workpapers consistent with Energy Division directions provided in the 2013-2014 Energy Efficiency Portfolio Application Information Requirements.

SoCalGas has used the E3 calculator developed and updated by E3 under the direction of the Commission's Energy Division staff. See Appendix A for the cost effectiveness parameters and E3 calculator results.[18] SoCalGas is expecting that the uncertainty in key input parameters will not fluctuate to the extent that SoCalGas would not meet its goals or cost-effectiveness target.

[18] An updated version of the E3 calculator that corrected certain errors in the "dual baseline" calculations was made available on June 22, 2012 after SoCalGas completed its cost effectiveness determination and processing its Application. SoCalGas was able to determine there was no difference in the output using the newer version given the conditions of its dual baseline measures, and thus completed the preparation of its filing using the prior version.

3. Total Resource Cost Test and Program Administrator Cost Test

The Policy Manual (Rule IV. 1) directs the utilities to use the Total Resource Cost Test ("TRC") as the primary indicator of energy efficiency program cost effectiveness, which is consistent with the Commission's intent that ratepayer-funded energy efficiency should focus on programs that serve as resource alternatives to supply-side options. The TRC test measures the net resource benefits from the perspective of all ratepayers by combining the net benefits of the program to participants and non-participants. The benefits are the avoided costs of the supply-side resources (e.g., transmission and distribution, ancillary services) avoided or deferred as adopted in D.12-05-015. In addition, the avoided cost of greenhouse gas emissions, referred to as environmental benefits, are included as part of the benefits.

TRC costs, on the other hand, include the incremental cost to install the energy efficient measures/equipment relative to the standard case and the costs incurred by the program administrator to design and manage its EE portfolio. D.12-05-015 directs the utilities to use the after-tax weighted average cost of capital, as adopted by the Commission.

In addition to the TRC test, the Policy Manual Rule IV.3 requires utilities to consider the Program Administrator Cost ("PAC") test for evaluating program and portfolio cost effectiveness. The PAC benefits are the same as the TRC test, but costs are defined to include the costs incurred by the program administrator (including financial incentives or rebates paid to participants), but not the costs incurred by the participating customer. The discount rate used for the PAC test is the same as that of the TRC test.

Applying both the TRC and PAC cost effectiveness test is referred to as the "Dual-Test". Policy Manual Rule IV.6. requires a prospective showing of cost effectiveness using the Dual-

Test at the portfolio level to qualify for program funding. The estimated TRC and PAC ratios of SoCalGas' 2013-2014 portfolio for its proposed Portfolio are shown in Table 10.

Table 10. Portfolio Cost-Effectiveness

Cost Effectiveness	
Total Resource Cost (TRC) Test	
Costs	$250,977, 141
Benefits	$308,604,935
Net Benefits (NPV)	$57,627, 794
BC Ratio	1.23
Program Administrator Cost (PAC) Test	
Costs	$171,411,191
Benefits	$308,604,935
Net Benefits (NPV)	$137,193,744
BC Ratio	1.80

b. Certain Costs Not Included in the Cost-Effectiveness Calculation

SoCalGas has followed the guidelines in the Standard Practice Manual in determining which costs are included in portfolio cost-effectiveness calculations. SoCalGas did not include OBF program loan amounts in its cost-effectiveness calculations for 2010-2012 and has taken the same approach for 2013-2014. The opportunity cost of foregone interest should be included, but is not currently accommodated by the E3 calculator the Commission requires SoCalGas to employ for cost-effectiveness calculations.

1. Inclusions of Spillover Effects in Cost Effectiveness Calculations

D.12-05-015 (at page 362) states,

> "…the IOUs may be able to reasonably quantify spillover impacts in the portfolio projections for the 2013-2014 portfolio cycle, and could help us improve estimates over time. Consequently, for their 2013-2014 portfolio applications, the utilities may present estimates of spillover that may result from the proposed programmatic activities, and may propose the inclusion of spillover effects in their cost-effectiveness analyses and results. This may be provided at either the program or portfolio level."

In response the Joint IOUs propose the consideration of the following estimates for spillover. However, SoCalGas does not propose use of the estimates for the 2013 – 2014 program cycle, but instead recommend that we explore methods to refine quantification of these impacts for use on a going forward basis as part of the EM&V process. The proposed estimates are the result of an extensive review of available studies on spillover impacts both within California and in other states. A detailed report on the underlying approach for the proposed spillover values, the supporting program logic and research is attached (see Appendix I).

The Energy Division ("ED") has updated the E3 calculator to allow for the inclusion of inclusion of spillover impacts in the IOUs' 2013-2014 proposed portfolios. For the purpose of illustrating the impacts of the spillover values, SoCalGas calculated the estimated TRC with spillover effects. The spillover is included in the cost-effectiveness metrics by adjusting the currently approved net-to-gross ratios ("NTGR") for estimated spillover resulting in spillover-adjusted net-to-gross ratios ("NTGRSA") that can be used in the E3 calculator to produce the required cost effectiveness metrics inclusive of spillover impacts. Participant costs are also adjusted in the E3 calculator based on estimated spillover impacts for use in the TRC calculation.

Table 11 shows the specific programs for which both the program logic and existing research support the IOU proposed estimates of spillover. The table shows the program category for which the spillover estimates are to be applied, the illustrative current NTGR for those programs, the proposed program level spillover adjustments and the resulting illustrative program level spillover adjusted net-to-gross ratios NTGRSA. In practice spillover-adjusted NTGRSA values may differ from the illustrative values shown in the table based on the composition of measures within each program in the adopted portfolio.

Consistent with the direction given in D. 12-05-015, the Joint IOUs' spillover estimates reasonably quantify spillover impacts in the portfolio projections for the 2013-2014 portfolio cycle based upon available research and analysis of spillover estimates from programs within the state and from other jurisdictions. The general approach undertaken was to first bound the problem by understanding the range of values that have been estimated for a particular program, the markets addressed by the program, and the program delivery channel. Once the range of expected values was determined based on the available literature, a value within that range was selected. The selected value for spillover represents an estimate of spillover impacts that can be reasonably applied to programs in the 2013-2014 portfolio based on underlying program logic, similarity between the programs evaluated in the research reports and current programs, and the professional judgment of Joint IOU EM&V staff and evaluation consultants.

Table 11: Proposed Spillover Effects

Program Category	Illustrative Current NTGR	Proposed Spillover Adjustment	Illustrative Spillover - Adjusted NTGRSA
Calculated			
Industrial – gas	0.50	0.20	0.70
Industrial – electric	0.60	0.20	0.80
Agricultural - gas & electric	0.60	0.25	0.85
Commercial - gas	0.50	0.10	0.60
Commercial - electric	0.60	0.10	0.70
Deemed			
Industrial – gas & electric	0.60	0.25	0.85
Agricultural - gas & electric	0.60	0.25	0.85
Commercial - gas & electric	0.60	0.05	0.65
New Construction			
Savings By Design - gas & electric	0.60	0.10	0.70
Lighting			
Residential (except spiral CFLs 30 watts or lower)	0.85	0.25	1.10
Non-Res (Deemed & Calculated)	0.70	0.35	1.05
Residential			
BCE – electric	0.60	0.10	0.70
HEER - gas & electric	0.55	0.10	0.65
Whole House - gas & electric	0.85	0.20	1.05
HVAC			
Upstream Equipment - gas & electric	0.85	0.10	0.95
Quality Installation - gas & electric	0.60	0.15	0.75
Quality Maintenance - gas & electric	0.85	0.15	1.00

Using the above inputs, SoCalGas calculated a weighted portfolio spillover estimate that it used for calculating what the estimated portfolio TRC would be with the inclusion of spillover effects, as shown in Table 12.

Table 12: Portfolio Cost-Effectiveness with Spillover Effects

Cost Effectiveness	
Total Resource Cost (TRC) Test	
Costs	$286,064,664
Benefits	$383,524,604
Net Benefits (NPV)	$97,459,940
BC Ratio	1.34
Program Administrator Cost (PAC) Test	
Costs	$171,411,191
Benefits	$383,524,604
Net Benefits (NPV)	$212,113,413
BC Ratio	2.24

Per the Decision's direction (at page 363), the proposed spillover estimates have been vetted with stakeholders and Commission Staff. The Joint IOUs agree that inclusion of spillover, to the extent it can be quantified, will more accurately reflect the broader market impacts of programmatic activities and lead to better design and valuation of energy efficiency programs. The Joint IOUs look forward to engaging with ED staff and interested stakeholders on an ongoing basis throughout the 2013-2014 portfolio cycle to explore methods to refine quantification of these impacts for use on a going forward basis. A detailed assessment of the type and amount of measurement and evaluation research needed to support future spillover estimates will be developed by Energy Division and IOU EM&V staffs and included in the updated 2013-2014 Energy Efficiency EM&V Work Plan to be filed later this year.

CHAPTER 5: PROPOSED EVALUATION PLANS & BUDGETS

The Joint IOUs' evaluation, measurement, and verification (EM&V) budget proposal for program years 2013–2014 is 4 percent of their total portfolio budget to support all EM&V activities, including utility and Commission-managed EM&V studies, policy support, strategic planning projects, and staffing. Specialized and experienced staffing is necessary for utility-administered EM&V activities and to support the Commission's staff-administered activities.[19] For SoCalGas, the 4 percent budget proposal equals approximately $7.2 million.

As with previous cycles, the IOUs will carry forward unspent funds within the period and, as necessary, beyond 2014 to conduct and complete ongoing evaluations.

The Decision directs a continuation of the 72.5 percent/27.5 percent split of EM&V funding between Commission-managed studies, policy support, strategic planning projects, and studies managed by the IOUs.[20] This allocation is included in the IOUs' budget proposal. The current division of responsibilities between the Energy Division Staff and the Joint IOUs will continue during the Transition Period.[21]

Experience demonstrates that study needs, scopes of work, and related costs often change over time. Studies may be combined or separated, new studies may be identified, and work may be re-prioritized based on the portfolios' research requirements. Because budget flexibility is critical, the Joint IOUs request to continue the long-standing practice of permitting full flexibility in the allocation of EM&V funding after the 2013–2014 plan is agreed upon.

[19] D.12-05-015, OP 157.
[20] D.12-05-015, OP 158.
[21] D.12-05-015, p. 354.

A. 2013–2014 Energy Efficiency EM&V Work Plan

The IOUs' application does not include a detailed EM&V Plan for the Transition Period. Instead, as directed in the Decision, Commission Staff and the IOUs will update and modify the existing 2010–2012 Energy Efficiency EM&V Work Plan, Version 1 (hereafter, 2010–2012 EM&V Plan) to develop the 2013–2014 Energy Efficiency EM&V Work Plan (hereafter, 2013–2014 EM&V Plan).[22] The Decision directs Commission Staff and the IOUs to work collaboratively to assess the status of existing studies and new research needs. At a minimum, new studies will be considered for the following:

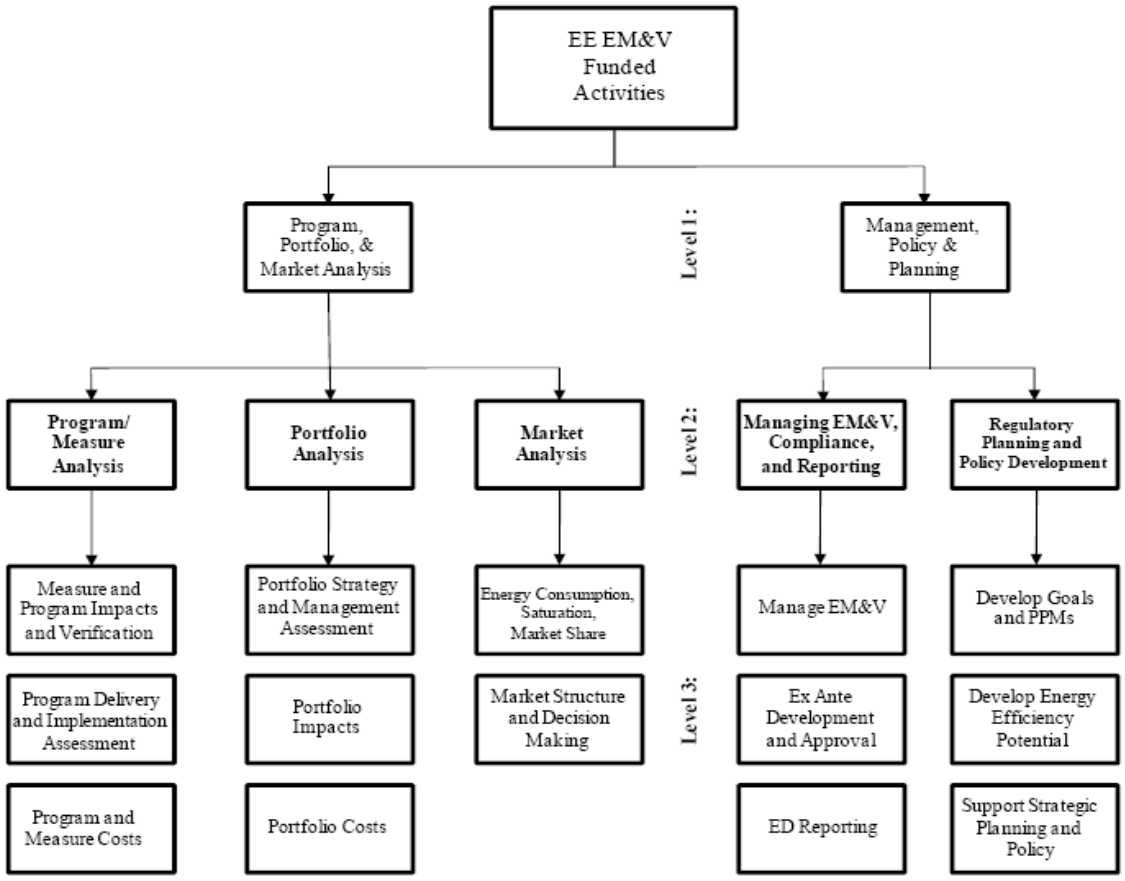
- Market transformation and Market Transformation Indicator (MTI) reporting
- Information needs to support spillover/market effects in 2015 and beyond
- The Joint IOUs' new on-bill repayment pilots
- ARRA continuation programs
- Baseline studies
- Impact evaluations of new whole-building systems
- Controls strategies
- Regional energy pilots
- Other identified research needs

The final decision should require the updated 2013–2014 EM&V Plan to be mutually agreed upon by Commission Staff and the IOUs within 60 days of the adoption of the Joint IOUs' 2013-14 EE Portfolio applications. Until the updated Plan is created, the existing 2010–2012 EM&V Plan shall remain in effect.

[22] D.12-05-015, pp. 354-355.

In addition to new studies, the updated 2013–2014 EM&V Plan will likely continue to include research in the areas outlined in the 2010–2012 EM&V Plan depicted in the figure below.[23]

Figure 3-1: 2010-2012 EM&V Activity Organizational Structure



[23] 2010–2012 Energy Efficiency Evaluation, Measurement and Verification Work Plan Version 1, December 20, 2010, p. 3-3

The 2013-1014 EM&V plan will also support the following additional EM&V activities:

a) Multi-Client Studies

Each year, several opportunities arise for the IOUs to participate in multi-client studies dealing with energy efficiency program issues. Multi-client studies typically address a subject of broad, often strategic, interest within an industry or discipline. The costs of these studies are shared across multiple study subscribers enabling large, often very expensive research, to be acquired very cost-effectively. IOU-specific costs for these studies typically range from $10,000 to $50,000 which is a small fraction of the total study cost. These studies are a relatively low-cost option for gathering data. Typically, regional or state-level breakdowns are available that are reasonably representative of IOU service territories. At times, the regional or state-level data available through these multi-client studies are the only data available regarding certain subject areas. In many cases, over-sampling within a specific area can be provided for an additional nominal cost, so that the client can compare local results with national or regional results.

b) CALMAC Website Support

The California Measurement Advisory Council (CALMAC) website makes publicly available electronic copies of all energy efficiency studies completed with Commission-authorized energy efficiency funding.

Statewide Saturation Surveys

The IOUs are required by Title 20 of the California Code of Regulations to conduct periodic saturation or similar surveys of their customers and to provide the survey results to the California Energy Commission sufficient for demand forecasting purposes. These surveys are also used as primary data sources for energy efficiency potential analyses, and are used by IOU

program managers in program implementation of customer segment targeting. Funding is needed for each of the sector saturation surveys. Budget requirements for these studies can be significant, since these studies generally require some level of detailed onsite surveys to gather data for representative samples needed to meet Title 20 requirements.

c) Other Research and Analysis

Additional important research and analysis projects may be identified during the 2013–2014 program cycle that do not fit clearly into any of the categories of EM&V work described in previous sections. The IOUs propose that if the Energy Division and the IOUs concur on a need for a study, that this additional study could be undertaken with EM&V funds. Further, the IOUs recommend continuing the existing small project authority that permits IOUs to perform studies that cost no more than $30k after advising ED Staff via Basecamp.[24]

B. Data Needs for Reporting and Evaluation

The Decision instructs the IOUs to include a line item in their budget for meeting the requirements for compliance with standardized tracking data submittals.[25] SoCalGas' request is discussed and included in the budget presented in Chapter 4.

C. Rolling Studies Improve Cost-Effectiveness, Timeliness, and Quality of Research

SoCalGas, along with SDG&E, would like to offer a recommendation along with the other IOUs aimed at improving EM&V effectiveness and timeliness while reducing costs for customers.

[24] Authorization provided to the IOUs at the Monthly EDIOUME meeting on July 12, 2011.
[25] D.12-05-015, pp. 360.

EM&V studies are currently planned and executed in conjunction with portfolio funding cycles. This design was better suited to the simpler, smaller annual funding cycles of the past. Today's complex, dynamic energy-efficiency markets, and large, multi-year portfolio funding cycles require research to address both the short and long-term feedback needs of the portfolio.

The IOUs propose that research be staged and roll across program years and portfolio funding cycles. Staging research will resolve the current resource bottlenecks created by concurrent start and end dates that compress timeframes and overwhelm the capability of all evaluation stakeholders. As described in The California Evaluation Framework:

A large portfolio of programs launched with concurrent start and end dates can create large "spikes" in the workloads of various entities, including portfolio administration staff, contracting entities, program implementers, evaluation contractors, and other stakeholders. This can lead to inefficiency and, sometimes, efforts that have a higher probability for error due to strain on the resources available.

Staging EM&V would also provide for continuous program measurement and more timely updates to EE potential, goals, and program assumptions.

The CPUC-ED and IOU EM&V teams could agree to a suite of staged research studies to smooth the workload across a wider timeframe and include the timing of the studies in the 2013–2014 EM&V Work Plan. Staging the studies would prioritize studies to make the "right information" available at the "right time," thereby maximizing the value of EM&V expenditures.

CHAPTER 6: REVENUE REQUIREMENTS & COST RECOVERY

In this Application, SoCalGas presents its proposed Energy Efficiency Portfolio for the 2013–2014 transition period, along with associated budget and estimated energy savings. The budget was determined based on the program designs and the targeted measures, and consistent with the guidance of Commission D.12-05-015. The majority of EE program funding is included in the gas Public Purpose Program (PPP) surcharge, which also funds low-income assistance programs such as California Alternate Rates for Energy (CARE) and Energy Savings Assistance (ESA), and certain research and development (R&D) expenses. This chapter will also discuss the additional funding requested in the On Bill Financing (OBF) loan pool to cover existing and new loans in 2013 – 2014 and addressed in transportation rates through the On Bill Financing Balancing Account (OBFBA).

1. Public Purpose Surcharge Revenue and Rate Recovery

The two-year funding level proposed by SoCalGas is approximately $176 million, or $88 million on an annual basis.[26] Relative to the annualized budget of roughly $93 million approved by the Commission in D.09-09-047,[27] this proposed budget represents a 5.3 percent annual budget decrease compared to the previous adopted level.

The revenue requirement applied to customer rates in 2013 will incorporate any available overcollections recorded in balancing accounts for program years prior to 2013. SoCalGas has prepared an estimation of its Demand-Side Management Balancing Account (DSMBA) for year-

[26] As noted in Chapter 2, Section 1.l., this amount does not include statewide ME&O which will be represented in a separate Application to be submitted by August 3, 2012.

[27] See D.09-09-047, p. 365, Ordering Paragraph 3c. For comparative purposes, the $285 million base amount is reduced by $6.3 million for statewide ME&O per D.09-09-047, p. 226.

ending 2012. As shown in Table 13, adjusting the proposed budget by the forecasted overcollection results in annual revenue requirement of approximately $27 million.

Table 13

Energy Efficiency Budget and Cost Recovery by Funding Source			
	2013	2014	Total
2013-2014 Program Cycle Budget	$ 88,022,352	$ 87,936,207	$ 175,958,559
Unspent/Uncommitted EM&V Carryover Funds	$ (174,949)	$ (174,949)	$ (349,897)
Unspent/Uncommitted Program Carryover Funds	$ (60,571,163)	$ (60,571,163)	$ (121,142,326)
Total Funding Request for 2013-2014 Program Cycle	$ 27,276,240	$ 27,190,096	$ 54,466,336

SoCalGas proposes continuation of the gas Public Purpose Program (PPP) surcharge as the basis for recovering the majority of EE revenues in customer rates. Currently, SoCalGas collects $68.9 million in 2012 rates through the PPP Surcharge for its EE programs, including the existing DSMBA balancing account overcollection.[28] The proposed level of $27 million thus results in a $41.6 million reduction in the PPP Surcharge. Customers are allocated EE revenue changes according to the EE/DSM Direct Benefits method authorized in D.05-09-043. SoCalGas proposes to continue this allocation method during the 2013–2014 transition period.

Any excess or shortfall in actual revenues relative to authorized levels would be addressed by modifying the future level of PPP funds collected. The PPP surcharge is updated annually by Advice Letter each November, to be effective beginning January 1 of the following year.

2. Gas Transportation Rates / OBFBA

SoCalGas' approved energy efficiency portfolio includes the OBF Program which is designed primarily to facilitate the purchase and installation of comprehensive, qualified energy efficiency measures by customers who might not otherwise be able to act given capital constraints and/or administrative and time burdens. Pursuant to D.09-09-047 and as

[28] See Advice Letter 4295, Update of Public Purpose Program Surcharge Rates Effective January 1, 2012, Attachment D.

implemented by Advice Letter 4035, SoCalGas established a pool to fund loans during the 2010 – 2012 EE program cycle.

The OBFBA was established to track loan pool funding, with the balance collected through gas transportation rates. As noted in Chapter 3, Section C.i., witness Spasaro proposes including $1 million per year in the On-Bill Financing loan pool to meet the anticipated demand during the next two years, and recovered similar to the treatment of the original funding authorized to establish the On-Bill Financing Program.

Currently there are no amounts scheduled to be collected in transportation rates for loan pool funding after 2012. Funding at the $1 million level in 2013 and 2014 does not represent an increase over 2012 rates; instead it is a proposal to remain at current levels.

3. Chapter 6 Tables Are Provided in Appendix E

Pursuant to guidance provided by the Energy Division, prescribed tables containing information regarding revenue requirements and cost recovery are provided in Appendix E. Table 6.1 presents an estimate of the total average first year and total average lifecycle bill savings using the bundled system average rates as of January 1, 2012. Table 6.1b presents the proposed revenue and rate changes compared to levels authorized as of January 1, 2012. As described earlier, the revenue requirement associated with the proposed EE budget is adjusted to account for the estimated year-end balance in the DSMBA, which is shown separately in Table 6.2a.[29]

[29] The DSMBA carryover amount shown reflects the current estimate, and according to customary practice, will be adjusted when incorporated in customer rates.

4. PPP Surcharge Rolling Budget Trigger

In the event a decision in this proceeding is not issued before January 1, 2013, bridge funding will be required to support the SoCalGas EE programs. D.09-09-047 provides authority to continue to operate into 2013 at the average 2012 expenditure level.[30] In the event of a rolling budget trigger, SoCalGas will address PPP Surcharge bridge funding through the Advice Letter process. Any difference between the EE funding recovered in 2013 rates prior to the final decision would be subject to balancing account adjustment and true-up in rates.

[30] See D.09-09-047, p. 312 and Ordering Paragraph 45.

CHAPTER 7 QUALIFICATIONS

Gillian Wright

My name is Gillian A. Wright. I am the Director of Customer Programs and Assistance for Southern California Gas Company. My business address is 555 West 5th Street, Los Angeles, California, 90113. My principal responsibilities include directing all activities involved with SoCalGas' general energy efficiency, low income, and other programs that serve special needs customers.

Prior to this assignment I have had director positions supporting SCG and SDG&E in commercial and industrial services, energy markets and capacity products and regulatory affairs. I joined Sempra Energy, the parent company of SCG and SDG&E, as a Regulatory Policy and Analysis Analyst in 1999. I held positions of increasing responsibility in Regulatory Affairs until my promotion to Director in 2003.

Prior to joining the Sempra companies I held positions of increasing responsibility as a consultant on energy industry economics. I received a Master of Public Policy degree from the John F. Kennedy School of Government at Harvard University in 1998 and a Bachelor of Arts degree in Economics from Reed College in 1992.

I have previously testified before the California Public Utilities Commission.

Kevin Shore

My name is Kevin M. Shore. My business address is 555 West Fifth Street, Los Angeles, California, 90013-1011. I am employed by Southern California Gas Company ("SoCalGas") as the Commercial Industrial Mass Markets Segment Manager in the Customer Programs and Assistance Department. I have a B.A. in Business Administration magna cum laude with honors

from the University of La Verne. I began employment with Southern California Gas Company in 1979 and have held a variety of roles in both field operations and energy efficiency. I have managed energy efficiency program operations for the Residential, Commercial, Industrial, and Agricultural segments since 2008.

I have not previously served written testimony before this Commission.

Frank Spasaro

My name is Frank A. Spasaro. My business address is 555 West Fifth Street, Los Angeles, California, 90013-1011. I am employed by SoCalGas as the Energy Efficiency Partnerships Manager in the Customer Programs and Assistance Department.

I received a B.S. in Civil Engineering from the University of Southern California in 1983. Since joining SoCalGas in July of 1983, I have spent the majority of my career in energy efficiency, in a variety of positions of increasing responsibility.

I assumed my current position in May 2005. My responsibilities include the management of the On-Bill Finance program, local government and institutional partnership programs, and the energy efficiency engineering group.

I have previously testified before the Commission.

Lance DeLaura

My name is Lance DeLaura. My business address is 555 West Fifth Street, Los Angeles, California, 90013-1011. I am employed by Southern California Gas as the Energy Efficiency and Low Income Strategic Planning and Codes/Standards Manager.

I have a B.S. in Business Administration and Marketing from Denver University. I have been employed by Southern California Gas Company for the past 9 years in a variety of

positions. These include Residential New Construction Manager, Products and Services Manager, and Small Commercial Manager. Other previous positions include Business to Business Manager, Residential Rebates Manager, Emerging Technologies and Codes/Standards Manager, and Market Strategy Manager.

I have previously testified before the Commission.

Andrew Steinberg

My name is Andrew E. Steinberg. My business address is 555 West Fifth Street, Los Angeles, California, 90013-1011. I am employed by SoCalGas as the Regulatory Policy and Reporting Manager in the Customer Programs and Assistance Department.

In 1997, I received a B.A. in Economics and a B.A. in English Literature cum laude with honors from the University of California, Los Angeles. I began employment in 1998 with Micronomics, Inc., a firm that provides consulting services pertaining to the violation of antitrust laws and related economic damages. During my three years of experience at Micronomics, my responsibilities primarily included economic research and consulting, and oversight of the preparation of expert witness testimony for antitrust proceedings.

In 2001, I began employment with the Sempra Energy Utilities in the Regulatory Analysis Department with an emphasis on matters relating to gas transportation service. In 2005, I transitioned to Regulatory Case Manager in the General Rate Case (GRC) and Revenue Requirements Department, providing support for both SDG&E and SoCalGas. My primary responsibilities included project management and support for the SDG&E and SoCalGas GRCs. In May 2012, I assumed my current position. My responsibilities include the management of regulatory support and assistance, as well as reporting activities for the Energy Efficiency and Low Income customer programs offered by the company.

I have previously served written testimony before this Commission.

Attachment 1

Chapter 2.B. – Alternative Portfolio Program Proposal

D.11-07-030 Attachment B (Redlined)

ATTACHMENT B

Custom Project Review Process

Energy Division Process for Review of Investor Owned Utility Custom Measure *Ex Ante* Values

Introduction:

This document details how the California Public Utilities Commission (Commission) will review the *ex ante* energy savings claims of Investor-Owned Utilities (IOUs) and 3rd Parties implementing custom measures or projects in the 2010-2012 Energy Efficiency program cycle.

Custom measures and projects are energy efficiency efforts where the customer financial incentive and the *ex ante* energy savings are determined using a site-specific analysis of the customer's existing and proposed equipment, and an agreement is made with the customer to pay the financial incentive upon the completion and verification of the installation. The efforts are by definition unique, each with ~~their~~its own characteristics. Parameters that determine estimated energy savings from a custom measure or project are more variable and less predictable without a site-specific analysis than the more common deemed measures for which savings parameters can be predetermined. As such, it is necessary to establish a clear process by which *ex ante* energy savings estimates from custom measures and projects can be reviewed in real-time as such measures and projects are identified and implemented.

An effective custom measure and project review process balances the needs of program participants who are investors and beneficiaries, the IOUs and 3rd Party Implementers who administer the programs, and ratepayers who provide incentive funding contingent on adequate oversight of their investment. The process identified here aims to strike that balance. This review process is intended to be applied consistently throughout the program cycle; however, clarification may be made at the discretion of the Assigned Commissioner or Administrative Law Judge.

Chart A of this Attachment includes a graphical schematic depicting the process outlined in this document. In addition, the principles guiding this process and supporting resources are defined herein.

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Guiding Principles:

1. Energy savings are the paramount priority of custom measures and projects.

2. The ~~Customer~~Custom Measure and Project Review Process is a continuous improvement (*i.e.*, quality control rather than project approval) collaborative process that involves the IOU, the Energy Division, the customer and the third party implementer (if applicable to a specific project). The process shall be conducted according to an annual Evaluation Plan, developed by the stakeholders, which outlines the areas concentration for the year's work (technologies, types of customers, industries, etc.); and a project review schedule, agreed in writing by all parties, that specifies the maximum expected turnaround times for the various steps in a project review.

3. Each project review shall also be a collaborative process, designed to improve the quality of individual projects and thus to continuously improve the quality of custom projects. For each selected project, the project review process shall start with an initial conference call with all parties to go over project parameters and help the ED reviewer gain a basic familiarity with the project description, measures and savings estimates in order to expedite the identification of issues on baselines, data submitted and timeliness of responses. During the review process, all parties shall have access to all project documents, including data requests, data submittals, review comments, etc. Customers and third party implementers shall have input into the discussions during the review process to assure that codes and industry standards are being applied in the most appropriate way to each project. All parties shall ensure that the final project reviews are written in a format that facilitates their application to future similar projects.

4. The Custom Measure and Project Review Process is intended to allow Energy Division (ED) to review customer projects ~~in parallel with the IOUs, thereby allowing for maximum customer convenience~~and suggest savings methodologies and or *ex ante* values for Commercial projects above 500MWh or 250M Therms and above 1MM Therms for Industrial projects. For Commercial projects below 500MWh or 250M Therms and Industrial projects below 1MM Therms Energy Division may undergo prospective reviews intended to simplify the process of project implementation and program oversight. Prospective reviews by Energy Division shall include an objective engineering analysis along with site specific results for each Custom Project reviewed and evaluated by Energy Division. Each IOU shall provide all data available and in their possession (unless otherwise deemed confidential) to Energy Division in

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performance of their prospective engineering review.

~~3~~5. The cost of the review and incremental M&V for a particular project shall be limited to a reasonable percentage (*e.g.*, 10%) of the proposed project incentive, unless the project is considered an example of a number of similar projects, in which case the extra cost of the review can be spread across the similar projects or funded through EM&V allocation.

6. When ~~possible and~~ applicable for a given project, and where practical, custom measure and project calculation methodologies shall be based upon Database Energy Efficiency Resources (DEER) methodologies ~~as frozen for 2008 DEER version 2008.2.05~~ or upon methodologies documented within the most current Energy Division reviewed and approved IOU non-DEER deemed ~~workpapers.~~Workpapers.

~~4.~~For the 2013-2014 transition period, these final DEER methodologies are all those indicated below that are frozen for the duration of the program cycle:

- DEER 2011 Update report and appendices (except A) dated November 8, 2011
- DEER 2011 Appendix A dated May 16th, 2012
- 2011 DEER database – version 4.01 dated May 16, 2012
- Net To Gross tables dated May 23, 2012 (note that adjustments for spill over will be frozen later)
- HVAC interactive effects tables dated May 23, 2016* (assuming 2012 was meant)
- Load shapes tables dated May 16, 2012
- READI tool version 0.99.7 dated May 25, 2012
- Cost values and comments dated June 2, 2008
- EUL/RUL values dated October 10, 2008
- EUL/RUL summary documentation posted April 2008

Additions for new measures and/or clarification of documentation above as agreed upon by ED and the IOUs may be considered as acceptable, with the intent that existing methodologies are to remain frozen for the program cycle.

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7. IOUs are responsible for effective record keeping such that calculation tools, documentation of how those tools were applied to custom measures and projects, and documentation of custom project *ex ante* savings calculations are submitted electronically (as permitted by confidentiality and security restrictions) to the Energy Division once IOU confidentiality and security concerns are satisfied.

8. Stakeholders shall conduct periodic EM&V studies, with allocated EM&V funding, to evaluate whether a custom measure offer shall be modified, moved to Deemed, or discontinued. Such changes would be implemented during the next cycle, with IOU Program Implementation Plans revised on a go forward basis only. Changes that are directed by Energy Division would take effect on future projects within the same cycle after sufficient time has been allowed to change program language and inform customers (*i.e.*, 3-4 months). Identification of new "industry standard practice" baselines shall not impact customer commitments mid cycle.

Supporting Resources:

IOUs are directed to maintain the following supporting resources to enable timely, effective review of custom measures and projects by the Energy Division and their consultants.

Calculation Tool[1] Archive (CTA):

Each IOU shall maintain an archive of all generic tools used in calculating *ex ante* values such that they remain accessible to the Energy Division throughout the program cycle.~~[2]~~ The archive shall contain all versions of all tools (except those tools that are proprietary and or licensed which shall be listed but not kept in the archive) used in the development of *ex ante* values for custom measures or projects claimed during the current program cycle. Project specific tools and processes will be stored in the Custom Measure and Project Archive described

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[1] Tools, in the context of this document, means software, spreadsheets, "hand" calculation methods with procedure manuals, or any automated methods used for estimating *ex ante* values for custom measures or projects.

~~[2] The Utilities must arrange access to any proprietary tools and software used in the development of *ex ante* values so that Energy Division can perform the review described in this document.~~

below.

The tool archive shall include:

a. All manuals and user instructions, where applicable. If the calculation tool is simply a generic spreadsheet, then all cell formulas and documentation shall be readily accessible from the tool~~.~~, if available to the IOU

b. A list of technologies, measures or projects for which custom calculations are performed using the tool~~.~~, unless apparent from an engineering inspection of the given tool being used

The Calculation Tool Archive shall be updated by the IOUs on an ongoing basis during the ~~2010-2012~~2013-2014 program cycle as tools are publicly revised.

Custom Measure and Project Archive (CMPA):

~~-~~Each IOU shall keep a complete up-to-date electronic archive of all custom measures and projects. Each project ~~should~~shall be added to the Archive ~~as soon as possible after either~~on the earlier of the date that it is identified in the pre-application stage or the date of the customer's application to the IOU~~, whichever is earlier.~~. Each project ~~should~~shall be assigned a unique identifier that shall not be re-used or re-assigned to other projects.

The IOUs shall provide a summary list of all projects, in ~~pre-application stage and application stage, in~~ their CMPA. Energy Division will provide the utilities with the format of the summary list. The summary list shall identify each project using its unique identifier ~~and provide a link to the detailed files of each project.~~. The summary list shall also reflect the date of the most recent entry into each project. The summary list shall include for each project the following (Energy Division and the IOUs will work out details of the meaning and specifics of each item below):

- The customer type
- The project type
- Industry Type
- Status (pre-application, application received, application in review, agreement signed, completed, paid, claimed, etc.)
- ~~For pre-application stage projects, a best guess at probability the project will become an application (unknown, very low, low, medium, high, very~~

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~~high; or a percentage probability 0-100% for none to definite) with this status updated as new information becomes available)~~

- Project location (address)
- Utility contact person (Primary IOU review contact and, if appropriate, primary IOU customer interface contact such as marketing representative)
- Customer segment
- Equipment or process involved
- General description of the proposed project and its energy saving premise
- Estimated *ex ante* energy savings
- ~~the target date when a customer agreement is expected to be issued for customer signature (Agreement Target Date)~~

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The summary list shall be updated at least on the first and third Monday of every month for the duration of the ~~2010-2012~~2013-2014 program cycle, however, the IOU shall provide the updated list more often as necessary to provide Energy Division with information on high priority or fast-tracked applications, so as to allow Energy Division to perform reviews of such projects at its sole discretion. The IOUs may provide the summary list by program instead of a consolidated list, ~~should~~shall they so desire.

For projects that, within a regular bi-monthly CMPA summary list submission, are projects for which applications have been newly received or projects that have moved from the pre-application state into the application state, Energy Division will inform the IOUs of projects which have been selected for review. Such notification shall be before or by the next regularly scheduled CMPA summary list submission. Thus Energy Division will have a minimum of approximately two weeks to decide if a new application measure or project, either in pre-application or application stage will be subject to review and included into its review "sample." An IOU may request that a project review decision be expedited for high priority or fast tracked projects and Energy Division will make its best effort to accommodate such requests. If Energy Division chooses not to review a project an IOU may request such a project be included in the Energy Division review sample. Energy Division shall consider such decision change requests but will limit such changes based upon available resources to ensure adequate coverage of the full cycle portfolio of measures and projects in its review sample. An IOU request for Energy Division project review may be accepted, denied or deferred into the Early Opinion process at Energy Division's discretion, however, Energy Division shall inform the IOU of its

decision as quickly as possible.

For each project sampled for a review, the specific types of documents to be maintained in the CMPA and parameters required to be in the supporting documentation may vary based on the type of project. *Examples* of the expected data elements are listed below.

- Documentation to support Baseline assignment (Code or Standard requirement, Early Retirement, Retrofit, Replace On Burnout, industry standard practice, CPUC policy, etc)[3]
- Existing system controls and operating status description
- Existing system output capacities – current output and maximum/design capacity
- Pre-installation inspection report
- ~~Post-installation inspection report~~
- Proposed modifications with schematic as applicable
- Preliminary savings calculations and supporting data with documentation to ensure replicability
- Manufacturer's cut sheets when used to estimate *ex ante* savings or when needed to ensure replicability
- Fuel switching considerations and any required analysis per CPUC policy regarding fuel switching projects (see Energy Efficiency Policy Manual)
- Other fuel savings and/or load increases resulting from the project
- Heating, Ventilation, and Air Conditioning (HVAC) interactive effects values and methods used to develop those values, when measures cause a change in HVAC system loads
- Interactions between multiple measures that act to increase or decrease savings relative to a measure stand-alone savings estimate
- ~~Pre/post production~~Production output data when used in savings calculations and the source of such records
- Billing history - one-year pre installation, with interval data required

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[3] The baseline parameters used are of primary importance in estimating project savings. Appendix I of this document provides the guidelines by which Energy Division will review baseline parameter selection.

when available; when *ex ante* estimated values rely upon a per-unit-production changes based on multi-year production data, corresponding billing histories are required

- IOU or implementer program manual (a single archive of these documents ~~should~~shall be referenced rather than including the documents in each project archive)
- M&V plans, reports and raw data archives, where applicable
- EUL/RUL value, analysis or source

Projects Energy Division selects for review will have their complete documentation from the IOU CMPA placed into an Energy Division Review CMPA which, with the Utility Custom Project Summary List, will be housed on an internet-accessible website that meets reasonable security and legal requirements. The Energy Division will be responsible ~~to~~for establishing and maintaining that website.

Custom Measure and Project Review Process:

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There are two categories of Energy Division's Custom Measure and Project Review Process: general and claims. All reviews are at the Energy Division's discretion; however, if an IOUs *ex ante* values are not reviewed by the Energy Division, the IOU shall rely on those values in making energy savings claims before the Commission after adjusting those values using the gross realization rates as shown in Table 1 below.

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Table 1: Default Custom Measure Gross Realization Rates

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IOU	kWh	kW	Therm
PG&E	0.9	0.9	0.9
SCE	0.9	0.9	
SDG&E	0.9	0.9	0.9
SCG			0.9

In applying the GRR values in Table 1 above, projects that adhere to comments made by Energy Division on previous similar projects of like kind shall apply a GRR of 1.0 to avoid double discounting.

The **General Review** will include Energy Division's oversight of the CTA and CMPA. Energy Division, at its discretion, will review tools, measures, and projects, as well as inputs to the tools for selected projects. Energy Division may choose to provide the IOUs with input on one or more of the tools, measures, or projects. The tools reviews will be done on a prospective basis. IOUs shall adjust their subsequent use of the tools, where practical, to conform to Energy Division input, or will request a re-evaluation of the inputs to be conducted by an independent third party selected by consent of both Energy Division and the affected IOU.

The more specific **general project reviews** include a close examination of a selected subset of custom projects.

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Data Requirements for a Project to be Reviewed

The Evaluation Plan described above shall contain a definitive set of requirements for project documentation that the IOUs can implement (appendix 1). Clear requirements will minimize the back and forth, time delays and uncertainty in what is required. Note that a similar approach is being used in New York for the evaluation of custom and deemed measures, including a simplified approach for early retirement measures.[4]

- As noted above, costs of a project review shall be consistent with the impact and possible savings from the project. For instance, required EM&V work shall not exceed more than 10% of the project incentive. EM&V set aside shall be used for cases where ED wishes to conduct some more general analysis. The findings of this analysis may apply to multiple projects if they can be generalized.
- The requirements for documenting early retirement shall not be excessive (*e.g.*, Appendix 1), requiring, for example, customer interrogation or investigation of the customer's finances.
- Cost documentation for incremental costs needs to be simple to apply. IOUs have proposed a conceptual approach that is reasonable to implement. Project-by project analysis of hypothetical costs is cost

[4] http://www.dps.ny.gov/TechManualNYRevised10-15-10.pdf

prohibitive.

- The IOUs may propose a method to simplify the Base case determination in the standard comments. The proposed approach could be termed the Base Case Ratio (BCR). The BCR would be a high level adjustment to the single baseline ex ante savings values, where both real costs and savings are known and can readily be measured and validated. This approach would eliminate the need for the complexity of calculating dual baselines by incorporating a simplified "average" life baseline adjustment. The exact formulation and use of the BCR to be determined in the IOU/ED working group (see below).

For all custom applications with *ex ante* values that are not reviewed by the Energy Division, the IOU shall apply an adjustment to the gross savings estimate values using the Default Custom Measure Gross Realization Rates (Table 1) above when making energy savings claims before the Commission~~.~~, unless the project is similar in nature and has already incorporated previous Energy Division comments, in which case the applied GRR shall be 1.0

Energy Division will conduct general project reviews at three stages of the IOU custom project process: concurrent and collaborative pre-installation review, post-installation review, and claim review.

Pre-Installation Review

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~~The objective of the Pre-Installation Review is for Energy Division to perform a parallel review, with the IOUs, and then for Energy Division to provide to the IOUs input on the estimated custom measure or project *ex ante* savings. The Pre-Installation Review allows~~Projects selected by Energy Division for review at the Pre-Installation stage allow Energy Division to supplement the resources and information available through the CTA and CMPA in making its recommendations. The objective of the Pre-Installation Review is for Energy Division to perform a parallel review with the IOUs on Commercial projects above 500MWh or 250M Therms, and above 1MM therms for Industrial projects, and a prospective review for projects below that size. For the Commercial projects above 500MWh or 250M Therms and above 1MM Therms for Industrial projects Energy Division will provide IOUs input on the estimated custom measure or project *ex ante* savings.

For projects that are above 500MWh or 250M Therms for Commercial projects and 1MM Therms for Industrial Projects and selected for review ED will submit

an initial data request and IOU's will submit a response. If ED requires additional information it may make one additional data request and must submit that data request within 5 working days of the IOU's initial data request response. ED must inform the IOU if it has not received all requested material within 5 days of IOU's data response. After the ED has received all requested material it has 20 working days to review the project. If a final project review is not submitted by ED within the timeframe listed than the project will be approved as submitted by the IOU. This review will inform the current project savings values as well as calculations for future similar projects.

For projects that are smaller than 500MWh or 250M Therms for Commercial projects and 1MM Therms for Industrial Projects ED may perform a prospective review. This prospective review will not inform the selected project energy savings values but will be used to inform future project calculations as specifically directed by ED.

Future projects are considered to be similar if they are identical to the reviewed project or so similar as to warrant inclusion of such comments and methodologies. The IOU shall be responsible for demonstrating, within a reasonable engineering judgment, that comments have been applied to future projects, or must reasonably demonstrate that Energy Division comments are not relevant to the future project, if requested.

For projects that are selected by Energy Division for prospective review for which savings and incentives to Customer are based on completed M&V results, Energy Division review will be focused on review of the M&V Plan and Baseline determinations, not quantification of *ex-ante* savings.

The IOUs shall provide the Energy Division the opportunity to participate in any site visits, pre-installation inspections, customer interviews, pre-installation M&V, or spot measurements that may occur during this and subsequent phases. ~~If such events are scheduled by IOUs more than five days in advance, the~~The IOU shall provide notification to the Energy Division ~~within one business day of scheduling the event; the~~as soon as possible for projects Energy Division ~~should be immediately notified for events scheduled less than five days away~~has selected for review. The Energy Division will notify the IOUs prior to the event if they plan to send a representative. If the project is implemented by a third party, the IOUs shall coordinate and notify the third party as applicable.

During the Pre-Installation Review, the Energy Division will coordinate any of its Measurement & Verification (M&V) activities on these custom projects with

the IOU or its third party program implementer depending on who is the primary relationship manager for the customer and project in question. The Energy Division may choose to use the Utilities' or its own contractors, at Energy Division expense, to perform site inspections or pre-installation M&V.

~~The Energy Division will provide the IOUs with the results of its Pre-Installation Review, including recommended *ex ante* values and documentation to support its recommendation, at least ten days before the Agreement Target Date identified by the IOU in the CMPA summary list. However, the~~The IOU shall provide Energy Division with all CMPA documents that have been received by the IOU (or third party) in a timely manner~~ such that Energy Division has a reasonable ability to meet this timeline.~~. Energy Division and the IOUs agree to work together to allow timely review of expedited and high priority projects. If the Energy Division affirms the IOU's estimated *ex ante* values or suggests approaches which would result in greater or lower savings than the IOU's estimated *ex ante* values, then the IOU shall rely on those values for the reviewed project and modify its approach when entering into future estimated incentive agreements for similar projects as soon as practical. If Energy Division approves a project with modifications it must present alternate *ex ante* values for IOU's to use for an incentive agreement and may not propose conditional approvals that rely on post installation data.

Post-Installation Review

The objective of the Post-Installation Review is to provide the Energy Division with the opportunity [to] verify that the equipment installed by the customer conforms with that approved in the pre-installation review. The approved methodologies used to calculate *ex ante* energy savings values shall not be modified for the project under review. The IOU shall allow the Energy Division access to site visits, post-installation inspections, customer interviews, post-installation M&V, or spot measurements. ~~project.~~ Such access shall not impede or delay the established IOU process of executing an Agreement for Incentives with the specific customer. IOU and Energy Division notifications for these events shall follow the guidelines described above for Pre-Installation Review. Similarly, the Energy Division will work with either the IOU or the 3rd Party program implementer to coordinate the Post-Installation review to maintain consistent communication with the customer and manage customer expectations appropriately.

If the Energy Division affirms the IOU's estimated *ex ante* values or suggests

values which would result in greater or lower savings than the IOU's estimated *ex ante* values, then the IOU shall rely on those values when entering into future estimated incentive agreements for ~~the project~~similar projects. Energy Division must present alternate *ex ante* values for IOU's to use for an incentive agreement and ~~shall also~~may not propose conditional approvals that rely on ~~those values for subsequent energy savings claims before the Commission if no further~~*ex ~~post-installation adjustments are identified by either the IOUs or Energy Division, as described below.~~* data.

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~~**Post Installation Review**~~

~~The objective of the Post-Installation Review is to provide the Energy Division with continued opportunity to review and provide input on the accuracy of *ex ante* values assumed by the IOU prior to the utility making its final incentive payment to its customer.~~Selection of either a pre-installation or a post-installation review by Energy Division shall not affect the IOU approved incentive or Agreement with the customer for the current project. The IOU assumes responsibility and risk associated with the non-performance of the current project and non-compliance on subsequent projects with specific direction from Energy Division to incorporate previously made comments on past identical projects or projects similar in nature. Subsequent projects are required to adhere to accepted direction from Energy Division regarding method of analysis, analytical parameters, and specific data to be collected that will allow such future projects to be adequately evaluated.

All written dispositions from Energy Division are to state one of the following: Acceptable or Update future similar projects as indicated.

~~The IOU shall allow the Energy Division access to site visits, post-installation inspections, customer interviews, post-installation M&V, or spot measurements. IOU and Energy Division notifications for these events should follow the guidelines described above for Pre-Installation Review. The IOUs shall continue maintenance of the CTA and CMPA in accordance with the direction provided above. If the post-installation M&V inspection results in an IOU adjustment of savings for projects that were reviewed by Energy Division during the pre-installation stage, Energy Division shall have the option to review and approve such adjustments. If, as a result of the post-installation inspection, the Energy Division affirms the IOU's estimated *ex ante* values or suggests values which would result in greater or lower savings than the IOU's estimated *ex ante* values, then the IOU shall rely on those values for making energy savings claims before the Commission. Otherwise, no deliverables are due to either IOU or Energy~~

~~Division.~~

IOU Claim Review

The IOU Claim Review allows the Energy Division to conduct a Quality Control review of energy savings for custom projects included into the IOU Quarterly Claim[5] to ensure that:

1. ~~appropriate~~Appropriate default realization rates were applied to *ex ante* gross savings estimates for projects that were not reviewed by the Energy Division; and,
2. ~~recommendations~~Recommendations made by Energy Division for previously reviewed projects were accurately reflected in the claim.

The IOU Claim Review shall commence upon the IOU submittal of a quarterly reporting period claim containing those projects, and end at the later of ninety-days after that submission or the subsequent IOU quarterly submission. Energy Division shall notify the IOU of any errors found in their claim review and the IOU shall comply and revise the claims.

Custom projects that were not reviewed by the Energy Division prior to appearing in a Quarterly claim may be further reviewed for the purpose of gaining new information and prospective improvements to *ex ante* estimates and planning, but IOU's ~~**will not** be held accountable for energy savings adjustments for such reviews~~assumptions **will be accepted as submitted** for any projects covered by then existing customer agreements or already approved customer applications.

Dispute Resolution ~~of Disagreements:~~

~~1.~~ Should Energy Division and ~~a Utility~~an IOU have a ~~technical~~ disagreement ~~on~~regarding prospective comments or adjustments to a project's *ex ante* values, Energy Division and the Utility shall meet to discuss and resolve the differences~~.~~ within two weeks. If the parties fail to come to agreement, and the Energy Division recommended *ex ante* value is ~~less than~~within a plus/minus 20 percent of the utility estimated *ex ante* value, Energy Division and the utility shall split

[5] As a component their energy efficiency portfolio reporting requirements each IOU will submit a quarterly filing on EEGA which includes details of all measure *ex ante* savings values for all individual projects and measures which have been installed prior to that claim.

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the difference of the two values. ~~However, this does not apply if~~If the ~~disagreement is where~~ parties fail to come to agreement and the Energy Division ~~determines that savings will not accrue at all or when a CPUC policy has not been followed. However, in cases where the difference is greater than a~~recommended *ex ante* value exceeds plus ~~or~~ /minus 20 percent~~, then Energy Division's value will be~~ of the ~~frozen~~utility estimated *ex ante* value~~.~~, then an independent third party not associated with the project shall be contracted to determine the outcome at the expense of Energy Division. No party considered to have a conflict of interest shall be engaged.

To facilitate future communication:

Energy Division and the IOUs shall establish a working group to allow an ongoing dialog on the custom measure and project review process. This working group will provide a forum for all parties to exchange information on their current activities and future plan and to discuss and resolve problems and issues with the process outlined in this document. The working group will also provide a forum for Energy Division to inform the IOUs on issues arising in its custom measure *ex ante* estimation review process~~. These issues may include items such as~~, including but not limited to baseline definitions~~,~~ and net versus gross savings ~~definitions and other items as any party deems necessary.~~. To provide guidance for future projects, Energy Division will maintain a public archive database of the summary of issues identified in its custom applications and projects reviews~~,~~ and the Energy Division dispositions of those issues and will notify stakeholders how and where to access this information. Customer specific data and information will be removed from the Energy Division summary of issues and dispositions.

At any time during their development of *ex ante* estimates for a specific custom measure or project the Utilities may submit to Energy Division a request for an early Energy Division review or opinion on a specific issue. This process has been established by Energy Division issuance of the "Custom Measure Early Opinion Process" document posted as "Custom Measure Early Energy Division Opinion Process v2.docx" on basecamp 9/30/2010 in the "Early Opinion Shared" project area. Energy Division shall respond to that request ~~in as expeditious a manner as possible~~within five (5) business days to provide the IOUs with guidance and to allow ~~the Utilities~~them to complete their *ex ante* estimates in a timely manner. However, this type of early guidance shall not

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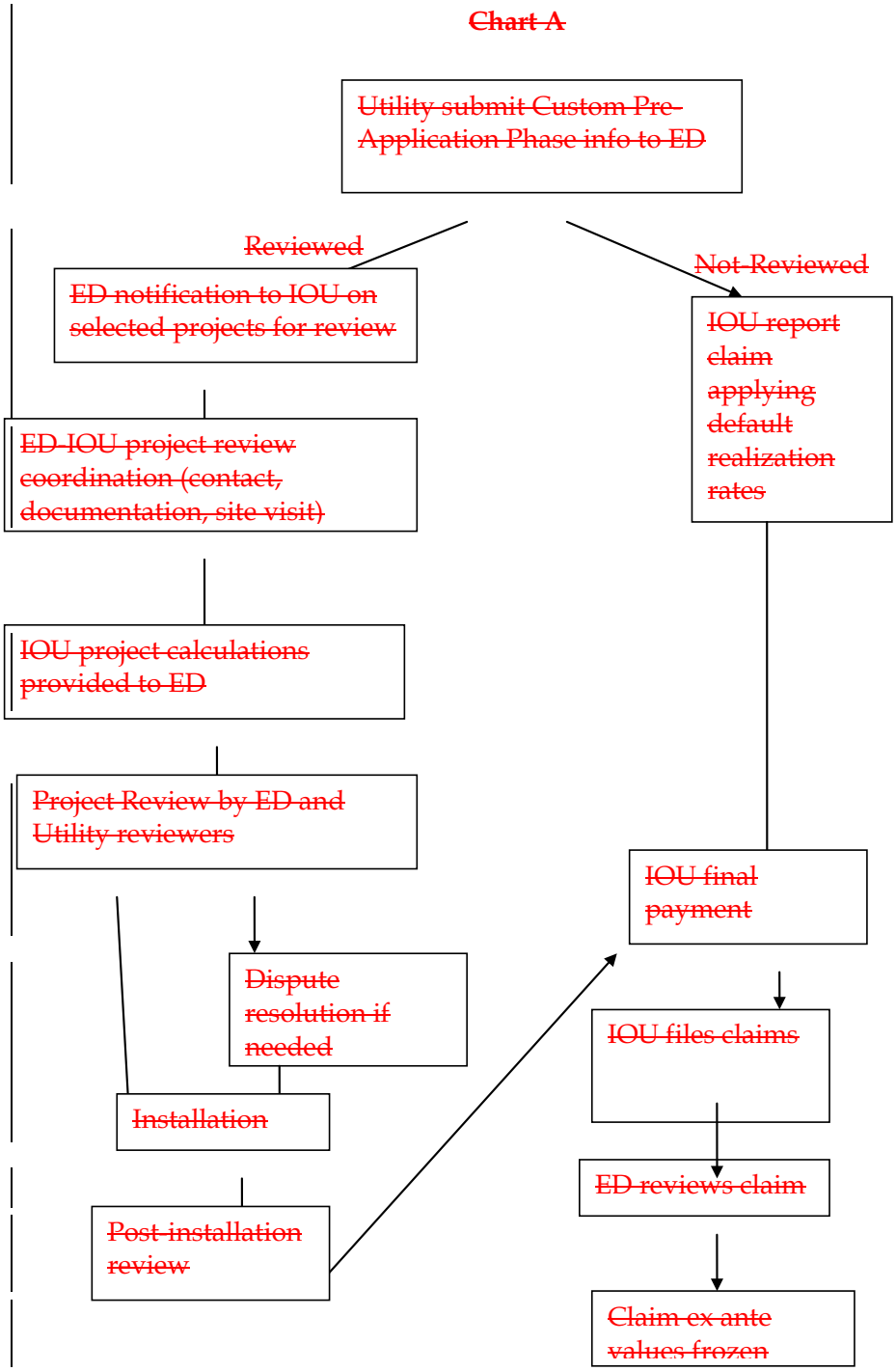
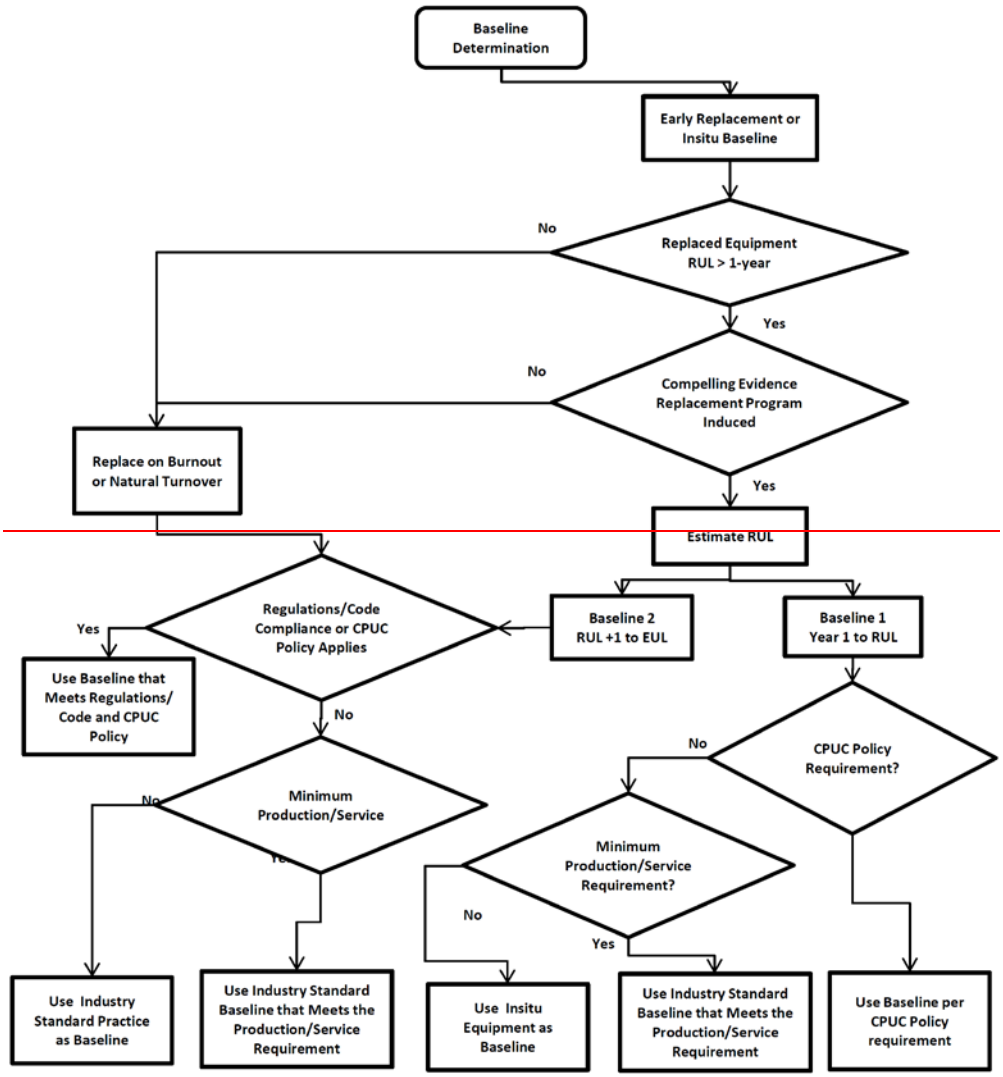
limit or constrain any later Energy Division review of *ex ante* claims submitted by the Utilities.

~~Chart A~~


Utility submit Custom Pre-Application Phase info to ED
Reviewed
Not Reviewed
ED notification to IOU on selected projects for review
IOU report claim applying default realization rates
ED-IOU project review coordination (contact, documentation, site visit)
IOU project calculations provided to ED
Project Review by ED and Utility reviewers
IOU final payment
Dispute resolution if needed
IOU files claims
Installation
ED reviews claim
Post-installation review
Claim ex ante values frozen

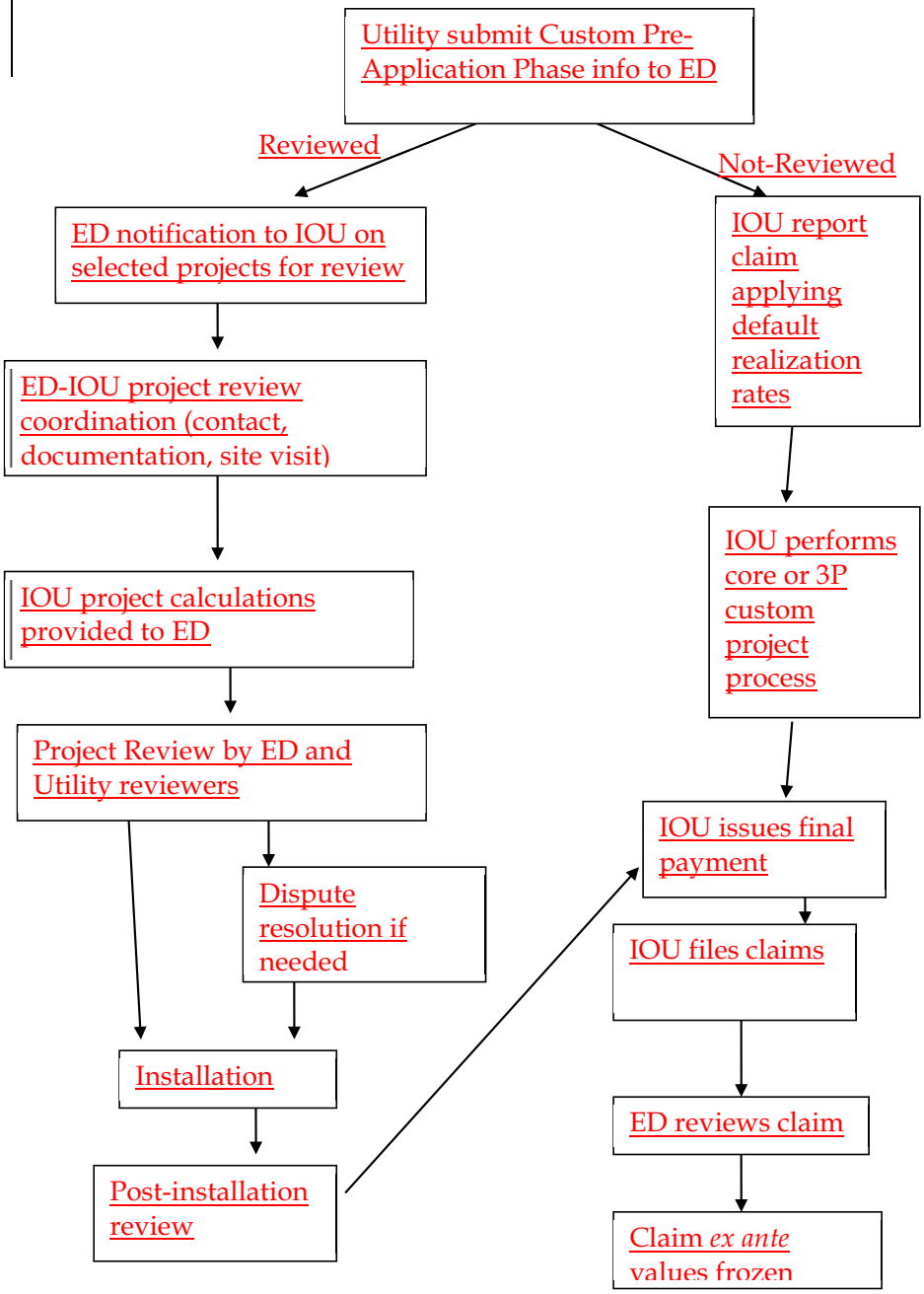
~~Appendix 1~~

~~Energy Division Methodology for Determination of Baseline for Gross Savings Estimate~~



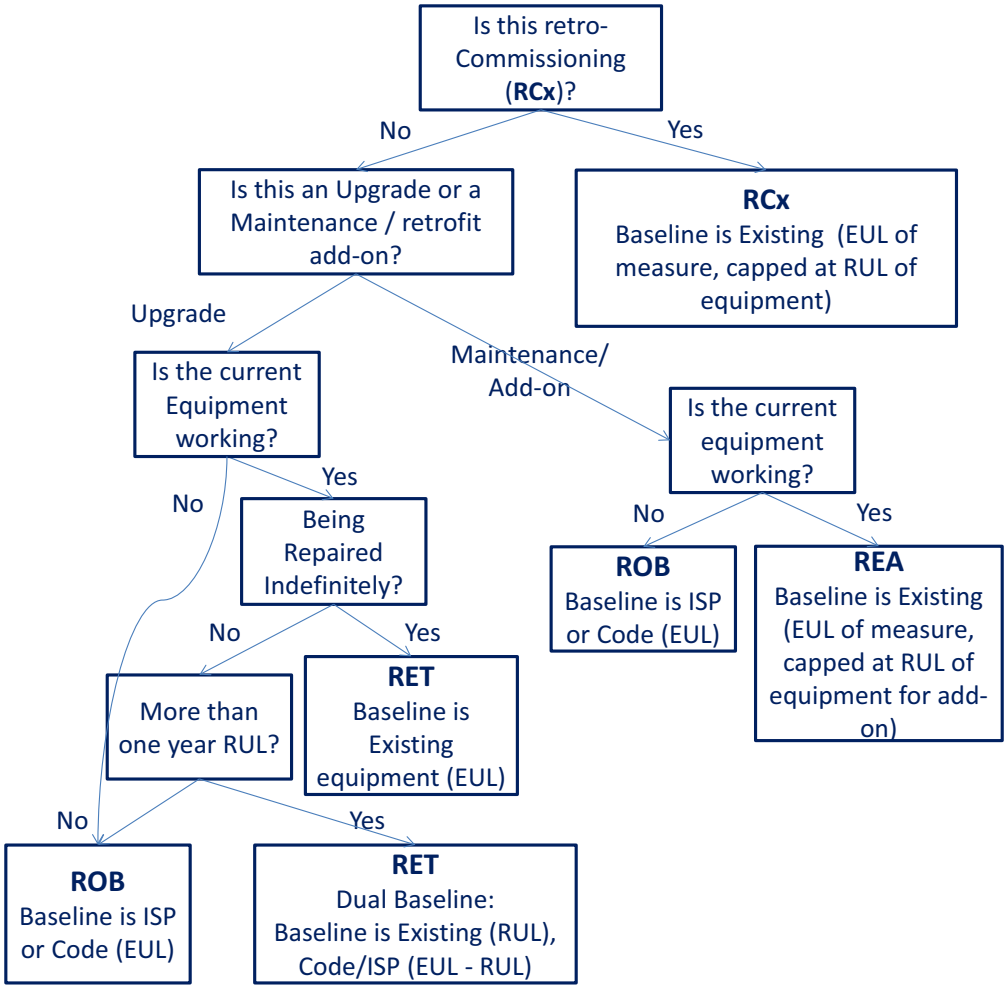
Energy division and the IOUs will undertake a focused collaborative effort for the first three months of the program cycle to develop a guidance document for establishing all *ex ante* values for customized projects. This document will be a

living document, updated on a quarterly basis, which will be the means by which Energy Division conducts its quality control. Energy Division's reviews will use this document as the means by which the QC will be evaluated. Appendix 1 along with content provided by the IOUs to the collaborative working group will be the starting basis for this document.


Utility submit Custom Pre-Application Phase info to ED
Reviewed
Not-Reviewed
ED notification to IOU on selected projects for review
ED-IOU project review coordination (contact, documentation, site visit)
IOU project calculations provided to ED
Project Review by ED and Utility reviewers
Dispute resolution if needed
Installation
Post-installation review
IOU report claim applying default realization rates
IOU performs core or 3P custom project process
IOU issues final payment
IOU files claims
ED reviews claim
Claim ex ante values frozen

Appendix 1

Custom Project Decision Tree (proposed)



See Notes below

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Review of Baseline for Gross Savings Estimates

The estimation of *ex ante* saving values requires the selection of a baseline performance for every project. ~~The baseline selection and specific baseline parameters are of primary importance to establishing the *ex ante* savings estimates.~~ Early retirement measures driven by a code or policy requirement shall use a typical industry compliant baseline. The baseline parameters are selected by establishing the project category from the possible alternatives including New Construction or Major Renovations, program~~-~~induced Early Retirement, Standard Retrofit~~ or~~, Normal/Natural Replacement/Turnover, and Replace On Burnout. ~~These alternative categories result~~The establishment of the project category results in the utilization of an alternative baseline ~~parameters~~parameter set by Code or Standard requirements, industry standard practice, CPUC policy, or other considerations. In ~~the~~its review of IOU projects, Energy Division will follow the guidelines as presented here in establishing the baseline for all gross savings estimates.

~~Notes to above flowchart~~

The process for selecting the applicable baseline parameter is depicted in the graphic above. Descriptions of the alternative baseline parameters are given below.

Pre-existing equipment[6] baselines are only used in cases where there is clear evidence the program has induced the replacement ~~rather than merely caused an increase in efficiency in a replacement that would have occurred in the absence of the program.~~prior to the end of its useful life

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Pre-existing equipment baselines are ~~only~~ used for the portion of the remaining useful life (RUL) of the pre-existing equipment that was eliminated or the function replaced by new, more efficient equipment due to the program. These early or accelerated retirement cases may require the use of a "dual baseline" analysis that utilizes the pre-existing equipment baseline with annualized first year energy savings during an initial RUL period and a code

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[6] Here the term equipment is intended to cover all technology cases including envelope components, HVAC components and process equipment and may also include configuration and controls options.

requirement/~~industry standard practice~~ baseline for the balance of the EUL of the new equipment.

- A pre-existing equipment baseline is used as the gross baseline ~~only~~ when there is ~~compelling~~clear evidence that the pre-existing equipment has a remaining useful life and that the program activity induced or accelerated the equipment replacement. This baseline can only apply for the RUL of the pre-existing equipment.
- A code ~~requirements~~requirement or industry standard practice baseline is used for replace-on-burnout, natural turnover and new construction (including major rehabilitation projects) situations. Industry standard practice is defined as an accepted/approved EM&V study for the specific industry or application. In the absence of such study, the baseline defaults to the existing equipment. This baseline applies for the entire EUL as well as the RUL+1 through EUL period of program induced early retirement of pre-existing equipment cases (the second period of the dual baseline case.)

CPUC policy rules and IOU program eligibility rules govern the baseline

A careful review of utility and third-party program and CPUC policy rules must be undertaken and adjustments applied to gross savings in some cases. Adjustments are indicated for gross savings when there was clear evidence from program or policy rules that savings claims could not be made nor rebates paid for the baseline in question. Program rules come into play with respect to gross baseline requirements, for example, when those rules specify:

- ~~a~~A minimum required efficiency level;
- ~~a~~A minimum percentage improvement above applicable minimum code requirement;
- ~~a~~A minimum RUL of the existing equipment;
- ~~the~~The type or range of retrofits that are allowed be included in a program.

CPUC policy may apply to establishing the gross baseline when Policy Manual Rules, a CPUC Decision or a ~~decision maker~~ Ruling from an Administrative Law Judge or Assigned Commissioner includes special requirements or consideration for the situation or technologies of a measure. For example, projects or sites that involve fuel switching, co-generation or renewable technologies are usually subject to special baseline considerations ~~(or other considerations)~~ that must be considered in the savings estimates.

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Minimum production level or service requirements govern the baseline

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In some situations, a measure for which savings might be claimed could be determined to be the only acceptable equipment for an application. In such cases, the baseline must be set at the minimum needed to meet the requirements, which may be the same as the equipment planned for installation. An example would be an industrial process where only a variable-speed drive pumping system could meet the production requirements. For situations where the baseline conditions or requirements were changed (such as production level changes), the baseline equipment is defined as the minimum equipment needed to meet the revised conditions. If the pre-existing equipment is not capable of reliably meeting the new requirement (such as production change) for its remaining life, then a new equipment baseline must be established utilizing either minimum code requirement or industry standard practice equipment, whichever is applicable.

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Industry standard practice baselines are established to reflect typical actions absent the program

Industry standard practice baselines establish typically adopted industry-specific efficiency levels that would be expected to be utilized absent the program. If the Customer is not required to make a change to Industry Standard practice by code or other compelling market reasons (*e.g.* non-availability of replacement parts or equipment), pre-existing equipment use shall be the basis of baselines for RUL of existing equipment. Standard practice determination ~~must~~shall be supported by ~~recent studies or market research~~reasonable evidence that reflects current market activity. Typically market studies (or IOU work papers if no market studies are available) should be less than five years old; however this guideline is dependent on the rate of change in the market of interest relative to the equipment in question. For example, the lighting markets may change significantly in the next two years while larger process equipment markets might change more slowly. Regulatory changes might cause very rapid market practice shifts and must also be considered. For example, ~~forthcoming~~ changes in Federal Standards relating to linear fluorescent ballasts will result in rapid market shifts of equipment use.

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(END OF ATTACHMENT B)

Attachment 2

Chapter 2.B. – Alternative Portfolio Program Proposal

D.11-07-030 Attachment B (Clean)

ATTACHMENT B

Custom Project Review Process

Energy Division Process for Review of Investor Owned Utility Custom Measure *Ex Ante* Values

Introduction:

This document details how the California Public Utilities Commission (Commission) will review the *ex ante* energy savings claims of Investor-Owned Utilities (IOUs) and 3rd Parties implementing custom measures or projects in the 2010-2012 Energy Efficiency program cycle.

Custom measures and projects are energy efficiency efforts where the customer financial incentive and the *ex ante* energy savings are determined using a site-specific analysis of the customer's existing and proposed equipment, and an agreement is made with the customer to pay the financial incentive upon the completion and verification of the installation. The efforts are by definition unique, each with its own characteristics. Parameters that determine estimated energy savings from a custom measure or project are more variable and less predictable without a site-specific analysis than the more common deemed measures for which savings parameters can be predetermined. As such, it is necessary to establish a clear process by which *ex ante* energy savings estimates from custom measures and projects can be reviewed in real-time as such measures and projects are identified and implemented.

An effective custom measure and project review process balances the needs of program participants who are investors and beneficiaries, the IOUs and 3rd Party Implementers who administer the programs, and ratepayers who provide incentive funding contingent on adequate oversight of their investment. The process identified here aims to strike that balance. This review process is intended to be applied consistently throughout the program cycle; however, clarification may be made at the discretion of the Assigned Commissioner or Administrative Law Judge.

Chart A of this Attachment includes a graphical schematic depicting the process outlined in this document. In addition, the principles guiding this process and supporting resources are defined herein.

Guiding Principles:

1. Energy savings are the paramount priority of custom measures and projects.

2. The Custom Measure and Project Review Process is a continuous improvement (*i.e.,* quality control rather than project approval) collaborative process that involves the IOU, the Energy Division, the customer and the third party implementer (if applicable to a specific project). The process shall be conducted according to an annual Evaluation Plan, developed by the stakeholders, which outlines the areas concentration for the year's work (technologies, types of customers, industries, etc.); and a project review schedule, agreed in writing by all parties, that specifies the maximum expected turnaround times for the various steps in a project review.

3. Each project review shall also be a collaborative process, designed to improve the quality of individual projects and thus to continuously improve the quality of custom projects. For each selected project, the project review process shall start with an initial conference call with all parties to go over project parameters and help the ED reviewer gain a basic familiarity with the project description, measures and savings estimates in order to expedite the identification of issues on baselines, data submitted and timeliness of responses. During the review process, all parties shall have access to all project documents, including data requests, data submittals, review comments, etc. Customers and third party implementers shall have input into the discussions during the review process to assure that codes and industry standards are being applied in the most appropriate way to each project. All parties shall ensure that the final project reviews are written in a format that facilitates their application to future similar projects.

4. The Custom Measure and Project Review Process is intended to allow Energy Division (ED) to review customer projects and suggest savings methodologies and or *ex ante* values for Commercial projects above 500MWh or 250M Therms and above 1MM Therms for Industrial projects. For Commercial projects below 500MWh or 250M Therms and Industrial projects below 1MM Therms Energy Division may undergo prospective reviews intended to simplify the process of project implementation and program oversight. Prospective reviews by Energy Division shall include an objective engineering analysis along with site specific results for each Custom Project reviewed and evaluated by Energy Division. Each IOU shall provide all data available and in their possession (unless otherwise deemed confidential) to Energy Division in performance of their prospective engineering review.

5. The cost of the review and incremental M&V for a particular project shall be limited to a reasonable percentage (*e.g.*, 10%) of the proposed project incentive, unless the project is considered an example of a number of similar projects, in which case the extra cost of the review can be spread across the similar projects or funded through EM&V allocation.

6. When applicable for a given project, and where practical, custom measure and project calculation methodologies shall be based upon Database Energy Efficiency Resources (DEER) methodologies or upon methodologies documented within the most current Energy Division reviewed and approved IOU non-DEER deemed Workpapers.

For the 2013-2014 transition period, these final DEER methodologies are all those indicated below that are frozen for the duration of the program cycle:

- DEER 2011 Update report and appendices (except A) dated November 8, 2011
- DEER 2011 Appendix A dated May 16th, 2012
- 2011 DEER database – version 4.01 dated May 16, 2012
- Net To Gross tables dated May 23, 2012 (note that adjustments for spill over will be frozen later)
- HVAC interactive effects tables dated May 23, 2016* (assuming 2012 was meant)
- Load shapes tables dated May 16, 2012
- READI tool version 0.99.7 dated May 25, 2012
- Cost values and comments dated June 2, 2008
- EUL/RUL values dated October 10, 2008
- EUL/RUL summary documentation posted April 2008

Additions for new measures and/or clarification of documentation above as agreed upon by ED and the IOUs may be considered as acceptable, with the intent that existing methodologies are to remain frozen for the program cycle.

7. IOUs are responsible for effective record keeping such that calculation tools, documentation of how those tools were applied to custom measures and

projects, and documentation of custom project *ex ante* savings calculations are submitted electronically (as permitted by confidentiality and security restrictions) to the Energy Division once IOU confidentiality and security concerns are satisfied.

8. Stakeholders shall conduct periodic EM&V studies, with allocated EM&V funding, to evaluate whether a custom measure offer shall be modified, moved to Deemed, or discontinued. Such changes would be implemented during the next cycle, with IOU Program Implementation Plans revised on a go forward basis only. Changes that are directed by Energy Division would take effect on future projects within the same cycle after sufficient time has been allowed to change program language and inform customers (*i.e.,* 3-4 months). Identification of new "industry standard practice" baselines shall not impact customer commitments mid cycle.

Supporting Resources:

IOUs are directed to maintain the following supporting resources to enable timely, effective review of custom measures and projects by the Energy Division and their consultants.

Calculation Tool[1] Archive (CTA):

Each IOU shall maintain an archive of all generic tools used in calculating *ex ante* values such that they remain accessible to the Energy Division throughout the program cycle. The archive shall contain all versions of all tools (except those tools that are proprietary and or licensed which shall be listed but not kept in the archive) used in the development of *ex ante* values for custom measures or projects claimed during the current program cycle. Project specific tools and processes will be stored in the Custom Measure and Project Archive described below.

The tool archive shall include:

a. All manuals and user instructions, where applicable. If the calculation tool is simply a generic spreadsheet, then all cell

[1] Tools, in the context of this document, means software, spreadsheets, "hand" calculation methods with procedure manuals, or any automated methods used for estimating *ex ante* values for custom measures or projects.

formulas and documentation shall be readily accessible from the tool, if available to the IOU

b. A list of technologies, measures or projects for which custom calculations are performed using the tool, unless apparent from an engineering inspection of the given tool being used

The Calculation Tool Archive shall be updated by the IOUs on an ongoing basis during the 2013-2014 program cycle as tools are publicly revised.

Custom Measure and Project Archive (CMPA):

Each IOU shall keep a complete up-to-date electronic archive of all custom measures and projects. Each project shall be added to the Archive on the earlier of the date that it is identified in the pre-application stage or the date of the customer's application to the IOU. Each project shall be assigned a unique identifier that shall not be re-used or re-assigned to other projects.

The IOUs shall provide a summary list of all projects, in their CMPA. Energy Division will provide the utilities with the format of the summary list. The summary list shall identify each project using its unique identifier . The summary list shall also reflect the date of the most recent entry into each project. The summary list shall include for each project the following (Energy Division and the IOUs will work out details of the meaning and specifics of each item below):

- The customer type
- The project type
- Industry Type
- Status (pre-application, application received, application in review, agreement signed, completed, paid, claimed, etc.)
- Project location (address)
- Utility contact person (Primary IOU review contact and, if appropriate, primary IOU customer interface contact such as marketing representative)
- Customer segment
- Equipment or process involved
- General description of the proposed project and its energy saving premise
- Estimated *ex ante* energy savings

The summary list shall be updated at least on the first and third Monday of every month for the duration of the 2013-2014 program cycle, however, the IOU shall provide the updated list more often as necessary to provide Energy Division with information on high priority or fast-tracked applications, so as to allow Energy Division to perform reviews of such projects at its sole discretion. The IOUs may provide the summary list by program instead of a consolidated list, shall they so desire.

For projects that, within a regular bi-monthly CMPA summary list submission, are projects for which applications have been newly received or projects that have moved from the pre-application state into the application state, Energy Division will inform the IOUs of projects which have been selected for review. Such notification shall be before or by the next regularly scheduled CMPA summary list submission. Thus Energy Division will have a minimum of approximately two weeks to decide if a new application measure or project, either in pre-application or application stage will be subject to review and included into its review "sample." An IOU may request that a project review decision be expedited for high priority or fast tracked projects and Energy Division will make its best effort to accommodate such requests. If Energy Division chooses not to review a project an IOU may request such a project be included in the Energy Division review sample. Energy Division shall consider such decision change requests but will limit such changes based upon available resources to ensure adequate coverage of the full cycle portfolio of measures and projects in its review sample. An IOU request for Energy Division project review may be accepted, denied or deferred into the Early Opinion process at Energy Division's discretion, however, Energy Division shall inform the IOU of its decision as quickly as possible.

For each project sampled for a review, the specific types of documents to be maintained in the CMPA and parameters required to be in the supporting documentation may vary based on the type of project. *Examples* of the expected data elements are listed below.

- Documentation to support Baseline assignment (Code or Standard requirement, Early Retirement, Retrofit, Replace On Burnout, industry standard practice, CPUC policy, etc)[2]

[2] The baseline parameters used are of primary importance in estimating project

Footnote continued on next page

- Existing system controls and operating status description
- Existing system output capacities – current output and maximum/design capacity
- Pre-installation inspection report
- Proposed modifications with schematic as applicable
- Preliminary savings calculations and supporting data with documentation to ensure replicability
- Manufacturer's cut sheets when used to estimate *ex ante* savings or when needed to ensure replicability
- Fuel switching considerations and any required analysis per CPUC policy regarding fuel switching projects (see Energy Efficiency Policy Manual)
- Other fuel savings and/or load increases resulting from the project
- Heating, Ventilation, and Air Conditioning (HVAC) interactive effects values and methods used to develop those values, when measures cause a change in HVAC system loads
- Interactions between multiple measures that act to increase or decrease savings relative to a measure stand-alone savings estimate
- Production output data when used in savings calculations and the source of such records
- Billing history - one-year pre installation, with interval data required when available; when *ex ante* estimated values rely upon a per-unit-production changes based on multi-year production data, corresponding billing histories are required
- IOU or implementer program manual (a single archive of these documents shall be referenced rather than including the documents in each project archive)
- M&V plans, reports and raw data archives, where applicable
- EUL/RUL value, analysis or source

Projects Energy Division selects for review will have their complete documentation from the IOU CMPA placed into an Energy Division Review CMPA which, with the Utility Custom Project Summary List, will be housed on

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savings. Appendix I of this document provides the guidelines by which Energy Division will review baseline parameter selection.

an internet-accessible website that meets reasonable security and legal requirements. The Energy Division will be responsible for establishing and maintaining that website.

Custom Measure and Project Review Process:

There are two categories of Energy Division's Custom Measure and Project Review Process: general and claims. All reviews are at the Energy Division's discretion; however, if an IOUs *ex ante* values are not reviewed by the Energy Division, the IOU shall rely on those values in making energy savings claims before the Commission after adjusting those values using the gross realization rates as shown in Table 1 below.

Table 1: Default Custom Measure Gross Realization Rates

IOU	kWh	kW	Therm
PG&E	0.9	0.9	0.9
SCE	0.9	0.9	
SDG&E	0.9	0.9	0.9
SCG			0.9

In applying the GRR values in Table 1 above, projects that adhere to comments made by Energy Division on previous similar projects of like kind shall apply a GRR of 1.0 to avoid double discounting.

The **General Review** will include Energy Division's oversight of the CTA and CMPA. Energy Division, at its discretion, will review tools, measures, and projects, as well as inputs to the tools for selected projects. Energy Division may choose to provide the IOUs with input on one or more of the tools, measures, or projects. The tools reviews will be done on a prospective basis. IOUs shall adjust their subsequent use of the tools, where practical, to conform to Energy Division input, or will request a re-evaluation of the inputs to be conducted by an independent third party selected by consent of both Energy Division and the affected IOU.

The more specific **general project reviews** include a close examination of a selected subset of custom projects.

Data Requirements for a Project to be Reviewed

The Evaluation Plan described above shall contain a definitive set of requirements for project documentation that the IOUs can implement (appendix 1). Clear requirements will minimize the back and forth, time delays and uncertainty in what is required. Note that a similar approach is being used in New York for the evaluation of custom and deemed measures, including a simplified approach for early retirement measures.[3]

- As noted above, costs of a project review shall be consistent with the impact and possible savings from the project. For instance, required EM&V work shall not exceed more than 10% of the project incentive. EM&V set aside shall be used for cases where ED wishes to conduct some more general analysis. The findings of this analysis may apply to multiple projects if they can be generalized.
- The requirements for documenting early retirement shall not be excessive (*e.g.,* Appendix 1), requiring, for example, customer interrogation or investigation of the customer's finances.
- Cost documentation for incremental costs needs to be simple to apply. IOUs have proposed a conceptual approach that is reasonable to implement. Project-by project analysis of hypothetical costs is cost prohibitive.
- The IOUs may propose a method to simplify the Base case determination in the standard comments. The proposed approach could be termed the Base Case Ratio (BCR). The BCR would be a high level adjustment to the single baseline ex ante savings values, where both real costs and savings are known and can readily be measured and validated. This approach would eliminate the need for the complexity of calculating dual baselines by incorporating a simplified "average" life baseline adjustment. The exact formulation and use of the BCR to be determined in the IOU/ED working group (see below).

For all custom applications with *ex ante* values that are not reviewed by the Energy Division, the IOU shall apply an adjustment to the gross savings estimate values using the Default Custom Measure Gross Realization Rates (Table 1)

[3] http://www.dps.ny.gov/TechManualNYRevised10-15-10.pdf

above when making energy savings claims before the Commission, unless the project is similar in nature and has already incorporated previous Energy Division comments, in which case the applied GRR shall be 1.0

Energy Division will conduct general project reviews at three stages of the IOU custom project process: concurrent and collaborative pre-installation review, post-installation review, and claim review.

Pre-Installation Review

Projects selected by Energy Division for review at the Pre-Installation stage allow Energy Division to supplement the resources and information available through the CTA and CMPA in making its recommendations. The objective of the Pre-Installation Review is for Energy Division to perform a parallel review with the IOUs on Commercial projects above 500MWh or 250M Therms, and above 1MM therms for Industrial projects, and a prospective review for projects below that size. For the Commercial projects above 500MWh or 250M Therms and above 1MM Therms for Industrial projects Energy Division will provide IOUs input on the estimated custom measure or project *ex ante* savings.

For projects that are above 500MWh or 250M Therms for Commercial projects and 1MM Therms for Industrial Projects and selected for review ED will submit an initial data request and IOU's will submit a response. If ED requires additional information it may make one additional data request and must submit that data request within 5 working days of the IOU's initial data request response. ED must inform the IOU if it has not received all requested material within 5 days of IOU's data response. After the ED has received all requested material it has 20 working days to review the project. If a final project review is not submitted by ED within the timeframe listed than the project will be approved as submitted by the IOU. This review will inform the current project savings values as well as calculations for future similar projects.

For projects that are smaller than 500MWh or 250M Therms for Commercial projects and 1MM Therms for Industrial Projects ED may perform a prospective review. This prospective review will not inform the selected project energy savings values but will be used to inform future project calculations as specifically directed by ED.

Future projects are considered to be similar if they are identical to the reviewed project or so similar as to warrant inclusion of such comments and

methodologies. The IOU shall be responsible for demonstrating, within a reasonable engineering judgment, that comments have been applied to future projects, or must reasonably demonstrate that Energy Division comments are not relevant to the future project, if requested.

For projects that are selected by Energy Division for prospective review for which savings and incentives to Customer are based on completed M&V results, Energy Division review will be focused on review of the M&V Plan and Baseline determinations, not quantification of *ex-ante* savings.

The IOUs shall provide the Energy Division the opportunity to participate in any site visits, pre-installation inspections, customer interviews, pre-installation M&V, or spot measurements that may occur during this and subsequent phases. The IOU shall provide notification to the Energy Division as soon as possible for projects Energy Division has selected for review. The Energy Division will notify the IOUs prior to the event if they plan to send a representative. If the project is implemented by a third party, the IOUs shall coordinate and notify the third party as applicable.

During the Pre-Installation Review, the Energy Division will coordinate any of its Measurement & Verification (M&V) activities on these custom projects with the IOU or its third party program implementer depending on who is the primary relationship manager for the customer and project in question. The Energy Division may choose to use the Utilities' or its own contractors, at Energy Division expense, to perform site inspections or pre-installation M&V.

The IOU shall provide Energy Division with all CMPA documents that have been received by the IOU (or third party) in a timely manner. Energy Division and the IOUs agree to work together to allow timely review of expedited and high priority projects. If the Energy Division affirms the IOU's estimated *ex ante* values or suggests approaches which would result in greater or lower savings than the IOU's estimated *ex ante* values, then the IOU shall rely on those values for the reviewed project and modify its approach when entering into future estimated incentive agreements for similar projects as soon as practical. If Energy Division approves a project with modifications it must present alternate *ex ante* values for IOU's to use for an incentive agreement and may not propose conditional approvals that rely on post installation data.

Post-Installation Review

The objective of the Post-Installation Review is to provide the Energy Division with the opportunity [to] verify that the equipment installed by the customer conforms with that approved in the pre-installation review. The approved methodologies used to calculate *ex ante* energy savings values shall not be modified for the project under review. The IOU shall allow the Energy Division access to site visits, post-installation inspections, customer interviews, post-installation M&V, or spot measurements. Such access shall not impede or delay the established IOU process of executing an Agreement for Incentives with the specific customer. IOU and Energy Division notifications for these events shall follow the guidelines described above for Pre-Installation Review. Similarly, the Energy Division will work with either the IOU or the 3rd Party program implementer to coordinate the Post-Installation review to maintain consistent communication with the customer and manage customer expectations appropriately.

If the Energy Division affirms the IOU's estimated *ex ante* values or suggests values which would result in greater or lower savings than the IOU's estimated *ex ante* values, then the IOU shall rely on those values when entering into future estimated incentive agreements for similar projects. Energy Division must present alternate *ex ante* values for IOU's to use for an incentive agreement and may not propose conditional approvals that rely on *ex post* data.

Selection of either a pre-installation or a post-installation review by Energy Division shall not affect the IOU approved incentive or Agreement with the customer for the current project. The IOU assumes responsibility and risk associated with the non-performance of the current project and non-compliance on subsequent projects with specific direction from Energy Division to incorporate previously made comments on past identical projects or projects similar in nature. Subsequent projects are required to adhere to accepted direction from Energy Division regarding method of analysis, analytical parameters, and specific data to be collected that will allow such future projects to be adequately evaluated.

All written dispositions from Energy Division are to state one of the following: Acceptable or Update future similar projects as indicated.

IOU Claim Review

The IOU Claim Review allows the Energy Division to conduct a Quality Control review of energy savings for custom projects included into the IOU Quarterly

Claim[4] to ensure that:

1. Appropriate default realization rates were applied to *ex ante* gross savings estimates for projects that were not reviewed by the Energy Division; and,
2. Recommendations made by Energy Division for previously reviewed projects were accurately reflected in the claim.

The IOU Claim Review shall commence upon the IOU submittal of a quarterly reporting period claim containing those projects, and end at the later of ninety-days after that submission or the subsequent IOU quarterly submission. Energy Division shall notify the IOU of any errors found in their claim review and the IOU shall comply and revise the claims.

Custom projects that were not reviewed by the Energy Division prior to appearing in a Quarterly claim may be further reviewed for the purpose of gaining new information and prospective improvements to *ex ante* estimates and planning, but IOU's assumptions **will be accepted as submitted** for any projects covered by then existing customer agreements or already approved customer applications.

Dispute Resolution

Should Energy Division and an IOU have a disagreement regarding prospective comments or adjustments to a project's *ex ante* values, Energy Division and the Utility shall meet to discuss and resolve the differences within two weeks. If the parties fail to come to agreement, and the Energy Division recommended *ex ante* value is within a plus/minus 20 percent of the utility estimated *ex ante* value, Energy Division and the utility shall split the difference of the two values. If the parties fail to come to agreement and the Energy Division recommended *ex ante* value exceeds plus/minus 20 percent of the utility estimated *ex ante* value, then an independent third party not associated with the project shall be contracted to determine the outcome at the expense of Energy Division. No party considered to have a conflict of interest shall be engaged.

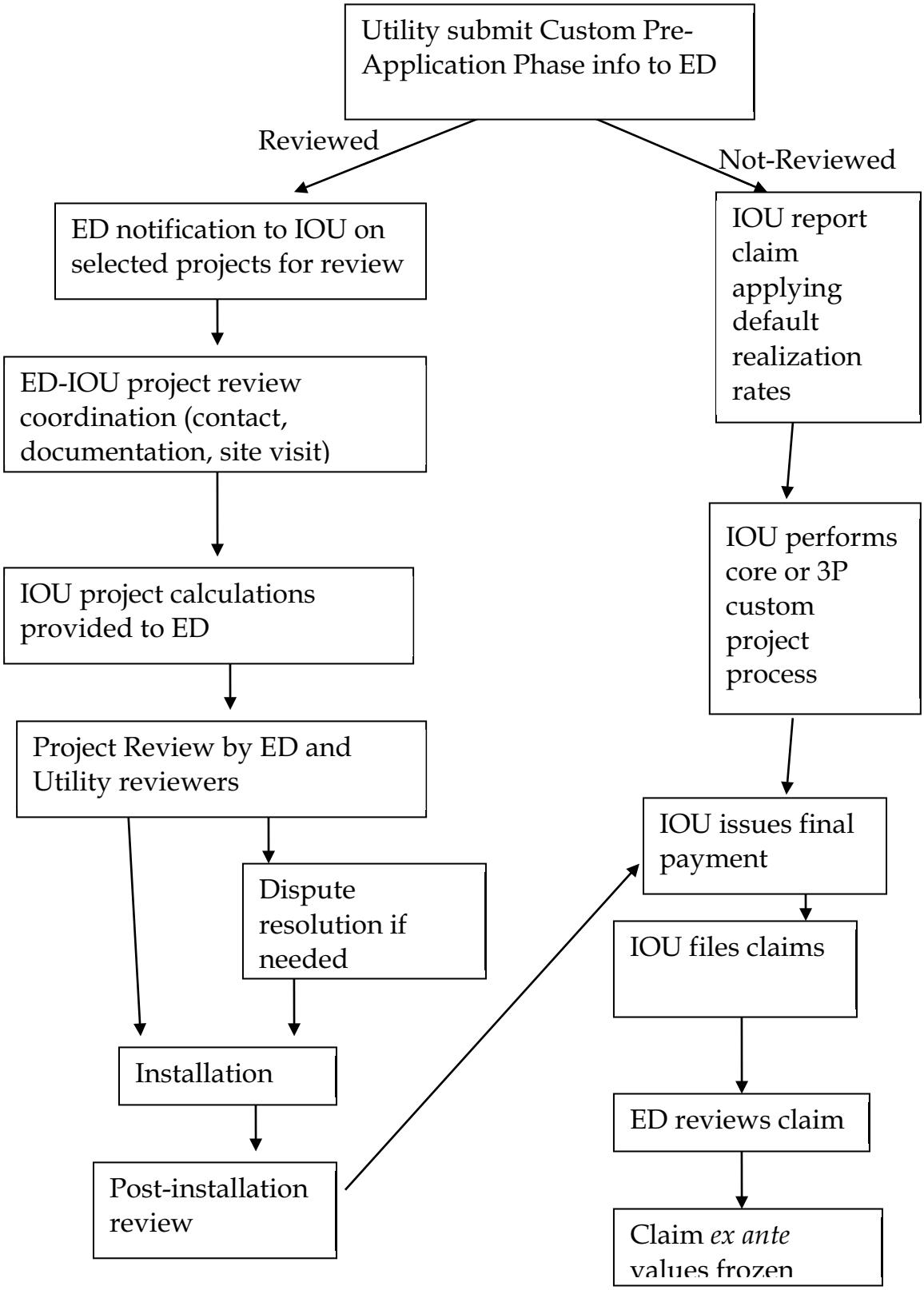
[4] As a component their energy efficiency portfolio reporting requirements each IOU will submit a quarterly filing on EEGA which includes details of all measure *ex ante* savings values for all individual projects and measures which have been installed prior to that claim.

To facilitate future communication:

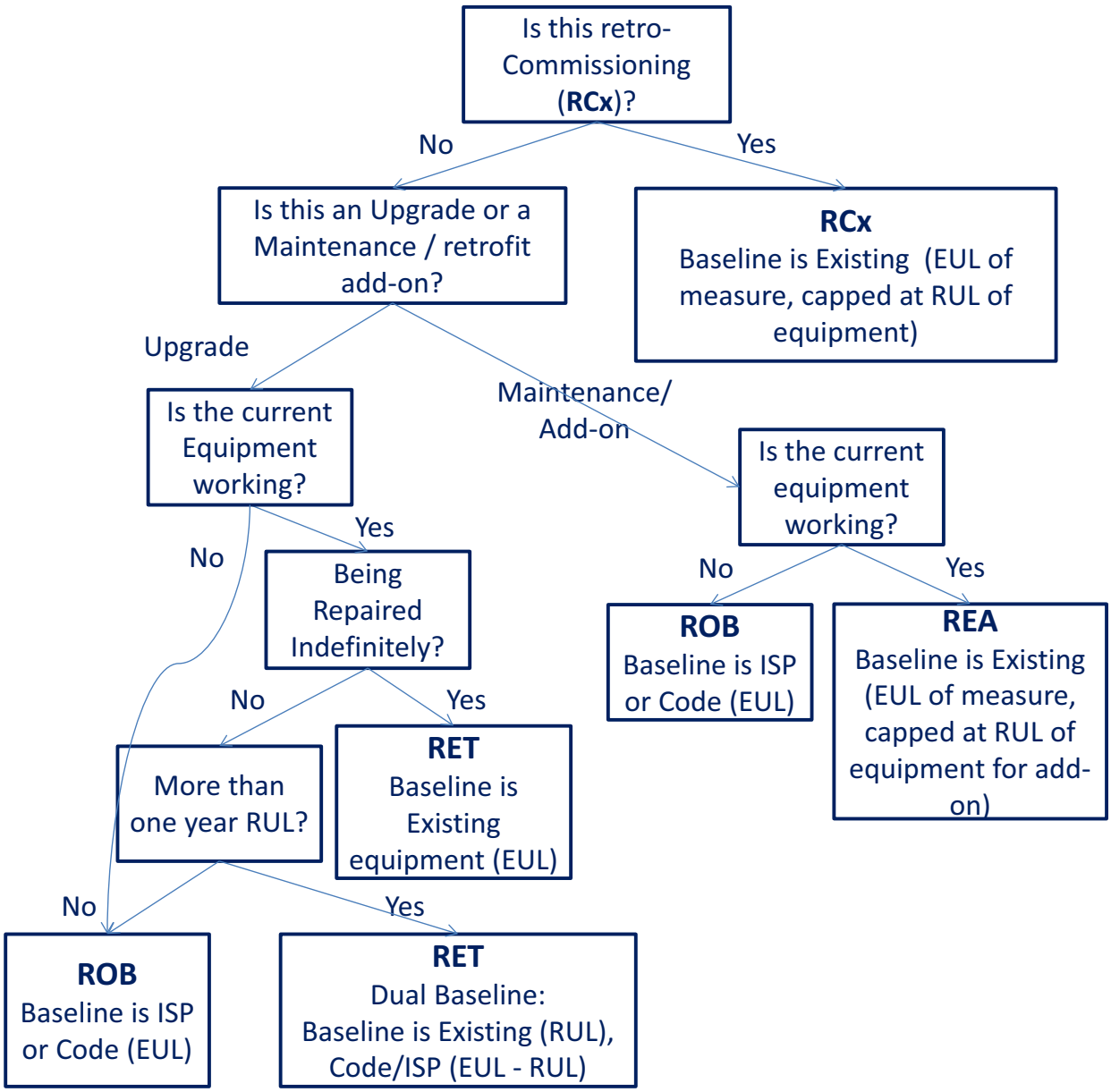
Energy Division and the IOUs shall establish a working group to allow an ongoing dialog on the custom measure and project review process. This working group will provide a forum for all parties to exchange information on their current activities and future plan and to discuss and resolve problems and issues with the process outlined in this document. The working group will also provide a forum for Energy Division to inform the IOUs on issues arising in its custom measure *ex ante* estimation review process, including but not limited to baseline definitions and net versus gross savings. To provide guidance for future projects, Energy Division will maintain a public archive database of the summary of issues identified in its custom applications and projects reviews and the Energy Division dispositions of those issues and will notify stakeholders how and where to access this information. Customer specific data and information will be removed from the Energy Division summary of issues and dispositions.

At any time during their development of *ex ante* estimates for a specific custom measure or project the Utilities may submit to Energy Division a request for an early Energy Division review or opinion on a specific issue. This process has been established by Energy Division issuance of the "Custom Measure Early Opinion Process" document posted as "Custom Measure Early Energy Division Opinion Process v2.docx" on basecamp 9/30/2010 in the "Early Opinion Shared" project area. Energy Division shall respond to that request within five (5) business days to provide the IOUs with guidance and to allow them to complete their *ex ante* estimates in a timely manner. However, this type of early guidance shall not limit or constrain any later Energy Division review of *ex ante* claims submitted by the Utilities.

Energy division and the IOUs will undertake a focused collaborative effort for the first three months of the program cycle to develop a guidance document for establishing all *ex ante* values for customized projects. This document will be a living document, updated on a quarterly basis, which will be the means by which Energy Division conducts its quality control. Energy Division's reviews will use this document as the means by which the QC will be evaluated. Appendix 1 along with content provided by the IOUs to the collaborative working group will be the starting basis for this document.


Utility submit Custom Pre-Application Phase info to ED
Reviewed
Not-Reviewed
ED notification to IOU on selected projects for review
ED-IOU project review coordination (contact, documentation, site visit)
IOU project calculations provided to ED
Project Review by ED and Utility reviewers
Dispute resolution if needed
Installation
Post-installation review
IOU report claim applying default realization rates
IOU performs core or 3P custom project process
IOU issues final payment
IOU files claims
ED reviews claim
Claim ex ante values frozen

Custom Project Decision Tree (proposed)



See Notes below

Review of Baseline for Gross Savings Estimates

The estimation of *ex ante* saving values requires the selection of a baseline performance for every project. Early retirement measures driven by a code or policy requirement shall use a typical industry compliant baseline. The baseline parameters are selected by establishing the project category from the possible alternatives including New Construction or Major Renovations, program-induced Early Retirement, Standard Retrofit, Normal/Natural Replacement/Turnover, and Replace On Burnout. The establishment of the project category results in the utilization of an alternative baseline parameter set by Code or Standard requirements, industry standard practice, CPUC policy, or other considerations. In its review of IOU projects, Energy Division will follow the guidelines as presented here in establishing the baseline for all gross savings estimates.

The process for selecting the applicable baseline parameter is depicted in the graphic above. Descriptions of the alternative baseline parameters are given below.

Pre-existing equipment[5] baselines are only used in cases where there is clear evidence the program has induced the replacement prior to the end of its useful life

Pre-existing equipment baselines are used for the portion of the remaining useful life (RUL) of the pre-existing equipment that was eliminated or the function replaced by new, more efficient equipment due to the program. These early or accelerated retirement cases may require the use of a "dual baseline" analysis that utilizes the pre-existing equipment baseline with annualized first year energy savings during an initial RUL period and a code requirement/ baseline for the balance of the EUL of the new equipment.

- A pre-existing equipment baseline is used as the gross baseline when there is clear evidence that the pre-existing equipment has a remaining useful life and that the program activity induced or accelerated the equipment replacement. This baseline can only apply for the RUL of the pre-existing

[5] Here the term equipment is intended to cover all technology cases including envelope components, HVAC components and process equipment and may also include configuration and controls options.

equipment.

- A code requirement or industry standard practice baseline is used for replace-on-burnout, natural turnover and new construction (including major rehabilitation projects) situations. Industry standard practice is defined as an accepted/approved EM&V study for the specific industry or application. In the absence of such study, the baseline defaults to the existing equipment. This baseline applies for the entire EUL as well as the RUL+1 through EUL period of program induced early retirement of pre-existing equipment cases (the second period of the dual baseline case.)

CPUC policy rules and IOU program eligibility rules govern the baseline

A careful review of utility and third-party program and CPUC policy rules must be undertaken and adjustments applied to gross savings in some cases. Adjustments are indicated for gross savings when there was clear evidence from program or policy rules that savings claims could not be made nor rebates paid for the baseline in question. Program rules come into play with respect to gross baseline requirements, for example, when those rules specify:

- A minimum required efficiency level;
- A minimum percentage improvement above applicable minimum code requirement;
- A minimum RUL of the existing equipment;
- The type or range of retrofits that are allowed be included in a program.

CPUC policy may apply to establishing the gross baseline when Policy Manual Rules, a CPUC Decision or a Ruling from an Administrative Law Judge or Assigned Commissioner includes special requirements or consideration for the situation or technologies of a measure. For example, projects or sites that involve fuel switching, co-generation or renewable technologies are usually subject to special baseline considerations that must be considered in the savings estimates.

Minimum production level or service requirements govern the baseline

In some situations, a measure for which savings might be claimed could be determined to be the only acceptable equipment for an application. In such cases, the baseline must be set at the minimum needed to meet the requirements, which may be the same as the equipment planned for installation. An example would be an industrial process where only a variable-speed drive pumping system could meet the production requirements. For situations where the baseline conditions or requirements were changed (such as production level

changes), the baseline equipment is defined as the minimum equipment needed to meet the revised conditions. If the pre-existing equipment is not capable of reliably meeting the new requirement (such as production change) for its remaining life, then a new equipment baseline must be established utilizing either minimum code requirement or industry standard practice equipment, whichever is applicable.

Industry standard practice baselines are established to reflect typical actions absent the program

Industry standard practice baselines establish typically adopted industry-specific efficiency levels that would be expected to be utilized absent the program. If the Customer is not required to make a change to Industry Standard practice by code or other compelling market reasons (*e.g*. non-availability of replacement parts or equipment), pre-existing equipment use shall be the basis of baselines for RUL of existing equipment. Standard practice determination shall be supported by reasonable evidence that reflects current market activity. Typically market studies (or IOU work papers if no market studies are available) should be less than five years old; however this guideline is dependent on the rate of change in the market of interest relative to the equipment in question. For example, the lighting markets may change significantly in the next two years while larger process equipment markets might change more slowly. Regulatory changes might cause very rapid market practice shifts and must also be considered. For example, changes in Federal Standards relating to linear fluorescent ballasts will result in rapid market shifts of equipment use.

(END OF ATTACHMENT B)