Southern California Gas Company



Appendix B.2: Section C

Program Implementation Plans (Clean Versions)

Third Party Programs

Appendix B.2:

Section C

Program Implementation Plans

(Clean Versions)

Third Party Programs

| Program Code | Program Name | Page Number |
|---------------------|--|-------------|
| 3756 | Energy Challenger | 1 |
| 3757 | Small Industrial Facility Upgrades | 14 |
| 3758 | Program for Resource Efficiency in Private Schools (PREPS) | 25 |
| 3759 | On Demand Efficiency | 40 |
| 3760 | HERS Rater Training Advancement | 50 |
| 3761 | Multi-Family Home Tune-Up | 63 |
| 3762 | Community Language Efficiency Outreach (CLEO) | 71 |
| 3763 | Multi-Family Direct Therm Savings | 84 |
| 3764 | LivingWise | 94 |
| 3765 | Manufactured Mobile Home | 100 |
| 3766 | SaveGas | 109 |
| 3768 | California Sustainability Alliance | 119 |
| 3769 | Portfolio of the Future | 141 |
| 3770 | PACE Energy Savings Project (PACE) | 155 |
| 3771 | Innovative Designs for Energy Efficiency Activities (IDEEA365) | 174 |

1. **Program Name:** Energy Challenger

Program ID: SCG3756

Program Type: Third Party Program

2. Projected Program Budget Table

Table 1: Total Projected Program Budget by Category

| Program # | Main/Sub Program Name | Administrative Amount | Marketing Amount | Direct Implementation Amount | Incentive Amount | Total Program Budget Amount |
|--------------|--------------------------------|--------------------------|---------------------|------------------------------------|---------------------|-------------------------------|
| | SoCalGas Third Party Programs | | | | | |
| 3756 | 3P-Energy Challenger | \$0 | \$0 | \$68,500 | \$0 | \$68,500 |
| 3756u | 3P-Energy Challenger (Utility) | \$3,513 | \$2,873 | \$11,259 | \$0 | \$17,645 |
| | TOTAL: | \$3,513 | \$2,873 | \$79,759 | \$0 | \$86,145 |

Note: SCG continues to negotiate the final contract with the third party vendor. As a result of final contract negotiations, the budget allocation into the budget subcategories may vary.

3. Projected Program Gross Impacts Table

Table 2: Total Projected Program Savings by Subprogram

| Program # | Main/Sub Program Name | 2013-2014 Gross kW Savings | 2013-2014 Gross kWh Savings | 2013-2014 Gross Therm Savings |
|-----------|-------------------------------|-------------------------------|--------------------------------|----------------------------------|
| | SoCalGas Third Party Programs | | | |
| 3756 | 3P-Energy Challenger | 0 | 0 | 0 |
| | TOTAL: | 0 | 0 | 0 |

Note: This is a non-resource program.

4. Program Description

a) Describe program

The 2013-2014 Energy Challenger program will build on the existing 2010-12 Program with a goal to engage 500 per quarter new small and mid-sized businesses in a web-based energy audit/business assessment (delivered through the SoCalGas website), and provide each business with an immediate action plan containing direct links to SoCalGas rebates and implementation services. The program is designed to support the service territory and is hosted by Contractor.

The program will provide a platform to enable businesses to identify their priority energy management needs and to be directed to the most appropriate services/rebates for their needs.

Energy Challenger will offer a web-based energy assessment tool tailored to stimulate interest in programs, rebates and services. The tool has demonstrated a high success rate (over 80% of businesses that start the assessment, finish and receive an action plan). Features of the tool include:

- Direct access from SoCalGas's website:
- Allows users to quickly assess how well they manage energy:

- Identifies the potential scope of energy savings available;
- Maps user needs to applicable SoCalGas's programs, rebates and services;
- Generates a prioritized action plan for each business within 10 minutes;
- Provides an immediate action plan with 'quick wins' and longer terms strategies for reducing energy cost;

Action Plan provides:

- o Cost-effective technology improvements,
- Longer term business strategies for improving energy management practices,
- o Estimate of business savings, and
- Links to SoCalGas services, self-help information on priority actions and other programs.
- Benchmarks businesses to drive competitive improvement;
- Educates customers on ways to improve energy management & take advantage of available services;

b) <u>List measures</u>

Program is non-resource and as such does not provide incentives. Program does however provide customers with an on-line energy audit that includes identifying priority energy efficiency measures as well as solar and distributed generation opportunities. It also provides links to applicable incentives, programs and services to support customer in implementing measures.

c) List non-incentive customer services

Program provides an immediate action plan with 'quick wins' and longer terms strategies for reducing energy cost. Plan identifies:

- Cost-effective technology improvements;
- Longer term business strategies for improving energy management practices;
- Estimate of business savings, and
- Links to services, self-help information on priority actions and other programs.

Program also:

- Benchmarks businesses to drive competitive improvement;
- Educates customers on ways to improve energy management & take advantage of other services, and

5. Program Rationale and Expected Outcome

a) Quantitative Baseline and Market Transformation Information

This section is not applicable.

b) Market Transformation Information

This section is not applicable.

c) **Program Design to Overcome Barriers**

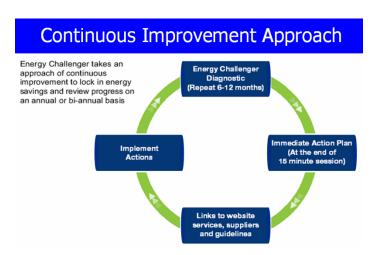
Typical technical 'audit' tools, which attempt to measure energy usage through the counting of motors, lights and other loads can be less popular with customers. They can be seen as time consuming and viewed as 'audit-processes' rather than 'outcome orientated processes'. The end result is that customers rarely implement the recommended solutions.

This was highlighted in the 2005 report on the current statewide non-residential audit commissioned by the four California IOUs "2003 Statewide Nonresidential audit program evaluation" which identified that fewer than 20% of medium businesses and fewer than 30% of small business found the current audit 'very influential' on equipment adoptions (with the exception of lighting).

The Energy Challenger program has been designed to overcome this and other barriers. The solutions to identified barriers are summarized in the table below.

| Barrier | Solutions provided by Energy Challenger |
|---|---|
| Lack of consumer information about energy efficiency benefits | Links to websites services, suppliers and guidelines |
| Lack of a viable and competitive set of providers of energy efficiency services in the market | Immediately presents the customer with a detailed business orientated action plan |
| Barriers to the entry of new energy efficiency technologies or systems whose efficiency or system performance levels are uncertain due to lack of experience | Enables decision makers to affect change in the business by providing business assessment/audit outcomes as business directives (i.e. top-down vs. bottom-up approach); |
| Lack of a viable and reliable resources to educate and inform | Supplies an energy efficiency business assessment solution that educates and empowers business decision makers |
| Lack of qualified personnel resources to support objectives. | Provides a business focused solution that can be understood and completed by decision makers (site and finance managers) as well as engineers |
| Customers who do not have easy access to energy efficiency program information or generally do not participate in programs due to: | Provides an easy-to-use business assessment/audit tool for customers that can be conducted by a manager/owner without requiring a high degree of technical competency; |
| The models developed for assessing usage are often confusing to financiers & managers. Need to be expressed in plain English, | Offers an energy efficiency business assessment that can be completed in ten (10) minutes and, provides meaningful output, which is of immediate value to the customer; |

By addressing opportunities to improve business practices, Energy Challenger will remove barriers to the implementation of longer-term energy efficiency measures. The following figure demonstrates graphically how the Program provides continuous improvement.



d) Quantitative Program Targets

The goal of the Program is to engage 200 per quarter small to medium business customer sessions during –2013 - 2014 program cycle.

The marketing strategies to support program objectives are:

- Direct mail to target SoCalGas customers;
- Marketing messages incorporated into appropriate marketing materials, and
- Marketing to target customers through trade shows and, industry associations.

Table 3

| Program Name | Program Target by 2013 |
|--|---------------------------|
| Number of completed customer assessments | 200 per quarter |

Note: Values provided represent yearly targets.

e) Advancing Strategic Plan Goals and Objectives

This program supports the Strategic Plan in the following manner:

| Description | Strategic Plan Sector | Strategic Plan Goal | Strategic Plan Strategy |
|------------------------------------|-----------------------|-------------------------------|----------------------------|
| By engaging building owners in | Commercial | 50 percent of existing | 2-5: Develop |
| auditing process, program presents | | buildings will be retrofit to | tools and |
| economic and productivity cases | | zero net energy by 2030 | strategies to use |

| Description | Strategic Plan Sector | Strategic Plan Goal | Strategic Plan Strategy |
|--|-------------------------------------|---|--|
| for improving building efficiency. | | through achievement of deep levels of energy efficiency and with the addition of clean distributed generation. | information and behavioral strategies, commissioning, and training to reduce energy consumption in commercial buildings. |
| Provides an on-line tool (through SoCalGas's website) to evaluate potential financial savings for energy efficiency improvements in existing commercial buildings | Commercial | 50 percent of existing buildings will be retrofit to zero net energy by 2030 through achievement of deep levels of energy efficiency and with the addition of clean distributed generation. | 2-6: Develop effective financial tools for EE improvements to existing buildings. |
| The Program raises customer awareness about and direct customers to SoCalGas programs and in so doing expands utility efforts to integrate the full range of DSM options into programs | DSM Coordination and Integration | Deliver integrated DSM options that include efficiency, demand response, energy management and self generation measures, through coordinated marketing and regulatory integration. | 1-3: Develop integrated DSM programs across resources, including energy, water, and transportation. |
| Through online provision of sophisticated auditing tool, program helps disseminate knowledge and create market pull for technologies. | Research and Technology | Create demand pull and set the research agenda to pursue both incremental and game-changing energy efficiency technology innovations. | 1-4: Expand activities to create market pull for energy- efficient technologies. |
| Online tool is continuously updated to ensure that the latest technologies are incorporated and promoted | Research and Technology | Conduct targeted emerging technologies R&D to support the Big, Bold Energy Efficiency Strategies/Programmatic Initiatives and integrated energy solutions goals | 2-2: Promote cost-effective near term performance enhancements of existing technologies. |

CA Strategies for Commercial Customers (Section 3.4-Commerical Customers)

- Access to Information
 - Educates business customers on practical steps to improve energy efficiency within their facility;
 - o Provides each business with an action plan to improve energy efficiency including a prioritized list of specific actions for the business;
 - Provides benchmarking of each business against other similar businesses/buildings;
 - Provides a carbon calculator that educates customers on their carbon footprint and helps them to understand their carbon footprint and opportunities to reduce it, in practical terms;

- Includes practical steps to improve operations and maintenance practices to increase energy efficiency;
- The assessment can be updated in conjunction with SoCalGas to incorporate new and emerging technologies;

Financing

- Provides customers with an action plan incorporating prioritized actions to reduce energy consumption. Incorporates links to utility incentives to implement measures;
- o Educates customers about incentives and financing options;
- o Encourages discussion and interaction between owners and tenants;
- Includes both an assessment of and recommended actions to improve energy efficiency both through low/no-cost improvements as well as technology upgrades;

Codes and Standards

 The program will identify technologies and solutions to provide businesses with a roadmap to implement energy efficiency improvements beyond energy efficiency standards.

California Enabling Strategies for Commercial Customers

- The program conducts a holistic review of facility/ building design and equipment (including not only lighting technologies, but also HVAC, hot water, business processes, operating and maintenance procedures, building components, control systems, office equipment and relevant equipment for specific sectors);
- Provides recommendations to improve energy efficiency, opportunities to include in renovations and education of occupants;
- The program can be modified during the program cycle together with SoCalGas to incorporate new utility/statewide and other non-utility initiatives, as well as emerging technologies, and
- The program provides an integrated assessment of DSM opportunities and identifies specific retrofit solutions for each customer.

6. Program Implementation

- a) Statewide IOU Coordination
 - i. Program name
 - ii. Program delivery mechanisms
 - iii. Incentive levels
 - iv. Marketing and outreach materials e.g. research, target audience, collateral, delivery mechanisms
 - v. IOU program interactions with CEC, ARB, Air Quality Management Districts, local government programs, other government programs as applicable
 - vi. Similar IOU and POU programs

In addition to providing the program to Southern California Gas business customers, Energy Challenger is also delivered to SDG&E customers. Discussions are underway with other California IOUs and agencies.

The Program is linked and integrated with statewide IOUs programs as follows:

- For each customer, the program will conduct a detailed assessment of opportunities for the customer to implement IOU statewide energy efficiency programs and measures;
- Customer reports will include a prioritized list of energy efficiency opportunities including energy efficiency measures for which statewide IOU programs and/or incentives are available;
- Customer reports will include linkages to applicable statewide incentives and programs for business customers for example:
 - o Express efficiency program and incentives;
 - o Savings by design, and
 - o Standard performance contract.

b) Program Delivery and co-ordination

i. Emerging Technologies program

A key feature of Energy Challenger is its flexibility, enabling it to be modified over the course of the program period to incorporate emerging technologies. These improvements can be incorporated either through additions or changes to questions within the assessment, changes to actions, or links to new technologies/opportunities/initiatives from the customer's action plan.

All of the customer responses from Energy Challenger are stored in a secure database. The database can be used to identify energy efficiency trends within sectors, uptake of emerging technologies within the Company's territory, and penetration rates of energy efficiency programs. Importantly the database can also be used to identify opportunities for targeted marketing on individual technologies in specific sectors and identify potential leads for emerging technologies.

ii. Codes and Standards program

The Program will also identify technologies and solutions to provide businesses with a roadmap to implement energy efficiency improvements beyond energy efficiency standards.

The Program's flexibility enables it to be modified over the course of the program period to incorporate new codes and standards. These improvements can be incorporated either through additions or changes to questions within the assessment, changes to actions, or links to new technologies/opportunities/initiatives from the customer's action plan.

iii. WE&T efforts

The Program provides an on-line resource for workforce education and training, for small to mid sized business customers.

Consistent with the 2009 – 2020 California Statewide Energy Efficiency Strategic Plan, the program, through the on-line audit, is available as a training resource to contractors, energy auditors and building energy operators, to support them in identifying specific opportunities to improve energy management in small to mid sized businesses. The Program is also available as a training resource to contractors such as plumbers and electricians.

iv. Program-specific marketing and outreach efforts (provide budget) The Program includes a comprehensive and multi-pronged marketing plan to engage with businesses across the Company's territory. The program will be targeted at small/medium-sized businesses that have traditionally been 'hard-to-reach' and have historically had low participation rates in energy efficiency programs. Energy Challenger is relevant to a broad cross section of commercial and industrial sectors including, but not limited to Hospitality, Retail, Commercial, Manufacturing, Small Industrial, Schools, Hotels, Grocery and Convenience stores.

v. Non-energy activities of program

Energy Challenger is an energy business assessment/audit tool that covers a much broader range of energy efficiencies than covered in traditional on-line energy audits as outlined below:

- Energy Challenger covers a wide range of end use loads;
- For commercial customers, in addition to reviewing opportunities for SoCalGas technology rebates, the business assessment/audit will include broader opportunities (such as building envelope, load management, location of control sensors, operation of current control systems);
- For industrial customers Energy Challenger will target applicable technical areas such as refrigeration, heating systems, boilers, compressed air systems, steam systems, pumping, motor systems, etc.

vi. Non-IOU Programs

This is not applicable to this program.

vii. CEC work on PIER

Not Applicable

viii. CEC work on codes and standards

The Program supports and complements the CEC work on Codes and Standards by providing a road map to best practices in energy efficiency. Following an initial assessment, each customer is provided with an action plan containing prioritized measures to improve energy efficiency. The customer also receives a password, enabling them to repeat the process and identify their next steps to continued improvement and best practice in energy efficiency. The Program also

includes for on-going improvement to the assessment, to incorporate new technologies and drive the customer beyond codes and standards.

ix. Non-utility market initiatives

A significant market trend identified in the 2003 California study "Statewide Small Industrial Customer Needs and Wants Study", conducted by Quantum Consulting, Inc. for PG&E was that "Medium customers have shown themselves to be willing and able to implement energy efficiency measures when provided with detailed, actionable recommendations for cost-effective process improvements" 1

• The program addresses this market trend by providing customers with detailed and actionable recommendations for cost-effective process improvements;

The same study identified that for small/medium businesses "the owner is the most important player in selecting equipment for retrofit projects".

- The program addresses this market factor by providing a business assessment tool specifically designed for owners and managers, that addresses energy management as a business management issue;
- Additionally marketing and outreach is targeted at business owners and managers;

The Program incorporates other non-utility initiatives, trends and market forces as follows:

- Includes energy efficiency measures beyond those covered by utility initiatives, for which the customer can utilize non-utility initiatives (e.g. programs available through other agencies (such as water agencies for low flow shower heads or preferred contractor or tradesman);
- The program will be modified during the course of the program period to incorporate new energy efficiency opportunities and technologies emerging through market forces;
- Customers will be provided with a tailor-made roadmap to SoCalGas energy efficiency programs/incentives, and where these are not available for the measure, links to other relevant non-utility resources and programs to provide implementation support, for example:
 - o Third party programs,
 - ENERGY STAR
 - o U.S. Department of Energy resources and programs
- Customers will receive a strategy and action plan that addresses both the traditional technical programs as well as identified areas for action in management practices.

The implementation plan for the -2013 - 2014 program period will include:

Southern California Gas Company

¹ "Statewide Small Industrial Customer Needs and Wants Study," Quantum Consulting, Inc., July 2, 2003. Available at: www.calmac.org.

- Confirming SoCalGas's objectives to add value to business customers and confirm program deliverables;
- Planning the logistics of the continued delivery through –2013 2014;
- Reviewing any changes to the SoCalGas program portfolio for -2013 -2014, including energy efficiency rebates and services, and third part programs, and
- Reviewing the current SoCalGas customization of Energy Challenger and updating links to SoCalGas programs as appropriate.

c) Best Practices

The Energy Challenger Program will utilize the following best practices in non-residential programs:

- Program Theory and Design: Program has developed a sound program plan and links its strategic approach to policy objectives and constraints.
- Program Management Project Management: Program provides technical assistance to help applicants through the process;
- Program Management Reporting and Tracking: Utilizes the program's website
 to facilitate data entry and reporting and integrating all program data, including
 measure-level data, into a single database
- Program Implementation Participation Process: Keeps the application process simple and quick to navigate while at the same time not over simplifying.

d) Innovation

The Energy Challenger program will provide the following innovations:

- Transforms the "selling" process with the customer from the traditional, low success rate, "bottom-up" approach (begins with facility managers and engineers and ends with management acceptance) to a highly successful, "top-down" approach that begins with senior management commitment;
- Utilizes a proven method of engaging senior managers and small business owners to gain commitment and buy-in to improving energy efficiency;
- Empowers Southern California Gas's business customers to self assess their energy management needs and prepare an action plan for improvement in 5 10 minutes (vs. traditional approach of 30 to 45 minutes). Greater than 80% of businesses that start complete the assessment/audit.

e) Integrated/Coordinated Demand Side Management

This Program supports the ideals of integrated demand side management by encouraging customer adoption of a variety of energy efficiency and other energy-related measures. Energy Challenger is in itself a coordinated assessment of potential DSM opportunities for small and medium sized business customers. It is tailored to the business sector and size of customer. The assessment includes energy efficiency technologies as well as operating and maintenance practices, and integrated program delivery. The customer report includes both technology improvements as well as improvements in management and operating practices.

The Program has close linkages with SoCalGas's portfolio of energy efficiency programs for small and medium sized business customers including; Express Efficiency, Savings by Design and Energy Efficiency Business Seminars.

f) Integration Across Resource Types (energy, water, air quality, etc)

The Program is primarily focused on improvements in energy resource management. In addition, the Program includes assessment of water efficiency opportunities where the energy measure/technology also has a water resource component (e.g. low flow shower heads and pre-rinse valves on dishwashers). That is, the measure/technology delivers both improvements to energy and water efficiency.

g) Pilots

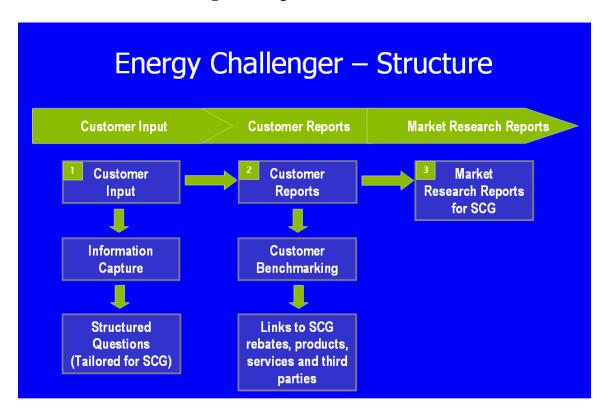
The Program for –2013 - 2014 is an extension of an existing 2010-2012 program and as such does not include any pilot projects. The program design and delivery has been continuously improved based on feedback received during the 2006-08 cycle.

h) EM&V

The utilities are proposing to work with the Energy Division to develop and submit a comprehensive EM&V Plan for –2013 - 2014 after the program implementation plans are filed. This will include process evaluations and other program-specific studies within the context of broader utility and Energy Division studies. More detailed plans for process evaluation and other program-specific evaluation efforts cannot be developed until after the final program design is approved by the CPUC and in many cases after program implementation has begun, since plans need to be based on identified program design and implementation issues.

7. Diagram of Program

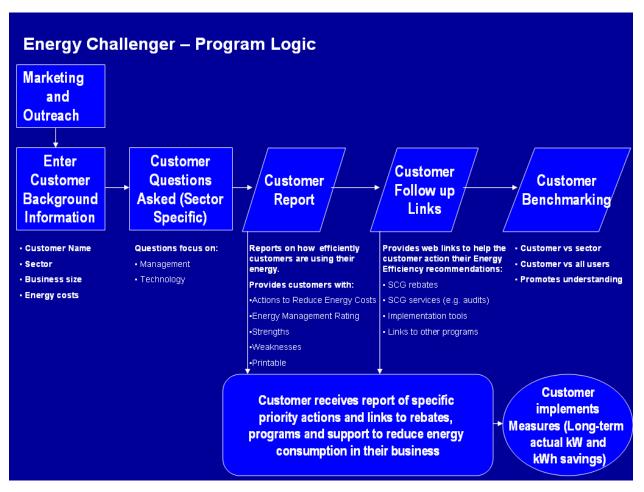
No specific program diagram for this third party program has been developed. Any program linkages are discussed in Section 6. However, a diagram of the Program's structure is provided below.



Energy Challenger Structure

8. Program Logic Model

The Program logic model is provided below.



Program Logic Model

1. Program Name: Small Industrial Facility Upgrades

Program ID: SCG3757

Program Type: Third-Party Program

2. Projected Program Budget Table

Table 1: Total Projected Program Budget by Category

| Program # | Main/Sub Program Name | Administrative Amount | Marketing Amount | Direct Implementation Amount | Incentive Amount | Total Program Budget Amount |
|--------------|---|--------------------------|---------------------|------------------------------------|---------------------|-------------------------------|
| | SoCalGas Third Party Programs | | | | | |
| 3757 | 3P-Small Industrial Facility Upgrades | \$0 | \$0 | \$673,820 | \$754,180 | \$1,428,000 |
| 3757u | 3P-Small Industrial Facility Upgrades (Utility) | \$17,644 | \$6,146 | \$36,923 | \$0 | \$60,713 |
| | TOTAL: | \$17,644 | \$6,146 | \$710,743 | \$754,180 | \$1,488,713 |

Note: SCG continues to negotiate the final contract with the third party vendor. As a result of final contract negotiations, the budget allocation into the budget subcategories may vary.

3. Projected Program Gross Impacts Table

Table 2: Total Projected Program Savings by Subprogram

| | | 2013-2014 Gross | 2013-2014 Gross | 2013-2014 Gross |
|-----------|---------------------------------------|-----------------|-----------------|-----------------|
| Program # | Main/Sub Program Name | kW Savings | kWh Savings | Therm Savings |
| 3757 | 3P-Small Industrial Facility Upgrades | 0 | 0 | 678,762 |
| | TOTAL: | 0 | 0 | 678,762 |

Note: The therm savings are estimated based on contract negotiations with the third party vendor. The projected savings may change as a result of final contract negotiations.

4. Program Description

a) Describe program

The Small Industrial Facility Upgrades Program will assist Southern California Gas Company (SoCalGas) industrial customers in becoming more energy efficient and productive through the adoption of existing, including low-penetration, technologies. The program will target small industrial customers with annual gas usage less than 50,000 therms, but be available to all industrial customers. The Program will offer proven measures currently used in SoCalGas's Calculated and Deemed Programs. These measures include calculated custom process improvements for heat recovery, process equipment replacement, and equipment modernization, furnace and oven improvements, and excess air reduction. The Program will also include deemed measures such as boilers, water heaters, and steam trap replacements, along with insulation improvements.

There are approximately 14,500 small industrial customers, defined as a meter with annual usage between 10,000 and 30,000 therms that would benefit from the program. In addition, there are 2,645-meter installations for customers with annual usage between 30,000 and 50,000 therms. Industrial customers with annual usage below 10,000 therms are very small with limited cost-effective energy savings potential; however, the Program will address such customers if needs are identified.

Because the small industrial market segment has limited energy savings opportunities, and this market segment is struggling to focus on the core business and rarely has the time or expertise to focus on energy issues, the vendor community's focus is on repair and maintenance instead of new energy efficient equipment and practices. As a result, a "one size fits all" marketing approach has not been effective.

Targeted market penetration levels will be achieved through a combination of effective marketing combined with a program that creates a financial benefit to the customer. The elements below are designed to begin the market transformation process in this market segment.

Specific elements include:

- Offer an inclusive set of 31 itemized and custom measures for natural gas equipment that address operational concerns raised by small industrial facility managers and owners. As is well known, managers and owners do not always share the same perspectives, which is why the selected measures address both managerial (providing reliable improvements to the facility's operations) and owner concerns (offering cost-effective, sustainable savings of natural gas).
- Offer both comprehensive and targeted surveys and audits. This flexibility to suit the customer and conditions will keep the Program effective and cost-effective.
- Use marketing and implementation strategies that encourage sequential projects with an individual customer. The difficulty is in establishing the trust and credibility of the promise of energy savings; once it is established, customers become believers. With realized benefits from a first project and short payback, spillover activities are fairly common.
- Include not only small industrial facilities, but also local equipment vendors and active work with industrial associations like the California League of Food Processors, the California Mining Association, the Chemical Industry Council of California, and the Brewers Association, whose members routinely share information, advice, and tips.
- Work closely with SoCalGas's representatives on identifying customers "ripe" for change.

b) List measures

The table below includes all of the available measures:

Table 3

| Measure | Unit | Rebate \$/unit |
|--|----------|----------------|
| PER Furnace Replacement | Therm | \$ 1.00 |
| PER Oven Replacement | Therm | \$ 1.00 |
| CPI Heat Recovery | Therm | \$ 1.00 |
| PER Misc. Process Equip. Replacement | Therm | \$ 1.00 |
| CPI Equip. Modernization | Therm | \$ 1.00 |
| EER Large Vat Fryers | Unit | \$ 500.00 |
| EER Single Rack Oven | Unit | \$ 1,000.00 |
| EER Double Rack Oven | Unit | \$ 2,000.00 |
| Excess Air | Therm | \$ 1.00 |
| Thermal Oxidizer | Therm | \$ 1.00 |
| Process Boiler - Steam | MBtuh | \$ 0.50 |
| Process Boiler - Water | MBtuh | \$ 0.50 |
| Direct Contact Water Heater | MBtuh | \$ 2.00 |
| Storage Water Heaters (LRG >75 MBTUH) | MBtuh | \$ 2.00 |
| Storage Water Heaters (SML <= 75 MBTUH) | MBtuh | \$ 2.00 |
| Instantaneous Water Heaters (>= 200 MBTUH) | MBtuh | \$ 0.50 |
| Instantaneous Water Heaters (< 200 MBTUH) | MBtuh | \$ 2.00 |
| Space Heating Boiler - Steam | MBtuh | \$ 0.25 |
| Space Heating Boilers - Large Water | MBtuh | \$ 0.25 |
| Commercial Boiler (Non-Space Heat, Non-Process) | MBtuh | \$ 0.50 |
| Tank Insulation - Low Temperature Applic. (LF) 2 in | SquareFT | \$ 3.00 |
| Tank Insulation - High Temperature Applic. (LF) 2 in | SquareFT | \$ 4.00 |
| Tank Insulation - Low Temperature Applic. (LF) 1 in | SquareFT | \$ 2.00 |
| Tank Insulation - High Temperature Applic. (LF) 1 in | SquareFT | \$ 3.00 |
| Custom Steam Trap Replacement | Therm | \$ 1.00 |
| Pipe Insulation -Hot Water Application < 1" pipe | LinearFt | \$ 2.00 |
| Pipe Insulation -Hot Water Application >= 1" pipe | LinearFt | \$ 2.00 |
| Pipe Insulation - Low pressure steam <=15 psi < 1" pipe | LinearFt | \$ 3.00 |
| Pipe Insulation - Low pressure steam >15 psi >= 1" pipe | LinearFt | \$ 3.00 |
| Pipe Insulation - Medium pressure steam <=15 psi < 1" pipe | LinearFt | \$ 3.00 |
| Pipe Insulation - Medium pressure steam >15 psi >= 1" pipe | LinearFt | \$ 3.00 |

c) <u>List non-incentive customer services</u>

Program services will include:

- On-site survey/audits to identify energy savings opportunities
- Design assistance to help customers understand and best achieve energy savings

- Water savings benefit calculations and inclusion of measures in the portfolio that provide water savings in addition to energy savings
- Referrals to other SoCalGas services and resources, such the Energy Resource Center.
- Referrals to other programs available in the customers' area that may help reduce consumption and reduce operating costs, and provides cash flow towards which additional energy saving improvements
- Coordination with industry associations to promote energy efficiency improvements through trusted sources and encourage market-transforming practices among equipment vendors and purchasers.

The Program will target all the major natural gas consuming systems associated with process needs within small industrial facilities.

5. Program Rationale and Expected Outcome

a) Quantitative Baseline and Market Transformation Information

This section is not applicable

b) Market Transformation Information

This section is not applicable.

c) Program Design to Overcome Barriers

The following table provides descriptions of the barriers that Program seeks to address and the solutions the Program proposes to overcome the barrier.

| Barrier | Solution |
|---|--|
| Lack of financing for energy efficiency improvements | Program provides targeted rebates and incentives to help customers overcome financial constraints. |
| Barriers to the entry of new energy efficiency technologies or systems whose efficiency or system performance levels are uncertain due to lack of experience | Program provides benchmarking and design advice and has established relationships with industry vendors/associations. |
| Customers have a primary focus on production, not energy efficiency | The program administration will use marketing efforts to highlight the need to also focus on energy efficiency |
| Lack of information about new programs and technologies | Program will utilize marketing and targeted information to educate customer on available technologies and programs available to them |
| Time and cost associated with hiring implementation contractors | Program will provide technical assistance, audits, and design advice. |
| Difficulty accessing industry-relevant technical resources | Program will provide technical assistance, audits, and design advice. |
| Potential language barrier with Hispanic run businesses | Program employs Spanish speaking staff |

d) **Quantitative Program Targets**

The program is designed to provide gas energy savings through a comprehensive and integrated approach. Specific components of the program are critical to the success of the program. These key non-incentive program services are shown in Table 5.

Table 4

| Program Name | Program Target by 2013 | Program Target by 2014 |
|--|---------------------------|------------------------|
| Numbers of on-site survey/audits conducted for small industrial customers | 80 | 80 |
| Number of outreaches conducted to vendors and trade allies | 5 | 5 |

e) Advancing Strategic Plan Goals and Objectives

This program supports the Strategic Plan in the following manner:

| Description | Strategic Plan Sector | Strategic Plan Goal | Strategic Plan Strategy |
|------------------------|--------------------------|--------------------------|----------------------------|
| By incorporating | | | |
| water savings | | | |
| measures with energy | | | |
| savings measures and | | | |
| encouraging customer | | | |
| participation in other | | Support California | |
| EE and DR efforts, | | industry's adoption of | 1-1:Develop |
| the program helps | | energy efficiency by | coordinated energy |
| develop coordinated | | integrating energy | and resource |
| energy and resource | | efficiency savings with | management program |
| management | | achievement of GHG | for CA's industrial |
| objectives for the | | goals and other resource | sector, to enhance use |
| industrial sector | Industrial | goals. | of energy efficiency. |
| By incorporating | | | |
| water savings | | | |
| measures with energy | | | |
| savings measures and | | | |
| encouraging customer | | Deliver integrated DSM | |
| participation in other | | options that include | |
| EE and DR efforts, | | efficiency, demand | |
| the program helps | | response, energy | 1-3: Develop |
| develop coordinated | | management and self | integrated DSM |
| energy and resource | | generation measures, | programs across |
| management | DOM: | through coordinated | resources, including |
| objectives for the | DSM Integration and | marketing and regulatory | energy, water, and |
| industrial sector, | Coordination | integration. | transportation. |

6. Program Implementation

a) Statewide IOU Coordination

- i. Program name
- ii. Program delivery mechanisms
- iii. Incentive levels
- iv. Marketing materials
- v. IOU program interactions with CEC, ARB, Air Quality Management Districts, local government programs, other government programs as applicable
- vi. Similar IOU and POU programs

Coordinating efforts will be made for customers that participate in the SoCalGas Calculated and Deemed Programs. Additionally, the proposed program will also coordinate with implementers and other third party industrial programs for both with local utilities and municipalities. The Contractor will leverage its recruitment and site visits for all of these programs to provide comprehensive energy savings solutions.

b) Program Delivery and Coordination

The Program on as combined "systems" and "hands-on" approach examines each small industrial facility to locate multiple energy improvement opportunities and deliver optimal natural gas savings. The "systems" approach to optimizing processes captures much greater savings than is possible by simply replacing components. The Program has been further refined based on experiences gained from working at industrial and agricultural facilities. .

The "hands-on" aspect reflects a commitment to the program participant throughout the project cycle. The team leads the participant through each step of the process, making sure that all concerns and questions are addressed, and ensuring that the participant, as well as the utility, is satisfied with the project results. In addition, the team has Spanish-speaking members to address an identified barrier to participation.

- i. Emerging Technologies program Not applicable to this program.
- ii. Codes and Standards program Not applicable to this program.
- **iii.** WE&T efforts Not applicable to this program.
- iv. Program-specific marketing and outreach efforts (provide budget) The Program will use several marketing methods to reach the targeted customers, including face-to-face contact with equipment vendors, trade associations, and directly with customers; direct mail, inserts in trade publications, and via web access. The marketing plan is designed to educate small industrial facilities about the bottom-line benefits of identifying and installing energy efficiency measures in their plants and about the technical and financial assistance available through

the Program and other SoCalGas programs. The marketing materials will be designed to increase awareness and participation, and explain the energy and non-energy benefits of the Program. Examples of potential marketing materials include:

- Brochure with general information about the program, application procedures, and benefits
- Letters and inserts for targeted mailings and email campaigns to small industrial facilities and vendors
- Newsletter articles, fact sheets, and case studies for inclusion in publications read by small industrial facility owners and managers

The design of this program is based on the experience and success of implementation of similar programs, familiarity with the technology and targeted markets, and the extensive technical knowledge and personnel resources available.

- v. Non-energy activities of program Not applicable to this program
- vi. Non-IOU Programs

 Not applicable to this program
- vii. CEC work on PIER

 Not applicable to this program
- viii. CEC work on codes and standards Not applicable to this program
- ix. Non-utility market initiatives Not applicable to this program

c) Best Practices

The program design incorporates various best practice elements from Volume S – Crosscutting Best Practices Report and Project Summary, National Energy Efficiency Best Practices Study, December 2004. Specific items include:

- Program Theory and Design: The program has developed a sound program plan and has a clearly articulated program theory.
- Program Management: Program uses well-qualified engineering staff and motivates field staff and efficiency service providers.
- Program Participation Process: Program keeps the application process and forms
 from being overly complex and costly to navigate while at the same time not
 being over-simplified, provides technical assistance to help applicants through the
 process, and develops a cadre of trade allies who can then assist customers
 through the process.
- Marketing and Outreach: Program will market energy efficiency options directly to end users at the earliest decision-making stages of major equipment or facility

modifications, use personal marketing, where cost effective, to identify and address customer-and industry-specific barriers and customer issues, develop and disseminate case studies of key technologies and segment applications.

Based on previous experience, the program includes the following lessons learned:

- Targeted surveys and audits that focus on specific aspects of the operations result in more effective project development than do comprehensive audits. Experience has been only 12% of comprehensive audits have produced energy savings projects for small to medium sized industrial customers. Customers want to start with smaller projects that address their immediate needs. This allows them to become familiar with the process, while achieving some energy savings at lower cost and risk.
- In our experience, the most useful way to characterize customers is (a) those that are already knowledgeable about their energy utilization and know where and how they can save energy and (b) customers who do not already know much about their facility's detailed energy use, nor what specific opportunities exist for energy savings. For the first group of customers, the program will serve as an enabler. For the second group, the program is an educator, facilitator, and opportunity identifier.
- Customers with industrial processes typically prefer to make changes to one specific aspect of their operation at a time. They want to see success with one measure before considering others. Many times customers install additional measures as their satisfaction with and confidence in our advice builds. Repeat contact is quite effective in bringing projects to completion and making subsequent projects more likely.

d) Innovation

The strategies to fully engage this market segment in the concept of energy efficiency will include:

- building upon the success of the vendor outreach utilized by SoCalGas to identify customers that are likely to respond positively to a more comprehensive approach;
- working with SoCalGas representatives to develop a strategic plan targeting this sub-segment;
- developing partnerships with successful additional vendors and creating strategies that identify additional candidates for replacements to capture energy savings opportunities and,
- mining past SoCalGas activities including energy audits and Energy Van visits to help target customer specific recruitment efforts.

e) Integrated/Coordinated Demand Side Management

Although this is not an Integrated Demand Side Management program, the energy efficiency (EE) and demand response (DR) capabilities will allow the program to integrate and implement strategic objectives for the SoCalGas small industrial customers. The process will provide an opportunity to be able to identify electric energy savings and other utility savings within this market segment that might otherwise be missed in the

absence of the program. Coordinating efforts will be done with core programs, SCE and other utilities to identify these opportunities and realize all energy saving opportunities.

f) Integration Across Resource Types (energy, water, air quality, etc)

Continuous expansion on the existing relationships will be done with the South Coast Air Quality Management District (SCAQMD) and California Air Resources Board (CARB). Integration efforts with these agencies will support the effort identify energy saving opportunities to help the small industrial customers meet increasingly stringent air quality regulations. Additional integration efforts will also build upon the increased attention to natural gas energy efficiency associated with AB32 and the increased national emphasis on reducing greenhouse gases. The audits will include information on the amount of greenhouse gas reductions are associated with each energy saving project.

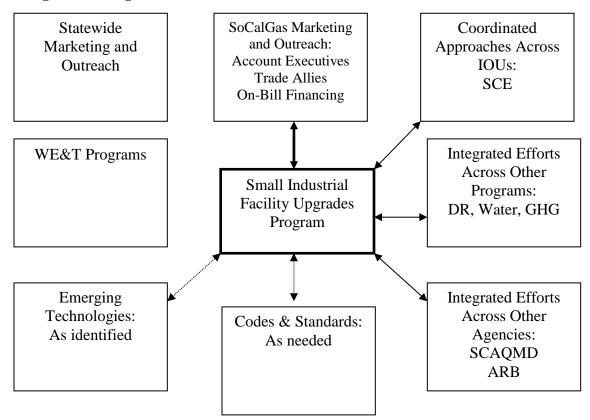
g) Pilots

Contractor is not planning any pilots associated with this program.

h) EM&V

The utilities are proposing to work with the Energy Division to develop and submit a comprehensive EM&V Plan for 2013-2014 after the program implementation plans are filed. This will include process evaluations and other program-specific studies within the context of broader utility and Energy Division studies. More detailed plans for process evaluation and other program-specific evaluation efforts cannot be developed until after the final program design is approved by the CPUC and in many cases after program implementation has begun, since plans need to be based on identified program design and implementation issues.

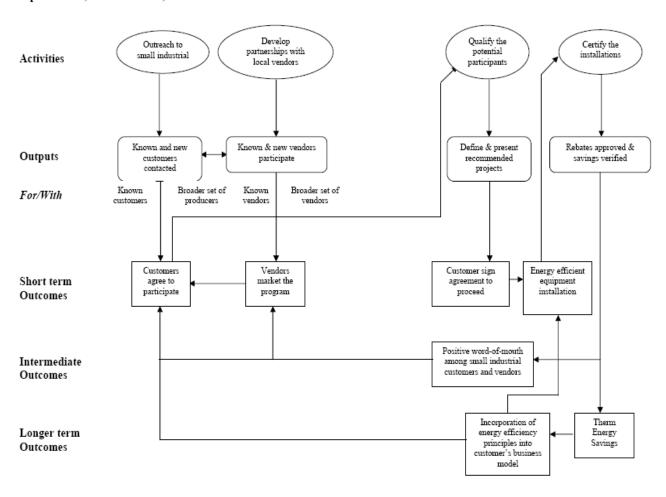
7. Diagram of Program



8. Program Logic Model

Small Industrial Facility Upgrades Program

Inputs: Funds, Contractor Staff, SCG Staff



1. **Program Name:** Program for Resource Efficiency in Private Schools (PREPS)

Program ID: SCG3758

Program Type: Third-Party Program

2. Projected Program Budget Table

Table 1: Total Projected Program Budget by Category

| Program # | Main/Sub Program Name | Administrative Amount | Marketing Amount | Direct Implementation Amount | Incentive Amount | Total Program Budget Amount |
|--------------|-------------------------------|--------------------------|---------------------|------------------------------------|---------------------|-----------------------------------|
| | SoCalGas Third Party Programs | | | | | |
| 3758 | 3P-PREPS | \$0 | \$0 | \$1,189,913 | \$510,087 | \$1,700,000 |
| 3758u | 3P-PREPS (Utility) | \$24,919 | \$7,761 | \$47,688 | \$0 | \$80,368 |
| | TOTAL: | \$24,919 | \$7,761 | \$1,237,601 | \$510,087 | \$1,780,368 |

Note: SCG continues to negotiate the final contract with the third party vendor. As a result of final contract negotiations, the budget allocation into the budget subcategories may vary.

3. Projected Program Gross Impacts Table

Table 2: Total Projected Program Savings by Subprogram

| Program # | Main/Sub Program Name | 2013-2014 Gross kW Savings | 2013-2014 Gross kWh Savings | 2013-2014 Gross Therm Savings |
|-----------|-----------------------|----------------------------------|-----------------------------------|-------------------------------------|
| 3758 | 3P-PREPS | 0 | 0 | 703,788 |
| | | 0 | 0 | 703,788 |

Note: The therm savings are estimated based on contract negotiations with the third party vendor. The projected savings may change as a result of final contract negotiations.

4. Program Description

a) Describe program

The Program for Resource Efficiency in Private Schools (PREPS) is a renewed program to be administered in the 2013 - 2014 program cycle. It is targeted to qualifying schools and colleges in Southern California Gas (SoCalGas)'s service area. Its goal is to reduce gas energy costs, reduce greenhouse gas emissions, and improve the learning environment.

Administered by Resource Solutions Group (RSG), PREPS, herein "Program", is targeted to pre-K, K-12 schools, colleges, universities, technical/trade schools, public K-12 and other private institutions of learning included in NAICS 61, to encourage the installation of cost-effective energy efficiency measures (EEMs). All PREPS engineering and technical services are provided at no out-of-pocket cost to Program participants. The Program is available in SoCalGas's service territory and is provided on a first-come, first-served basis. Customers that enroll in the Program ("Participants") will receive a variety of Program services that could include 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. The audit reports provide specific EEM

recommendations and include a lifecycle energy and cost analysis for each individual EEM and for all EEMs on a total-project basis.

PREPS Participants receive a range of services to facilitate the development and implementation of energy efficiency upgrades within their facilities. Participants may not have the time, technical resources, project management expertise, or manpower to implement comprehensive upgrades that reduce energy use and operating costs. The 2013-2014 PREPS will continue to encourage and reward Participants who implement any or all of the recommended EEMs outlined in the energy audit report or on an individual project basis. Participants who agree to implement the recommendations can receive incentives in three different forms:

- Cash Rebates
- Cash Bonuses
- Installation Support Services (IS Services), examples of which include the development of bid specifications, bid package development and project management services

Participants can receive Cash Incentives only or receive incentives in the form of IS Services as a portion of their total project incentive. Cash Bonus incentives are available regardless of whether the Participant chooses to receive Cash Incentives, IS Services or a combination of the two. Rebates offered are equivalent to rates currently offered by SoCalGas's core energy efficiency programs for the same measures.

Cash rebates and bonus incentives are provided to encourage and support Participants in installing EEMs. Incentives are available through the Program for both deemed and calculated EEMs. RSG will work with the Participant and SoCalGas to develop the energy savings estimates for calculated EEMs and ensure that they comply with California Public Utility Commission (CPUC) requirements. Participants receive unbiased, technically sound and practical solutions to improve facilities and can, if they choose, receive assistance through the installation phase of the project. By reducing energy consumption and improving building operations, Participants can redirect funds previously used on operating expenses toward other school facility priorities.

The PREPS approach is to include not just the typical upgrade applications, but to collaborate when applicable with SoCalGas's Emerging Technologies program, Also, RSG can work with the CEC to incorporate innovative technologies and building improvement strategies into its marketing, education and outreach, audit reports and project implementation strategies. The result of this coordination will be wider acceptance of technologies and the development of specific case studies that can serve as examples of successful and innovative projects for others to pursue.

b) List of measures

¹ Deemed savings and deemed incentives refer to EEMs for which there is a standardized amount of savings and a standardized incentive paid according to building type and climate zone. These "deemed" measures are distinct from calculated measures. For calculated measures multiple variables are used to calculate savings unique to the specific site and mix of measures installed, and the incentives for calculated measures vary according to the savings achieved.

Through individual project analysis, comprehensive energy reports and audits and Installation Support Services, PREPS will seek to implement:

- Pool Heaters
- Pool Covers
- Storage and Instantaneous Water Heaters
- Pipe and Tank insulation
- Steam Traps
- Space Heating and Commercial Boilers
- Natural Gas Food Service Equipment
- Other customized measures as identified in field audits including emerging technologies and retro-commissioning opportunities where savings can be documented appropriately (Ie. Solar thermal hot water heating, heat recovery systems, etc.)

The base incentive levels will match those provided through SoCalGas's core rebate programs. The program will also offer targeted outreach campaigns to accelerate activities in high potential schools segments to encourage commitment and expedite completion of projects.

c) List non-incentive customer services

PREPS provides financial incentives to encourage project implementation and identifies the installation of additional cost effective building upgrades. At all levels of program participation - from evaluating specific technologies to implementing and supporting the customer throughout the project implementation phase – PREPS provides quality customer service to assist the customers. Non-incentive customer services included in the program, but not limited too, will be:

- Provide information on existing building performance and potential improvements in operating and maintenance practices,
- Inform the customer on other local or third-party programs for which they may qualify,
- Provide information on low interest financing options to encourage project implementation and,
- Educate the customer on new energy efficiency technologies.

5. Program Rationale and Expected Outcome

a) **Quantitative Baseline and Market Transformation Information**

| | Baseline Metric | | | |
|-----------------|--|---|--|--|
| | Metric A | Metric B | Metric C | |
| Overall Program | 20% of customers contacted through M&O agree to participate (tracked by signed Program Participation Agreements (PPA)) | 40% of customers that sign a PPA agree to install at least some of the recommended measures (tracked by the number of signed Program Implementation Agreements (PIA)) | 20% of customers that sign a PIA actually install measures (tracked through paid incentives) | |
| Sub Program #1 | NA | NA | NA | |
| Sub Program #2 | NA | NA | NA | |

| Sub Program #3 | NA | NA | NA |
|-----------------|----|----|----|
| 200 - 100 - 100 | | | |

Market Transformation has not been a major focus of the California energy efficiency programs since the energy crisis. Consequently, relatively little attention has been given in recent years to identifying and gathering data on indicators of change towards market transformation. For some programs or sub-programs that promote a single end use or measure, there may be some data available for this purpose, probably from industry sources, that we have not yet identified. For many of the programs, however, this kind of long-term, consistent, and expensive data collection has not been done in California.

The utility program planners have worked closely with their respective EM&V staffs and with each other to identify available information and propose potential metrics. Each utility and each program has some data available, but attempts to distill the limited available information into a common set of agreed-upon metrics have proved far more difficult to accomplish. Offering metrics in which there is not strong confidence would not be productive. Therefore, the utilities respectfully exclude "draft" metrics at this time and instead suggest a means of developing meaningful indicators.

The utilities will develop meaningful baseline and market transformation concepts and metrics for programs that do not currently have them, and then propose to design and administer studies to gather and track consistent, reliable and valid baseline and market effects data. RSG proposes to use the program logic models and The California Evaluation Framework (2004) as guides, and to begin this work after approval of the Application using funding provided for Evaluation, Measurement & Verification.

RSG expects that the baseline studies (1) adequately describe the operation of markets that are targeted by a program, (2) confirm its tentative identification of measurable parameters that would indicate changes towards greater efficiency in the market(s) and that are likely to be affected by the program, and (3) gather the current values of those parameters, to serve as baselines against which future market movement can be tracked.

b) Market Transformation Information

| | Internal Market Transformation Planning Estimates | | |
|---------------------------|--|-----------------|--|
| Market Sector and Segment | 2013 | 2014 | |
| Metric A | Increase to 20% | Increase to 25% | |
| Metric B | Increase to 40% | Increase to 45% | |
| Metric C | Increase to 20% | Increase to 25% | |
| Metric D | NA | NA | |

As explained immediately above, the utilities propose to provide these draft metrics when available.

c) Program Design to Overcome Barriers

| Barrier | Solution |
|--|---|
| Schools lack information about energy efficiency | Through RSG's experience in this market sector, |

| Barrier | Solution |
|--|--|
| benefits | PREPS uses a proactive approach to reduce school maintenance, operation, and energy costs, help improve building operations and performance, and develop a strategic and phased approach to project implementation. |
| Schools have historically suffered from lack of financing for energy efficiency improvements | PREPS helps schools find funding that can be used for energy efficiency upgrades and can help qualify schools for low interest loans for energy efficiency projects. |
| | Specific program activities and services will be provided to achieve program goals including customer screening, comprehensive energy analyses and/or audit reports, rebates, bonuses, and Installation Support Services. The rebates, bonuses and Installation Support Services components of the Program address the "lack of support" and "lack of resources" barriers by 1) providing post-audit services to assist the customer in further developing the specific scope of the project and securing installation contractors to perform the work, and 2) |
| Schools lack internal staffing resources to support energy efficiency improvements. | providing cash incentives to offset the costs to implement the project. |

Historically, schools have been a difficult sector to penetrate due to a limited and narrow focus placed on this sector and the need for schools to minimize risk and manage tighter and tighter budgets. For the most part, most schools that participate in energy efficiency do so in a limited fashion and over an extended period of time, again due to risk adversity, competing priorities, lack of a defined strategy and lack of service provider support and expertise. Private schools face challenges similar to publicly funded schools in understanding how best to evaluate and implement cost-effective energy efficiency improvements. Also like public schools, private schools are under pressure to manage rising energy costs as they face constrained budgets and increased operational costs such as teacher salaries, which must stay competitive to attract high-quality staff. The greatest priority barriers to implementing energy efficiency projects in this hard-to-reach sector include lack of information, lack of support and lack of internal resources, particularly with regard to projects that have longer paybacks to recover initial investment. Most schools need additional support beyond rebate or standard performance incentive programs to influence decision-makers on the value of the energy efficiency project and to carry out the installation of high efficiency equipment.

In addition to limited resources and limited knowledge about energy efficiency, there are limited windows of opportunity to install measures within the framework of the academic calendar. School schedules and activities are driven by events such as summer vacation, holidays, and other school priorities that may create further difficulties in improving the efficiency of the school. These challenges are compounded by the fact that personnel within a given school have wide-ranging responsibilities with limited staff and overlapping lines of department authority. The most challenging tasks in achieving energy savings are to work with and educate decision-makers to make energy efficiency a greater priority and take necessary steps in completing a large number of energy savings projects within a reasonable time frame during the Program period.

To overcome these challenges, PREPS presents an opportunity for qualifying schools to take advantage of Contractor's experience in this market sector and take a proactive approach to reducing school costs, improving building operations and performance, and develop a strategic and phased approach to project implementation. Through a focused, targeted and coordinated program, market penetration and participation levels will increase beyond those currently achieved by the utility or by the schools acting on their own, with services offered beyond the standard baseline services provided to this segment through the utility's core programs.

PREPS will offer a staged yet comprehensive approach to implementing cost-effective efficiency measures tailored to the needs and requirements of the specific targeted school interested in the program. Not all schools require the same level of effort to achieve program goals, and it is not cost effective for utility ratepayers to provide standard and equitable program services indiscriminately across all schools when some schools may only offer limited opportunities for savings. By targeting program services to schools that show the highest level of intent, interest and opportunity to upgrade or replace inefficient equipment, PREPS will provide energy savings more immediately and more cost effectively, while still providing tailored Program services to schools that are interested in PREPS but may only seek a fewer number of limited projects to pursue. Market actors will be more responsive to a program that provides a well-defined and strategic level of services that better align with the needs of the individual schools within this sector. Matching program resources and activities more closely to sector opportunities will lead to a more efficient and streamlined delivery mechanism, in addition to increasing installed energy savings.

Specific program activities and services will be provided to achieve program goals including customer screening, comprehensive energy audit reports, project technical analysis support, rebates, bonuses, and Installation Support Services. The comprehensive energy audit report and/or general facility and project evaluation support addresses the "lack of information" barrier by providing clear information on cost-effective energy efficiency measures to pursue, with detailed analysis on the lifecycle costs and benefits of each individual efficiency measure. The rebates, bonuses and Installation Support Services components of the Program address the "lack of support" and "lack of resources" barriers by 1) providing post-audit services to assist the customer in further developing the specific scope of the project and securing installation contractors to perform the work, and 2) providing cash incentives to offset the costs to implement the project.

Lost Opportunities

PREPS will capture potential lost opportunities through a number of mechanisms. First, the comprehensive audits will address all cost-effective measures rather than focusing on just a few opportunities or the "low-hanging fruit." The ranking of all potential measures based on the lifecycle costs and benefits of each measure can allow a customer to pursue a small number of low-cost, high return measures and move on to higher investment measures, eliminating lost opportunities. Second, close coordination with SoCalGas and other Program implementers will ensure that the team is aware of additional complementary program offerings that can improve the cost effectiveness of other

program measures. Also, by incorporating a comprehensive approach to the development of an energy management strategy, PREPS will have the ability to provide complimentary technical and support services more immediately with an individual school for retrofit opportunities and streamline the delivery of energy efficiency services.

d) **Quantitative Program Targets**

- Targeted market penetration levels will be achieved through a combination of effective marketing combined with a program that creates a financial benefit to the customer. Specific elements include: Increased customer awareness about existing energy use and practices;
- Increased understanding of technical options and financial impacts related to energy efficiency building improvement strategies;
- Increased prioritization of energy efficiency investments by key decision makers;
- Increased comprehensiveness of projects implemented due to the unbiased and vendor-neutral information on the best operating practices and equipment upgrades; and
- Increased participation due to the Installation Support Services that allow Contractor to serve as an extension of the district's staff to ensure projects are pursued and installed in a timely manner and according project expectations.

Table 3

| Program Name | Program Target by 2013 | Program Target by2014 |
|--------------|-----------------------------|--------------------------|
| | | |
| Target #1 | Total Number of Projects | Total Number of Projects |
| | Installed equal to or | Installed equal to or |
| | greater than 2 | greater than 35 |
| Target #2 | Total Incentives Paid | Total Incentives Paid |
| | equal to or greater than \$ | equal to or greater than |
| | 14,400 | \$388,080 |
| Target #3 | Total installed savings | Total installed savings |
| | equal to or greater than | equal to or greater than |
| | 18,367 gross therms | 377,064 gross therms |

Note: Values provided represent yearly targets.

e) Advancing Strategic Plan goals and objectives

PREPS addresses the Strategic Plan in the following ways:

California Long Term Energy Efficiency Strategic Plan Goals and Strategies

| Description | Strategic Plan Sector | Strategic Plan Goal | Strategic Plan Strategy |
|--|--------------------------|---|---|
| The Program identifies for and assists customers in applying for low-interest loans to implement measures. | Commercial | 50 percent of existing buildings will be retrofit to zero net energy by 2030 through achievement of deep levels of energy efficiency and with the addition of clean distributed generation. | 2-6: Develop effective financial tools for EE improvements to existing buildings. |
| PREPS integrates water | DSM Coordination | Deliver integrated DSM | 1-3: Develop integrated |

| Description | Strategic Plan Sector | Strategic Plan Goal | Strategic Plan Strategy |
|---|----------------------------------|---|---|
| resource savings into services provided to customers. | and Integration | options that include efficiency, demand response, energy management and self generation measures, through coordinated marketing and regulatory integration. | DSM programs across resources, including energy, water, and transportation. |
| Program will provide students opportunities to participate in energy audits and develop energy audit reports. | Workforce Education and Training | Establish energy efficiency education and training at all levels of California's educational system. | 1-4: Create or expand college and university programs with energy efficiency focus and foster green campus efforts to apply this knowledge in clear view of students and faculty. |
| Implements activities that create favorable conditions for EE technology investments. | Research and Technology | Create demand pull and set the research agenda to pursue both incremental and game changing energy efficiency technology innovations. | 1-2: Leverage private industry and Federally funded technology research and investment |

California's Energy Efficiency Strategic Plan addresses six cross-cutting areas—Heating, Ventilation and Air Conditioning (HVAC); Workforce Education and Training; Marketing, Education & Outreach; Research and Technology; Codes and Standards; and Demand-Side Management Coordination and Integration. A major strategy of the Plan - to provide consumers with tools and information to help them understand the importance of efficiency as well as the many opportunities for implementing measures and behavioral change through innovative financing, incentives, benchmarks, new technology and other means - ties directly to the goals and strategies of PREPS. Through the variety of program services offered, PREPS will increase customer awareness on the benefits of energy efficiency and provide a means to achieve savings that are sustainable over time.

Another strategy of the Plan is to greatly accelerate the development and commercialization of new and emerging technologies to enable market transformation. By presenting a comprehensive strategy beyond just the short-term, low hanging fruit opportunities, PREPS will encourage schools to evaluate technologies they may not have otherwise considered and will help transform the marketplace by implementing more advanced gas efficiency technologies.

Finally, PREPS addresses the Plan's goal to train the next generation of the efficiency-related workforce and improve the knowledge and skills of the current generation by incorporating student learning opportunities where applicable. The Program will provide opportunities for students to participate in the energy audits and in the development of energy audit reports to gain a greater understanding of the industry, its technologies and common practices.

6. Program Implementation

a) Statewide IOU Coordination

- i. Program name
- ii. Program delivery mechanisms
- iii. Incentive levels
- iv. Marketing materials
- v. IOU program interactions with CEC, ARB, Air Quality Management Districts, local government programs, other government programs as applicable
- vi. Similar IOU and POU programs

PREPS outreach activities will be coordinated closely with the utility and the utility Account Executives (AE) to ensure customers receive clear information on the full breadth of service offerings and incentives available to them. The Program will seek opportunities to co-host customer workshops and other third party program providers such as the schools program offered by Southern California Edison (SCE). The Program will incorporate efforts to coordinate with community agencies and their events, in an order to promote PREPS and enlist as many qualified and viable candidates for program participation. Continued effort will be made to work with the utility to develop comarketing materials as necessary and coordinate presenting the information to customers via one-on-one meetings and/or at larger customer community venues.

The Program's base rebate levels will match those of SoCalGas's core programs.

b) Program delivery and coordination

i. Emerging Technologies program

The Statewide Emerging Technologies Program seeks to accelerate the commercial introduction of novel energy-efficient technologies, applications, and analytical tools that are not widely adopted in California. During initial marketing efforts, products accepted by "innovators" may fail to gain wider acceptance with more risk-adverse customers, such as private schools. The PREPS approach is to include not just the typical upgrade applications typically found in the marketplace, but to work closely with the utility Emerging Technologies program to incorporate innovative technologies and building improvement strategies into its marketing education and outreach, audit reports and project implementation strategies. The result of this coordination will be wider acceptance of technologies that may not have been considered mainstream, and the development of specific case studies that can serve as examples of successful and innovative projects that other schools may wish to pursue.

ii. Codes and Standards program Not applicable to this program.

iii. WE&T efforts

RSG will seek opportunities to present marketing education and outreach materials to school personnel and maintenance staff. Education will also be provided through presentation of audits and assistance in vendor selection and

inspection through installation support services agreements. As with its current schools program in Northern California, RSG will also work with the utility to develop co-marketing materials as necessary and coordinate together as needed when presenting Program information one-on-one with specific customers or at larger venues.

iv. Program-specific marketing and outreach efforts

PREPS will rely on effective marketing methods listed below to reach targeted customers who provide the best opportunity for maximum efficiency gain. RSG will work closely with SoCalGas AEs assigned to the private schools segment to conduct research on the utility's various private school market sectors and identify customers for PREPS participation. Target segments (NAICS code 61), and individual customers will be evaluated and prioritized to inform RSG's initial marketing and outreach activities. Through a focused, coordinated outreach effort targeted to key private school segments, and during one-on-one customer meetings, the goal will be to capitalize on the greatest opportunities early in the program cycle and move high return projects into implementation.

Customer Recruitment

In 2013 - 2014 PREPS will be marketed through various channels such as, but not limited to vendors, utilities, and other industry channels to encourage a high level of program awareness and participation. In addition, the existing relationships with the schools network, industry trade associations and organizations, such as the National Association of Independent Colleges and Universities (NAICU) and the California Association of Private School Organizations (CAPSO) are available for contact. Within these forums, efforts to seek opportunities to attend venues to display information and educate potential participants about the Program and the benefits will be coordinated. Other efforts will include working with SoCalGas to develop and distribute program information and marketing materials synergistically with other utilities, third-party programs, and services available to the schools sector.

A customer-screening checklist that results with data that demonstrates a high level of interest and opportunity to upgrade/ replace inefficient equipment to evaluate each customer for the Program will provide information to adequately plan resources and project support and achieve the desired outcome to efficiently reach Program goals.

Presenting marketing and outreach materials early in program cycle to school personnel, maintenance staff, and vendors will be a primary effort. Such effort will include educating personnel on the costs and benefits of energy efficiency, the services available to complete projects and the process. Materials will also include co-marketing materials as necessary with the utility. Non-energy activities of program

Non-energy activities will include incorporating student-learning opportunities where applicable. RSG will coordinate with student organizations interested in

learning more about energy efficiency, sustainability, energy use analysis, and project management as part of its service delivery activities. In addition, the program will work to co-host customer workshops and other third party program providers to inform potential participants of the Program and its benefits. The workshops will provide site specific energy efficiency information/training to district facility managers and decision-makers to develop an energy management strategy and implement cost-effective building improvements. Such plans will include potential reduction in operating costs and improve building operations.

v. Non-IOU Programs

The Program's close coordination with SoCalGas and other implementers will ensure that the team is aware of additional complementary program offerings that can improve the cost effectiveness of other program measures. In addition, by incorporating a comprehensive approach to the development of an energy management strategy, the program will provide complementary technical support services with an individual school, for retrofit opportunities, and streamline the delivery of energy efficiency services

- vi. CEC work on codes and standards Not applicable to this program.
- **vii.** Non-utility market initiatives Not applicable to this program.

c) Best Practices

PREPS incorporates a variety of approaches - from participation to project implementation – that are consistent with best practices employed in the industry today. The PREPS design is to target and pursue hard-to-reach customers and target program services accordingly. In addition, keeping the participation process simple and following a consistent recruitment and implementation strategy will lead to the completion of efficiency projects in a timely and efficient manner and minimize programmatic challenges.

Through the existing schools program in northern California, experience has demonstrated that it is necessary to inform utility representatives, industry service providers and customers early on in the program cycle. Such timing will take place during the launch phase so that there is a clear and consistent message of the program process, and the benefits to all participants. During the program design and implementation phase, opportunities to coordinate closely with both utility representatives and other providers will be made to ensure each is clear on the program model and identify opportunities to coordinate service delivery activities. A clear and well-defined message and a coordinated delivery approach will minimize customer confusion and lead to program participation and energy savings earlier in the cycle.

Another "lesson learned" is the need to identify early on in the process the potential opportunity from the customer and any potential resources required to complete the projects and the customers' expectations and needs. Focus will be at the front end of the customer sign up and qualification process to better ascertain the true opportunities that

exist with the customer and thoroughly evaluate the participant's level of interest and potential project opportunities. This effort will be more proactive in developing a customer strategy that justifies the level of effort based on the desired outcome instead of cutting a wide swath and conducting multiple audits that may not lead to project implementation and actual energy savings.

d) Innovation

PREPS provides an innovative, integrated approach in the following ways:

- Offers services that are customized to the needs and opportunities of each prospective customer and will seek the most comprehensive yet cost-effective approach to maximize the energy savings potential with each customer.
- Allows for identification of emerging technologies that can be included as a customized measure for existing buildings or in the design of new school facilities.
- Provides comprehensive audits that will address all cost-effective gas measures, and reports will rank investment opportunities based on a lifecycle cost analysis.
- Integrates information on other resource opportunities in the audit report when applicable.
- Offers Installation Support Services to help customers overcome a range of barriers, from the inability to convince decision-makers to invest in energy efficiency to the technical know-how required to manage the installation of measures.
- Speeds the process of the first-time efficiency upgrades for customers through the
 comprehensive audits and/or project-specific technical analysis and Installation
 Support Services which increases their confidence in the Program and validity of
 energy savings potential, demonstrating cost-effective savings to senior
 management, and securing the opportunity to conduct additional upgrades within
 the Program period.
- Ongoing customer interactions provide continued reminders of additional upgrade opportunities, and in many cases, lead to follow-up on projects and additional audits in facilities and locations going beyond the initial customer site.
- The incentive structure rewards customers for moving quickly to sign agreements and install measures.

e) <u>Integrated/coordinated Demand Side Management</u>

Although this is not an Integrated Demand Side Management program, the Program provides a comprehensive evaluation of gas saving opportunities, and when appropriate could also include electric and water saving opportunities. In addition, energy analyses will provide PREPS Participants with information about other SoCalGas Programs including demand response and onsite generation, when appropriate.

f) Integration across resource types (energy, water, air quality, etc)

The Program will integrate water saving opportunities into energy audit reports when practical. Pool covers are aPREPS measure that will reduce both energy use as well as water use, and RSG will seek opportunities to promote both energy and water saving opportunities when applicable.

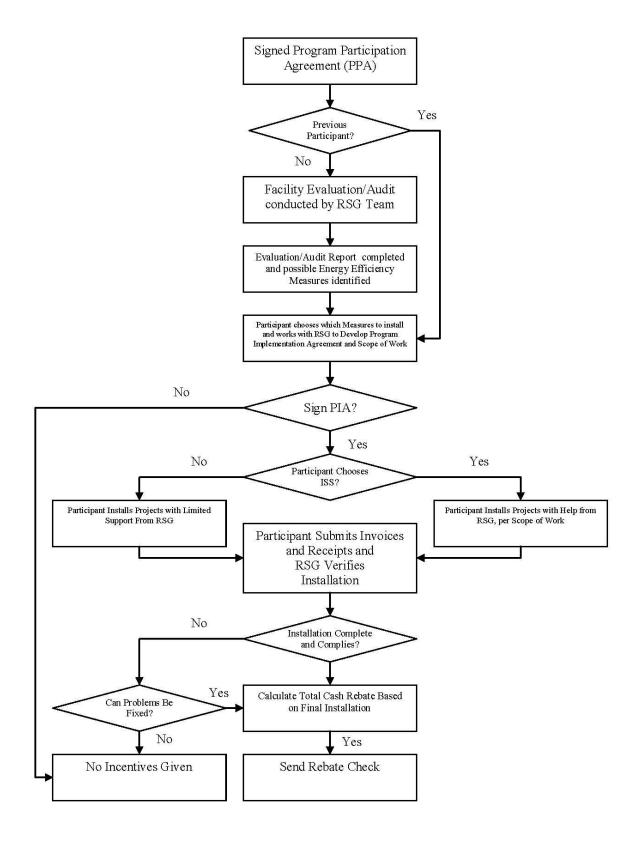
g) Pilots

The Program has no pilots planned during 2013 - 2014.

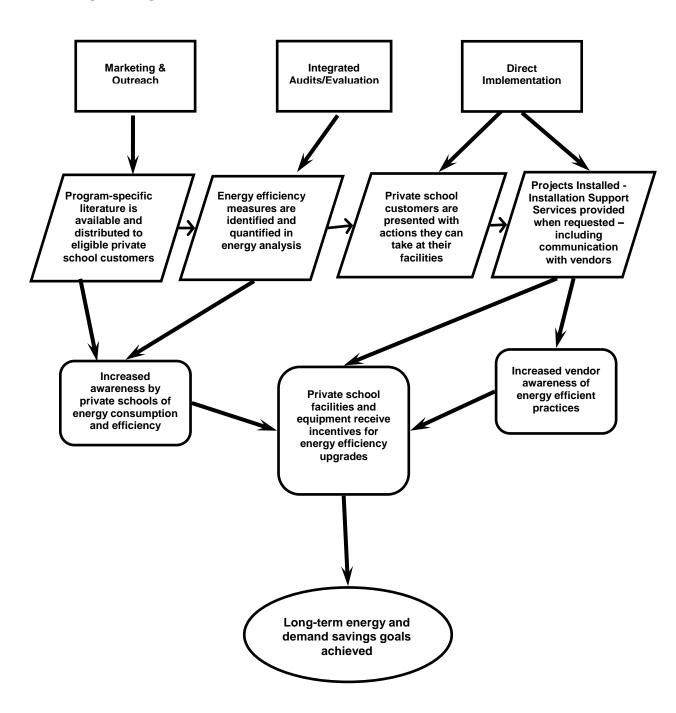
h) <u>EM&V</u>

The utilities are proposing to work with the Energy Division to develop and submit a comprehensive EM&V Plan for –2013 - 2014 after the program implementation plans are filed. This will include process evaluations and other program-specific studies within the context of broader utility and Energy Division studies. More detailed plans for process evaluation and other program-specific evaluation efforts cannot be developed until after the final program design is approved by the CPUC and in many cases after program implementation has begun, since plans need to be based on identified program design and implementation issues. PREPS will further provide full coordination and cooperation with all post program EM&V and utility post-installation inspection programs. Full documentation of individual project audits, installation support, calculated savings, and on-site verification will be available to utility personnel and third party EM&V staff upon request.

7. Diagram of Program



8. Program Logic Model



1. Program Name: On Demand Efficiency

Program ID: SCG3759

Program Type: Third-Party Program

2. Projected Program Budget Table

Table 1: Total Projected Program Budget by Category

| Program # | Main/Sub Program Name | Administrative Amount | Marketing Amount | Direct Implementation Amount | Incentive Amount | Total Program Budget Amount |
|--------------|-----------------------------------|--------------------------|---------------------|------------------------------------|---------------------|-----------------------------|
| | SoCalGas Third Party Programs | | | | | |
| 3759 | 3P-On Demand Efficiency | \$0 | \$0 | \$1,642,000 | \$2,958,000 | \$4,600,000 |
| 3759U | 3P-On Demand Efficiency (Utility) | \$52,053 | \$7,661 | \$82,183 | \$0 | \$141,898 |
| | TOTAL: | \$52,053 | \$7,661 | \$1,724,183 | \$2,958,000 | \$4,741,898 |

Note: SCG continues to negotiate the final contract with the third party vendor. As a result of final contract negotiations, the budget allocation into the budget subcategories may vary.

3. Projected Program Gross Impacts Table

Table 1: Total Projected Program Savings by Subprogram

| | | 2013-2014 | 2013-2014 | 2013-2014 |
|-----------|-------------------------|---------------------|----------------------|------------------------|
| Program # | Main/Sub Program Name | Gross kW Savings | Gross kWh Savings | Gross Therm Savings |
| 3759 | 3P-On Demand Efficiency | 0 | 0 | 1,129,204 |
| | TOTAL: | 0 | 0 | 1,129,204 |

Note: The therm savings are estimated based on contract negotiations with the third party vendor. The projected savings may change as a result of final contract negotiations.

4. Program Description

a) Describe program

The On-Demand Efficiency Program (ODE) provides a method of decreasing the natural gas consumption, with demand (recirculation) controls, of central domestic hot water (CDHW) systems with recirculation loops in multifamily buildings, while improving occupant satisfaction with the hot water delivery. Demand controls on hot water recirculation systems turn off the recirculation pump when it is not needed, thereby reducing unnecessary heat loss from the loop, reducing the boiler run time, and thus reducing natural gas consumption. For this program, the innovative technology, "D'Mand Pump" will be utilized to capture maximum energy savings within the multi-family CDHW market segment.

Data shows that there are a large number of boilers and commercial water heaters serving multifamily residences in Southern California Gas Company's service territory. Data also shows that a substantial number of these either have no recirculation controls installed, or if they do have a control, it is often a timeclock. Timeclocks are very

Heschong Mahone Group. June 2006. "Measure Information Template—Central Hot Water Distribution Systems in

ineffectual controls even when they work, but they are frequently bypassed for tenant satisfaction reasons. This program will find sites with potential savings and install controls that are appropriate and sustainable, and the program's efforts will save natural gas while maintaining comfort for the occupants.

The baseline target segment is multifamily residence apartment complexes with central boilers and a timeclock or no control. The program will achieve its savings by making direct offers to known decision makers identified in the niche market. There is a large pool of older multifamily residence apartment buildings in SoCalGas territory (estimated to be nearly ¼ of California's roughly 4.1 million multifamily units). Many of these buildings (25%-50%) have central boilers serving individual buildings on the property. While other programs address boiler efficiency, the On Demand Efficiency program is targeted at the delivery mechanism (re-circulation system).

Through targeted marketing, the proposed program strategically addresses an identified need. Targeted penetration levels will be achieved through a combination of effective marketing combined with a program that creates a financial benefit to the customer. Specific elements include:

- Direct Customer contact by phone from program representatives
- Installation of on-demand device at low net cost to program participant
- Offer of training for site personnel
- Survey that assesses participant satisfaction
- Monitoring of performance in a subset of the installations
- Referral 'web' that utilizes property management firms, boiler companies and other market channels to increase identification of potential participants

The following outline details the implementation process:

- Potential participant is identified through one of three channels (direct marketing, referrals from plumber or certified installers, and sub-contractors)
- Potential participant is contacted via phone and screened for applicability
- Participant is sent program collateral and is directed to the program website for more information
- Participant submits a rebate application
- Qualified installer will be assigned
- Participant site is scheduled for a feasibility visit
- Program partner or plumber makes visit to site and determines feasibility
- Program partner or plumber refers to compatible program if site is not suitable for the ODE program and might be suitable for a temp modulation controller
- Installer (plumber) writes up sales offer
- Offer is accepted and signed by decision maker
- Installation is scheduled

Multifamily Buildings" 2008 California Building Energy Efficiency Standards. PDF Version of document downloaded on June 11, 2007 from http://www.energy.ca.gov/title24/2008standards/documents/2006-07-12_workshop/reviewdocs/

- Installation takes place
- Installation is documented by photos and installer signs confirmation form
- Customer signs confirmation form
- Incentive check is ordered for payment to manufacturer
- Incentive check is mailed
- A subset of sites are monitored for energy savings and water use impacts
- Participant is referred to other programs if desired
- As part of this program, we will administer a web-based satisfaction survey. As
 part of this survey, we will query the participant as to their interest level in
 complimentary programs. If there is interest shown, the computer application will
 automatically send a referral to the complimentary program and will send a copy
 to the Gas company program manager.

b) List measures

The Program's measure is the D'Mand Pump, which is actually a system that includes the pump, a flow sensor, a temperature sensor and a controller unit. The D'Mand Pump reduces heat losses from central DHW distribution loops in multifamily buildings by shutting off the re-circulation pump when it is not needed.

| Measure | Incentives (per unit) |
|---------------|------------------------------|
| D-Mand E Pump | \$1,600 |

c) List non-incentive customer services Services provided include: project feasibility analysis, measure installation and verification, and, where appropriate, participant referral to complementary programs.

5. Program Rationale and Expected Outcome

a) Quantitative Baseline and Market Transformation Information

This section is not applicable

b) Market Transformation Information

This section is not applicable

c) Program Design to Overcome Barriers

The following table provides descriptions of the barriers that Program seeks to address and the solutions the Program proposes to overcome the barrier.

| Barrier | Solution |
|---|---|
| Lack of consumer information about energy efficiency benefits | Program's marketing and outreach efforts take the information to customers where they can easily access it: their association meetings, brochures (as a follow-up to direct contact), and during normal interactions with their plumbers. |
| Lack of qualified personnel resources to support | Program's marketing and outreach efforts take the |
| objectives. | information to customers where they can easily |

| Barrier | Solution |
|---|--|
| | access it: their association meetings, brochures (as a follow-up to direct contact), and during normal interactions with their plumbers. |
| Split incentives (between owners/landlords and tenants) | Although most of target market does not experience split incentives, rebates are high enough to overcome this barrier when it occurs. |
| Lack of financing for energy efficiency improvements | Program covers the full cost of the new pumps and controls so that the investment risk is minimized. |
| Barriers to the entry of new energy efficiency | Program makes a significant investment of time in |
| technologies or systems whose efficiency or system | helping decision-makers to understand how the |
| performance levels are uncertain due to lack of | technology works, so that fears of failure or tenant |
| experience | dissatisfaction are allayed. |

d) **Quantitative Program Targets**

Table 3

| Table 3 | | |
|-------------------------|-------------------|-------------------|
| | Program Target by | Program Target by |
| Program Name | 2013 | 2014 |
| Identify CDHW | | |
| systems in Gas Co. | 800 | |
| territory | | 800 |
| Install demand controls | 716 | 706 |
| Customer Satisfaction | | |
| Survey | 35 | 35 |
| Number of property | | |
| management firms | | |
| involved | 12 | 10 |
| Number of building | | |
| owners involved | 35 | 35 |
| Mentions in the trade | | |
| press | 4 | 4 |

e) Advancing Strategic Plan Goals and Objectives

The Program will advance the goals of the Strategic Plan in the following ways:

| Description | Strategic Plan Sector | Strategic Plan Goal | Strategic Plan Strategy |
|---------------------------|-----------------------|------------------------|----------------------------|
| The Program is | | Transform home | 2-3: Manage research |
| pursuing technologies | | improvement markets to | into new/advanced cost |
| that PIER is studying | | apply whole-house | effective innovations to |
| for effectiveness (boiler | | energy solutions to | reduce energy use in |
| controls). | Residential | existing homes. | existing homes. |
| | | Conduct targeted | |
| | | emerging technologies | |
| In promoting adoption | | R&D to support the | |
| of an established but | | Big, Bold Energy | |
| leading edge | | Efficiency | 2-2: Promote cost- |
| technology, the program | | Strategies/Programmati | effective near term |
| helps advance CEESP | | c Initiatives and | performance |
| research and technology | Research and | integrated energy | enhancements of |
| objectives. | Technology | solutions goals. | existing technologies |

6. Program Implementation

a) Statewide IOU Coordination

- i. Program name
- ii. Program delivery mechanisms
- iii. Incentive levels
- iv. Marketing materials
- v. IOU program interactions with CEC, ARB, Air Quality Management Districts, local government programs, other government programs as applicable
- vi. Similar IOU and POU programs

This third-party program only operates within SoCalGas's service area. The Program is designed to support and complement SoCalGas's core program activities. If this Program shares common elements with the IOU's core programs, other third-party programs, or programs in other IOU service areas, SoCalGas and the Contractor will strive to coordinate the similar activities.

b) Program delivery and coordination

i. Emerging Technologies program

The Program primary measure, though market ready, is still considered an 'advanced' technology. It is barely a step beyond an emerging technology, and is currently bridging into market acceptance. The Program serves to increase its acceptance and levels of market saturation. In order to connect to new emerging technologies, the results of CEC emerging technologies grants and contracts to assess opportunities for program improvements will be monitored. It is expected that there may be potential improvements to the technology or program delivery mechanisms that we will evaluate for inclusion.

ii. Codes and Standards program

ODE staff have participated in virtually every iteration of the California Building Energy efficiency Standards in the past twenty years, and will be able to inform on Codes and Standards development process related to CDHW systems. Continuing gathering of significant quantities of data on both the performance of demand controls and, more generally, MF CDHW market characteristics is occurring. Much of that data will be useful to inform codes and standards changes. For 2008, per the adopted building standards, timeclocks are an acceptable boiler control in new buildings and there is no additional 'credit' for anything beyond that. Research has demonstrated that more energy savings potential can be realized if almost any improved control device is installed, but there is not enough data to establish installation requirements or the specific impact of upgrades

iii. WE&T efforts

Although ODE has no specific connection to any workforce education and training efforts outside of the program, the Program offers training to MF site maintenance staff and management staff. Often these are people with potential for greater understanding of and responsibility for performance of energy related systems, but little opportunity for more formal training on these systems. The training flowing from ODE helps make them more employable.

iv. Program-specific marketing and outreach efforts (provide budget) ODE staff (including subcontractors and qualified installers) will identify prospects through a variety of means. The main technique will include mining websites that serve apartment seekers. The Program will follow-up referrals from plumbers, other IOU programs, and contacts made at trade shows and conferences.

The potential participants are all screened to see if their buildings are served by one or more central hot water distribution loops. Those who confirm they have such a system are given the program offerings. The Program provides explanatory information to potential participants through the web site and printed collateral material. Those who refuse the program offer are still entered into the Program's database for possible future use.

v. Non-energy activities of program

The Program provides voluntary training to site maintenance and/or management staff on how the new controls work as well as a larger understanding of how the CDHW system works. This training should result in lower maintenance costs and fewer tenant complaints. The Program will distribute a customer satisfaction survey once installation is finished and provide an assessment of this non-energy impact (customer satisfaction) of the program.

vi. Non-IOU Programs

The ODE program offer is made directly to customers that ODE staff have prescreened to determine eligibility. The Program utilizes a brochure and website to provide more information to prospective participants on the mechanics and benefit of the program. After feasibility is determined, program staff generates a proposal, the device is scheduled to be installed and the installation takes place. After the installation is verified, the rebate is issued and the savings are claimed.

vii. CEC work on PIER

There is an ongoing study within the CEC's PIER program to investigate the effectiveness of various types of boiler controls and to inform a rewriting of the hot water distribution algorithms with the compliance software. The current device is one of the control types about which the study is gathering data. Therefore, even though our program includes a monitoring function, the reliability of demand control energy savings will be independently documented and verified. The PIER study will also be comparative among types of devices and will show savings under multiple conditions.

viii. CEC work on codes and standards

The PIER research referenced above will directly lead into the next round of Codes & Standards updates, as will the demand control and MF market data that will be collected as part of the ODE Program.

ix. Non-utility market initiatives

The Program's personnel are part of a team that, through a different contract, will be developing a quality control manual for CDHW systems, and providing training to installers, manufacturers, and inspectors. The training will include a segment on how to spot faults in CDHW systems and how to assess the best opportunities for system improvements. The personnel that work in the ODE Program will help inform that effort, and vice versa. The industry is struggling with how to improve the quality of installations and ensure long-term energy savings. ODE is an integral part of that progression and there are many spillover opportunities that the program will seek to exploit.

c) Best Practices

This program reflects best practices in that it addresses a specific problem with a simple solution that requires a minimum level of hassle on the customer's part, intelligently involves relevant market actors, and uses a state-of-the art database-driven website to track marketing, installations, savings and more.

d) Innovation

The On Demand Efficiency Program relies on the "D'Mand Pump" as an innovative technology and employs an innovative program strategy to deliver an efficiency solution to the multifamily market sector. The D'Mand Pump is actually a system that includes the pump, a flow sensor, a temperature sensor and a controller unit. It reduces heat losses from central DHW distribution loops in multifamily buildings by shutting off the recirculation pump when it is not needed. The flow sensor detects when a tenant turns on

the tap, and the temperature sensor takes the temperature of the water in the line. The control unit turns the pump on if the water temperature is too low, and shuts the pump off as soon as the water temperature is high enough near the last tenant on the loop. A similar system has been used in single-family homes for over a decade, but the more complex sensing and logic needed for multi-tenant systems is a relatively new innovation that has not had much penetration yet in the market.

e) Integrated/Coordinated Demand Side Management

Not applicable to this third-party program.

f) Integration Across Resource Types (energy, water, air quality, etc)

This program has the potential to reflect electric savings as well as possibly water savings, although there is no plan at this time to claim those savings, the Program's Contractor is interested is interested in exploring those possibilities in the future.

g) Pilots

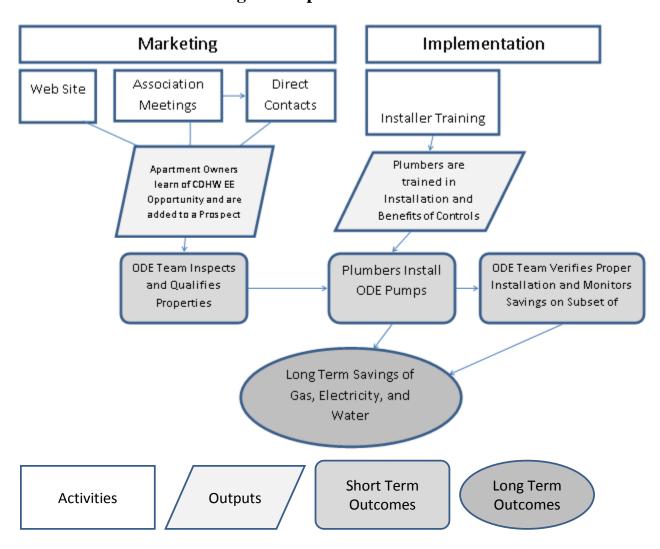
There are no pilot projects that are part of this program at this time

h) EM&V

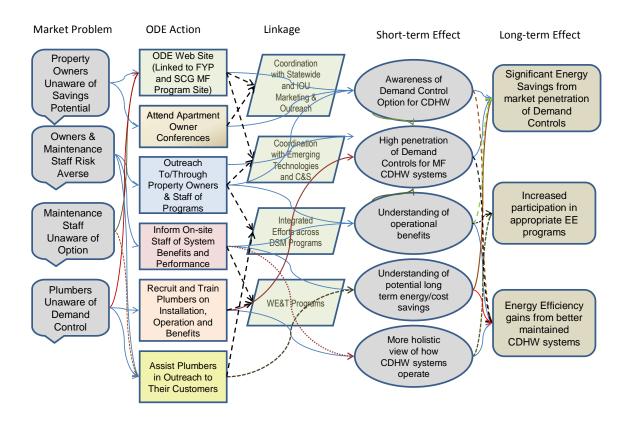
The utilities are proposing to work with the Energy Division to develop and submit a comprehensive EM&V Plan for 2013-2014 after the program implementation plans are filed. This will include process evaluations and other program-specific studies within the context of broader utility and Energy Division studies. More detailed plans for process evaluation and other program-specific evaluation efforts cannot be developed until after the final program design is approved by the CPUC and in many cases after program implementation has begun, since plans need to be based on identified program design and implementation issues.

7. Diagram of Program

No specific program diagram for this third party program has been developed. Any program linkages are discussed in Section 6. Following is a diagram of the Program's implementation and marketing.



8. Program Logic Model



1. Program Name: HERS Rater Training Advancement

Program ID: SCG3760

Program Type: Third-Party Program

2. Projected Program Budget Table

Table 1: Total Projected Program Budget by Category

| Program # | Main/Sub Program Name | Administrative Amount | Marketing Amount | Direct Implementation Amount | Incentive Amount | Total Program Budget Amount |
|--------------|--|--------------------------|---------------------|------------------------------------|---------------------|-----------------------------------|
| | SoCalGas Third Party Programs | | | | | |
| 3760 | 3P-HERS Rater Training Advancement | \$80,000 | \$56,000 | \$1,007,480 | \$0 | \$1,143,480 |
| 3760u | 3P-HERS Rater Training Advancement (Utility) | \$64,363 | \$5,746 | \$59,585 | \$0 | \$129,694 |
| | TOTAL: | \$144,363 | \$61,746 | \$1,067,065 | \$0 | \$1,273,174 |

Note: SCG continues to negotiate the final contract with the third party vendor. As a result of final contract negotiations, the budget allocation into the budget subcategories may vary.

3. Projected Program Gross Impacts Table

Table 2: Total Projected Program Savings by Subprogram

| Main/Sub Program Name | 2013-2014 Gross kW Savings | 2013-2014 Gross kWh Savings | 2013-2014 Gross Therm Savings |
|------------------------------------|-------------------------------|--------------------------------|----------------------------------|
| SoCalGas Third Party Programs | | | |
| 3P-HERS Rater Training Advancement | 0 | 0 | 0 |
| TOTAL: | 0 | 0 | 0 |

Note: This is a non-resource program.

4. Program Description

a) Describe program

The Program will promote, develop, and deliver training to currently certified HomeEnergy Rating System (HERS) raters, energy consultants, and other professionals involved in construction of new and retro-fit housing in the Southern California Gas service territory and surrounding areas. The curriculum will address technical and administrative elements of Home Energy Ratings and energy efficiency. It will cover both the new requirements and changes based on Title 24 requirements in the 2010 code and the new code which will go into effect January 1, 2014.

Although California leads the nation in "professionalizing" the residential energy consultant industry and despite the size of this service sector and, in fact because of it, there is a natural tendency for the large number of certified raters in California to have divergent approaches to rating new homes. This program will be an important means toward helping create more consistency and comparability of new construction performance. Also, as advanced designs, materials, and systems are incorporated into new homes, there is an on-going and increasing need to provide guidance on how to model and inspect these elements in the rating process so that they are treated correctly and consistently.

The program rationale begins with the need for additional HERS Rater Training that incorporates new codes and standards, green building and zero net energy technologies and practices, and provides raters comprehensive and consistent tools and information. By providing training advancement opportunities through web-based and classroom instruction, the utility seeks to improve and align HERS Rater skill sets to (a) include the long-term focus on whole-building energy efficiency opportunities, (b) integrate and digest local, regional and state building codes, statutes and programs such that builders and developers can count on HERS raters for current information and appropriate recommendations, and (c) engage and equip the HERS rater profession as emissaries in the deployment of new energy efficiency technologies and adoption of voluntary building standards in the near term.

b) <u>List measures</u>

This is a non-resource program that provides no technologies or incentives.

c) <u>List non-incentive customer services</u>

The services to be provided in this program are:

- Conduct a survey of stakeholders to help determine the content of courses to be developed.
- Create a program website to provide multiple resources including: an initial rater assessment screening; a rater primer; registration for the classroom courses; video capture of the classroom trainings; related online training materials.
- Develop program marketing materials, and distribute to raters and energy analysts.
- Develop of a minimum of ten course curricula.
- Deliver 120 training sessions, geographically dispersed throughout SoCalGas service territory.
- Develop a marketing toolkit for raters who have completed courses.

5. Program Rationale and Expected Outcome

a) Quantitative Baseline and Market Transformation Information

Table 3

| | Baseline Metric | | |
|-----------------|-----------------|----------|----------|
| | Metric A | Metric B | Metric C |
| Overall Program | | | |
| Sub Program #1 | | | |
| Sub Program #2 | | | |
| Sub Program #3 | | | |

Market Transformation has not been a major focus of the California energy efficiency programs since the energy crisis. Consequently, relatively little attention has been given in recent years to identifying and gathering data on indicators of change towards market transformation. For some programs or sub-programs that promote a single end use or measure, there may be some data available for this purpose, probably from industry

sources, that we have not yet identified. For many of the programs, however, this kind of long-term, consistent, and expensive data collection has not been done in California.

The utility program planners have worked closely with their respective EM&V staffs and with each other to identify available information and propose potential metrics. Each utility and each program has some data available, but attempts to distill the limited available information into a common set of agreed-upon metrics have proved far more difficult to accomplish. Offering metrics in which there is not strong confidence would not be productive. Therefore, the utilities respectfully exclude "draft" metrics at this time and instead suggest a means of developing meaningful indicators.

The utilities will develop meaningful baseline and market transformation concepts and metrics for programs that do not currently have them, and then propose to design and administer studies to gather and track consistent, reliable and valid baseline and market effects data. We would propose to use the program logic models and The California Evaluation Framework (2004) as guides, and to begin this work after approval of the Application using funding provided for Evaluation, Measurement & Verification.

We expect that the baseline studies (1) adequately describe the operation of markets that are targeted by a program, (2) confirm our tentative identification of measurable parameters that would indicate changes towards greater efficiency in the market(s) and that are likely to be affected by the program, and (3) gather the current values of those parameters, to serve as baselines against which future market movement can be tracked.

b) Market Transformation Information

Table 4

| Internal Market Transformation Planning Estimates | | | |
|--|------|--|--|
| 2013 | 2014 | | |
| | | | |
| | | | |
| | | | |
| | | | |

As explained immediately above, the utilities propose to provide these draft metrics when available.

c) Program Design to Overcome Barriers

The priority barriers to widespread education and implementation of new standards, adoption of consistent rating protocols and the advancement of HERS raters commensurate to the challenges of AB32 and the Long Term Energy Efficiency Strategic Plan are:

| Barrier | Solution |
|--|---|
| Accessibility and participant cost | Training will be provided frequently, accessibly and |
| | affordably. This will be enhanced through |
| | availability of online course materials. |
| Comprehensiveness and consistency across the SoCalGas | Web training and classroom curricula will be |
| service area and its surrounding areas | designed with comprehensiveness and consistency |
| | in mind enabling raters from throughout the region |
| | to obtain comprehensive and consistent advanced |
| | training content. |
| Timely delivery of updates consistent with the program | The Program includes trusted and knowledgeable |
| period goals of the Strategic Plan | sources to develop updated materials. |
| Garnering participant interest and trust such that the | To increase training participation, marketing will be |
| program achieves broad participation | directly and narrowly focused toward a limited, |
| | easily identified, and motivated group, rather than |
| | broadcast. The partner organizations are well known |
| | to the rater community, making it more likely that |
| | they will respond positively to the offerings of this |
| | program. |

d) **Quantitative Program Targets**

The key activities for the Program are: a) the development of course curriculum for 32 topic areas and b) the effective presentation of these courses to raters in 144 classroom and/or field training half-day or full-day sessions.

Table 5

| HERS Rater Training | Program Target by | Program Target by | Program Target |
|---------------------|-------------------|-------------------|----------------|
| Advancement | 2013 | 2014 | Totals |
| Courses Developed | 5 | 5 | 10 |
| Classroom / Field | | | |
| Training Sessions | 60 | 60 | 120 |
| Web-based courses * | 5 | 5 | 10 |

^{*} The specific courses made web-accessable will be determined and agreed to between the Company and the Contractor. It will be based on projected user interest and the subject matter.

Note: Values provided represent yearly targets.

e) Advancing Strategic Plan goals and objectives

The Program advances the Strategic Plan in the following ways:

California Long Term Energy Efficiency Strategic Plan Goals and Strategies

| Description | Strategic Plan Sector | Strategic Plan Goal | Strategic Plan Strategy |
|--|--------------------------|---|---|
| By enhancing codes and standards knowledge among raters, the Program will help increase levels of compliance with Title 24 and facilitate continual advances in building efficiency. | Residential | Deliver Zero Net Energy New Homes By 2020. | Drive continual advances in technologies in the building envelope, including building materials and systems, construction methods, distributed generation, and building design. |
| By educating HERS Raters | Residential | Transform home | Promote effective decision |

| and professionalizing their services, the Program promotes effective decision making and helps drive demand for energy efficiency measures. | | improvement markets to apply whole-house energy solutions to existing homes. | making to create widespread demand for energy efficiency measures. |
|---|--|--|---|
| By promoting training regarding Title 24 and coordinating these efforts with information about utility programs, program will increase code compliance and improve coordination with other programs and policies. | Codes and Standards | Continually strengthen and expand building and appliance codes and standards as market experience reveals greater efficiency opportunities and compelling economic benefits. | Improve coordination of energy codes and standards with utility programs. |
| By improving knowledge of Title 24, the Program enhances code compliance. | Codes and Standards | Dramatically improve code compliance and enforcement. | Improve code compliance and enforcement. |
| Enhances training and knowledge of HERS Quality Assurance auditors. | Workforce Education and Training | Establish energy efficiency education and training at all levels of California's educational system. | Incorporate energy efficiency and demand side energy management into traditional contractor and technician training, such as for plumbers and electricians, and expand training resources to produce target numbers of trained workers. |

6. Program Implementation

a) Statewide IOU Coordination

- i. Program name
- ii. Program delivery mechanisms
- iii. Incentive levels
- **iv.** Marketing and outreach plans, e.g. research, target audience, collateral, delivery mechanisms.
- v. IOU program interactions with CEC, ARB, Air Quality Management Districts, local government programs, other government programs as applicable
- vi. Similar IOU and POU programs

This third-party program is not designed as a statewide program and is intended to operate within the SCG service territory and surrounding areas. The Program is designed to support and complement SoCalGas's core program activities. Where this Program shares common elements with the IOU's core programs, other third-party programs, or programs in other IOU service areas, SoCalGas and the Contractor will strive to coordinate the similar activities to maximize benefits and effectiveness.

b) Program delivery and coordination

The Program will be delivered in concert with a number of the statewide program priorities.

i. Emerging Technologies program

A key component of the Long Term EE Strategic Plan (2008) is the advancement of technologies, standards and building practices to deliver Zero Net Energy Homes by 2020. The Program is an essential bridge between new technology development and deployment. As innovative financing opportunities become available, and new energy efficiency and renewable technologies enter the market, HERS raters trained through this program will be positioned to guide builders and developers in selecting appropriate technologies and financing instruments for their projects.

ii. Codes and Standards program

With respect to Codes and Standards, with the adoption of statewide green building standards in July 2008, California's Building Standards Commission has set a voluntary benchmark for green buildings, effective in 2009. These standards are expected to become mandatory by 2012. Through the Program, HERS raters will be trained in these new standards as a part of their codes and standards training module, which includes Title 20 and Title 24 code changes. By 2011 and the new code in 2014, HERS raters will have access to convenient, low-cost, and up-to-date training on these important changes in the building standards pipeline.

Because state and local green building initiatives and standards may vary, with local governments moving toward higher benchmarks, the training program will provide much-needed integration of state and local government policies in a format that is accessible to HERS raters and energy rating professionals. Through active engagement and ongoing education in these codes and standards as they develop, the HERS raters who participate in the Program will be positioned to assist builders and developers in navigating the myriad codes and standards applicable to their housing developments. This is consistent with the vision statement for the residential sector (section 2.13) and market transformation strategies for Building Innovation and Comprehensive Solutions in the Long Term EE Strategic Plan (section 2.1.4)

iii. WE&T efforts

Although workforce education and training efforts broadly encompass many private and public institutions of higher learning, the Program meets a specific need in workforce education and training by offering HERS raters affordable, easily accessible advanced training on home energy systems, energy efficiency opportunities, renewables, and green building practices. Of the many near-term goals for energy efficiency education and training, this program serves to expand training curricula and training and professional career development in building construction, services and energy efficiency technical fields (Action 1-2, p. 78 Long Term EE Strategic Plan).

iv. Program-specific marketing and outreach efforts (provide budget)

Marketing and outreach is coordinated through energy rating organizations with a statewide presence, including CalCERTS and CHEERS, with the expectation that

CABEC (California Association of Building Energy Consultants) will provide additional outreach support. By coordinating directly with statewide organizations, the Program will tap into the resources of these organizations and build training programs consistent with statewide codes and regulations, and appropriate to the training needs of current raters.

Having CalCERTS and CHEERS together on the project is a tremendous benefit and an innovative aspect of the marketing strategy. With both of the major HERS providers integrated into the program from the outset, the first and most difficult obstacle to reaching our primary target audience in a cost efficient and focused manner, is significantly reduced. Both organizations have direct and valued contact with their own raters, and are a recognized source for training and general information about the rating industry. This allows us to reduce traditional marketing costs while improving penetration. The marketing staff will coordinate with team members CalCERTS and CHEERS to leverage their membership directories. Through this close partnership, the Program team will provide a strong customer base of HERS raters who can effectively target and market. Marketing duties include the design, development and printing of program materials including marketing collateral, direct market mailings, email blasts, and involvement with local trade organizations and local trade sponsored events and conferences, that will afford networking opportunities across industry players.

Marketing the training to raters will begin with by alerting all Southern California CHEERS and CalCERTS-certified raters about the extension of the current program. When new online and classroom courses are developed and a schedule has been established, raters and energy consultants will receive an email announcement detailing the program and courses, including how they can register through the program website. Once a program participant has successfully completed his/her training, the web site will also provide access to a host of marketing material that will be housed in the HERS rater online tool kit. The database-driven site will deliver tools to HERS Raters, including training aids, downloadable materials, links and an online print store. The site will enable participants to take advantage of marketing material by customizing print ads, brochures and direct mail pieces. Announcements will also be through IOU and various related associations.

v. Non-energy activities of program

Stakeholder Survey and Curriculum Development

The ongoing process of creating meaningful curricula for HERS rater training will be to determine the most relevant and needed subject matter. Contractor will use a combination of online surveys and face-to-face interviews with stakeholders in the rating industry to assess the uniformity of ratings and identify areas of interest and need for further training. A survey questionnaire will be developed by the team with input from SoCalGas. The program will invite survey participation from all CalCERTS and CHEERS certified raters in the SoCalGas service territory and surrounding areas. It is also anticipated that the California

Association of Building Energy Consultants (CABEC) and IHACI (Institute of Heating and Air Conditioning Industries), given their existing relationship with CalCERTS and CHEERS, will provide support for such outreach to their membership. The organizations will send emails to their members, describing the goal of the survey and providing a link to it. This approach will serve two purposes: first, it will provide direct input from the primary target group; second, it will introduce raters to the forthcoming training program, and engage them in the process from the outset.

In parallel, the Program will continue to conduct a series of interviews and meetings with new potential stakeholders including SoCalGas program managers, energy analysts, code officials, builders, developers and regulators to get perspectives from outside the rater community. This includes outreach to and coordination with public agencies, building and planning departments, and special districts to integrate local and regional goals and perspectives into the training agenda. Responses will be reviewed to identify general patterns and specific needs for subjects to cover in the training program. It is suggested, however, that not all of the thirty-two anticipated courses be finalized at the outset of the program. It is prudent to leave several courses unidentified for year three so that new curricula can be created, which responds to unforeseen developments.

Once the training topics and areas of need have been identified, technical staff from CalCERTS, CHEERS, and Contractor will generate a draft timeline for curriculum development, which will be reviewed with SoCalGas before a final plan is set. The plan will establish the order in which courses should be developed. Once the timeline is established, staff will begin creating outlines of the courses. After the outlines are drafted and following review with SoCalGas, the detailed content development will proceed.

Training Delivery

The training program will incorporate three distinct elements that, taken together, provide convenience, customization, and reinforcement, and that are most appropriate or preferred to the participant's various learning styles. A combination of online and classroom courses will be offered to help raters advance their technical and programmatic skills and knowledge. As presented here, modules will be the basic building blocks of technical and programmatic information to be communicated. Modules will be assembled into courses, each covering a distinct subject. For example, a course devoted to photovoltaics would be comprised of modules on subjects like: siting and solar access, inverters, modeling and inspection, and more. Finally, training sessions are meant to describe the delivery of a course. A minimum of ten courses will be developed for the program, with each course being delivered multiple times in training sessions that are convenient for attendees in terms of both time and location. Also, the online element of our program means that there are an unlimited number of sessions that a rater may take whenever, wherever, and as often as they would like to.

Classroom Courses

Building on the fundamentals that are covered in the online primer, the classroom trainings are meant to provide more advanced skills and, where warranted, hands-on practical experience. A minimum of thirty-two courses will be developed over the term of the program, with approximately four new courses offered every quarter. Each course will be delivered an average of three times in different locations throughout SoCalGas service territory and surrounding areas to make them more convenient for raters to attend without excessive travel. Courses will be one-day or half-day duration, as needed to cover the material. Where appropriate, portions of instruction will be held in the field so that real world issues can be demonstrated. Also, using video media, the field will be brought into the classroom to show details that are otherwise difficult to describe.

Online Classroom

Selected courses will be captured on video for placement on the program website. This will be beneficial to raters who attended the live training and wish to review, and also to raters who are unable to attend. The online presentation of the courses will combine video of the training session, related presentation materials and links back to the primer materials which are related to the subject matter. The website that houses the online courses will be built from a database-driven system that provides test tracking and administrative functions and features. The multi-media, self-study, online training "academy" will be uniquely tailored for SoCalGas and individually suited for HERS raters. The comprehensive training program will include various levels of training. Each level will contain individual courses made up of lectures and/or multi-media presentations. The training program, when appropriate, may include online testing functions and administrative tools that will allow SoCalGas to monitor training success and offer certification upon completion of any or all stages of the program.

vi. Non-IOU programs

HERS Raters are registered under State of California Energy Commission approved providers and have connections with non-IOU programs. Other industry players that acknowledge Raters and their role include local building and planning departments, the design and engineering community, and associations such as the California Association of Building Energy Consultants, Institute of Heating & Air Conditioning (IHACI), and Air Conditioning Contractors of America. (ACCA). This program will be coordinated in concert with the CHEERS and CalCERTS organizations, drawing on their technical expertise and resources in order to provide their members with cost-effective delivery of web and classroom training seminars. Coordination with non-IOU programs such Cool California (a partnership between the California Air Resources Board, California Energy Commission, Berkeley Institute of the Environment, UC Berkeley, Lawrence Berkeley National Laboratory and Next 10), the Green Building Initiative, and the South Coast Resource Conservation and Development Area will be sought as a means to identify training needs and to broaden and finetune course offerings. As feasible, these organizations will be invited to provide

PDF documents and/or links to web content related to new construction and emerging technologies useful to HERS raters.

vii. CEC work on PIER Not applicable

viii. CEC work on codes and standards

CEC work on codes and standards underpins much of the content in new building technologies, energy efficiency building codes and green building standards. Again, the program does not specifically budget coordination with ongoing CEC work into the delivery of training materials, but coverage of codes and standards is implicit in providing meaningful training advancement for HERS Raters.

ix. Non-utility market initiatives

Much of the Southern California Gas service area is part of the South Coast Resource Conservation and Development Area. Shared goals include similar missions to develop and deploy workforce education and training programs, creating "green collar" jobs, promoting the adoption of solar and renewable technologies, and utilizing educational initiatives and programs to advance green building practices. The South Coast Resource Conservation and Development Area Council consists of member Resource Conservation Districts covering the SoCalGas service area from the coast to the inland reaches of Southern California, close partnership with the National Resource Conservation Service and alliances with county government officials. Non-utility market actors include a myriad of special districts and local governmental entities, nearly all of which are advancing green building practices, educational materials and standards. By providing HERS raters with access to ongoing developments in local and regional efforts to comply with AB32 and advance highly localized green building initiatives, the HERS Rater Training Advancement Program will provide an essential link between home builders and the multi-faceted governmental elements (codes, standards, rebates, and financial instruments or incentives) that affect local new construction developments

c) <u>Best Practices</u>

The program design incorporates many of the best practice elements from the National Energy Efficiency Program Best Practices Study¹. Specific items include:

Program Theory and Design

- Anticipation of market challenges built into program design
- Program integrates statewide policy objectives into program design
- Defines and identifies key information needed to track and report throughout the program process.
- Program implementers will periodically review & update market level information about construction practices, EE market share, and measure adoption.

¹ The best practices listed are identified in the *National Energy Efficiency Best Practices Study, Volume S – Crosscutting Best Practices and Project Summary*, Quantum Consulting, Inc., December 2004.

Southern California Gas Company

59

January 14, 2013

Project Management

• Clear lines of responsibility and communication shall be set forth in the subcontracts with CalCERTS, CHEERS and BMI.

Reporting and Tracking

- Program performance and participation data will be integrated into a databasedriven website.
- The program utilizes web-based communications including the program website, e-forms and submittal processes, educational support services (ESS) and hybrid ESS incentive options.
- Program prospects will be contacted and tracked early to engage early adopters and drive program participation.

Participation Process

- The application process and forms will be designed for user-friendly navigation and ease of use, submittal options, telephone support and classroom-based training.
- Technical assistance is provided to Raters via one-on-one customer training support.
- The program works with key stakeholders, including industry associations, to maximize reach and acceptance.
- Trade allies (CalCERTS, CHEERS, and others) will be trained in program policies and procedures so they may then assist HERS raters in selecting training modules and participation levels appropriate to their needs.
- Program funds are slated to cover program operations for the duration of the twoyear cycle, throughout each year.

d) Innovation

In addition to the unique partnership arrangements this program utilizes, the Program will employ several innovative technical elements. Team partner BMI will create and develop a computer/internet based learning management system (LMS) built off of standard LMS platforms already created. The SoCalGas HERS LMS will include an initial assessment test (or knowledge verifier) and the subsequent course layout will offer users distinct learning units, each containing an individual video segment or Flash presentation supporting the course's topic. Courses will contain a rich mix of text, photo, audio and video content. The framework will be flexible, and will easily accommodate expansion and updates. Lessons will also include any necessary study guide materials, online quizzes ("Check Your Understanding"), and a final exam that will serve as the basis for special recognition. This learning platform is innovative in the sense that it incorporates state-of-the-art technological elements with tested learning principles and methods to offer HERS raters the advantages of low-cost, one-stop, convenient access to Title 20, Title 24 and green building standards and information on emerging technologies, renewables, and whole-house approaches to energy efficiency. The Program couples innovative and content-rich web learning opportunities with classroom

training and self-testing to reinforce training advancement through audio, visual and interactive cues.

The Program's approach to training is to provide content-rich, but industry-specific information. The HERS pre-qualifier will engage three variations of a virtual distance learning training package – traditional instructor led training, in-field video and game-based education.

The Program team will deploy various innovative technologies to achieve the highest learning objectives, including:

- Educational Support Services (ESS) and hybrid ESS incentive options: These
 increase the percentage of online training participants and provide technical
 expertise and assistance results that maximize the use of rebates and incentives;
- Quantifiable measurements: An integrated learning management system allows for real time data on users, access to specific information, educational roadmaps, and detailed reports on training programs taken, tests completed, videos launched and incentives achieved, and
- One-on-one participant support: Participant inquiries will be addressed in a tiered support system of (1) FAQs with answers, (2) E-mail with response within 24 hours, and (3) Dial in number for direct live support.

e) Integrated/coordinated Demand Side Management

This is not an Integrated Demand Side Management program.

f) Integration across resource types

The Program does not specifically aim to integrate across resource types (energy, water, or air quality). However, to the extent that Title 24 sets the standards for all aspects of new construction, this training program and the resulting improved quality of rating and testing will positively affect all resource types. Moreover the program plans to incorporate training materials from the California Air Resources Board and other public agencies that address Zero Net Energy Homes, and GHG emission reductions associated with green building practices. Website links to resources for green building practices and local codes and policies will include information on building-related water and air resource programs and practices such as standards for meeting water-conservation building ordinances, native and low-water use landscaping practices and new construction standards consistent with meeting the California Building Standards Commission benchmark for green buildings.

g) Pilots

The Program has no planned pilots.

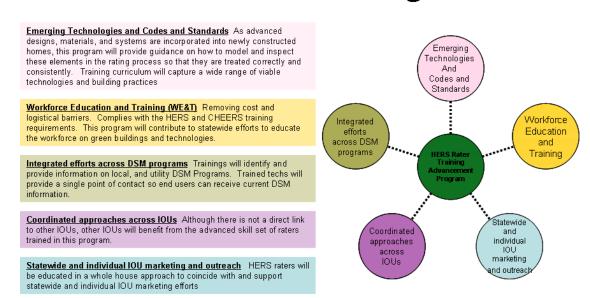
h) <u>EM&V</u>

The utilities are proposing to work with the Energy Division to develop and submit a comprehensive EM&V Plan for 2013 - 2014 after the program implementation plans are filed. This will include process evaluations and other program-specific studies within the context of broader utility and Energy Division studies. More detailed plans for process evaluation and other program-specific evaluation efforts cannot be developed until after

the final program design is approved by the CPUC and in many cases after program implementation has begun, since plans need to be based on identified program design and implementation issues.

7. Diagram of Program

HERS Rater Training Advancement Program



8. Program Logic Model

Third party programs are an implementation channel and are included in the appropriate market segment logic models. No specific logic model for a particular third party program has been developed.

1. Program Name: Multi-Family Home Tune-Up

Program ID: SCG3761 **Program Type:** Third Party

2. Projected Program Budget Table

Table 1: Total Projected Program Budget by Category

| Program # | Main/Sub Program Name | Administrative Amount | Marketing Amount | Direct Implementation Amount | Incentive Amount | Total Program Budget Amount |
|--------------|-------------------------------|--------------------------|---------------------|------------------------------------|---------------------|-----------------------------|
| | SoCalGas Third Party Programs | | | | | |
| 3761 | 3P-MF Home Tune-Up | \$0 | \$0 | \$881,148 | \$1,158,852 | \$2,040,000 |
| 3761u | 3P-MF Home Tune-Up (Utility) | \$37,405 | \$7,661 | \$56,247 | \$0 | \$101,313 |
| | TOTAL: | \$37,405 | \$7,661 | \$937,395 | \$1,158,852 | \$2,141,314 |

Note: SCG continues to negotiate the final contract with the third party vendor. As a result of final contract negotiations, the budget allocation into the budget subcategories may vary.

3. Projected Program Gross Impacts Table

Table 2: Total Projected Program Savings by Subprogram

| Program # | Main/Sub Program Name | 2013-2014 Gross kW Savings | 2013-2014 Gross kWh Savings | 2013-2014 Gross Therm Savings |
|-----------|-------------------------------|-------------------------------|--------------------------------|----------------------------------|
| | SoCalGas Third Party Programs | | | |
| 3761 | 3P-MF Home Tune-Up | 0 | 0 | 582,859 |
| | TOTAL: | 0 | 0 | 582,859 |

Note: The therm savings are estimated based on contract negotiations with the third party vendor. The projected savings may change as a result of final contract negotiations.

4. Program Description

a) Describe program

Through the Multi-Family Home Tune-up Program, Contractor will help deliver energy savings to multifamily customers located in Orange, San Bernardino, Riverside, and parts of San Luis Obispo, Fresno, Kern, Kings, Tulare and Imperial counties during the –2013 - 2014 program period.

Since there are two contractors implementing similar programs for multifamily customers in SoCalGas territory, each contractor has been assigned specific counties in which to market their program.

To differentiate this program from other direct install programs, this program, in addition to the measures listed, will provide valuable efficiency education directly to both multifamily property owners and tenants. Through this program, Contractor will:

 Perform building audits at multifamily properties, identifying a comprehensive list of gas, electricity and water savings opportunities available in each property and delivering education and training about the benefits of efficiency and proper maintenance to these property owners and managers

- Directly install high-efficiency measures in multifamily units during the Program's two-year extension.
- Deliver efficiency education in a one-on-one setting with available multifamily tenants during the Direct Install services
- Provide SoCalGas's Multifamily Energy Efficiency Retrofit program materials and contact information to multifamily property owners and managers, and pass warm leads of prospective properties to the SoCalGas or other appropriate utility programs as appropriate

b) List measures

The following measures will be implemented by this program:

- Low Flow Showerheads
- Bathroom/Kitchen Faucet Aerators

c) List non-incentive customer services

Through this program, Contractor will do the following:

- Perform holistic building audits at multifamily properties, identifying a comprehensive list of gas, electricity and water savings opportunities available at each property
- Deliver education and training about the benefits of energy efficiency and proper maintenance to property owners and managers
- Deliver efficiency education in a one-on-one setting with available multifamily tenants during the direct install services
- Provide SoCalGas's Multifamily Energy Efficiency Retrofit Program materials and contact information to multifamily property owners and managers, as appropriate
- Provide potential customer lead opportunities for additional services to other programs, such as SoCalGas's Multifamily Energy Efficiency Retrofit Program.

5. Program Rationale and Expected Outcome

a) Quantitative Baseline and Market Transformation Information

This section is not applicable.

b) Market Transformation Information

This section is not applicable

c) Program Design to Overcome Barriers

The barriers that have been identified in previous years are:

| Barrier | Solution | |
|--|--|--|
| The lack of consumer information about | The Program uses an account management strategy to | |
| energy efficiency benefits creates reluctance on | educate customers about energy efficiency | |
| behalf of decision-makers. | opportunities. | |

| Measures are generally paid for by the property owner but benefit the tenant), split incentives (between owners/landlords and tenant | The Program overcomes the split incentive problem by providing services free of charge to end users. |
|--|---|
| Lack of financing for energy efficiency improvements | By providing measures and services free of charge to customers, the Program overcomes the lack of financing barrier |
| | IOU requires measure specification to meet high |
| Lack of availability of high-efficiency products | efficiency eligibility requirements |
| Residential | |
| | The Program targets multi-family units and adapts its |
| Housing Type: Multi-family and | marketing approach to ensure penetration of this |
| mobile home tenants | market. |
| OTHER BARRIERS | |
| Agreeing upon the procedures and | Extensive education and marketing will be conducted |
| measurement of energy saving and reliability | and targeted toward decision makers of multi-family |
| benefits. | properties |
| The models developed for assessing usage are | Extensive education and marketing will be conducted |
| often confusing to financiers & managers. | and targeted toward decision makers of multi-family |
| Need to be expressed in plain English | properties |

d) **Quantitative Program Targets**

Table 3

| Multi-Family Tune- Up | Program Target by 2013 | Program Target by 2014 |
|---------------------------------|------------------------|------------------------|
| Low flow shower heads installed | 11,000 | 11,000 |
| Faucet aerators | 29,820 | 29,820 |

Note: Values provided represent yearly targets.

e) Advancing Strategic Plan goals and objectives

This program supports the Strategic Plan in the following manner:

| Description | Strategic Plan Sector | Strategic Plan Goal | Strategic Plan Strategy |
|--|--------------------------------|---|--|
| The program performs whole-building approach audits and identifies comprehensive list of gas, electricity and water savings opportunities. | Coordination | Deliver integrated DSM options that include efficiency, demand response, energy management and self generation measures, through coordinated marketing and regulatory integration | 1-3: Develop integrated DSM programs across resources, including energy, water, and transportation. |
| The program employs active onsite education and training of site personnel. | Marketing Education & Outreach | Establish energy efficiency education and training at all levels of California's educational | 1-3: Incorporate energy efficiency and demand side energy management into |

| Description | Strategic Plan Sector | Strategic Plan Goal | Strategic Plan Strategy |
|-------------|--------------------------|---------------------|----------------------------|
| | | system | traditional contractor |
| | | | and technician |
| | | | training, such as for |
| | | | plumbers and |
| | | | electricians, and |
| | | | expand training |
| | | | resources to produce |
| | | | target numbers of |
| | | | trained workers |

6. Program Implementation

a) Statewide IOU Coordination

- i. Program name
- ii. Program delivery mechanisms
- iii. Incentive levels
- **iv.** Marketing and outreach plans, e.g. research, target audience, collateral, delivery mechanisms.
- v. IOU program interactions with CEC, ARB, Air Quality Management Districts, local government programs, other government programs as applicable
- vi. Similar IOU and POU programs

This third-party program only operates within SoCalGas's service area. The Program is designed to support and complement SoCalGas's core program activities. If it is determined that this program shares common elements with the IOU's core programs, other third-party programs, or programs in other IOU service areas, SoCalGas and the Contractor will strive to coordinate the similar activities.

b) Program delivery and coordination

- i. Emerging Technologies program Not applicable to this program.
- **ii.** Codes and Standards program Not applicable to this program.
- **iii.** WE&T efforts Not applicable to this program.
- iv. Program-specific marketing and outreach efforts (provide budget) Program marketing developed by Contractor's in-house marketing group will focus on materials and strategies to educate multifamily property owners, managers and tenants and generate direct install commitments. The Multifamily Home Tune-up Program will largely be driven by direct outreach to property owners, rather than large-scale mass marketing. Most program marketing materials will support these outreach activities with information about energy

efficiency, its benefits and available programs to assist owners and tenants to install further efficiency measures designed to create an effective, unified message to prospective program participants.

Expected Program marketing materials include:

- Tenant relationship materials, including:
 - Notice of entry templates
 - Educational leave-behind materials
 - List of other available utility programs
- Program executive packets, including:
 - o Energy efficiency benefit sheet
 - Operations and maintenance best practices
 - List of other available utility programs
 - Case studies
 - o Guide to energy efficiency in the multifamily market
 - Information sheet about the Comprehensive Multifamily Retrofit program
 - Rebate application form for the Comprehensive Multifamily Retrofit program
 - o Program contact information
- Trade magazine advertising
- Trade show marketing, including:
- Program informational brochures
- Trade show booth banner
- Program giveaways
- v. Non-energy activities of program Not applicable to this program.

vi. Non-IOU Programs

Because this program features close customer contact, on-site visual inspections of multifamily properties, and an ongoing sales process, Contractor will identify a list of measures that each property may install to achieve further efficiencies, including gas, electricity and water, both utility and non-utility sponsored. The Program will inform property owners about other opportunities to support its effort to reduce consumption and increase efficiency, such as:

- Boilers, commissioning and replacement with high-efficiency gas boilers and controllers
- High-efficiency gas central water heaters
- High-efficiency gas or electric storage water heaters
- High-efficiency dishwashers
- High-efficiency forced-air units and replacement filters
- Insulation in the walls, attics and floors
- Tank wrap
- Door and window caulking
- Low-flow toilets

- ENERGY STAR qualified ceiling fans
- Compact fluorescent light bulbs (CFLs)
- High-efficiency refrigerators
- Water-saving sprinkler timers
- High-performance dual-pane windows

vii. CEC work on PIER

Not applicable to this program.

viii. CEC work on codes and standards Not applicable to this program.

ix. Non-utility market initiatives Not applicable to this program.

c) Best Practices

The program design incorporates various best practice elements. The Contractor's process utilizes best practices sales techniques to develop relationships with multi-family decision-makers, educate them about the benefits of efficiency measures, garner energy savings through direct install services, and identify and implement efficiency measures that will add the most value to their properties

Specific items include¹:

• Program Theory and Design: Program is tailored to the unique needs of the sector and understands the financial and ownership structure of the local multi-family market and the relationships among the various market actors.

- Program Management Project Management: Contractor has developed and retains institutional knowledge of the multi-family building sector and lessons learned as implementation structures shift over time.
- Program Implementation Participation Process: Program provides support to building owners throughout the process.
- Program Implementation Marketing and Outreach: Program works with property owners and other market participants to help them succeed according to their objectives, and promote program benefits that align with these objectives.

In addition, lessons learned of the multi-family market will be applied to develop the strategies included in the proposal for this program. Key strategies the Program will employ to create this pipeline include the following:

- Work closely with SoCalGas account managers, program managers and other stakeholders to generate the greatest possible benefits from SoCalGas's current relationships and programs
- Focus on specific audiences investors, owners and managers of multifamily properties in an introductory program Road Tour designed to generate interest among these key decision-makers

Southern California Gas Company 68 January 14, 2013

¹ The best practices listed below are identified in the *National Energy Efficiency Best Practices Study, Volume S – Crosscutting Best Practices and Project Summary*, Quantum Consulting, Inc., December 2004.

• Employ a lead-qualification sales process to help move the most-promising projects through the project pipeline

d) Innovation

Although not highly innovative, this program uses specific methodologies and approaches to help achieve its goals and objectives.

e) Integrated/coordinated Demand Side Management

This program will take advantage of face-to-face interaction with property owners and representatives to communicate opportunities for an integrated DSM approach. While the program itself does not offer all DSM opportunities, it will provide the contact to offer a full complement of DSM programs.

f) Integration across resource types (energy, water, air quality, etc)

The Program will seek to integrate electricity and water savings information into discussions with property owners and managers.

g) Pilots

There are no pilots currently considered for this program.

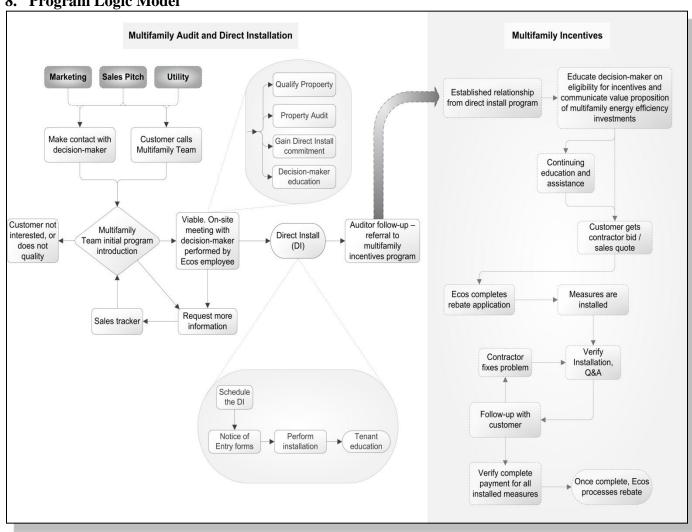
h) EM&V

The utilities are proposing to work with the Energy Division to develop and submit a comprehensive EM&V Plan for 2013-2014 after the program implementation plans are filed. This will include process evaluations and other program-specific studies within the context of broader utility and Energy Division studies. More detailed plans for process evaluation and other program-specific evaluation efforts cannot be developed until after the final program design is approved by the CPUC and in many cases after program implementation has begun, since plans need to be based on identified program design and implementation issues.

7. Diagram of Program

No specific program diagram for this third party program has been developed. Any program linkages are discussed in Section 6.

8. Program Logic Model



1. Program Name: Community Language Efficiency Outreach (CLEO)

Program ID: SCG3762

Program Type: Third Party Program

2. Projected Program Budget Table

Table 1: Total Projected Program Budget by Category

| Program # | Main/Sub Program Name | Administrative Amount | Marketing Amount | Direct Implementation Amount | Incentive Amount | Total Program Budget Amount |
|--------------|-------------------------------|--------------------------|---------------------|------------------------------------|---------------------|-----------------------------|
| | SoCalGas Third Party Programs | | | | | |
| 3762 | 3P-CLEO | \$0 | \$0 | \$450,000 | \$0 | \$450,000 |
| 3762u | 3P-CLEO (Utility) | \$30,706 | \$5,746 | \$41,582 | \$0 | \$78,034 |
| | TOTAL | : \$30,706 | \$5,746 | \$491,582 | \$0 | \$528,034 |

Note: SCG continues to negotiate the final contract with the third party vendor. As a result of final contract negotiations, the budget allocation into the budget subcategories may vary.

3. Projected Program Gross Impacts Table

Table 2: Total Projected Program Savings by Subprogram

| 200020 20 | | | | | |
|-----------|-------------------------------|-------------------------------|--------------------------------|----------------------------------|--|
| Program # | Main/Sub Program Name | 2013-2014 Gross kW Savings | 2013-2014 Gross kWh Savings | 2013-2014 Gross Therm Savings | |
| | SoCalGas Third Party Programs | | | | |
| 3762 | 3P-CLEO | 0 | 0 | 0 | |
| | TOTAL: | 0 | 0 | 0 | |

Note: This is a non-resource program.

4. Program Description

a) Describe program

The Community Language Efficiency Outreach Program (CLEO) is a highly targeted 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 Southern California Edison (SCE).

The Program will market SoCalGas efficiency programs and offer energy efficiency education and training using local ethnic media (Radio and newspapers), and community events. The Program's marketing efforts garner interest and lead to participation in CLEO residential seminars -. CLEO will target SoCalGas customers in the areas of Los Angeles, San Bernardino, and Orange Counties with high concentrations of Asian, Hispanic and African American customers.

Program year 2013-2014 will usher in significant evolution of the program. CLEO will serve all residential customers in SoCalGas service areas. In previous program cycles CLEO only served the joint SoCalGas/SCE service areas. New additions to the CLEO program will be SoCalGas customers from LADWP, Anaheim, Pasadena, Glendale, Burbank and Riverside service areas.

The implementation process involves a logical sequence of activities that begins with program marketing. To continue the success of the CLEO Program a low cost marketing blitz, including community newspapers, ethnic in-language newspapers and radio ads - in coordination with popular ethnic Community Based Organizations (CBO) and schools, will be initiated. CLEO will also reinforce and leverage existing relationships with local churches, schools and cities to partner with the program outreach and delivery strategies.

This will progress to program implementation which will involve face-to-face classroom style seminars with simple efficiency incentives and energy efficiency information disseminations. These seminars educate customers on common energy, gas and water saving strategies and empower them to implement lasting energy efficiency measures. In addition customers are informed of utility and third party efficiency program offerings and encouraged to take advantage of these programs. - CLEO will also set up community booths to disseminate information, sign-up customers for seminars and home energy audits. Customers will be encouraged to participate in other CLEO offerings at these community booths. Community booths provide an excellent platform to building community and customer relationships and the program will continue to provide a toll-free inlanguage hotline and dedicated website where information can be obtained about the program and its offerings as well as answer questions related to energy efficiency.

b) Statement of Problem and program solutions to overcome the problem

The Community Language Efficiency Outreach Program seeks to overcome the English as a second language market barrier in targeting hard-to-reach, low and medium income customers. The Program strategy is unique in that it is a 100% inlanguage strategy. In 2013-2014 the program will continue to target the Vietnamese, Indian, Chinese and Korean and will also expand the Program to target the Hispanic (Spanish speaking) and the hard-to-reach, low and medium income customers in the African American Communities.

c) Program goals, strategies and measurable objectives

The Program will offer a total of 70 in-language seminars, 35 community booths, 300 radio ads, 200 newspaper advertisements, an in-language toll free hotline, outreach with schools, outreach with local Faith Based Organizations/Community Center Events and Community & City Partnership Outreach Events. In addition, CLEO will create and update an effective web

presence and provide attractive in-language promotional materials and energy efficiency information.

Table 3

| Activity Goals (samples) | 2013 -2014 | 2013 | 2014 |
|--|------------|------|------|
| 1. Seminars | 43 | 23 | 20 |
| 2. Booths | 73 | 37 | 36 |
| 3. Radio Spots | 140 | 70 | 70 |
| 4. Newspaper Spots | 90 | 45 | 45 |
| 5. Schools | 7 | 4 | 3 |
| 6. Faith Based Organizations and Community Centers | | | |
| 7. Community & City Partnerships | | | |
| 8. Website Updates | 8 | 4 | 4 |

d) Target Audience

CLEO will target 50% of the SoCalGas' residential customers with its marketing outreach. However, for optimum results, the program will focus on areas with large numbers of Vietnamese, Indian, Chinese, Korean, Hispanic and African American (VICK-HA) residents.

e) <u>Identify if and how this program will provide any elements of Workforce</u>

The Community Language Efficiency Outreach Program will work actively with churches, schools and cities for program outreach and delivery strategies. In addition, by targeting ethnic communities, the Program seeks to elicit greater participation from and increase energy awareness in hard-to-reach areas.

5. Program Rationale and Expected Outcome

a) Quantitative Baseline and Market Transformation Information This section is not applicable.

b) Market Transformation Information

This section is not applicable.

c) Program Design to Overcome Barriers

The following table provides descriptions of the barriers that Program seeks to address and the solutions the Program proposes to overcome the barrier

| Barrier | Solution |
|--|---|
| Lack of consumer information about energy efficiency benefits | The Program addresses this barrier by seeking to provide Program information in customers' native languages and distributing information very widely. |
| Lack of financing for energy efficiency improvements. | Program provides customers information about SoCalGas incentive programs, thereby improving their access to these resources. |
| Lack of a viable and reliable resources to educate and inform | Program holds educational seminars and provides services at schools in target portions of service territory. |
| Residential | |
| Language: Primary language spoken is other than English | Program addresses this issue directly by translating energy efficiency materials into non-English languages and providing services with customer service personnel who speak the same language as target customers. |
| Income: Income levels less than 400% of federal poverty guidelines | Many of the Program's target customers are income qualifying. |
| | Many of Program's target customers are in multi- family housing units. The Program establishes mechanisms to ensure that these customers receive |
| Housing Type: Multi-family and mobile home tenants | its energy efficiency information benefits. |
| Geographic: Residents of areas other than the San Francisco Bay Area, San Diego area, Los Angeles Basin or Sacramento, | Program targets traditionally underserved portions of SoCalGas's service territory. |

d) **Quantitative Program Targets**

Table 4

| Community Language Efficiency Outreach Program (CLEO) | Program Target by 2013 | Program Target by 2014 | - |
|--|---------------------------|------------------------------|---|
| 1. In-language seminars (attendees) | 23 | 20 | - |
| 2. Booths – Community Events | -See below | -See below | - |
| -3. Radio Ads – Marketing | - See below | - See below | - |
| -4. Newspaper ads – Marketing | - See below | - See below | - |
| - | - See below | - See below | - |
| 5. School outreach events | - See below | - See below | - |
| 6. Church and Adult Center Outreach Event | - See below | - See below | - |
| 7. Community & City Partnership Outreach Events | - See below | - See below | - |
| 8. Quarterly Website Updates – Marketing | - See below | - See below | - |

Targets 1 - 2: Each In-language seminar will reach up to 43 In-languageparticipants or 6,000 or more households during the 2013 - 2014. Community Booths and all outreach strategies will reach a wide range of ethnic customers; Customers engage at the booths are provided energy efficiency information and is distributed to customers to promote the goals of the program.

Targets 3 - 4: The CLEO marketing campaign will continue to employ advertising in the Chinese Daily News (Chinese), Sing Tao Newspaper (Chinese), Nguoi Viet Newspaper (Vietnamese), and Viet Bao (Vietnamese) newspapers. Other media will also be implemented in Radio stations include KMRB Radio (Chinese), KAZN-AM (Chinese), and Little Saigon Radio (Vietnamese). Each of these media outlets has a tremendous audience and will contribute greatly to the communities embracing the CLEO program. While quantification of the number of people reached is elusive, the media campaign will effectively reach more than 1.5 million In-language hard-to-reach customers. The advertisers utilized are the mainstream media in targeted communities their advertising is viewed by the community at large. Expected reach also varies.

Targets5-8: CLEO will offer an enhanced school program designed with a whole-house approach to energy conservation. CLEO will also deliver the Program to Faith Based Organizations and offer seminars at local community centers.. CLEO will continue to build upon its existing relationship with cities by participating in various city-sponsored events. CLEO's efforts will be supported by a robust web presence providing customers with a platform to access CLEO's offerings. This web site will offer program -participating information and will be available in five languages (English, Chinese, Vietnamese, Korean and Spanish).

e) Advancing Strategic Plan goals and objectives

Describe how program aggressively advances the goals, strategies and objectives of the California Long Term Energy Efficiency Strategic Plan. Reference and describe how program advances *specific 2010 - 2012 action steps* toward Strategies outlined in plan.

6. Program Implementation

a) Statewide IOU Coordination

- i. Program name
- ii. All program delivery mechanisms
- iii. Marketing materials and message
- iv. IOU program interactions with CEC, ARB, Air Quality Management Districts, local government programs, other government programs, CBOs, non-governmental organizations, manufacturers, retailers, trade and business associations, as applicable
- v. Similar IOU and POU programs

As the CLEO Program is offered in both SCE and SoCalGas service territories and functions under the same name, the Program will have opportunities to coordinate activities between these two utilities (although not statewide).

The Program will encourage customers to participate in SoCalGas's programs and services, and will coordinate with SCE and the local water agencies and will promote increased awareness for customers to understand the structure and opportunities for energy conservation and efficiency both at home and in their businesses. Synergies will be leveraged to cost effectively disseminate efficiency knowledge and training.

b) Program delivery mechanisms

- **i.** Funneling of program participants to resource programs
- ii. WE&T

Where applicable, program will promote the WE&T efforts within the specified regions.

- iii. Coordination with other programs
 The Community Language and Ethnic Outreach Program will coordinate with SoCalGas's residential programs, where applicable.
- iv. Demand-side integration

The CLEO Program will seek to integrate information relevant to both SCE and SoCalGas into its program offerings and coordinate messages to maximize educational opportunities.

- v. Non-IOU programs
 This is not applicable to this program.
- vi. Other
 This is not applicable to this program.

c) Marketing Plan

- i. Market research and/or segmentation This is not applicable to this program.
- **ii.** Proposed behavior change theories application, if available This is not applicable to this program.
- iii. Proposed target audience/s, if applicable both primary and secondary The proposed target audiences are (Vietnamese, Indian, Chinese and Korean Hispanic and African American) residential customers
- **iv.** Message development process, including pre-tests This is not applicable to this program.
- **v.** Delivery channels, if applicable include public relations and earned media activities

CLEO Marketing activities are required to generate program awareness and to facilitate program participation. The media campaign will leverage efficiencies by partnering with cities, local governments and other IOU Programs to ensure an efficient use of the program budget. Marketing efforts will include Newspapers, and Radio- outreach campaigns to inlanguage customers and demographics targeted by the CLEO Program. There will also be an updated web presence at www.cleosave.com, which will provide targeted customers with program information and program sign-ups. The website will also provide an in-language educational platform for energy efficiency and demand-side management. Where available the program will leverage synergies with other programs including Residential and Partnership Programs.

Community Marketing Activities:

CLEO Community activities represent the implementation aspects of the program. These activities seek to enrich the target audience by providing the tangibility and presence to the communities served. As the scope of

the CLEO Program continues to expand, community efforts will also provide resource (energy saving) opportunities and will seek to support the goals of the Workforce Education and Training Strategic Plan by developing a workforce to carry out specific activities of the program. Implementation activities include:

In-Language Seminars: The objective of In-language Seminars will be to provide a classroom style form to empower residential customers to conserve resources by teaching them simple ways of savings Gas, Electricity and Water. This strategy will align itself with a goal of the Workforce Education and Training Strategic Plan to ensure that minority, low income and disadvantaged communities fully participate in education programs by providing modules that will seek to encourage interest toward employment in the energy efficiency industry. -

Community Booths: CLEO will continue participating in prominent ethnic cultural booths such as the 'Chinese New Year' and 'Harvest Moon Festivals'. - This will include coordinating with SoCalGas's Energy Centers and Faith Based Organizations during cultural events.

Schools Outreach: In 2013 - 2014- the CLEO program will expand its schools outreach efforts by providing a comprehensive schools outreach strategy. In addition to the continuing 'Energy-Artist' contest with winners from partnering schools awarded prizes and recognition the program will also introduce - 'Carbon Footprint' contest where schools could potentially compete against each other for the highest decrease in energy use. Outreach efforts will also include coordination with SCE and will also target Adult Education (ESL) educational centers. CLEO may also coordinate elementary school efforts with the existing PEAK Program. The PEAK Program is an educational program of The Energy Coalition designed to teach students and their families to use energy more wisely in their homes, communities and schools.

Faith Based Organizations (FBO's) and —Community Center Outreach: Local community FBO's and religious forums form the backbone of ethnic community. FBO's also provide a forum for Community events and an excellent platform to market and encourage energy efficiency. CLEO will cultivate and add to the existing relationships with churches and —local community centers to effectively cultivate program participation and promote energy conservation. —

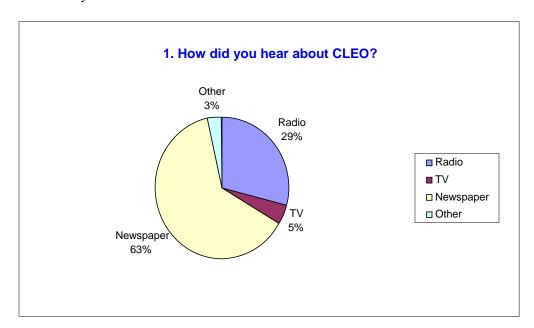
Community/City Partnership and Outreach: This outreach strategy will build upon existing relationships with the cities of Monterey Park, San Gabriel, Alhambra, Walnut, Diamond Bar and others to promote

energy efficiency in the community. CLEO will place information Kiosks at City community centers and will participate in -community events to further promote energy efficiency in the community. CLEO will also integrate components of the program with other existing Partnership Programs with higher ethnic populations.

- vi. Plans for developing message concepts This is not applicable to this program.
- vii. Implementation timeline
 This is not applicable to this program.

d) Best Practices

Media marketing has proven to be the primary mechanism to generate community awareness about the CLEO Program and its offerings. Internal metrics further outlines the importance of the marketing mix as well. Illustrated below are the results of an internal 2006-2007 CLEO Participant study asking the question; "How did you hear about CLEO?"



The program relies on a dynamic EM&V to gauge the programs success and to listen to the customer for feedback. These are transformed to 'Lessons learned' and incorporated in to the program strategy and offerings. For example, in 2006-2008 costly television spots were swapped for effective newspaper and radio spots as illustrated above.

In addition, CLEO has improved its offering with targeted messages for maximum effectiveness. CLEO program offerings have evolved with the lessons learned as it deals directly with the community through its seminars, community booths, and home surveys.

The CLEO program design incorporates various best practice elements. Specific items include:

- Program Theory and Design: Program understands and incorporates into marketing local market conditions, maintains program flexibility to response to changes in market and other factors and defines and locates hard-to-reach customers and targets programs accordingly.
- Program Implementation Participation Process: The Program utilizes participation strategies that are multi-pronged and inclusive and keeps participation simple.

e) Innovation

The 100% in-language aspect of CLEO separates it from any other outreach effort, and provides a level of understanding to the target population that is unmatched. Many of the program participants speak only Chinese and cannot be reached through any outreach effort that is delivered in another language.

f) Integrated/coordinated Demand Side Management

The CLEO Program will seek to integrate information relevant to both SCE and SoCalGas into its program offerings and coordinate messages to maximize educational opportunities.

g) Integration across resource types (energy, water, air quality, etc

Promoting energy efficiency effectively to the in-language residential customer presents challenges but provides opportunities to truly interact with this hard-to-reach customer on a personal level. The key barrier to energy efficiency continues to revolve around the lack of information or awareness of specific measures and practices which is compounded when a language barrier exists. --

h) Pilots

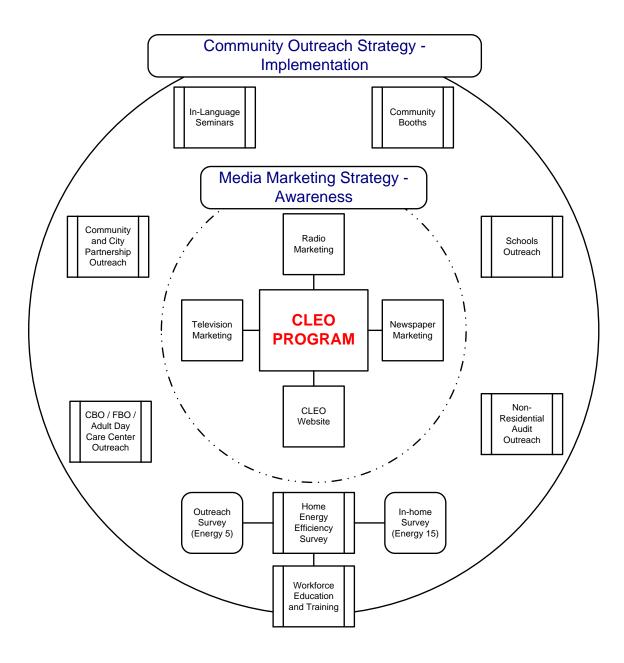
CLEO does not have any Pilots but will expand the program. In 2002-2008 CLEO served the residential customers in the joint areas of SoCalGas/SCE. This limited the program offering only to SoCalGas/SCE joint customers. SoCalGas customers in municipal utility service areas of Los Angeles, Pasadena, Burbank, Glendale, Anaheim and Riverside utility were excluded. In 2010 – 2012 CLEO extended the program to all residential customers of SoCalGas. New inclusions were municipal utility service areas of Los Angeles, Pasadena, Burbank, Glendale, Anaheim and Riverside, in addition to the existing SCE service areas. CLEO will also continue to leverage local municipal utilities to form partnerships in 2013-2014.

i) EM&V

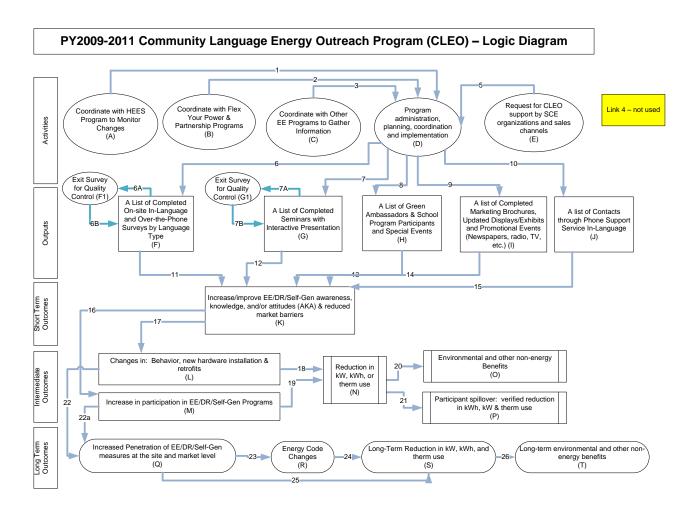
The utilities are proposing to work with the Energy Division to develop and submit a comprehensive EM&V Plan for 2013 - 2014 after the program implementation plans are filed. This will include process evaluations and other program-specific studies within the context of broader utility and Energy Division studies. More detailed plans for process evaluation and other program-specific evaluation efforts cannot be developed until after the final program design is approved by the CPUC and in many cases after program implementation has begun, since plans need to be based on identified program design and implementation issues.

7. Diagram of Program

No specific program diagram for this third party program has been developed. Any program linkages are discussed in Section 6. However, provided below is a diagram of the Program's implementation approach and marketing strategy.



8. Program Logic Model



1. **Program Name:** Multi-Family Direct Therm Savings

Program ID: SCG3763

Program Type: Third-Party Program

2. Projected Program Budget Table

Table 1: Total Projected Program Budget by Category

| Program # | Main/Sub Program Name | Administrative Amount | Marketing Amount | Direct Implementation Amount | Incentive Amount | Total Program Budget Amount |
|--------------|--------------------------------------|--------------------------|---------------------|------------------------------------|---------------------|-------------------------------|
| | SoCalGas Third Party Programs | | | | | |
| 3763 | 3P-MF Direct Therm Savings | \$0 | \$0 | \$441,206 | \$3,498,794 | \$3,940,000 |
| 3763u | 3P-MF Direct Therm Savings (Utility) | \$40,017 | \$5,746 | \$93,571 | \$0 | \$139,334 |
| | TOTAL: | \$40,017 | \$5,746 | \$534,777 | \$3,498,794 | \$4,079,334 |

Note: SCG continues to negotiate the final contract with the third party vendor. As a result of final contract negotiations, the budget allocation into the budget subcategories may vary.

3. Projected Program Gross Impacts Table

Table 2: Total Projected Program Savings by Subprogram

| | | 2013-2014 Gross | 2013-2014 Gross | 2013-2014 Gross |
|-----------|----------------------------|-----------------|-----------------|-----------------|
| Program # | Main/Sub Program Name | kW Savings | kWh Savings | Therm Savings |
| 3763 | 3P-MF Direct Therm Savings | 0 | 0 | 1,168,960 |
| | TOTAL: | 0 | 0 | 1,168,960 |

Note: The therm savings are estimated based on contract negotiations with the third party vendor. The projected savings may change as a result of final contract negotiations.

4. Program Description

a) Describe program

The Multi Family Direct Therm Savings Program, marketed and branded as "*Energy Smart*", is a field sales and direct installation program for multi family dwellings and apartment buildings. The Multi Family Direct Therm Savings Program will help deliver energy savings to multifamily customers located in Los Angeles, Ventura, and Santa Barbara counties during the 2013-2014 program period.

(Note: Since there are two contractors implementing similar programs for multifamily customers in SoCalGas territory, each contractor has been assigned specific counties in which to market their program).

The program implementation process will follow this streamlined process:

- Provide direct sales outreach through a face-to-face "account manager" relationship by the field sales staff and through professional telemarketing that will find the decision makers and educate the customer about the benefits of participating.
- Obtain site specific data in preparation for the installation.

- Schedule installation of energy measures. Provide field staff to distribute the Notice to Tenant or send the Notice to Tenant to the site contact via fax, e-mail or mail.
- After securing signed authorization on the Customer Authorization Form, conduct site audit. Site audit will consist of basic evaluation of gas equipment and appliances located at each multifamily property. It will include an assessment of each piece of equipment based on the age and condition, and will provide written recommendation for replacement or repair.
- Energy efficient devices will be installed in all accessible units.
- Customer Authorization and Workorder will be completed with the property manager signature.
- Staff will enter all site and installation data into a database for reporting in the approved data system.
- Ongoing, professional customer service.

Field Operations

All program documentation, including the Site Audit Form, Customer Workorder and Authorization, quality assurance processes, recruiting and training, marketing collateral design and development, outreach strategies, and enrollment processes were approved and will continue to be utilized in 2013.

On Site Audit

Through the on site audit, Contractor will collect data on all gas using appliances throughout the complex, primarily collecting accurate information such as:

- Type of equipment (boiler, furnace, hot water system, etc);
- Age of equipment;
- Nameplate information including consumption;
- Condition, and
- History (if available).

Site Visit

On the day of the audit and installations, Program team members will be accompanied through the building by the building manager or owner, who will provide access to areas such as utility closets, etc. This property representative will also be available to our team as we move through the individual apartment units conducting the audit and installing measures. A copy of the Customer Workorder will be given to the customer. Each day's work will be data-entered into our internal database. Contractor's installations will be warranted for a period of one year from the date of installation.

Installation of Measures

Contractor's field operations will consist of two-person teams per apartment site, to both maximize production, as well as accomplish both the audits and the installations during the same visit. Each team will be closely monitored by a field supervisor, who will conduct random, unannounced ride-alongs. The team lead will meet with the with the property manager to coordinate the access to the apartments. Contractor will ask the site

manager to open each door for the installers. We found that this approach maximizes productivity and integrity.

The team lead will audit all gas using appliances on the property to collect data. After the audit is completed, the team will go from apartment to apartment installing showerheadsand faucet aerators, where appropriate.

For interested customers, the installations will be scheduled with the property manager or owner, planned and coordinated by our program staff and completed within an expedited timeframe to maximize participation and to quickly provide the therm savings credit to SoCalGas.

In order to meet property management / tenant guidelines, the Contractor will work to ensure that the property management properly notifies tenants of the project. The Program's contractor will offer to distribute the Notice to Tenant for the property manager as an added convenience. If the property manager prefers, the Contractor will provide the informational materials for dissemination to tenants, including a process to follow for defective equipment. The Program team is available as needed for follow-up site visits.

b) List measures

The Contractor will install the following Therm savings measures throughout a portion of SoCalGas's service territory as noted in Program Description; specifically, Los Angeles, Ventura, and Santa Barbara counties. Since there are two contractors implementing similar programs for multifamily customers in SoCalGas territory, each contractor has been assigned specific counties in which to market their programs.

| Measure |
|----------------------------------|
| 1.5 gpm showerheads |
| 1.0 gpm bathroom faucet aerators |
| 1.5 gpm kitchen faucet aerators |
| |

c) <u>List non-incentive customer services</u>

The Contractor will conduct site audits of gas using appliances. Contractor's goal is to conduct site audits for 2,700 buildings (averaging 25 apartment units per building).

5. Program Rationale and Expected Outcome

a) Quantitative Baseline and Market Transformation Information

This section is not applicable.

b) Market Transformation Information

This section is not applicable

c) Program Design to Overcome Barriers

The following table provides descriptions of the barriers that Program seeks to address and the solutions the Program proposes to overcome the barrier

| Barrier | Solution |
|---|---|
| Lack of consumer information about energy efficiency benefits | The Program uses an account management strategy to educate customers about energy efficiency opportunities. |
| Split incentives (between owners/landlords and tenants) | The Program overcomes the split incentive problem by providing services free of charge to end users. |
| ☐ Lack of financing for energy efficiency improvements | By providing measures and services free of charge to customers, the Program overcomes the lack of financing barrier. |
| Lack of qualified personnel resources to support objectives. | Program Staff is highly qualified and has previous program experience to help educate customers and achieve program goals |
| Residential | |
| Housing Type: Multi-family and mobile home tenants | The Program targets multi-family units and adapts its marketing approach to ensure penetration of this market. |

d) Quantitative Program Targets

Over 2,700 buildings (with an average of 25 units) will receive Energy Smart services. In order to reach this goal, more than 10,000 potential customers will be contacted by the field sales and telemarketing staff. The response rate of all customers contacted has been approximately 19% during the previous program cycle.

Table 3

| Multi-Family Direct Therm Savings | Program Target by 2013 | Program Target by 2014 |
|------------------------------------|---------------------------|---------------------------|
| # Apartment units installed | 22,300 | 22,300 |
| # of Buildings installed | 900 | 900 |
| # of Phone calls made | 5,200 | 5,200 |
| # of 1.5 gpm Showerheads installed | 21,500 | 21,500 |

Note: Values provided represent yearly targets

e) Advancing Strategic Plan goals and objectives

This program supports the Strategic Plan in the following manner:

| Description | Strategic Plan Sector | Strategic Plan Goal | Strategic Plan Strategy |
|--------------------|--------------------------|---------------------------|----------------------------|
| The Program | Workforce Education | Establish energy | 1-3: Incorporate |
| employs active on- | and Training | efficiency education and | energy efficiency and |
| site education and | | training at all levels of | demand side energy |
| training of site | | California's educational | management into |
| personnel. | | system. | traditional contractor |
| | | | and technician |
| | | | training, such as for |
| | | | plumbers and |
| | | | electricians, and |

| Description | Strategic Plan Sector | Strategic Plan Goal | Strategic Plan Strategy |
|--|---------------------------------------|--|--|
| | | | expand training resources to produce target numbers of trained workers. |
| To the extent possible, this Program can support the development of the statewide marketing plan and social marketing initiatives. | Marketing, Education & Outreach | Create and launch an integrated, statewide Marketing, Education and Outreach effort for energy efficiency, including an energy efficiency brand. | 1-3: Use social marketing techniques to build awareness and change consumer attitudes and perceptions. |

6. Program Implementation

a) Statewide IOU Coordination

- i. Program name
- ii. Program delivery mechanisms
- iii. Incentive levels
- iv. Marketing and outreach plans, e.g. research, target audience, collateral, delivery mechanisms.
- v. IOU program interactions with CEC, ARB, Air Quality Management Districts, local government programs, other government programs as applicable
- vi. Similar IOU and POU programs

This third-party program only operates within SoCalGas's service area. The Program is designed to support and complement SoCalGas's core program activities. If this Program shares common elements with the IOU's core programs, other third-party programs, or programs in other IOU service areas, SoCalGas and the Contractor will strive to coordinate the similar activities.

b) Program delivery and coordination

- i. Emerging Technologies program
 - The Energy Smart program is an emerging technologies program. Contractor is installing the next generation of low flow showerheads which not only reduce natural gas use in multi family dwellings, but also can improve shower quality over older generation "low flow showerheads". Through advanced technology, multi family dwellings are able to obtain new showerheads, without a loss in comfort. Throughout the Program pilot, customer satisfaction has been very high.
- ii. Codes and Standards program

 Not applicable to this program.
- **iii.** WE&T efforts

 Not applicable to this program.

iv. Program-specific marketing and outreach efforts

The "Energy Smart" team will perform program marketing and customer enlistment through a telemarketing and field sales campaign run out of Contractor's office.

In addition, the Contractor will develop lists of target facilities and their owners/managers by analyzing Contractor-purchased customer lists, as well as by sorting the customer database file provided by SoCalGas. The Program will network with organizations that are of interest to property owners and managers to publicize the program. Contractor will install measures throughout a portion of SoCalGas's service territory as noted in Program Description; specifically, Los Angeles, Ventura, Santa Barbara, San Luis Obispo and Kern counties.

The Program will supplement the telemarketing and field sales components with a direct mail piece to GME and CF account holders. Contractor's sales staff will attend all pertinent industry trade shows and events and will hand deliver sample products.

v. Non-energy activities of program

The Program will save significant amounts of water with the direct installation of next generation showerheads and aerators.

vi. Non-IOU Programs

The Contractor is seeking to partner with the Metropolitan Water District (MWD) to propose multiple programs outreach to the same customer. MWD is currently proposing water conservation measures to multi family owners and managers. The Contractor believes that delivering multiple conservation program information will provide significant benefit for the end use customer.

vii. CEC work on PIER

Not applicable to this program.

viii. CEC work on codes and standards

Not applicable to this program.

ix. Non-utility market initiatives

Not applicable to this program.

c) Best Practices

The program design incorporates various lessons learned during direct implementation activities. The market strategy was enhanced with an increase in face-to-face meetings that included handing out samples of the products to be installed. Customers are impressed by the quality of products that would be provided at no cost and many tested the products at home before agreeing to schedule an installation appointment.

The "Energy Smart" program staff experienced last minute cancellations due to on site managers failing to distribute the legally required Notice to Tenant. A part-time field

person was hired to distribute the Notices on behalf of the property manager. This effort reduced the number of no notice cancellations.

Another best practice operational change included the sales and telemarketing staff. As soon as the customer information is obtained, the customer is transferred to the scheduler to calendar the appointment. This immediate transfer of the customer from the sales staff to the scheduler minimized the number of "hot leads" that would have otherwise turned cold.

d) Innovation

The Program addresses challenges in providing significant value to multi-family customers, as well as substantial and cost effective therm savings for SoCalGas. Currently, many customers do not have available incentives to reduce consumption, either because they do not understand the ease in conservation or they do not pay their bill and thus lose focus on the actual cost to supply natural gas to their dwelling. In much the same way, landlords frequently do not pay the utility bills, but either pass on the cost or do not see the bill in the first place. The Contractor will provide this educational piece through its sales and marketing outreach. The products and installation throughout the individual units will be provided at no cost to the customer.

e) Integrated/coordinated Demand Side Management

Although the Program is not an Integrated Demand Side Management program, it will provide a coordinated delivery of multiple DSM program options to multi family customers. Specifically, the Contractor can deliver additional measures for in-apartment DSM and conservation savings, for water and electricity DSM. In addition, the Contractor can provide audit services in order to assess common area integrated DSM efforts.

f) Integration across resource types (energy, water, air quality, etc)

The Program will save a significant amount of water with the direct installation of next generation showerheads and aerators. Currently, the Program is not measuring the amount of water savings achieved. However, the Contractor believes that the Gas Company would benefit from the study of water savings achieved, enabling potential co-funding from water and electric utilities across their service territory.

Because this program features close customer contact, on-site visual inspections of multifamily properties, and an ongoing sales process, Contractor will have the opportunity to identify an extensive list of measures that each property can install to achieve further efficiencies, including gas, electricity and water, both utility and non-utility sponsored. We will inform property owners about opportunities to increase efficiency through efficiency measures such as:

- Boilers, commissioning and replacement with high-efficiency gas boilers and controllers
- High-efficiency gas central water heaters
- High-efficiency gas or electric storage water heaters
- Tank wrap
- Low-flow toilets

g) Pilots

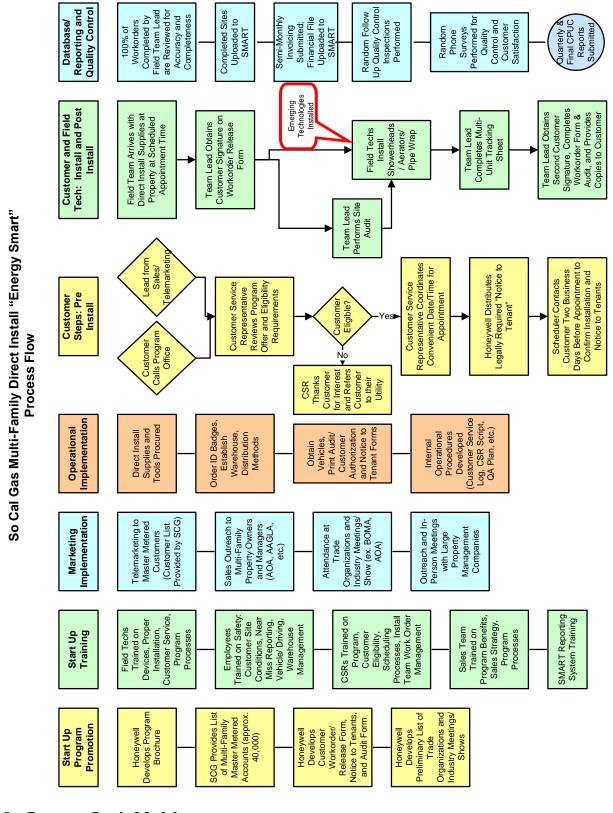
This is not applicable.

h) EM&V

The utilities are proposing to work with the Energy Division to develop and submit a comprehensive EM&V Plan for 2013-2014 after the program implementation plans are filed. This will include process evaluations and other program-specific studies within the context of broader utility and Energy Division studies. More detailed plans for process evaluation and other program-specific evaluation efforts cannot be developed until after the final program design is approved by the CPUC and in many cases after program implementation has begun, since plans need to be based on identified program design and implementation issues.

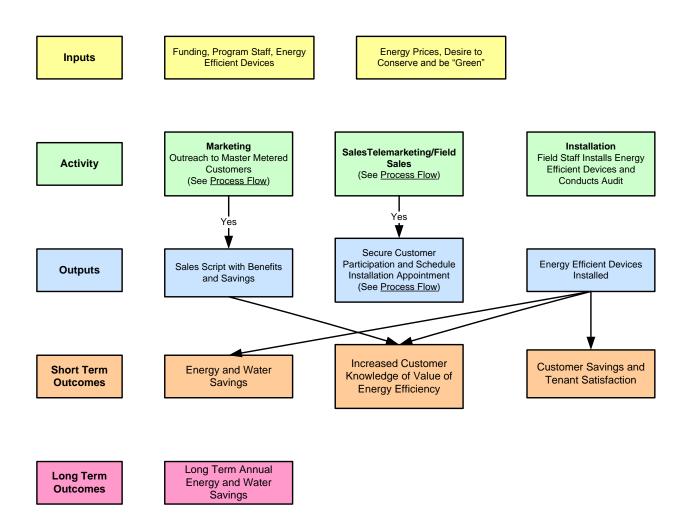
7. Diagram of Program

Please see the following Diagram of the Operations Process Flow for the Energy Smart Program. The Emerging Technologies is identified below "Customer and Field Tech: Install and Post Install."



8. Program Logic Model

So Cal Gas Multi-Family Direct Install "Energy Smart" Program Logic Model



1. **Program Name:** LivingWiseTM **Program ID:** SCG3764

Program Type: Third-Party Program

2. Projected Program Budget Table

Table 1: Total Projected Program Budget by Category

| Program # | Main/Sub Program Name | Administrative Amount | Marketing Amount | Direct Implementation Amount | Incentive Amount | Total Program Budget Amount |
|--------------|-------------------------------|--------------------------|---------------------|------------------------------------|---------------------|-------------------------------|
| | SoCalGas Third Party Programs | | | | | |
| 3764 | 3P-LivingWise | \$0 | \$0 | \$970,200 | \$943,800 | \$1,914,000 |
| 3764u | 3P-LivingWise (Utility) | \$24,589 | \$5,746 | \$44,688 | \$0 | \$75,023 |
| | TOTAL: | \$24,589 | \$5,746 | \$1,014,888 | \$943,800 | \$1,989,023 |

Note: SCG continues to negotiate the final contract with the third party vendor. As a result of final contract negotiations, the budget allocation into the budget subcategories may vary.

3. Projected Program Gross Impacts Table

Table 2: Total Projected Program Savings by Subprogram

| Program # | Main/Sub Program Name | 2013-2014 Gross kW Savings | 2013-2014 Gross kWh Savings | 2013-2014 Gross Therm Savings |
|-----------|-------------------------------|-------------------------------|--------------------------------|----------------------------------|
| | SoCalGas Third Party Programs | | | |
| 3764 | 3P-LivingWise | 0 | 0 | 1,450,790 |
| | TOTAL: | 0 | 0 | 1,450,790 |

Note: The therm savings are estimated based on contract negotiations with the third party vendor. The projected savings may change as a result of final contract negotiations.

4. Program Description

a) Describe program

LivingWise (LW) is a school-delivered residential energy savings program that is currently sponsored through collaboration between Southern California Edison (SCE) and Southern California Gas Company (SoCalGas), along with additional water agency funding whenever possible for 50% of program locations. The Program is run by Resource Action Programs (RAP) and provides a proven blend of classroom activities and take-home retrofit and audit projects which students complete as homework assignments with their parents and families. Audit data and installation reports are collected via surveys, which are returned to teachers and forwarded to the LW Program Center for tabulation and storage. LW is used at the 5th and/or 6th Grade levels in California to best align with State Learning Standards, and is offered to eligible teachers as an elective program. Teacher enrollment is very high, and overall participant program satisfaction (including parents) is excellent.

This Program covers the continuation of the ongoing SCE/SoCalGas LW Program and potential expansion into areas of the SoCalGas service territory that are not served by

SCE. Municipal electric utilities and water providers have already expressed interest in partnerships, and partnership demand should easily consume the proposed program budgets. Los Angeles Department of Water and Power (LADWP) alone area covers 30,000 sixth grade students per year. No SoCalGas funding will be utilized without at least one co-sponsor.

b) <u>List measures</u>

Program Energy Efficiency Measures and Incentives

| Measure | Incentives (per unit) | Program Partners |
|------------------|------------------------------|------------------|
| 2 Aerators and 1 | Option 1 - \$7.80 | SoCalGas Only |
| Showerhead | | |
| 2 Aerators and 1 | Option 2 - \$7.33 | SoCalGas and |
| Showerhead | | 1Program Partner |
| 2 Aerators and 1 | Option 3 - \$2.13 | SoCalGas and 2 |
| Showerhead | | Program Partners |

The measures are provided free to customers.

c) <u>List non-incentive customer services</u>

LW program activities center on the home retrofit and audit projects completed by students and their families as homework assignments. Among the non-incentive customer services the Program provides are: water temp 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, installation instructions, and surveys.

5. Program Rationale and Expected Outcome

a) Quantitative Baseline and Market Transformation Information

This section is not applicable.

b) Market Transformation Information

This section is not applicable.

c) Program Design to Overcome Barriers

There is a need for a cost-effective school program to educate students and their families about energy, water, and climate issues while at the same time inspiring immediate energy efficiency action.

| Barrier | Solution | |
|---|--|--|
| Lack of consumer information about energy efficiency benefits | The Program provides consumer information about the benefits of energy efficiency through direct education and provision of specific measures. | |
| Lack of a viable and reliable resources to educate and inform | Program provides targeted energy efficiency information directed to 6 th grade students, their | |

| Barrier | Solution |
|--|--|
| | teachers and their families. |
| Hassle and transaction costs discourage customers from pursuing information about energy efficiency benefits and purchasing energy efficient measures. | The Program educates students and their families, inspiring immediate savings and long-term changes in household energy use. |
| | By targeting students and providing educational |
| Customers are skeptical about performance of energy | materials, the Program reduces customer skepticism |
| efficient measures. | about energy efficient measures. |
| Bounded rationality – although armed with information, | |
| there is general resistance to change and inability to | The Program provides an effective method of |
| make decisions because of impression that information is | overcoming bounded rationality and encouraging |
| incomplete. | customers to act to install energy efficient measures. |

d) Advancing Strategic Plan goals and objectives

The Program supports the Strategic Plan in the following ways:

California Long Term Energy Efficiency Strategic Plan Goals and Strategies

| Description | Strategic Plan Sector | Strategic Plan Goal | Strategic Plan Strategy |
|----------------------|--------------------------|---------------------------|----------------------------|
| By targeting 6th | | | |
| grade students, | | | |
| teachers and their | | | |
| families, Program | | | |
| creates a close | | | |
| connection to | | Transform home | 2-2: Promote effective |
| consumer decision | | improvement markets to | decisionmaking to |
| making about energy | | apply whole-house energy | create widespread |
| efficient measures | | solutions to existing | demand for energy |
| and practices. | Residential | homes. | efficiency measures. |
| By targeting and | | | |
| partnering with | | | |
| schools to integrate | | | 1-5: Develop K-12 |
| energy efficiency | | | curriculum to include |
| information into | | | energy efficiency |
| curricula, the | | Establish energy | fundamentals (e.g. |
| Program ensures | | efficiency education and | math, science, |
| achievement of the | | training at all levels of | behavior) and identify |
| CEESP's workforce | Workforce Education | California's educational | career options in |
| education objectives | and Training | system. | energy-related fields. |

6. Program Implementation

a) Statewide IOU Coordination

- i. Program name
- ii. Program delivery mechanisms
- iii. Incentive levels
- **iv.** Marketing and outreach plans, e.g. research, target audience, collateral, delivery mechanisms.

2013-2014 Energy Efficiency Programs LivingWiseTM Program Implementation Plan

- v. IOU program interactions with CEC, ARB, Air Quality Management Districts, local government programs, other government programs as applicable
- vi. Similar IOU and POU programs

The LivingWise Program is implemented as part of the SCE and SoCalGas program portfolio and uses the same program name in both service territoriesTo the extent applicable, the Program will leverage marketing and outreach efforts across service territories, although these efforts will be targeted within each service territory.

b) Program delivery and coordination

- i. Emerging Technologies program Not applicable to this program.
- ii. Codes and Standards program Not applicable to this program.
- iii. WE&T efforts

The LivingWise Program will be implemented in accordance with broader Workforce Education and Training efforts. Specifically, the Program provides both training and practical experience for students to conduct residential audits and retrofits in their own homes. The Program's Contractor is also participating on the Workforce Education and Training Task Force, and anticipates incorporating additional features into the program content as the Task Force completes its work.

In addition, the Program will work to attract funding from municipal electric utilities and water agencies, such as the Los Angeles Department of Water and Power.

- **iv.** Program-specific marketing and outreach efforts (provide budget) Not applicable to this program.
- **v.** Non-energy activities of program Not applicable to this program.
- vi. Non-IOU Programs

 Not applicable to this program.
- vii. CEC work on PIER

 Not applicable to this program.
- viii. CEC work on codes and standards

 This program will coordinate with CEC and Statewide Codes and Standard efforts to ensure timely incorporation of new measures when appropriate.

ix. Non-utility market initiatives Not applicable to this program.

c) Best Practices

LivingWise has emerged as the leading model for energy efficiency education as a resource acquisition program. The mix of education and hands-on application of new knowledge and skills also lends itself to the Workforce Education and Training goals of the Strategic Plan.

d) Innovation

The Program is innovative in: integrating efforts of gas, electric, and water utilities and creating a platform for future content on emerging topics such as climate change, transportation, and specific topics are among the innovative aspects of the program.

e) Integrated/coordinated Demand Side Management

Although not an Integrated Demand Side Management program, LivingWise can support the outreach for any other program – from energy efficiency to demand response, and low-income programs. Any program which affects residential customers can be publicized through the LivingWise program by inclusion of promotional/enrollment materials, or even custom activities and promotions to spotlight the target program.

f) Integration across resource types (energy, water, air quality, etc)

The Program already attracts electric and water agency funding. This Program will only be implemented in areas where there is co-funding from water or electric providers - or both. LivingWise, therefore, will provide integration across resource types where such funding mechanisms have been put in place.

g) Pilots

No pilot projects are planned at this time.

h) <u>EM&V</u>

The utilities are proposing to work with the Energy Division to develop and submit a comprehensive EM&V Plan for 2013 - 2014 after the program implementation plans are filed. This will include process evaluations and other program-specific studies within the context of broader utility and Energy Division studies. More detailed plans for process evaluation and other program-specific evaluation efforts cannot be developed until after the final program design is approved by the CPUC and in many cases after program implementation has begun, since plans need to be based on identified program design and implementation issues.

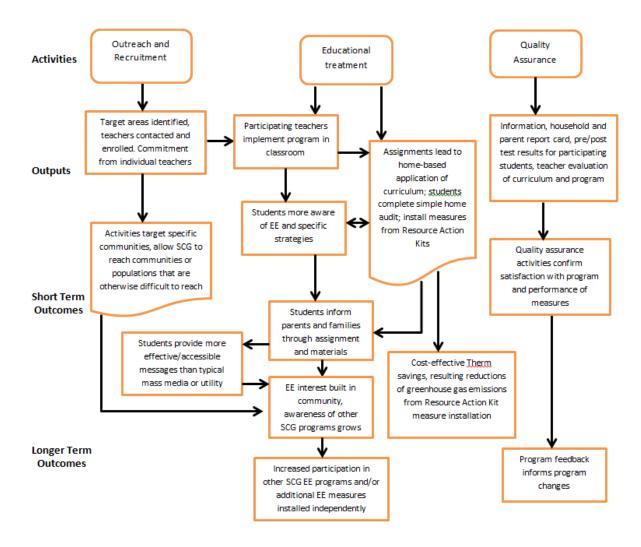
7. Diagram of Program

No specific program diagram for this third party program has been developed. Any program linkages are discussed in Section 6.

8. Program Logic Model

2013-2014 Energy Efficiency Programs LivingWiseTM Program Implementation Plan

Logic Model of the <u>LivingWise</u>® Program June 2012



1. Program Name: Manufactured Mobile Home

Program ID: SCG3765

Program Type: Third-Party Program

2. Projected Program Budget Table

Table 1: Total Projected Program Budget by Category

| Program # | Main/Sub Program Name | Administrative Amount | Marketing Amount | Direct Implementation Amount | Incentive Amount | Total Program Budget Amount |
|--------------|---------------------------------------|--------------------------|---------------------|------------------------------------|---------------------|-----------------------------|
| | SoCalGas Third Party Programs | | | | | |
| 3765 | 3P-Manufactured Mobile Home | \$0 | \$0 | \$763,260 | \$4,636,739 | \$5,399,998 |
| 3765u | 3P-Manufactured Mobile Home (Utility) | \$39,417 | \$5,746 | \$93,571 | \$0 | \$138,734 |
| | TOTAL: | \$39,417 | \$5,746 | \$856,831 | \$4,636,739 | \$5,538,733 |

Note: SCG continues to negotiate the final contract with the third party vendor. As a result of final contract negotiations, the budget allocation into the budget subcategories may vary.

3. Projected Program Gross Impacts Table

Table 2: Total Projected Program Savings by Subprogram

| Program # | Main/Sub Program Name | 2013-2014 Gross kW Savings | 2013-2014 Gross kWh Savings | 2013-2014 Gross Therm Savings |
|-----------|-------------------------------|-------------------------------|--------------------------------|----------------------------------|
| | SoCalGas Third Party Programs | | | |
| 3765 | 3P-Manufactured Mobile Home | 0 | 0 | 881,615 |
| | TOTAL: | 0 | 0 | 881,615 |

Note: The therm savings are estimated based on contract negotiations with the third party vendor. The projected savings may change as a result of final contract negotiations.

4. Program Description

a) <u>Describe program</u>

The residential Manufactured and Mobile Home Program (MMHP) has been designed to complement the SoCalGas Residential Energy Efficiency Portfolio by reaching manufactured and mobile home customers, where there is a rich potential for cost-effective energy and demand savings. The Program is run by Synergy Companies. This is a targeted market that is not generally reached by statewide mass-market programs. Manufactured homes are defined as factory built, pre-fabricated housing, mobile homes, and homes within mobile home type communities, but does not include homes traditionally built entirely at the construction site.

b) List measures

Program Energy Efficiency Measures and Incentives

| Measure | Incentives (per unit) |
|---|------------------------------|
| Duct Test & Seal | \$290.00 |
| Water Heater Pipe Wrap | \$26.74 |
| Energy Efficient Faucet Aerator | \$9.38 |
| Energy Efficient Low Flow Showerhead or Shower Start | \$37.95 |

c) <u>List non-incentive customer services</u>

A major innovation is the mind-set of linking the installation or completion of energy efficiency measures with educating customers (residents) on the energy savings achieved through this program and the importance of energy savings.

5. Program Rationale and Expected Outcome

a) Quantitative Baseline and Market Transformation Information

This section is not applicable.

b) Market Transformation Information

This section is not applicable.

c) Program Design to Overcome Barriers

There are many factors leading to market failures and barriers for the mobile home market such as cost effectiveness, split incentives, park management directives, income, and language. In addition, there are a limited number of contractors serving this market segment in part because of the limited degree to which residents take advantage of programs due to age, language, economic, or educational barriers. In addition, many of the tenants are senior citizens, on a fixed income and many times not physically able to install measures themselves.

The MMHP Program focuses on those identified measures and geographic segments which both SoCalGas and their customers find desirable. This program also targets a hard-to-reach market, which other utility programs would not otherwise specifically address on a targeted basis.

The program has been designed to provide a comprehensive energy program to manufactured and mobile home customers in the SoCalGas service territory through collaborating with local communities and programs within this service area to maximize service to the citizens of their cities and towns.

The following table provides descriptions of the barriers that Program seeks to address and the solutions the Program proposes to overcome the barrier.

| Barrier | Solution | |
|---|--|--|
| Lack of consumer information about energy | Program includes a significant educational | |

| Barrier | Solution |
|---|--|
| efficiency benefits | component to help overcome the lack of consumer |
| | information about the benefits of energy efficiency. |
| Split incentives (between owners/landlords and | The Program works with landlords, park |
| tenants) | management and owners to bridge the split incentive |
| , | problem. |
| Lack of financing for energy efficiency | The Program's incentives for a wide variety of |
| improvements | measures help overcome the lack of financing. |
| Deduction account is account as an effect with | Program presents a strong value proposition to target |
| Reduction assessment is seen as an effort with limited returns. | customers through direct education, incentives and direct install. |
| | direct flistan. |
| Residential | |
| Customers who do not have easy access to | |
| information or do not participate in energy | |
| efficiency are due to: | |
| | Program places a large emphasis on providing |
| Language: Primary language spoken is | services through personnel who speak customers' |
| other than English | native languages. |
| Income: Income levels less than 400% of | Many owners of mobile and manufactured homes |
| federal poverty guidelines | are low income. |
| | By addressing mobile and manufactured homes, the |
| | Program is directly targeting an under-served |
| Housing Type: Multi-family and mobile | population and helping increase their exposure to |
| home tenants | energy efficient measures. |
| | Program's target population includes senior citizens |
| Physical inability to install measures | and its direct install feature helps overcome this |
| (e.g. Senior Citizens) | barrier. |

d) Quantitative Program Targets

Table 3

| Manufactured Mobile Home | Annual Installation Schedule | | |
|-----------------------------|---|-------|--|
| Measure Name | Program Target by 2013 Program Target by 2014 | | |
| Number of Installations | | | |
| or Projects | 5,856 | 5,856 | |

Note: Values provided represent yearly targets.

e) Advancing Strategic Plan goals and objectives

The Program advances the Strategic Plan in the following ways:

California Long Term Energy Efficiency Strategic Plan Goals and Strategies

| Description | Strategic Plan Sector | Strategic Plan Goal | Strategic Plan Strategy |
|--------------------------|-----------------------|------------------------|----------------------------|
| In providing services to | | | |
| an underserved | | Transform home | 2-2: Promote effective |
| population, the Program | | improvement markets to | decisionmaking to |
| helps promote effective | | apply whole-house | create widespread |
| decisionmaking for | | energy solutions to | demand for energy |
| energy efficiency | Residential | existing homes. | efficiency measures. |

| Description | Strategic Plan Sector | Strategic Plan Goal | Strategic Plan Strategy |
|--------------------------|-----------------------|-------------------------|----------------------------|
| measures to a difficult | | | |
| to reach segment. | | | |
| In targeting and | | | |
| developing deeper | | | |
| knowledge of the | | | |
| mobile home hard to | | By 2020, all eligible | 1-1: Strengthen LIEE |
| reach segment, program | | customers will be given | outreach using |
| supports statewide | | the opportunity to | segmentation analysis |
| segmentation research | | participate in the LIEE | and social marketing |
| efforts. | Low Income | program. | tools. |
| By targeting the | | | |
| underserved mobile and | | | |
| manufactured home | | | |
| segment, the program is | | By 2020, all eligible | |
| able to provide services | | customers will be given | |
| to a larger number of | | the opportunity to | |
| low and middle-income | | participate in the LIEE | 1-3: Improve program |
| residential customers. | Low Income | program. | delivery |

6. Program Implementation

a) Statewide IOU Coordination

- i. Program name
- ii. Program delivery mechanisms
- iii. Incentive levels
- iv. Marketing materials
- v. IOU program interactions with CEC, ARB, Air Quality Management Districts, local government programs, other government programs as applicable
- vi. Similar IOU and POU programs

While servicing the SoCalGas service territory, contemporary sister manufactured-mobile home retrofit programs are operating in the SCE, SDG&E and PG&E service territories. Additionally, the Program is designed to complement other IOU Programs available to manufactured and mobile home owners, property owners and managers. The program design is expected to maximize energy efficiency opportunities by promoting electricity savings, as well as therm and water savings. This Program will provide new and measurable direct savings via the installation of energy efficient measures.

b) Program delivery and coordination

i. Emerging Technologies program
The Program's Contractors collaborate through the CPUC Energy Division and utility staff to provide updated input on energy savings data into DEER. If new measures and/or energy savings data can be identified, they would be submitted for consideration to the program manager, in the form of work papers that would support the rationale for the new measure.

ii. Codes and Standards program

Not applicable to this program.

iii. WE&T efforts

The Manufactured Mobile Home Program supports the California Workforce Education & Training Plan by: (1) Providing installation of measures by certified technicians that focus on energy efficiency and demand side management (DSM); (2) Offering necessary training and certification for technicians to develop new skills and knowledge; and (3) Providing educational material and training directly to customers or residents so that ongoing energy savings are realized.

iv. Program-specific marketing and outreach efforts (provide budget) Not applicable to this program.

v. Non-energy activities of program

The Manufactured and Mobile Home Program, in addition to the energy savings activities, also provides an enormous and collective boost to a segment of the population that is ill-equipped, because of age, language or the complexity of installing these measures.

vi. Non-IOU Programs

The Program helps support the Western Climate Initiative with the utilization of advanced energy efficient technologies and reduces the carbon footprint created by single family and multi-family residences in California.

vii. CEC work on PIER

Not applicable to this program.

viii. CEC work on codes and standards Not applicable to this program.

ix. Non-utility market initiatives Not applicable to this program.

c) Best Practices

The MMHP utilizes an innovative and comprehensive marketing and implementation program designed to maximize the participation of mobile home occupants and to optimize energy efficiency at each property.

The MMHP has now worked continuously statewide for over five years. There are strong processing and procedural economies of scale that will continue to contribute to more efficient servicing of mobile home customers, while avoiding duplication and confusion in the market place. SoCalGas and the Program's Contractor are known among the mobile home park communities. Additionally, the Contractor is a member of several mobile home associations and is actively involved in their conferences and seminars.

The 2010 - 2012 MMHP adopted valuable lessons from prior mobile home programs for maximum effectiveness in the marketplace. This program has significant innovative features to it:

- i. The introduction of 100% quality at every installation site using technology and full-time quality supervisors to maximize customer satisfaction and production quality.
- **ii.** The unique marketing approach to optimize market saturation in working with park owners, managers and residents.
- **iii.** A direct install feature that removes the barriers for installation of highly effective EE measures.
- **iv.** Regular in-house inspections of work completed and also regular inspections with the SoCalGas inspectors to review the work completed.

d) Innovation

One of the more innovative building blocks in the MMHP is the construction of a Master database organized by mobile home park which includes each unit in the park. The database is loaded with SoCalGas customer database information (under a non-disclosure agreement) and a history of work that has been completed at this site. Then, when marketing is conducted and a customer schedules an appointment, the scheduler simply checks the box and time for the technician to do the work. Once the work is completed, the technician confirms that all work completed is captured in the database and checks a box, indicating the work is ready for billing. This process completely eliminates data entry and the possibility for data entry errors to customer information. It allows the CMHP database to sync up 100% with the SoCalGas database during the invoice process.

e) Integrated/coordinated Demand Side Management

This Program offers an innovative outreach and consumer education regarding the installed measures as well as additional energy efficiency programs available including demand response and DSM options.

The Program includes a basic evaluation and assessment and recommendations which include many relevant energy management opportunities which the customer may take advantage of including advice on energy efficiency, demand response, distributed generation, Permanent Load Shifting (PLS), solar rebates, and other applicable measures.

f) Integration across resource types (energy, water, air quality, etc)

All resources produce various positive results due to the comprehensive approach of this Program. The Program includes measures that are highly efficient and reduce consumption of gas, energy, and water. The ability to conduct multiple measures at each residence allows this program to concurrently target many different savings areas.

g) Pilots

The Program will not have any pilots.

h) EM&V

The utilities are proposing to work with the Energy Division to develop and submit a comprehensive EM&V Plan for 2013 - 2014 after the program implementation plans are

filed. This will include process evaluations and other program-specific studies within the context of broader utility and Energy Division studies. More detailed plans for process evaluation and other program-specific evaluation efforts cannot be developed until after the final program design is approved by the CPUC and in many cases after program implementation has begun, since plans need to be based on identified program design and implementation issues.

2013-2014 Energy Efficiency Programs Manufactured Mobile Home Program Implementation Plan

7. Diagram of Program

No specific program diagram for this third party program has been developed. Any program linkages are discussed in Section 6.

8. Program Logic Model

Manufactured Mobile Home Program Theory and Logic

| Inputs or Description | | Expected Short-Term | Expected Long-Term | |
|-----------------------|---|--|---|--|
| Outputs | Description | Outcome | Outcome | |
| Input | Resources: (1) Design Program (2) Develop Implementation Plan (3) Set Benchmarks (4) Monthly Accountability and Reporting (5) Assure that Financial Resources are available for sufficient operating capital (6) Allocate Office Team, Management, Production Team and Quality Control (7) Have a good interface and communication with | These resources will allow the program to get launched in an organized and productive manner that sets up benchmarks and monitors program progress, quality and success | These resources ultimately will contribute to the successful implementation and completion of this program, achieving the program energy savings and goals. | |
| Input | SoCalGas Activities: (1) Have team planning session with all partners and associates. (2) Kick-off marketing and installation. (3) Do training with installers and technicians on processes and equipment. (4) Kick-off quality control program and review. Technicians' installations and customer surveys. (5) Monthly Reporting of Program Progress. Regularly confer with SoCalGas on program progress, opportunities and challenges. (6) Complete the Final Report with Program Outcomes. | We would expect to see from the implementation of these activities that the program comes on line on a timely basis, is meeting program benchmarks on a monthly basis, allowing for a regularly evaluation and progress report together with SoCalGas. There would be no surprises with this program. From the customer surveys we will also be able to assess customer satisfaction as we are moving through the program. | By implementing these activities we should have steadily work toward the successful completion of this program on or ahead of time. | |
| Input | Market Actors: (1) Outreach personnel. (2) Marketing Research and Direct Mail Manager (3) Customer Service. (4) Liaison with property | With the engine of Contractor's marketing, outreach personnel connecting with communities, property owners and managers we | These individuals, coming together, provide the targeted market customer base to where the energy savings serves will be provided. | |

2013-2014 Energy Efficiency Programs Manufactured Mobile Home Program Implementation Plan

| Inputs or Outputs | Description | Expected Short-Term Outcome | Expected Long-Term Outcome |
|----------------------|---|---|---|
| | managers and owners. (5) Community Outreach. | are able to explain the benefits of the program and market it to the end users and customers | |
| Output | Outreach contacts Made: 100 parks Customers reached through flyers and outreach: 25,000 Installations complete: 13,000 Energy Tips Brochure Distributed: 15,000 | The month-by-month report will show the systematic realization of the program goals and objectives | The successful completion of the program goals and objectives as outlined in this proposal. |

1. Program Name: SaveGas Hot Water Control with Continuous Commissioning

Program ID: SCG3766

Program Type: Third-Party Program

2. Projected Program Budget Table

Table 1: Total Projected Program Budget by Category

| Program # | Main/Sub Program Name | Administrative Amount | Marketing Amount | Direct Implementation Amount | Incentive Amount | Total Program Budget Amount |
|--------------|-------------------------------|--------------------------|---------------------|------------------------------------|---------------------|-------------------------------|
| | SoCalGas Third Party Programs | | | | | |
| 3766 | 3P-SaveGas | \$0 | \$0 | \$594,168 | \$385,833 | \$980,001 |
| 3766u | 3P-SaveGas (Utility) | \$17,806 | \$7,661 | \$41,864 | \$0 | \$67,331 |
| | TOTAL: | \$17,806 | \$7,661 | \$636,032 | \$385,833 | \$1,047,332 |

Note: SCG continues to negotiate the final contract with the third party vendor. As a result of final contract negotiations, the budget allocation into the budget subcategories may vary.

3. Projected Program Gross Impacts Table

Table 2: Total Projected Program Savings by Subprogram

| Program # | Main/Sub Program Name | 2013-2014 Gross kW Savings | 2013-2014 Gross kWh Savings | 2013-2014 Gross Therm Savings |
|-----------|-----------------------|----------------------------------|-----------------------------------|-------------------------------------|
| 3766 | 3P-SaveGas | 0 | 0 | 515,255 |
| | TOTAL: | 0 | 0 | 515,255 |

Note: The therm savings are estimated based on contract negotiations with the third party vendor. The projected savings may change as a result of final contract negotiations.

4. Program Description

a) Describe program

This program addresses gas savings in SoCalGas's service territory by implementing domestic hot water (DHW) control systems in hotels, motels, resorts and senior care facilities plus other associated hot water end uses. (e.g. on-site kitchen and laundry facilities). A typical equipment arrangement consists of a hot-water storage tank, a hot-water boiler which includes a circulation pump, a loop or network of piping to supply the heated domestic hot water to the facilities guest rooms / dwelling units, and a recirculation pump on the return line from the piping loop.

Almost every DHW system has deficiencies and system malfunctions which result in excess use of natural gas for water heating. Wasted energy from water heating can be as high as 119 therms per hotel room.

The controller will help identify existing system malfunctions as well as system malfunctions occurring during the life of the controller. The programmable setback feature has demonstrated to save additional therms per hotel room annually.

The Program will implement three process improvement components:

- Sensors and Data loggers The maximum thermostat set point of DHW systems in hotels and motels is usually set too high because of system inefficiencies and malfunctions. Such system inefficiencies and malfunctions are frequently identified only after the installation of a variety of sensors and a data logger. The data can be retrieved remotely or on-site. Once the inefficiencies and malfunctions are identified and corrected, the maximum thermostat set point can be reduced. The DHW system will still provide the minimum required hot water temperature to the rooms, but with significant energy savings.
- Set-Back DHW Thermostat Controller This energy savings measure is to install
 a programmable set-back temperature controller on the DHW system. A
 programmable set-back controller saves energy by lowering the DHW thermostat
 setting during times of low DHW usage. The controller can be programmed
 remotely or on-site.
- Continuous Commissioning® By using continuous commissioning of energy consumption and system parameters long-term energy savings will be maintained. Without continuous commissioning taking place, new system problems can continue for months without being detected and repaired. Continuous commissioning is an essential part of the long-term gas savings from DHW thermostat controllers.

Targeted market penetration levels will be achieved through specific elements:

- Increased customer awareness about existing energy use and practices;
- Increased understanding of technical options and financial impacts related to energy efficiency building improvement strategies, and
- Increased comprehensiveness of projects implemented due to the unbiased and vendor-neutral information on the best operating practices and equipment upgrades

The SaveGas Hot Water Control program is 100% complimentary to other programs. As far as delivery and implementation, all efforts are conducted directly by Program personnel without the use of subcontractors.

Customers will participate in a web-based interactive presentation which uses as an example technology on similar facilities to those installed (size and plumbing configuration). During this presentation the customers learn how they will be able to validate the ongoing savings and how to use the system as a management tool allowing proactive monitoring and verification.

Facility Pre-installation Analysis/Audit

After the customer provides a list of properties, technicians perform an onsite survey of the hot water systems looking for existing issues (e.g., system layout, applicability and proper installation and operation of the existing equipment). A general analysis of the property is completed including gas consumption history, and general building layout. The information is captured and logged online.

Proposal

Based on the pre-installation analysis, a proposal is generated for the property. The proposal states the minimum savings that will be achieved, the ongoing economic value, return on monthly investment, net savings, payback period, etc. The customer is informed that the Contractor equipment will be installed at no cost to the customer. However, the customer is then provided the option to enroll in the continuous monitoring service at a cost of \$1.00 per room. This service includes data analysis/tracking, consulting and control maintenance and updates; however, the customer is not required to purchase this service in order to install the controllers.

Installation of Equipment

After the contract has been authorized, installation of the equipment takes place. Installation includes the Contractor's DHW controllers, Contractor's computer(s) and Contractor's proprietary communication network. All of the equipment, installation and configuration settings are logged online. At this point in the process the controls are set up just to monitor and establish a baseline/benchmark of the customer's facility.

On-site training takes place in which the installation technician provides an overview of how the technology works, how to bypass the computer in case of an emergency and how to go online for systems analysis. Additionally property contact information is captured so that the system can notify the appropriate onsite personnel should a hot water issue be detected.

Commissioning the Contractor's Control Systems

Once a period of baseline operation has been established and recorded (approximately two weeks), the system is commissioned for operation. This entails switching the Contractors computers into control mode and adjusting delivery temperatures to provide optimal operation for the facilities equipment.

Contractor's administrative personnel conduct formal training for the property and management. During this training the SaveGas website is configured so that customers can go online and view their data, analyze their site and set themselves up to receive alerts for hot water issues.

Ongoing Savings, Monitoring and Verification

The controllers provide ongoing savings and the monitoring and verification tools track the overall system performance and savings looking for deviations that might interrupt or impede the savings or system efficiency.

Record Retention Procedures

Records include customer contract data, installation information, the data acquired during baseline/benchmarking periods as well as data acquired and system malfunctions identified and repaired over the life of the installation.

The Program's technology provides proven savings with constantly verifiable data that the technology is in place and operational. This capability is the latest trend in energy conservation, and having a third party utility program directly validates the technology and economics.

b) List measures

The Program will implement specialized technology that includes three process improvement components: Sensors/Data loggers, Set-Back DHW Thermostat Controller and Continuous Commissioning.

| Measure | Incentives (per unit) |
|-------------------|-----------------------|
| DHW - res | \$28.74 |
| DHW - com | \$28.74 |
| DHW - com laundry | \$1,500 |

c) List non-incentive customer services

The Program will also provide continuous commissioning service, customer education, data analysis/tracking, consulting and control maintenance and updates.

5. Program Rationale and Expected Outcome

a) Quantitative Baseline and Market Transformation Information

This section is not applicable.

b) Market Transformation Information

This section is not applicable.

c) **Program Design to Overcome Barriers**

Customers are often unaware that their water heater systems are malfunctioning. In addition, there is often customer resistance to install new technologies due to dissatisfaction with previously installed technologies that failed or resulted in operational issues.

This program will implement a hot water controller with a programmable setback feature to help identify existing and future system malfunctions and control gas consumption.

To overcome resistance to new technologies, the Program will not target individual property owners but rather will target those who own and manage portfolios of properties as "assets". In typical installations, the program will retrofit all of the hot water systems where the technology is applicable, corporate wide. This allows participants to manage the hot water systems, and thus achieve consistent savings within the entire portfolio of properties. This is accomplished from a central or remote location via an asset manager who is incented to grow asset value (savings).

In addition, Contractor will offer a continuous commissioning service which consists of automated monitoring and analysis of the DHW system performance at all time, along with prompt notification of system malfunctions to the owner/operator of the facilities. This will help encourage continuing awareness of system performance and help increase customer acceptance of the new technology.

| Barrier | Solution |
|---|---|
| Lack of consumer information about energy efficiency benefits | Continue to educate target market on benefits of DHW technology for long- term energy savings |
| Lack of financing for energy efficiency improvements | Technology installation cost is incurred by program – no first cost for customer |
| Lack of a viable and competitive set of providers of energy efficiency services in the market | This specific technology is unique and as such EDC is the only provider. Continue to aggressively market the product to target market |
| OTHER BARRIERS | |
| | This program provides a comprehensive baseline test period that culminates in a thorough energy analysis. A report is provided to the |
| The models developed for assessing usage are often confusing to financiers & managers. Need | customer and explained in detail so the customer can understand the |
| to be expressed in plain English, | importance of the controller system |

d) **Quantitative Program Targets**

Table 3

| Program Name | Program Target by 2013 | Program Target by 2014 |
|---|--|--|
| SaveGas Hot Water Control with Continuous Commissioning # of Properties | 10,000 rooms/ approximately 100 properties | 10,000 rooms/ approximately 100 properties |
| SaveGas Hot Water Control with Continuous Commissioning # of Laundry / Kitchens | 30 | 30 |

e) Advancing Strategic Plan goals and objectives

This Program supports the Strategic Plan in the following manner:

| Description | Strategic Plan Sector | Strategic Plan Goal | Strategic Plan Strategy |
|--|-----------------------------------|--|--|
| Program is participating directly in the CEC-PIER program and technology is being utilized directly for establishing Title 20 and Title 24 guidelines. | Residential | Deliver Zero Net Energy New Homes By 2020. | 1-1: Drive continual advances in technologies in the building envelope, including building materials and systems, construction methods, distributed generation, and building design. |
| On site training takes place in which the installation technician provides an overview of how the technology works, how to bypass the computer in case of an emergency and how to go online for systems analysis | Workforce Education & Strategy | Establish energy efficiency education and training at all levels of California's educational system. | 1-3: Incorporate energy efficiency and demand side energy management into traditional contractor and technician training, such as for plumbers and electricians, and expand training resources to produce target numbers of trained workers. |
| Direct program involvement of the technology's manufacturer helps lead to increased development and utilization of energy- efficient products and services and implement activities that create favorable conditions for EE technology investment and development. | Research & Technology | Create demand pull and set the research agenda to pursue both incremental and game changing energy efficiency technology innovations. | 1-2: Leverage private industry and Federally funded technology research and investment |
| Through program, Contractor works collaboratively with the R&D community and utilities to promote cost- effective performance enhancements. | Research & Technology | Conduct targeted emerging technologies R&D to support the Big, Bold Energy Efficiency Strategies/Programmatic Initiatives and integrated energy solutions goals. | 2-2: Promote cost-effective near term performance enhancements of existing technologies |
| Through statewide collaborations and active participation in the CEC's PIER program, Contractor through this program expands activities that support Big Bold initiatives. | Research & Technology | Conduct targeted emerging technologies R&D to support the Big, Bold Energy Efficiency Strategies/Programmatic Initiatives and integrated energy solutions goals. | 2-3: Develop initiatives aimed at PIER to support larger gains in support of Big Bold Initiatives. |

6. Program Implementation

a) Statewide IOU Coordination

- i. Program name
- ii. Program delivery mechanisms
- iii. Incentive levels
- **iv.** Marketing and outreach plans, e.g. research, target audience, collateral, delivery mechanisms.
- v. IOU program interactions with CEC, ARB, Air Quality Management Districts, local government programs, other government programs as applicable
- vi. Similar IOU and POU programs

This third-party program only operates within SoCalGas's service area. The Program is designed to support and complement SoCalGas's core program activities. If this Program shares common elements with the IOU's core programs, other third-party programs, or programs in other IOU service areas, SoCalGas and the Contractor will strive to coordinate the similar activities.

b) Program delivery and coordination

- i. Emerging Technologies program
 This is not applicable to this program.
- **ii.** Codes and Standards program

 This is not applicable to this program.

iii. WE&T efforts

On-site training takes place in which the installation technician provides an overview of how the technology works, how to bypass the computer in case of an emergency and how to go online for systems analysis. Additionally property contact information is captured so that the system can notify the appropriate onsite personnel should a hot water issue be detected.

Contractor's administrative personnel conduct formal training for the property and management. During this training the SaveGas website is configured so that customers can go online and view their data, analyze their site and set themselves up to receive alerts for hot water issues.

- iv. Program-specific marketing and outreach efforts (provide budget)
- **v.** Non-energy activities of program This is not applicable to this program.
- vi. Non-IOU Programs

 This is not applicable to this program.

vii. CEC work on PIER

This is not applicable to this program.

- **viii.** CEC work on codes and standards
 This is not applicable to this program.
- ix. Non-utility market initiatives
 This is not applicable to this program.

c) **Best Practices**

The program design incorporates various best practice elements. Specific items include:

- Program Management Project Management: Program uses well-qualified engineering staff.
- Program Management Reporting and Tracking: Through detailed recording of installations and operating parameters, the program has a well-designed program tracking system to support the requirements of evaluators as well as program staff.
- Program Implementation Marketing and Outreach: The program sells the customer benefits first, then energy efficiency and keeps benefits quantifiable in economic terms.

Lessons learned is that customers are very open and eager to embrace programs that are supported and successful. Most of the installations done under the 2006-2008 program were exploratory in nature (to verify the technology). Now that things have been verified, customers are looking to expand the program.

d) Innovation

Control technologies are not new; however, the Program's user interface is new and innovative. Through the Program's technology, customers are kept 100% aware of the savings they are achieving and any energy waste that may be occurring as a result of hot water system issue, failures, etc. Through this interface, energy conservation is now elevated to become an integral part of daily operations as opposed to a concept or widget that is installed and forgotten.

e) Integrated/coordinated Demand Side Management

The savings data generated from the SaveGas Hot Water Control with Continuous Commissioning program is being directly used by CEC/PIER in a statewide study. Additionally the Program's contractor has been directly consulted as a result of the data, market penetration and experience in helping to craft title 21 and title 24 codes and standards.

When Contractor technicians perform an onsite survey of the hot water systems, they will often encounter additional energy savings opportunities beyond the scope of the Contractor DHW program. The opportunities will be noted and relayed to Contractor's primary contact within the customer organization.

f) <u>Integration across resource types (energy, water, air quality, etc):</u>

This program does not integrate across resource types.

g) Pilots

The Kitchen and Laundry components are pilot projects. The environment for Laundry and Kitchens is identical to that of other DHW applications and preliminary data is showing similar savings results.

h) EM&V

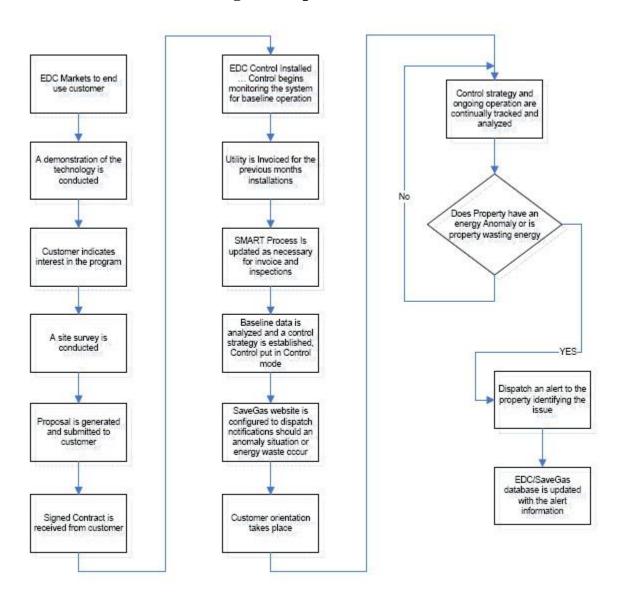
The utilities are proposing to work with the Energy Division to develop and submit a comprehensive EM&V Plan after the program implementation plans are filed. This will include process evaluations and other program-specific studies within the context of broader utility and Energy Division studies. More detailed plans for process evaluation and other program-specific evaluation efforts cannot be developed until after the final program design is approved by the CPUC and in many cases after program implementation has begun, since plans need to be based on identified program design and implementation issues.

7. Diagram of Program

No specific program diagram for this third party program has been developed. Any program linkages are discussed in Section 6.

8. Program Logic Model

Third party programs are an implementation channel and are included in the appropriate market segment logic models. No specific logic model for a particular third party program has been developed. However, provided below is a diagram of the Program's implementation.



1. Program Name: California Sustainability Alliance

Program ID: SCG3768

Program Type: Third-Party Program

2. Projected Program Budget Table

Table 1: Total Projected Program Budget by Category

| Program # | Main/Sub Program Name | Administrative Amount | Marketing Amount | Direct Implementation Amount | Incentive Amount | Total Program Budget Amount |
|--------------|---|--------------------------|---------------------|------------------------------------|---------------------|-------------------------------|
| | SoCalGas Third Party Programs | | | | | |
| 3768 | 3P-CA Sustainability Alliance | \$0 | \$0 | \$1,100,000 | \$0 | \$1,100,000 |
| 3768u | 3P-CA Sustainability Alliance (Utility) | \$38,005 | \$7,661 | \$55,947 | \$0 | \$101,613 |
| | TOTAL: | \$38,005 | \$7,661 | \$1,155,947 | \$0 | \$1,201,613 |

Note: SCG continues to negotiate the final contract with the third party vendor. As a result of final contract negotiations, the budget allocation into the budget subcategories may vary.

3. Projected Program Gross Impact Table

Table 2: Total Projected Program Savings by Subprogram

| Program # | Main/Sub Program Name | 2013-2014 Gross kW Savings | 2013-2014 Gross kWh Savings | 2013-2014 Gross Therm Savings |
|-----------|-------------------------------|-------------------------------|--------------------------------|----------------------------------|
| | SoCalGas Third Party Programs | | | |
| 3768 | 3P-CA Sustainability Alliance | 0 | 0 | 0 |
| | TOTAL: | 0 | 0 | 0 |

Note: This is a non-resource program.

4. Program Description

a) Describe program

The California Sustainability Alliance is an innovative cross-cutting market transformation program designed to increase and accelerate adoption of cost-effective energy efficiency. Key strategies are to:

- Increase demand for energy efficiency by increasing understanding of the costs and benefits of energy efficiency and sustainability;
- Increase voluntary adoption by creating value for market leaders and early adopters through a comprehensive program of awards, rewards and recognition;
- Increase effectiveness and cost-effectiveness of energy efficiency programs by packaging them with complementary "sustainability" measures (e.g. climate action, water efficiency, renewable energy, smart land use, waste management, transportation management) to leverage complementary program delivery channels, and use existing marketing, education and outreach channels to increase the frequency and strength of energy efficiency and sustainability messages;
- Increase and accelerate adoption of energy efficiency by engaging the assistance of expert advisors to overcome major barriers in high potential undersubscribed sectors;

- Provide comprehensive approaches such as whole building, portfolio and system approaches that achieve energy savings faster and more cost effectively while minimizing lost opportunities, and
- Simplify and streamline energy efficiency adoption through one-stop shopping for technical and financial assistance.

b) List measures

This is not applicable as this is a non-resource program that focuses on accelerating voluntary adoption of energy efficiency and other complementary sustainability best practices.

c) List non-incentive customer services

The Alliance assists targeted market leaders in increasing sustainability through pilot programs in which strategies for overcoming barriers to sustainability are developed and tested. During the course of these pilots, the Alliance provides a wide variety of assistance to pilot participants. In order to effectively support market leaders' efforts to adopt very aggressive sustainability goals, the Alliance helps them understand the myriad of choices and brands (e.g. 'shades of green') to select the suite of programs and practices that best meet their organizational objectives. The Alliance also provides ready access to significant support networks both for the participant, and for its markets, customers and stakeholders.

Non-incentive 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. The Alliance then creates web-based databases, models and tools that package the technical assistance provided to pilot participants into forms usable by other California organizations. In addition, experience gained through the pilots is documented in the form of case studies that are also made available on the Alliance's website. While Alliance technical services are provided for the purpose of developing knowledge and tools for overcoming barriers to sustainability, pilot participants gain valuable technical assistance.

The Alliance's robust support infrastructure is supplemented with a heavy dose of widespread public recognition of notable successes. It is essential that market leaders are recognized for stepping forward as early adopters, setting the sustainability bar for their peers and competitors. The program costs for recognizing successes are very modest while the returns are substantial.

5. Program Rationale and Expected Outcome

a) **Quantitative Baseline and Market Transformation Information**

This section is not applicable.

b) Market Transformation Information

This section is not applicable.

c) Program Design to Overcome Barriers

In seeking to transform markets, the program follows a process to identify and qualify market barriers specifically related to the targeted sustainability objective. The program will conduct market research and interview key stakeholders to identify and qualify the primary barriers to sustainability in each of the targeted sectors. Expert advisors are invited to join the Alliance in addressing these barriers. These seasoned advisors provide technical review and, when needed, assistance breaking logjams created by resistant policies, rules, regulations and practices.

The table below provides a summary of specific barriers targeted by the Program and strategies to overcome these barriers.

| Targeted Market | Barrier(s) Targeted | Primary Strategy(s) | Targeted Participants |
|--------------------|--------------------------|---------------------------|---------------------------|
| Multi-Family | Although | Sustainability policies | Owners of multiple |
| Housing | owners/operators benefit | and plans that target | multi-family properties, |
| | from life cycle cost | more effective & cost- | both affordable housing |
| | reductions, ad hoc | effective greening of | (e.g., LINC Housing) |
| | responses to retrofits | entire portfolios of | and for-profit property |
| | and lack of | multi-family housing | owners (e.g., BRE |
| | knowledgeable | on a whole-portfolio | Properties). |
| | personnel result in | and complex basis (i.e., | - |
| | missed opportunities | retrofitting an entire | |
| | | complex of multi- | |
| | | family housing at one | |
| | | time, rather than | |
| | | upgrading units one at | |
| | | a time, when they fail | |
| | | or are on the verge of | |
| | | failing). | |
| Sustainable | Uncoordinated | Facilitate partnering | Large mixed use |
| Communities | development & | among developers, | developments planned to |
| | permitting processes | local government and | be completed in |
| | miss important early | utilities to integrate | SoCalGas's service area |
| | stage design | sustainable design | within the next 10 years. |
| | opportunities | elements into new | |
| | | developments at the | |
| | | earliest possible stages. | |

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| Local | Most local governments | Assist California cities | California cities and |
|------------|---------------------------|--------------------------|-----------------------|
| Government | are willing and | and counties in | counties. |
| | interested in "leading by | formulating | |
| | example" but often lack | sustainability policies | |
| | sufficient resources & | and goals in which | |
| | expertise. | energy efficiency is an | |
| | | integral and essential | |
| | | element, and then | |
| | | developing and | |
| | | implementing the | |
| | | action plans needed to | |
| | | achieve these policies | |
| | | and goals. The | |
| | | Alliance's assistance | |
| | | includes visioning, | |
| | | strategic planning, and | |
| | | development and | |
| | | deployment of a wide | |
| | | variety of planning | |
| | | guidelines, tools, | |
| | | techniques, checklists, | |
| | | and benchmarks. | |

d) **Quantitative Program Targets**

The below table of program targets are indicative of the vigorous level of planned activity during the –2013-2014 program period.

Table 2

| California Sustainability Alliance Targets | 2013 | 2014 |
|--|--------------------------------|--------------------------------|
| Target 1: Green Local Government | | 1 pilot |
| Target 2: Green Commercial Buildings | 1 pilot | |
| Target 3: Water-Energy | 1 pilot | |
| Target 4: Pilot Programs, Tools and Program Development in Other Areas | | 1 pilot |
| Target 5: Utility Sustainability Roundtable (Annual) | 1 Roundtable | 1 Roundtable |
| Target 6: Sustainability Forum and Awards | | 1 Forum |
| Target 7: On-going support of tools and guidebooks | 1 tool or guidebook updates | 1 tool or guidebook updates |
| Target 8: Website Content & Functionality | 10,000 unique visits/year | 10,000 unique visits/year |

e) Advancing Strategic Plan Goals and Objectives

The Alliance is a comprehensive, cross cutting program that meets the California Energy Efficiency Strategic Plan (EE Strategic Plan) in multiple ways. In particular, as specifically acknowledged in the EE Strategic Plan, California's ambitious energy efficiency goals cannot be achieved through "business as usual" ("BAU"). An aggressive program that includes radical changes to existing codes, standards and practices, combined with market transformation, is needed to achieve these aggressive goals. The Alliance program helps to meet the EE Strategic Plan goals by (a) developing and encouraging widespread adoption of existing and emerging best practices and technologies, and (b) by precipitating market transformation in targeted sectors to radically accelerate the voluntary adoption of energy efficiency.

The following table identifies specific EE Strategic Plan strategies that are being deployed through the Alliance.

California Long Term Energy Efficiency Strategic Plan Goals and Strategies

| Description | Strategic Plan Sector | Strategic Plan Goal | Strategic Plan Strategy |
|---|--------------------------|---|--|
| The Alliance encourages sustainable design, construction & operations in existing and new multi-family housing and collaborates with PIER to test new concepts, such as micro-grids. | Residential | Deliver Zero Net Energy New Homes By 2020. | 1-1: Drive continual advances in technologies in the building envelope, including building materials and systems, construction methods, distributed generation, and building design. |
| The Alliance is assisting local government in incorporating sustainable community goals and objectives into local plans, including building codes and general plans; also in developing and implementing builders' entitlements for developers that meet goals for sustainable communities. | | Deliver Zero Net Energy New Homes By 2020. | 1-3: Coordinate and Support "Reach" Building Standards |
| The Program has developed and is deploying comprehensive portfolio approaches to greening existing multi-family complexes. | Residential | Transform home improvement markets to apply whole-house energy solutions to existing homes. | 2-1: Deploy full-scale Whole-House programs. |
| The Alliance Program is partnering with the Department of Conservation to build demand for sustainable communities statewide, and with the Housing & Community Development (HCD) to integrate green points into state financing for affordable housing developments). | Residential | Transform home improvement markets to apply whole | 2-1: Deploy full-scale Whole-House programs. |
| The Alliance Program is assisting HUD and HCD in integrating green points into financing for affordable housing and local government with respect to green | Residential | Transform home improvement markets to apply whole-house energy solutions to existing homes. | 2-1: Deploy full-scale Whole-House programs. |

| Description | Strategic Plan Sector | Strategic Plan Goal | Strategic Plan Strategy |
|---|--------------------------|---|--|
| points for local sources of funding assistance. | | | |
| The Alliance develops and disseminates information about the total benefits of sustainability (the "sustainability value proposition") that builds demand for sustainable communities. | Residential | Transform home improvement markets to apply whole | 2-2: Promote effective decision making to create widespread demand for energy efficiency measures. |
| The Alliance is assisting local governments in establishing & adopting green building standards, and in incorporating these into their General Plans. | Commercial | New construction will increasingly embrace zero net energy performance (including clean, distributed generation), reaching 100 percent penetration of new starts in 2030. | 1-1: Establish a long-term progressive path of higher minimum codes and standards ending with ZNE codes and standards for all new buildings by 2030. |
| The Alliance Program is helping to document the value of green buildings to build demand by both large owners and large tenants. | Commercial | New construction will increasingly embrace zero net energy performance (including clean, distributed generation), reaching 100 percent penetration of new starts in 2030. | 1-3: Establish a "Path to Zero" Campaign to create demand for high-efficiency buildings. |
| The Alliance Program is assisting owners, tenants, real estate investors and financial institutions develop green leasing instruments and tools. | Commercial | New construction will increasingly embrace zero net energy performance (including clean, distributed generation), reaching 100 percent penetration of new starts in 2030. | 1-5: Create additional investment incentives and leverage other funding. |
| The Alliance Program is assisting both large owners and large tenants in California understand the different types of benchmarking and certification that are available, and adopting the level and types of "green" that are appropriate to their goals and objectives. | Commercial | New construction will increasingly embrace zero net energy performance (including clean, distributed generation), reaching 100 percent penetration of new starts in 2030. | 1-6: Develop a multipronged approach to advance the practice of integrated design. |
| The Alliance is helping to document the value of green buildings to build demand by both large owners and large tenants. | Commercial | 50 percent of existing buildings will be retrofit to zero net energy by 2030 through achievement of deep levels of energy efficiency and with the addition of clean distributed generation. | 2-1: Lead by Example: State/local governments and major corporations commit to achieve energy efficiency, EE, (or green) targets in existing buildings. |
| The Program is developing "green leasing" pilots aimed at integrating the tenant and landlord's sustainability objectives within the framework of the entire leasing process: service provider selection; needs analysis and communication; request for proposal (RFP) and letter of intent (LOI) drafting; site due diligence; site selection; and then the actual negotiation and | Commercial | 50 percent of existing buildings will be retrofit to zero net energy by 2030 through achievement of deep levels of energy efficiency and with the addition of clean distributed generation. | 2-5: Develop tools and strategies to use information and behavioral strategies, commissioning, and training to reduce energy consumption in commercial buildings. |

| Description | Strategic Plan Sector | Strategic Plan Goal | Strategic Plan Strategy |
|--|--|---|---|
| drafting of realistic and | 50001 | | |
| enforceable lease language. In addition, the Alliance is helping owners and tenants realign the costs and benefits of greening existing commercial office space through its Green Leases Toolkit. | e lease language. e Alliance is helping tenants realign the enefits of greening mercial office space acceptage to the control of the control | | 2-6: Develop effective financial tools for EE improvements to existing buildings. |
| The Alliance Program is developing whole building incentive programs and portfolio approaches for very large owners to green all of their properties. | Commercial | 50 percent of existing buildings will be retrofit to zero net energy by 2030 through achievement of deep levels of energy efficiency and with the addition of clean distributed generation. New construction will increasingly embrace zero net energy performance (including clean, distributed generation), reaching 100 percent penetration of new starts in 2030. | 2-7 Develop business models and supplier infrastructure to deliver integrated and comprehensive "one-stop" energy management solutions |
| The Alliance is working with California water and wastewater agencies to develop strategies for optimizing their water and energy resources on a fully integrated basis. | Industrial | Support California industry's adoption of energy efficiency by integrating energy efficiency savings with achievement of GHG goals and other resource goals. | 1-1: Develop coordinated energy and resource management program for CA's industrial sector, to enhance use of energy efficiency |
| Through this process, the Alliance is also educating water and wastewater agencies about energy efficiency and distributed clean energy opportunities. | Industrial | Build market value and demand for continuous improvement in industrial efficiency through branding and certification. | 2-5: Implement ME&O program to educate industry and consumers |
| The Program targets delivery of comprehensive solutions in multiple targeted market sectors. | DSM Coordination and Delivery | Deliver integrated DSM options that include efficiency, demand response, energy management and self generation measures, through coordinated marketing and regulatory integration. | 1-2: Conduct integrated DSM delivery pilots in the Residential, Commercial, Industrial and Agricultural sectors. |
| The Program targets delivery of comprehensive solutions in multiple targeted market sectors. | DSM Coordination and Delivery | Deliver integrated DSM options that include efficiency, demand response, energy management and self generation measures, through coordinated marketing and regulatory integration. | 1-3: Develop integrated DSM programs across resources, including energy, water, and transportation. |
| The Alliance's Intern Program hires university students and recent graduates to assist in conducting research, compiling data, writing white papers, and developing web-based tools and content for its website. In this manner, the Alliance is helping to build the sustainability value proposition in the next generation. | Workforce Education and Training | Establish energy efficiency education and training at all levels of California's educational system. | 1-4: Create or expand college and university programs with energy efficiency focus and foster green campus efforts to apply this knowledge in clear view of students and faculty. |
| In addition, in –2013-2014, the Program will launch a new K-12 | Workforce Education and Training | Establish energy efficiency education and training at all | 1-5: Develop K-12 curriculum to include |

| Description | Strategic Plan Sector | Strategic Plan Goal | Strategic Plan Strategy |
|---|--------------------------------------|--|--|
| education program designed to increase awareness in the link between energy and GHG reduction. | 2000 | levels of California's educational system. | energy efficiency fundamentals (e.g. math, science, behavior) and identify career options in energy-related fields. |
| In its communications, the Program leverages energy efficiency to achieve broader sustainability goals, including GHG reduction, water use efficiency, smart land use, renewable energy, waste management and transportation management. In addition, as noted previously, the Alliance is expanding its program to include outreach and education for grades K-12. | Marketing, Education and Outreach | Create and launch an integrated, statewide Marketing, Education and Outreach effort for energy efficiency, including an energy efficiency brand. | 1-4: Develop a California Energy Efficiency web portal with statewide Information on GHG reductions, efficiency and DSM awareness and options. |
| The Program has developed and is preparing to launch its "Sustainability Forum" that brings together sophisticated implementers to share information about implementation challenges and things that have worked. It will also provide access to the Alliance's growing network of expert advisors. | Marketing, Education and Outreach | Create and launch an integrated, statewide Marketing, Education and Outreach effort for energy efficiency, including an energy efficiency brand. | 1-5: Conduct public communications campaigns, alongside longer-term supporting school education initiatives to deliver the efficiency message. |
| The Program is working with local governments to help them identify key points of leverage in which governmental policies and plans can significantly impact the level and timing of EE and sustainability adoption by their constituents. These include sustainability policies and greening General Plans and builder entitlements | Local Governments | Local governments are leaders in adopting and implementing "reach" codes. | 1-1: Develop, adopt and implement model building energy codes (and/or other green codes) more stringent than Title 24's requirements, on both a mandatory and voluntary basis; adopt one or two additional tiers of increasing stringency. |
| The Program is working with local governments to help them identify key points of leverage in which governmental policies and plans can significantly impact the level and timing of EE and sustainability adoption by their constituents. These include sustainability policies and greening General Plans. | Local Governments | Local governments are leaders in adopting and implementing "reach" codes. | 1-2: Establish expedited permitting and entitlement approval processes, fee structures and other incentives for green buildings and other abovecode developments. |
| A pilot project is being conducted with the California Dept. of Conservation for a model "Sustainable Cities" program that will provide successful models for statewide deployment. | Local Governments | Local governments are leaders in adopting and implementing "reach" codes. | 1-4: Create assessment districts or other mechanisms so property owners can fund EE through local bonds and pay back on property taxes; develop other local EE financing tools. |

| Description | Strategic Plan Sector | Strategic Plan Goal | Strategic Plan Strategy |
|---|--------------------------|--|---|
| The Alliance is also helping local governments leverage their considerable influence by leading their constituents by example, and then encouraging their constituents to also adopt EE and sustainability. | Local Governments | Local governments are leaders in adopting and implementing "reach" codes. | 1-5: Develop broad education program and peer- to-peer support to local governments to adopt and implement model "reach" codes and/or point of sale policies. |
| The Program is helping local governments understand how to apply the new Local Government Operations Protocols (LGOP) for carbon footprinting that were recently adopted by the California Air Resources Board, the California Climate Action Registry, and ICLEI Local Governments for Sustainability. | Local Governments | Local governments are leaders in adopting and implementing "reach" codes. | 1-6: Link emission reductions from "reach" codes and similar programs to CARB's AB 32 program and to local government CEQA responsibilities. |
| Further, the Program is working with the California Dept. of Conservation, the U.S. Department of Energy, the Public Technology Institute, and the Public Sustainability Partnership to develop a best-practices oriented sustainability benchmarking tool for local governments to self-evaluate their current level of sustainability adoption and quickly identify paths to improvement. | Local Governments | Local governments are leaders in adopting and implementing "reach" codes. | 1-5: Develop broad education program and peer- to-peer support to local governments to adopt and implement model "reach" codes and/or point of sale policies. |
| The Alliance is helping local governments conduct sustainability visioning and develop action plans for energy efficiency, renewable energy, climate action (greenhouse gas reduction), and other types of sustainability initiatives. | Local Governments | Local governments lead their communities with innovative programs for energy efficiency, sustainability, and climate change. | 4-1: Local governments commit to clean energy/climate change leadership. |
| The Program has developed a comprehensive inventory of "best practices" and model language for green general plans that it is disseminating to California local governments via a web-based tool. | Local Governments | Local governments lead their communities with innovative programs for energy efficiency, sustainability, and climate change. | 4-2: Use local governments' general plan to promote energy efficiency, sustainability and climate change. |
| The Alliance is preparing a case study illustration that teaches local governments how to benchmark their GHG through the Climate Action Registry's LGOP. | Local Governments | Local governments lead their communities with innovative programs for energy efficiency, sustainability, and climate change. | 4-3: Statewide liaison to assist local governments in energy efficiency, sustainability, and climate change programs |
| The Program is developing checklists and tools for local governments to identify energy efficiency opportunities. | Local Governments | Local government energy efficiency expertise becomes widespread and typical. | 5-1: Create a menu of products, services, approved technologies and implementation channels to guide local governments that currently lack deep expertise in energy |

| Description | Strategic Plan Sector | Strategic Plan Goal | Strategic Plan Strategy |
|--|--------------------------|--|--|
| | | | efficiency. |
| The Program is developing model approaches for regional collaboration. | Local Governments | Local government energy efficiency expertise becomes widespread and typical. | 5-2: Develop model approaches to assist local governments participating in regional coordinated efforts for energy efficiency, DSM, renewables, green buildings, and zoning. |
| The Alliance is supporting the Dept. of Conservation's Sustainable Cities pilot program to recognize notable local government leaders. | Local Governments | Local government energy efficiency expertise becomes widespread and typical. | 5-3: Establish a statewide effort to facilitate peer-to-peer learning, such as a "local champions" program or a governor's invitation only local government leaders' summit. |

6. Program Implementation

a) Statewide IOU Coordination

- i. Program Name
- ii. Program Delivery Mechanisms
- iii. Incentive Levels
- iv. Marketing and Outreach Plans
- v. IOU Program Interactions
- vi. Similar IOU and POU programs

The primary mechanism for delivering the Alliance program is through pilot programs that are designed to develop, test and implement strategies for overcoming barriers to sustainability in targeted market and customer sectors. The Alliance selects the targeted market and customer sectors in conjunction with SoCalGas Program Management. The Alliance then confers with its network of expert advisors to develop pilot program concepts.

Synergies with other IOUs are considered throughout the course of the pilot program. For example, the Alliance assisted a real estate investment trust in developing a portfolio strategy for greening all of its properties. The strategy includes accessing utility programs throughout California (SoCalGas, SCE, SDG&E and PG&E) to help green its properties.

The ultimate point of coordination and sharing of information among the IOUs will be through the Alliance's annual Sustainable Utility Forum in which the Alliance will present findings and recommendations from pilot programs and customer focus groups with respect to potential modifications to utility programs to more effective support market transformation based on its pilot programs.

The Alliance is a non-resource program. No incentives are paid under this program for energy savings, although pilot participants receive valuable technical and other special advisory assistance. Depending on the nature of the pilot or market research activities,

other IOUs may be requested to share in the costs. For example, discussions are presently occurring with SDG&E about supporting the implementation of the multi-family housing pilot program that developed a strategy for a real estate investment trust for greening its entire portfolio of multi-family housing units throughout California.

The Alliance program has several different levels of marketing and outreach. Each requires some degree of coordination with IOU programs, especially with respect to providing information about IOU programs to Alliance participants.

- <u>Recruitment</u>. The Alliance actively recruits expert advisors for various aspects of
 its program. The Alliance also recruits pilot participants comprised of a diverse set
 of stakeholders needed to effect market transformation in targeted market and
 customer sectors. The Alliance relies upon SoCalGas, other IOUs, and other
 energy and sustainability organizations and individuals to help identify and recruit
 influential and knowledgeable advisors.
- Awards and Recognition. Through its web-based Sustainability Showcase awards program, the Alliance rewards California sustainability leaders by documenting and showcasing their accomplishments. The Showcase serves another purpose it documents "best" sustainability practices and their benefits. Showcase award recipients are selected on the basis of the portfolio of sustainability best practices that they embody, and may be served by any IOU or POU within California.
- Building Demand for Sustainability. Through case studies and white papers, the
 Alliance documents the costs and benefits of sustainability to build the value
 proposition. This approach creates demand pull. In designing its pilot programs,
 the Alliance constantly seeks to leverage complementary efforts being conducted
 by SoCalGas, other IOUs and POUs, and other (e.g., CEC, DOE, non-profits, etc.)
 organizations.
- <u>Identifying and Communicating Sources of Sustainability Assistance</u>. The Alliance relies heavily on the IOUs' databases of energy efficiency assistance programs to help pilot participants maximize their adoption of sustainability. These databases are supplemented by other sources, such as CEC and DOE. Links to information about sustainability assistance are provided on the Alliance's website.
- Providing Sustainability Information, Tools and Techniques. During the course of
 its pilot programs, the Alliance provides information about sustainability options to
 pilot participants. Energy efficiency leads the discussions, since it typically is the
 sustainability measure that can produce economic benefits and can thus provide the
 impetus for achieving other sustainability goals and objectives. Again, the
 Alliance provides information about IOU programs to pilot participants and
 provides appropriate links on its website.

Consistent with the Alliance's strategy of leveraging existing resources, assets and relationships, the Alliance leverages existing programs and communications channels such as Flex Your Power, for delivering its sustainability messages.

The Alliance's scope is comprehensive sustainability, including energy and water efficiency, renewable energy, smart planning and growth, waste management, transportation management, and climate action/reduction of greenhouse gas emissions. Throughout the course of its program, the Alliance continually reaches out to complementary IOU and other programs that support and advance the above types of sustainability measures and initiatives. For example, the Alliance helps pilot participants identify IOU energy efficiency programs that can help achieve the pilot sustainability goals. During 2013-2014, the Alliance will also assist local government participants in its pilot programs adopt green policies, goals, codes, ordinances, General Plans, climate action plans, and other important upstream initiatives. These activities are consistent with the EE Strategic Plan and the IOUs' focus for–2013-2014.

The Alliance program confers actively with SoCalGas on selection of targeted markets and pilot projects to assure that the Alliance's efforts complement SoCalGas's priorities. In addition, since the Alliance is a market transformation program and market transformation does not occur in a single IOU's service area, the Alliance's activities often involve other utilities. For example:

- Pilots conducted in SoCalGas's service area often involve customers of SCE. The Alliance includes information about SCE programs in its pilot activities and encourages its diverse pilot participants to consider accessing SCE financial and technical assistance programs. Examples include the City of Ontario (local government), the Inland Empire Utilities Agency (a regional water and wastewater agency), the California Department of General Services (DGS, a state agency), Thomas Properties Group (a private property owner and management company), BRE Properties (a real estate investment trust), and LINC Housing (an affordable housing developer, owner and operator).
- In some cases, Alliance program partners and participants may involve municipal utilities that are also customers of SoCalGas. For example, the Los Angeles Department of Water and Power (LADWP) participated in the Alliance's study of the role of recycled water in energy efficiency and greenhouse gas reduction. In addition, the City of Roseville is participating in the Dept. of Conservation's "Sustainable Cities" pilot program.
- The Sacramento Municipal Utilities District (SMUD) and PG&E participated in the Alliance's roundtable about the role of utilities in sustainability.
- SDG&E is providing assistance in helping one of the Alliance's pilot participants, BRE Properties, develop and launch a portfolio energy efficiency approach to its multi-family properties in San Diego County.
- The recycled water study also included participation of the San Diego County Water Authority (SDCWA) and the Metropolitan Water District of Southern California (MWD).

b) Program delivery and coordination

i. Emerging Technologies program

The Alliance supports the IOUs' Emerging Technologies Program in several distinct ways:

- The Alliance's Technology Showcase highlights high potential technologies that are expected to have a major near-term impact (i.e., within 3-5 years) on energy consumption in California. The Technology Showcase provides information about the costs and benefits of these emerging technologies, encouraging end users to investigate these options before making design and procurement decisions. Information is also provided about utility programs that can help end users make the decision to adopt these emerging technologies.
- The Alliance also assists its sister program, the Portfolio of the Future (PoF), in identifying market leaders who might be interested in being early adopters of emerging technologies being evaluated through the PoF; recruiting pilot participants and partners for its technology pilots and market research studies; and providing information about technologies being evaluated by PoF to targeted markets and customer groups.
- During the provision of technical assistance to pilot program participants, the Alliance identifies and evaluates the costs and benefits of promising emerging technologies and new business models so that pilot participants can make informed decisions about sustainability options.
- Also, through the Alliance's process of continually seeking and leveraging complementary resources, assets, relationships, and activities, the Alliance is in constant contact with all key stakeholders, including the IOUs, POUs, and the CEC, to identify opportunities for synergistic partnering on both conventional and emerging technologies and practices. This has led to discussions with CEC PIER about the possibility of requesting Alliance pilot participants to host micro-grid pilot demonstration projects, and with the City of Riverside about helping to recruit City residents and businesses for participation in demonstrations of new technologies.

ii. Codes and Standards program

The Alliance encourages market leaders in a variety of sectors to adopt upstream policies, goals, codes and standards that can have significant long term, cost effective impacts. Green policies, codes, standards, ordinances and practices are included in the Alliance's inventory of best sustainable practices that are brought to every Alliance pilot participant. For example, all participants in the Alliance's "Green Local Government" pilot program and the Alliance's partner, Department of Conservation's "California Emerald Cities" pilot, are encouraged to adopt aggressive Green Building Ordinances and to train their permitting and inspection staff in compliance with these ordinances. Local government participants that have their own building codes are encouraged to integrate measures that will meet or exceed the equivalent of U.S. Green Building Council's LEEDTM Silver and Energy Star 75 for all new and major retrofit construction. In addition, the Alliance developed a database of model green language to help California cities and

counties green their General Plans. The database is presently being converted to a web-based tool that can be accessed through the Alliance's website.

iii. WE&T efforts

The Alliance program's scope includes education and training about sustainability options. For example, an energy efficiency and sustainable operations manual was prepared for a real estate investment trust to help manage its multi-family housing portfolio. In addition, local government participants are encouraged to access IOU training in Title 24 compliance. One of the activities planned for –2013-2014 is to help local governments evaluate the economic benefits achievable by supporting the creation of green jobs, both within the governmental entities themselves and in their communities. WE&T is integral to achieving those objectives.

iv. Program-specific marketing and outreach efforts (provide budget)

The Alliance provides an innovative marketing and outreach channel through which market transformation initiatives and proactive enrollment of targeted participants will be facilitated. An important aspect of the market transformation strategy entails engaging market leaders, policymakers and industry thought leaders to collaboratively develop, pilot-test, and implement market transformation initiatives designed specifically to overcome primary barriers to sustainability in high potential markets. Targeted market and customer sectors are identified in conjunction with SoCalGas Program Management to fill program gaps.

The Alliance program provides a comprehensive communications and outreach infrastructure that includes a robust website [www.sustainca.org] and a diverse portfolio of activities designed to work in concert to build the sustainability value proposition and to encourage voluntary adoption of sustainability best practices throughout California.

v. Non-energy activities of program Below is a listing of the wide variety of outreach activities that have been conducted during the current program cycle and will continue during –2013-2014.

| Type of Venue | Topics | Targeted Participants | |
|------------------|---------------|--|--|
| | Alliance | Steering Committee and Technical Program Team | |
| | Program | | |
| | Updates | | |
| Workshops | Pilot Program | Pilot Program Advisory Committees (one for each targeted | |
| Workshops | Updates | market sector) | |
| | Green | Joint workshops planned with HUD &/or HCD to inform | |
| | Affordable | affordable housing stakeholders about green points for | |
| | Housing | affordable housing financing | |

| Type of Venue | Topics | Targeted Participants |
|----------------------|---------------------------------------|--|
| | Sustainable Communities | Workshops planned to bring local government and builders/developers together to discuss workarounds to barriers to sustainable development of new mixed use communities |
| | Green Leases | Workshops planned to bring together brokers, real estate investors, large owners and landlords, and large tenants to collaborate on greening leased office space |
| | Recycled Water | Workshops planned to bring together energy utilities, water agencies, policymakers, regulators and legislators to discuss the energy values embedded in water and strategies for accessing those energy values |
| | Green Local Government | Joint workshops planned with local government, and planning professionals to develop and implement strategies for greening General Plans |
| Program Marketing | Industry Association Meetings | A variety of venues at which targeted market participants can be cost-effectively engaged; e.g., ACEEE Annual Conference, GreenBuild, League of California Cities |
| | Green Pension Funds | Large pension funds and other green investors |
| Sustainability | Green Real Estate | Developers, real estate brokers, leasing agents, large tenants |
| Roundtables | Corporate Social Responsibility | Large utility customers who have adopted corporate social responsibility policies & programs |

vi. Non-IOU Programs

The Alliance actively seeks new partnerships that will further leverage the scope and breadth of services that it brings to California participants. Existing partners include the following:

- California Climate Action Registry web-based illustration of the
 methodology for computing a local government's carbon footprint using
 the "Local Government Operations Protocol" (LGOP) that was jointly
 developed and recently adopted by the California Air Resources Board, the
 California Climate Action Registry, and ICLEI Local Governments for
 Sustainability
- *California Department of Conservation* pilot "California Emerald/Sustainable Cities" program
- California State and Consumer Services Agency (SCSA) green leasing for state agencies
- U.S. Department of Energy (DOE) and the Public Technology Institute (PTI) joint development of a best-practices oriented sustainability benchmarking tool for local government
- U.S. Department of Housing and Urban Development (HUD) –

development of a green points system for financing of its "Mark-to-Market" portfolio of affordable housing

• *U.S. Green Building Council (USGBC)* – joint conduct of Green Leasing outreach and education

During the program cycle, the Alliance will continue to recruit new partners to collaborate on market transformational activities and to share knowledge, costs, relationships and communications channels.

vii. CEC work on PIER

The Alliance program is coordinating with CEC PIER to identify opportunities for supporting RD&D activities that are related to sustainability. These include:

- New technologies, materials and design techniques, construction methods, benchmarking and other tools for new and retrofit green buildings and sustainable communities
- Systems approaches to reducing energy used by water and wastewater agencies for conveyance, treatment, distribution, and wastewater treatment
- Renewable energy resources and technologies

viii. CEC work on codes and standards

The Alliance supports CEC's work on codes and standards by encouraging pilot program participants to adopt maximum cost-effective energy efficiency design and measures, and to identify opportunities for integrating sustainable design elements early in new mixed use communities and other new development projects. The Alliance's evaluations of costs vs. benefits and barriers to adoption by pilot participants of various types of measures are documented and provided to SoCalGas, CEC and others so that policymakers and regulators have the ability to consider stakeholder input in their decision making.

ix. Non-utility market initiatives See information provided for non-IOU programs.

c) Best Practices

The Alliance program design incorporates various best practice elements. Specific items include ¹:

Program Theory and Design

- The Alliance program has developed a sound program plan and links its strategic approach to policy objectives and constraints.
- The Alliance program emphasizes non-energy benefits to expand the market share for energy efficiency.

¹ The best practices listed below are identified in the *National Energy Efficiency Best Practices Study, Volume S – Crosscutting Best Practices and Project Summary*, Quantum Consulting, Inc., December 2004.

Program Planning Process

- The Alliance program targets knowledgeable and influential stakeholders to participate in pilot program design and development of strategies for overcoming sustainability barriers.
- The Alliance program also incorporates feedback loops into its planning
 processes so that it can adapt its program plans and strategies to changes in
 policies, markets, regulations and technologies, maintaining the flexibility to
 rebalance its pilot programs and initiatives as needed to achieve the
 overarching program goals and objectives.

Adaptation to Changes in Technologies and Market Conditions

- The Alliance keeps abreast of changes in policies, markets, regulations and technologies to (a) adapt its programs and strategies as deemed necessary to maximize adoption of energy efficiency and complementary sustainability measures, and (b) to identify opportunities that can be leveraged to achieve the Alliance's overarching goals and objectives.
- The Alliance also proactively seeks new technologies and emerging best practices, encouraging its pilot participants to become early adopters of promising new technologies while balancing the potential incremental benefits against possible risks and costs.
- The Alliance establishes robust networks for sharing information and lessons learned with industry leaders and peers; is alert to market developments; and has very strong relationships with market leaders and key stakeholders.

Staffing Approach

 Consistent with its philosophy of matching the best resources to the appropriate purposes, the Alliance has assembled a team of experienced technical, marketing and program management professionals that collectively bring the diverse skills needed to cost-effectively implement the Alliance's robust multifaceted projects.

Program Integration

- The Alliance program is designed to deliver energy efficiency cost effectively by bundling it with multiple complementary sustainability measures.
- The Alliance assists pilot program participants in developing and implementing whole portfolio, system, facility, building approaches to more cost-effectively and comprehensively achieve sustainability.
- The Alliance proactively seeks partner organizations to leverage their individual and collective resources, assets and relationships.

Program Implementation – Marketing and Outreach

• The Alliance program develops and disseminates successes of market leaders and early adopters and through case studies.

d) Innovation

The Alliance is unique in its structured, highly inclusive and collaborative approach to overcoming barriers to adoption of energy efficiency and sustainability. The Alliance's over-arching goal is 'market transformation'—the voluntary adoption of sustainability principles and practices by all types of public and private organizations into all facets of California's policies, programs and businesses. Market transformation is achieved by providing a dynamic forum for unprecedented cooperation among diverse public and private organizations in the joint development and implementation of strategies for overcoming sustainability barriers. By working hard to find alignment among the diverse needs and interests of these organizations, the Alliance is able to leverage their collective resources, assets and relationships to make sustainability both the right choice and the only choice. It is through this broad portfolio of collaborative action that California's visionary energy and environmental goals have the highest likelihood of success.

In addition to providing a comprehensive infrastructure for supporting early adopters, the Alliance recruits thought leaders to share their ideas about the most important things that need to happen to overcome the primary barriers to sustainability in each sector targeted for sustainability.

e) Integrated/Coordinated Demand Side Management

The Alliance's cross-cutting program was designed to complement SoCalGas's own programs. A robust portfolio of strategic advisory services and technical assistance is complemented by extensive networks of advisors, partners and information.

- The Alliance will work closely with SoCalGas's New Construction and Sustainable Communities Programs to recruit partners and participants, and to identify and implement innovative strategies in all market sectors residential, commercial, industrial and agricultural to engage their participation in achieving SoCalGas's energy efficiency goals. The comprehensive cross-cutting nature of the Alliance program will have significant benefits for other energy efficiency programs within SoCalGas's portfolio, such as retrofits of affordable housing and commercial buildings.
- The Alliance will also work closely with SoCalGas to select activities and participants that complement and leverage SoCalGas's portfolio of energy efficiency programs. Some direct energy savings will accrue from implementing portfolio approaches to greening market leaders' inventories of buildings, facilities and systems. Many other long-lived energy savings will be enabled by tackling upstream barriers, such as greening of many diverse organizations' policies, programs and practices (e.g., assisting local government in greening their general plans; encouraging large commercial real estate players to adopt minimum green criteria and green portfolio commitments, and helping state and federal agencies incorporate green points into their funding assistance programs).

f) Integration Across Resource Types (energy, water, air quality, etc)

The Program leverages multiple environmental sustainability initiatives to deliver energy efficiency programs and services more effectively and cost-effectively. Complementary

initiatives include climate action (greenhouse gas reduction), water efficiency, renewable energy, smart land use and growth, waste management and transportation management.

g) Pilots

Pilot projects are presently being conducted in each of the five market segments targeted during the current program cycle (2006-2008): affordable housing, "smart" new mixed-use communities, green commercial buildings, recycled water, and green local government. Each pilot project includes one or more pilot "hosts" – i.e., organizations that agree to provide a testing ground for transformational strategies. In addition, key stakeholders identified as essential to successful deployment of the methods, tools and techniques that are developed through these pilot projects were also engaged. Engagement of pilot participants occurred through a variety of venues and required meetings and discussions about their respective roles and responsibilities. This same process will be employed for new pilot programs to be implemented during the 2013-2014 program cycle.

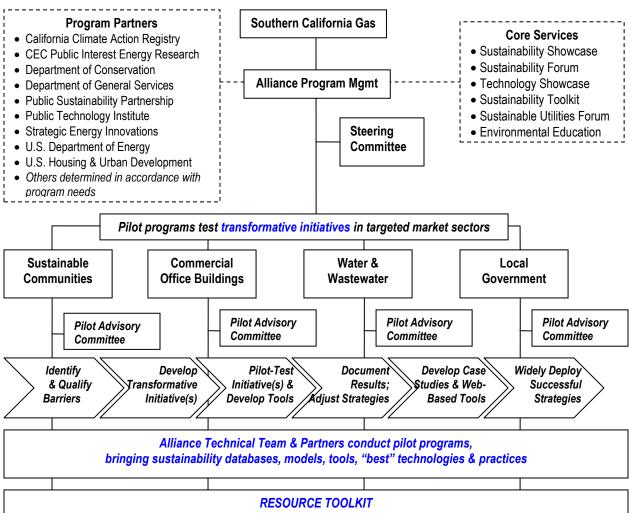
In addition, the Alliance is launching a new pilot activity in 2013-2014: Sustainability education for grades K-12 through a campaign called "Making Carbon Visible".

h) EM&V

The utilities are proposing to work with the Energy Division to develop and submit a comprehensive EM&V Plan for 2013-2014 after the program implementation plans are filed. This will include process evaluations and other program-specific studies within the context of broader utility and Energy Division studies. More detailed plans for process evaluation and other program-specific evaluation efforts cannot be developed until after the final program design is approved by the CPUC and in many cases after program implementation has begun, since plans need to be based on identified program design and implementation issues.

7. Diagram of Program

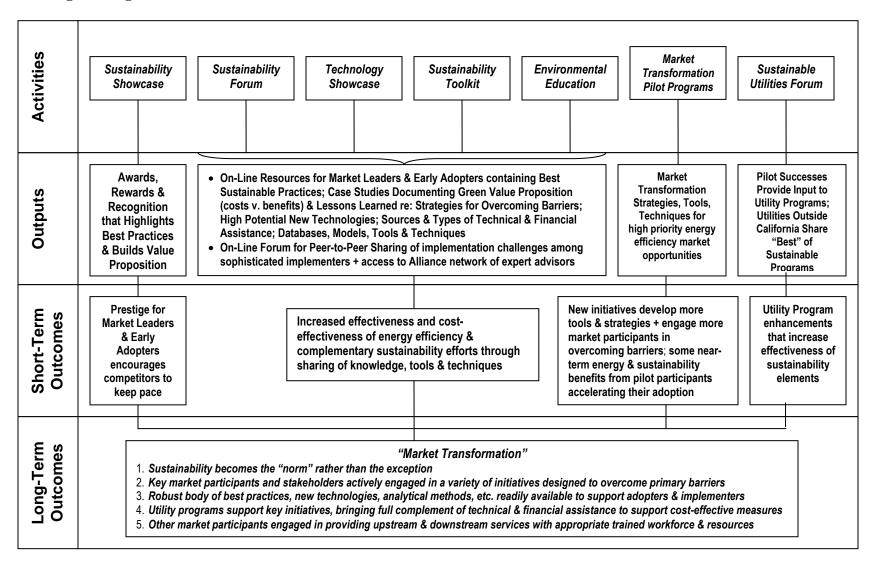
California Sustainability Alliance Program – Collaboration & Coordination



- IOU & POU Programs (energy & water, all applicable market & customer sectors)
- Complementary Sustainability Measures (renewable energy, smart planning & growth, waste management, transportation management, climate action/GHG reduction)
- Upstream Programs (Energy/Sustainability/Climate Policies, Goals, Objectives, Codes & Standards, General Plans, etc.)
- Emerging Technologies (Portfolio of the Future, IOUs/ETCC, CEC PIER, USDOE, NYSERDA, others)
- Workforce Education & Training (sustainability options, operations & maintenance, code enforcement, green jobs)

Note: Targeted market sectors may change over the duration of the Alliance program, but the above 4 sectors are targeted for 2010-2012

8. Program Logic Model



2013-2014 Energy Efficiency Programs Portfolio of the Future Program Implementation Plan

1. Program Name: Portfolio of the Future (PoF)

Program ID: SCG3769

Program Type: Third-Party Program

2. Projected Program Budget Table

Table 1: Total Projected Program Budget by Category

| Program # | Main/Sub Program Name | Administrative Amount | Marketing Amount | Direct Implementation Amount | Incentive Amount | Total Program Budget Amount |
|--------------|-------------------------------|--------------------------|---------------------|------------------------------------|---------------------|-------------------------------|
| | SoCalGas Third Party Programs | | | | | |
| 3769 | 3P-PoF | \$0 | \$0 | \$1,000,000 | \$0 | \$1,000,000 |
| 3769u | 3P-PoF (Utility) | \$37,375 | \$5,746 | \$55,947 | \$0 | \$99,068 |
| | TOTAL: | \$37,375 | \$5,746 | \$1,055,947 | \$0 | \$1,099,068 |

Note: SCG continues to negotiate the final contract with the third party vendor. As a result of final contract negotiations, the budget allocation into the budget subcategories may vary.

3. Projected Program Gross Impacts Table

Table 2: Total Projected Program Savings by Subprogram

| Program # | Main/Sub Program Name | 2013-2014 Gross kW Savings | 2013-2014 Gross kWh Savings | 2013-2014 Gross Therm Savings |
|-----------|-------------------------------|-------------------------------|--------------------------------|----------------------------------|
| | SoCalGas Third Party Programs | | | |
| 3769 | 3P-PoF | 0 | 0 | 0 |
| | TOTAL: | 0 | 0 | 0 |

Note: This is a non-resource program.

4. Program Description

a) Describe program

The Portfolio of the Future (PoF) is designed to leverage and enhance Southern California Gas Company's (SoCalGas) Emerging Technology (ET) efforts by identifying and accelerating the market adoption of emerging technologies (newly commercialized technologies and under-utilized technologies) that can significantly improve end-use energy efficiency in Southern California. It will do so by:

- Helping to validate the technology, demonstrate the benefits, build the necessary
 market infrastructure, and promote and encourage early adoption by concurrently
 providing assistance, defining the value proposition, and addressing market
 barriers,
- Building awareness regarding the benefits from the emerging technologies and setting the stage for including some of the emerging technologies in the next cycle of) energy efficiency programs; and
- Leveraging SoCalGas resources and those of other utilities (including municipal utilities, water utilities, Southern California Edison (SCE), San Diego Gas and Electric (SDG&E) and Pacific Gas and Electric Co. (PG&E)), NCI, potential R&D partners (including the U.S. Department of Energy, CEC PIER,

2013-2014 Energy Efficiency Programs Portfolio of the Future Program Implementation Plan

NYSERDA), private equity, and venture capital funds), the utilities' customers, other state and federal agencies, and local governments.

The Portfolio of the Future (PoF) program seeks to achieve market transformation through accelerated adoption of high potential energy efficiency technologies that are not yet in SoCalGas's energy efficiency portfolio.

Emerging energy efficient technologies face a long path and multiple hurdles to achieve commercialization. The energy services market is particularly fragmented and dependent upon multiple actors to develop and sustain a viable market. Many energy efficiency technologies represent niche markets and, as a result, building owners and specifiers are notoriously conservative in specifying new technologies. Therefore, a network of installers and maintenance firms is required before widespread commercial adoption will occur. The Portfolio of the Future program identifies and evaluates promising technologies. For the selected technologies, the PoF sponsors pilot tests to provide credible benefits specifiers; develops market data to facilitate investment and market entry; works with firms to establish a California market presence; facilitates partnerships (e.g. other utilities, other government agencies, distributors, etc.); assists utility programs managers to incorporate these technologies into their programs; and assists in building market awareness.

b) <u>List measures</u>

This is not applicable. PoF is a non-resource program that focuses on accelerating market acceptance and adoption of high potential emerging natural gas efficiency technologies. Candidate technologies are identified during the course of the program through technology scans and stakeholder input.

c) List non-incentive customer services

Some aspects of the PoF program may entail helping SoCalGas customers select, install, test, demonstrate and evaluate the potential energy savings, operational costs and impacts, air emissions, and other impacts attributed to adoption of new technologies. Other aspects of the program involve developing and implementing pilot projects and market research with SoCalGas customers. Educational materials may also be prepared and targeted customers trained on the costs and benefits of technologies selected for inclusion in SoCalGas's 2013-2014 energy efficiency portfolio. While these activities are being conducted to gain information about technologies, SoCalGas customers may also benefit and deem aspects of participation in PoF's activities as a beneficial service.

5. Program Rationale and Expected Outcome

a) Quantitative Baseline and Market Transformation Information

This section is not applicable

b) Market Transformation Information

The Emerging Technologies program has an emphasis to identify and facilitate commercialization and adoption of technologies that support long term market

transformation objectives as directed by the long term energy efficiency strategic plan and CPUC directives.

c) Program Design to Overcome Barriers

The following table provides descriptions of the barriers that Program seeks to address and the solutions the Program proposes to overcome the barrier.

| Barrier | Solution |
|--|---|
| | • Identifying and promoting the most significant |
| | opportunities, including supporting a portfolio with |
| | a balance of near-, short-, mid- and long-term |
| Barriers to the entry of new energy efficiency | opportunities; |
| technologies or systems whose efficiency or system | Providing local demonstrations to document and |
| performance levels are uncertain due to lack of | establish the credibility of the energy savings and |
| experience | environmental benefits of the technology. |
| | For the selected technologies, the PoF sponsors pilot |
| | tests to provide credible benefits; develops market |
| | data to facilitate investment and market entry; works |
| | with firms to establish a California market presence; |
| | facilitates partnerships (e.g. other utilities, other |
| | government agencies, distributors, etc.); assists |
| The energy services market is fragmented and | utility programs managers to incorporate these |
| depends upon multiple actors to develop and | technologies into their programs, and assists in |
| sustain a viable market. | building market awareness. |

d) **Quantitative Program Targets**

The program has a set of targets related to identifying and accelerating adoption of emerging technologies that can significantly improve end-use natural gas efficiency in SoCalGas's service territory. Building on the technology database developed through the initial portfolio screen since the 2010-2012 energy efficiency program cycle, the table below shows the targets for–2013 - 2014.

Table 3

| Portfolio of the Future | Program Target by 2013 | Program Target by 2014 |
|---|------------------------|------------------------|
| Target #1: Additional high potential technologies identified | 4 | 2 |
| Target #2: Additional high potential technologies selected for development | 3 | 1 |
| Target #3: Pilot projects conducted | 2 | 1 |
| Target #4: Market research, studies & assessments conducted | 1 | 0 |
| Target #5: Program readiness packages or market transformations strategies prepared for technologies selected for inclusion in SoCalGas's portfolio | 2 | 1 |
| Target #6: Partners engaged | 1 | 1 |
| Target #7: Early adopters recruited | 1 | 1 |

e) Advancing Strategic Plan Goals and Objectives

This program supports the Strategic Plan in several ways:

- By promoting emerging technologies, this program encourages adoption of leading edge technologies
- Assists in the technology specific assessment of new and emerging technologies
- Implements activities that create favorable conditions for EE technology investments
- PoF supports the following EE Strategic Plan's Research and Technology goals.

California Long Term Energy Efficiency Strategic Plan Goals and Strategies

| California Long Term Energy Efficiency Strategic Plan Goals and Strategies | | | | |
|--|--|---|---|--|
| Description | Strategic Plan Sector | Strategic Plan Goal | Strategic Plan Strategy | |
| PoF's scope includes advancing technological innovation and promoting commercialization of promising residential energy efficiency technologies. | Residential | Transform home improvement markets to apply whole-house energy solutions to existing homes. | 2-3: Manage research into new/advanced cost effective innovations to reduce energy use in existing homes | |
| Program aims to transform markets through commercialization and adoption of new technologies. | Residential | Develop comprehensive, innovative initiatives to reverse the growth of plug load energy consumption through technological and behavioral solutions. | 3-2 In coordination with Strategy 2-2 above ¹ , develop public awareness of and demand for highly efficient products. | |
| Program employs a variety of tools and techniques that start with scans of technology opportunities that are then characterized and ranked to identify those with high potential near term net benefits. | Research and Technology | Create demand pull and set the research agenda to pursue both incremental and game changing energy efficiency technology innovations. | 1-1: Apply systems approaches to establishing research priorities | |
| Program involves partnering with a wide variety of public and private entities to leverage complementary efforts. Targeted partners include but are not limited to: CEC PIER, DOE and the National Labs, NYSERDA and other state RD&D organizations, industry associations and their RD&D affiliates, technology developers, equipment manufacturers and distributors. | Research and Technology | Create demand pull and set the research agenda to pursue both incremental and game changing energy efficiency technology innovations. | 1-2: Leverage private industry and Federally funded technology research and investment | |
| Program conducts market research, assessments and pilot demonstration projects of high potential new technologies that are selected through a structured process of screening and ranking to fill gaps in California utilities' portfolios of emerging technologies. Helps facilitate through active participation in PIER and ET efforts stakeholder | Research and Technology Research and Technology | Create demand pull and set the research agenda to pursue both incremental and game changing energy efficiency technology innovations. Conduct targeted emerging technologies R&D to support the Big, | 1-3: Enhance market intelligence and behavioral research activities related to energy efficient technologies. 2-3: Develop initiatives aimed at PIER to support larger gains in support of | |

¹ Strategy 2-2 is Promote effective decision-making to create widespread demand for energy efficiency measures.

| Description | Strategic Plan Sector | Strategic Plan Goal | Strategic Plan Strategy |
|--|-----------------------|---|-------------------------|
| input into alignment of PIER activities with Big Bold Initiatives. | | Bold Energy Efficiency Strategies/Programmatic Initiatives and integrated | Big Bold Initiatives. |
| | | energy solutions goals. | |

In October 2007, the CPUC recognized that California's very ambitious efficiency and greenhouse gas reduction goals require long-term strategic planning to eliminate persistent market barriers and effect lasting transformation in the market for energy efficiency across the economy. Accordingly, the Commission developed the Long Term Energy Efficiency Strategic Plan (Strategic Plan) to guide California's energy efficiency efforts through 2020 and beyond.

The Strategic Plan lists emerging technologies as one of the five policy tools employed to "push" or "pull" more efficient products or practices to the market. The market transformation strategies covered in the plan are built around these five policy tools. Moreover, the Strategic Plan was structured around four vertical market sectors and seven cross-cutting areas. Research and technology is one of the seven cross-cutting areas.

6. Program Implementation

a) Statewide IOU Coordination

- i. Program Name
- ii. Program Delivery Mechanisms
- iii. Incentive Levels
- iv. Marketing and outreach plans
- v. IOU program interactions
- vi. Similar IOU and POU programs

The primary point of coordination with statewide IOU efforts is the respective Emerging Technologies programs of the other IOUs (SDG&E, SCE and PG&E), both individually and through the Emerging Technologies Coordination Council (ETCC). The PoF program is structured specifically to address gaps in SoCalGas's gas efficiency portfolio and complement SoCalGas's and other IOUs' emerging technologies efforts.

PoF is a non-resource program and, therefore, no incentives are paid under this program for energy savings, although pilot participants may be compensated to offset their costs of participating in pilot demonstration and research projects. Depending on the nature of the pilot or market research activities, other IOUs may be requested to share in the costs.

The Program coordinates with other RD&D agencies including the national laboratories, the U.S. EPA and DOE, and other state energy RD&D agencies. In addition, PoF coordinates with the California ARB and regional air quality management districts in the conduct of its pilot demonstration projects, and also with respect to evaluating the air

emissions impacts of evaluated technologies. Further, PoF coordinates with local permitting agencies and governmental authorities in structuring and conducting its pilot projects.

The PoF is structured to complement SoCalGas's emerging technologies activities, and those of other IOUs and the ETCC. California POUs typically do not have specific emerging technologies programs but do present an opportunity for collaboration. For example, discussions are in progress with respect to a potential partnership with the City of Riverside's utilities division, Riverside Public Utilities (RPU), that provides electric, water and wastewater utilities services. RPU is very interested in helping PoF secure pilot participants within its service area.

b) Program Delivery and Coordination

i. Emerging Technologies
PoF is designed specifically to complement California's existing emerging technologies programs and activities.

The Program's scope includes identifying key barriers to adoption of new technologies. During the process of conducting pilot projects and market assessments, PoF will identify any potential conflicts with codes and standards, and will document the potential benefits of new technologies affected so that the appropriate regulatory bodies can review the codes and standards and determine whether changes should be made.

ii. Codes and Standards
This is not applicable to this program.

iii. WE&T (Workforce Education & Training)

Similarly, lack of a trained workforce to perform installations, operations and repair services can be a significant barrier to technology adoption. PoF considers and will document these types of barriers in its technology assessments, and suggest potential remedies.

iv. Program Specific Marketing & Outreach

PoF has several levels of marketing and outreach:

- Recruit participants in technology demonstration projects, market research, studies and assessments
- Share information about PoF technologies and activities, and learn about what other IOUs, POUs, energy research organizations, and other key stakeholders are doing that might be complementary
- Develop case study materials that document the costs, benefits and performance of technologies
- Upon successful demonstration, prepare select technologies for launch in SoCalGas's portfolio with Program Readiness Packages that include minibusiness plans and strategies for recruiting targeted adopters

 Develop technical brochures to inform targeted adopters about selected new technologies and applicable SoCalGas programs and incentives

The above PoF marketing and outreach activities will be performed in conjunction with SoCalGas, PG&E and the ETCC to assure:

- success in recruiting targeted participants;
- that PoF's activities are coordinated and complementary to those of the IOUs, the ETCC and other key energy research stakeholders, and
- that information about high potential technologies being advanced through PoF is widely disseminated to targeted adopters throughout California.

In addition, PoF will leverage the extensive network of relationships and communications channels developed by its sister program, the California Sustainability Alliance (Alliance). Alliance participants include the Public Sustainability Partnership, the Public Technology Institute and Strategic Energy Innovations, three non-profit organizations that have a strong network of members and partners in California and throughout the U.S. that would be candidates for both participants in PoF pilots and market research studies, and could also be potential partners.

v. Non-Energy Activities of Program

The Program's primary focus is on identifying and facilitating adoption of new gas efficiency technologies. However, some technologies also achieve ancillary non-energy benefits. For example, technologies that reduce gas consumption for water heating by reusing hot water have an additional benefit of saving water. In addition, many technologies can also reduce air emissions. Those that reduce potable water consumption reduce embedded energy that was used to produce and deliver that potable water, and also reduce the amount of energy needed to treat wastewater. Other technologies directed at improving gas efficiency, e.g., in combustion, may have the added benefit of reducing associated emissions. All such ancillary benefit streams are documented by PoF in the cost-benefit analysis of each technology being evaluated.

vi. Non-IOU Programs

As noted previously, one of the Program's primary strategies is to identify and leverage complementary non-IOU resources, assets and activities being conducted by others through proactive partnering. Since the inception of the program in 2006-2008 program cycle, PoF partnered with various technology developers, manufacturers and distributors; energy and water utilities; and a wide variety of diverse stakeholders. PoF anticipates much broader partnering with other energy RD&D organizations and stakeholders, including CEC PIER and U.S.DOE; non-profit organizations such as the Public Technology Institute that brings new technologies to its members, local governments; POUs such as Riverside Public Utilities; and other energy, water and wastewater utilities.

vii. CEC work on PIER

Not applicable

viii. CEC work on codes & standards
This is not applicable to this program.

ix. Non-utility initiatives

The "Portfolio of the Future" initiative includes the following elements related to non-utility initiatives:

- Accelerate the commercialization of energy efficient technologies in support of the California Energy Efficiency Strategic Plan (CEESP) and Big/Bold Initiatives;
- Partner with a wide variety of stakeholders including other utilities, industry, EPRI, DDE, and CEC to leverage resources and maximize impact, and
- Develop a portfolio of pilot opportunities.

c) Best Practices

PoF was designed to embody the best practices in energy efficiency emerging technologies programs. Below is a listing of the best practices recommendations from the Best Practices database that were integrated into the POF program theory and design.²

Program Theory, Design, Management, Reporting, QC, and Process Design

| Cross Program Best Practice | |
|-------------------------------------|--|
| Develop a sound program plan; if | |
| possible have a clearly articulated | |
| program theory | The PoF program theory and design are described in this PIP |
| | The PoF program is designed to help SoCalGas "fill-the-gap" |
| Link strategic approach to policy | needed to meet the Commission's "stretch" energy savings |
| objectives and constraints | goals |
| | Feedback is both internal from regular meetings and briefings |
| | with SoCalGas ET staff, and external from pilot project |
| | demonstration projects, market research, analytical studies and |
| Build feedback loops into program | assessments, other RD&D agencies and stakeholders, other |
| design & logic | IOUs and POUs, and other partners |
| | The nature of PoF is to enhance and assess before bringing |
| Do not over-promise results | recommendations to SoCalGas. |
| | PoF is designed to deepen SoCalGas's understanding of the |
| Understand local market conditions | markets for applicable new technologies |
| | PoF's process includes extensive market research, including |
| Conduct sufficient market research | pilot demonstrations, as needed |
| Maintain program design flexibility | |
| to respond to changes in market & | Program flexibility is built into the program design that |
| other factors | responds to market opportunities and changes |
| Put process plan (including program | Each step of the PoF process has been described and vetted with |
| management) in writing | utility staff as well as other key stakeholders |
| Define & locate hard-to-reach | PoF targets participants according to the needs of the |
| customers & target programs | technologies it is assessing, and in accordance with the type of |

² See the *National Energy Efficiency Best Practices Study, Volume S – Crosscutting Best Practices and Project Summary*, Quantum Consulting, Inc., December 2004.

| accordingly, as appropriate | activity (e.g., pilot demonstration project, market research, |
|-----------------------------|---|
| | market assessment) |

Program Management: Project Management

| Cross Program Best Practice | |
|--|--|
| Clearly define program management | |
| responsibilities to avoid confusion as | PoF's program design includes extensive and clear definition of |
| to roles and responsibilities | roles and responsibilities, decision and reporting channels |
| | PoF's diverse team allows matching the most suitable resources |
| | to specific program needs (e.g., engineers for technical aspects |
| Use well-qualified engineering staff | of the program, marketing & communications experts for |
| (for technical programs) | outreach, etc.) |
| Delegate responsibility based on risk | |
| versus reward | The program design has decision making for key program |
| | elements remaining within SoCalGas hands |

Program Management: Reporting and Tracking

| Cross Program Best Practice | - |
|---|--|
| Define & identify key information needed to track & report early in the program development process | The PoF process documents program criteria and the scanning methodology, provides M&V plans for pilot demonstrations, develops technology marketing assessment plans and designs, and develops program readiness packages including work papers, and project plans |
| Clearly articulate the data requirements for measuring program success | These are clearly identified in the project plans and activities |
| Design program tracking system to support the requirements of evaluators as well as program staff | All DoE program alaments and processes are developed and ready |
| evaluators as well as program starr | All PoF program elements and processes are developed and ready for review as part of the program theory and design |

Program Implementation: Participation Process

| Cross Program Best Practice | |
|--|---|
| Keep participation simple | The PoF process is designed to simplify transaction between utility and emerging technology providers; and facilitates all research and collaboration between SoCalGas and the industry |
| Develop participation strategies that are multi-pronged & inclusive | The PoF process is inclusive and thorough in its approach to emerging technology review and recommendation |
| Provide quick, timely feedback to (applicants) technology partners, interested industry participants and ET developers | The program includes regular "hand-holding" of each of the players in the process as PoF evaluates ETs for program readiness |
| Review & understand product availability before establishing product eligibility | This is one of the criteria and elements of ET selection as "program ready," and includes linking with the ET provider to ensure utility service area support for the new technology |
| Offer a single point of contact for customers | PoF simplifies the program process and avoids technology provider confusion |

d) Innovation

The POF program is the only one of its kind in that nation and is distinctive in that the goal of the Program is to not only to identify promising technologies, but also to support SoCalGas efforts to integrate these into the utility's approved Commission portfolio. The

focus of the program is on emerging technologies beyond the R&D stage, but needing some further research, testing, enhancements or support to be "program ready," and thus able to be integrated into utility program offerings.

e) Integrated/Coordinated Demand Side Management

Although this Program is not an Integrated Demand Side Management program, it has opportunities for integration. The level and type of integration with DSM programs, though, will depend on the nature of the various technologies being evaluated and readied for integration into SoCalGas's 2015-2017 portfolio. The PoF's process scans for technologies in all markets and sectors. The evaluation of each technology considers how it might complement or compete with other technologies in SoCalGas's existing portfolio for different types of customers and businesses. This understanding is used to structure the recommended programs and incentives for each technology selected by SoCalGas for its future portfolio.

f) Integration Across Resource Types (energy, water, air quality, etc)

Although the primary purpose of this program is to accelerate the adoption of high potential natural gas efficiency technologies, there are many ancillary resource benefits. For example, one of the primary end uses of natural gas is to heat water. Many new gas efficiency technologies identified during the 2010-2012 energy efficiency program cycle such as improved shower diverter valves, involve re-using heated water which results in savings of water as well as of natural gas. To the extent that potable water is used for such processes, the electricity embedded in that reduced water consumption is also avoided, resulting in reductions in greenhouse gas emissions.

g) Pilots

Pilot projects will be conducted subject to SoCalGas approval. Pilot activities in 2013 - 2014 may include:

Follow up pilots from the 2012 Industrial Net Zero Study Completion of any pilots initiated in the last 6 months of 2012, including possibly commercial kitchen hood heat recovery, commercial recirculation pumps and A/C heat recovery for water heating.

In addition, new pilots will be conducted for additional high potential technology opportunities identified during the –2013-2014 market scans. Following is a description of the pilot project process.

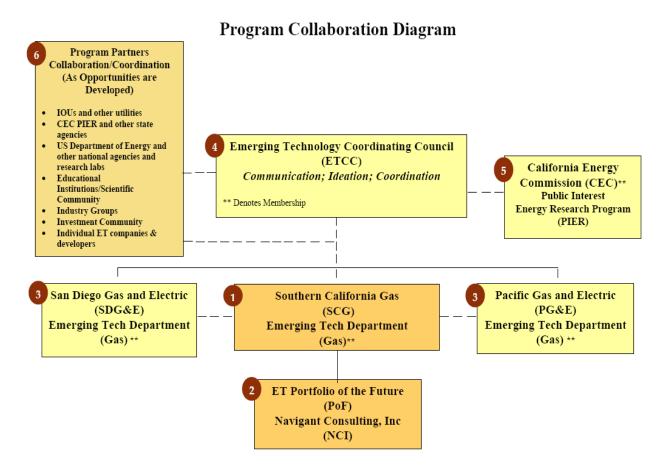
- 1. For each pilot project, a pilot project plan will be developed that includes an executed agreement and participation terms for each pilot participant. The agreement will cover the following terms and conditions:
 - Identification of participants in the pilot
 - Definition of roles and responsibilities of the parties
 - Documentation of resources and assets contributed by each party
 - Needs/ownership and interests/benefits (if any) that accrue to each party
 - Amount of SoCalGas incentives available/requested

- Terms for payment of incentives (e.g., direct subsidy vs. performance based)
- Ownership of data and pilot results
- Contractor and SoCalGas access to facilities and data
- Rights (if any) to technology or products developed through the pilot(s)
- Terms and conditions for termination of pilot(s)
- Basis for determining pilot(s)' "success"
- Commercialization plan, market forecast, and future opportunities
- Pilot organizational structure (designation of technical team assigned to manage each project and assigned roles and responsibilities)
- Schedules and milestones
- Technical plans that specify the type(s), level(s) and frequency(s) of testing, data capture, monitoring, measurement and reporting
- Defined reporting types, forms, intervals, protocols (including case studies and detailed technical reports reporting results and lessons learned, and conditions needed for successful implementation)
- 2. The pilot will then be conducted in accordance with the plan.
- 3. Data analyses will be conducted that document expected energy savings.
- 4. Upon completion of pilots, debriefings will be conducted with pilot participants, capturing lessons learned and key factors required for success in future applications.
- 5. A pilot summary report will be prepared that includes a description of the pilot, the pilot results and learning, and recommended next steps. Technical specifications, documentation of the data analyses and other pertinent data will be documented in the report appendices. The pilot summary report will include: a description of the pilot; the pilot objectives; pilot design; data collected; data analytical approach; data analysis results; energy savings/production; cost-effectiveness calculations; risks and uncertainties; lessons learned; applicable market(s); and recommendations.
- 6. If appropriate, a publicity packet may be prepared that includes a press release, a web story with links to additional information, technology guidelines, and customer testimonials.
- 7. Finally, an application brief will be prepared, if appropriate, that describes the technology, its applicability, benefits, and sources for more information and assistance. Technology-specific information will be uploaded to the website of the PoF's sister program, the California Sustainability Alliance's website, and any other appropriate venues agreed to by SoCalGas and PoF.

h) <u>EM&V</u>

The utilities are proposing to work with the Energy Division to develop and submit a comprehensive EM&V Plan for –2013 -2014 after the program implementation plans are filed. This will include process evaluations and other program-specific studies within the context of broader utility and Energy Division studies. More detailed plans for process evaluation and other program-specific evaluation efforts cannot be developed until after the final program design is approved by the CPUC and in many cases after program implementation has begun, since plans need to be based on identified program design and implementation issues.

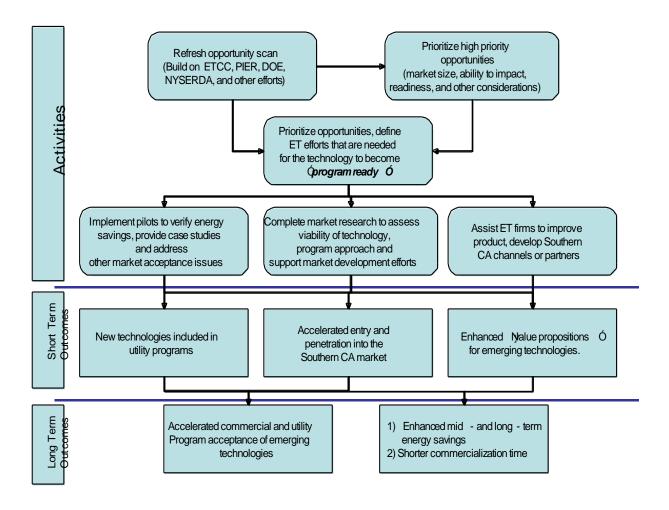
7. Diagram of Program



- 1. Southern California Gas SoCalGas is responsible for overall management of the Emerging Technology PoF program. The program is a continuation of a successful third-party program effort during the 2010-2012 program cycle
- 2. Navigant Consulting, Inc (NCI) is the third-party operator of the PoF program and reports directly to SoCalGas
- 3. The PoF program coordinates it efforts as appropriate with the natural gas energy efficiency savings program of both San Diego Gas & Electric and Pacific Gas and Electric companies
- 4. SoCalGas shares PoF research findings with the Emerging Technology Coordinating Council, of which it and the other IOUs are members.

5. The PoF program will continue its broad based collaboration efforts with relevant emerging technology research efforts at the federal and state agency level as well as with relevant educational entities and industry groups, e.g.; NCI currently works closely with the U.S. Department of Energy on related efforts.

8. Program Logic Model



1. Program Name: PACE Energy Savings Project

(PACE Energy Efficient Ethnic Outreach Program)

Program ID: SCG3770

Program Type: Third-Party Program

2. Projected Program Budget Table

Table 1: Total Projected Program Budget by Category

| Program # | Main/Sub Program Name | Administrative Amount | Marketing Amount | Direct Implementation Amount | Incentive Amount | Total Program Budget Amount |
|--------------|-------------------------------|--------------------------|---------------------|------------------------------------|---------------------|-------------------------------|
| | SoCalGas Third Party Programs | | | | | |
| 3770 | 3P-PACE | \$0 | \$0 | \$1,300,000 | \$0 | \$1,300,000 |
| 3770u | 3P-PACE (Utility) | \$31,076 | \$5,746 | \$41,582 | \$0 | \$78,404 |
| | TOTAL: | \$31,076 | \$5,746 | \$1,341,582 | \$0 | \$1,378,404 |

Note: SCG continues to negotiate the final contract with the third party vendor. As a result of final contract negotiations, the budget allocation into the budget subcategories may vary.

3. Projected Program Gross Impacts Table

Table 2: Total Projected Program Savings by Subprogram

| Program # | Main/Sub Program Name | 2013-2014 Gross kW Savings | 2013-2014 Gross kWh Savings | 2013-2014 Gross Therm Savings |
|-----------|-------------------------------|-------------------------------|--------------------------------|----------------------------------|
| | SoCalGas Third Party Programs | | | |
| 3770 | 3P-PACE | 0 | 0 | 0 |
| | TOTAL: | 0 | 0 | 0 |

Note: This is a non-resource program.

4. Program Description

a) Describe program

The PACE Energy Savings Project (PACE ESP) is a multi-ethnic outreach program that actively promotes the energy efficiency programs of SoCalGas to residential and small business customers who belong to the Chinese, Filipino, Korean, Hispanic, and Vietnamese communities. In –2013-2014, the program proposes to continue its outreach to these ethnic communities and geographical areas including Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties. In addition, the program will take its outreach efforts to "the next level" by encouraging target small businesses to take more concrete steps to saving energy as well as conducting follow-through and follow-up activities to determine the extent to which customers practiced or employed energy savings in their homes or work places.

To reach stated marketing penetration objectives, the Program will:

• Recruit, hire and train staff who belong to the target ethnic communities, are fluent in their ethnic languages, both orally and in writing to facilitate kinship with this community.

- Conduct orientation and/or training programs to inform and prepare staff in implementing program goals in 2013-2014.
- Participate in community events in the five counties where target ethnicities have traditionally gathered to maximize potential exposure of program information to identified customers.
- Conduct outreach among targeted populations in their particular ethnic languages to foster greater understanding and subsequently, adoption of energy efficient practices.
- Leverage existing relationships and/or establish collaborations with ethnic community, religious, educational and trade/professional organizations;
- Develop and/or translate information and promotional materials into Chinese, Korean, Spanish, Tagalog and Vietnamese, and utilize these as primary tools to introduce and explain energy savings programs. The program will utilize all available media—print, broadcast, video or internet/website media.
- Use available incentives to encourage increased participation of target ethnicities in the practice of energy efficiency at home and at work.

In addition, the Program will intensify its outreach efforts through the:

- Organize and conduct workshops among target communities regarding simple energy-saving practices in their homes and businesses (low-cost or no-cost practices) to reduce energy consumption;
- Increase in partnerships with ethnic mass media to reach a broader percentage of ethnic audiences. The program representatives will appear on radio and television shows popular among or directed toward targeted populations as well as influence the publication of stories or articles about energy efficiency. The program will deliver appearances on radio and television, published news articles or stories and/or internet posting promoting or discussing energy efficiency and energy savings programs offered by SoCalGas.
- Design of follow-up instruments in the different ethnic languages to determine impact of outreach efforts to reduce therm use and institutionalizing energysaving practices/consciousness;
- Use of incentives to encourage positive response to invitations to participate in the various energy saving programs, mail back confirmation brochures and/or follow-up surveys to gauge impact of outreach and elicit suggestions to strengthen program implementation (e.g., raffles, contests, giveaways, etc.).

b) Statement of Problem and program solutions to overcome the problem

SoCalGas's resident and small business customers belonging to the Chinese, Korean, Filipino, Hispanic and Vietnamese communities are traditionally isolated from mainstream media and outreach efforts due to language and cultural barriers. Significant portions of members of these communities are first-generation immigrants and exclusively use ethnic media and their own circle of community organizations and churches as primary means of external communication.

SoCalGas's energy efficiency programs while actively promoted to the five targeted ethnic communities in Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties. According to 2000 U.S. Census, population of five targeted ethnic groups in these four county areas is approximately 2.8 million or 41% of total population. It is a large part of total population that may represent significant potential energy savings.

In addition, many high-energy users in other small business categories have not been reached. These small businesses are nursing, hospices and/or convalescent homes with a minimum of five (5) beds/patients. These businesses usually operate laundry appliances for its linen requirements.

PACE Energy Savings Project will actively promote SoCalGas's energy efficiency programs to residential and small business customers who belong to the Chinese, Korean, Filipino, Hispanic, and Vietnamese communities. In 2013-2014, PACE ESP proposes to continue its outreach to these communities and in the geographical areas of Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties. In addition, PACE ESP will take its outreach efforts to "the next level" by marketing to encourage target small businesses to take more concrete steps to saving energy. To continue its efforts to overcome identified barriers, the program during 2013-2014 will pursue the following:

- PACE ESP will continue the outreach efforts and energy efficiency education programs that have demonstrated to be effective in 2010-2012.
- Develop and implement effective outreach and marketing plans to outreach into the five (5) targeted ethnic communities including but not limited to hiring a Marketing Specialist who speaks the ethnic languages of these communities and have extensive experience in working with members of this community. These plans will target both residential and small business communities.
- Develop and implement outreach and marketing plans to outreaching into the five counties: Los Angeles, Orange, Riverside, San Bernardino and Ventura.
- Develop and implement outreach and assistance programs in working with small businesses and facilitate their concrete steps to become efficient energy users.
- Develop and implement outreach and education programs in working with nursing, hospices and/or convalescent homes that are owned and operated by members of five targeted ethnic communities.

c) Program goals, strategies and measurable objectives

In 2013-2014, the program will pursue the following:

- Continue outreach efforts and energy efficiency education programs that were demonstrably effective in 2010-2012.
- Develop and implement effective outreach and marketing strategies to penetrate
 the five ethnic communities including, but not limited to hiring a Marketing
 Specialist who speaks their ethnic languages and have extensive experience in
 working with members of this community. These plans will target both
 residential and small business communities.
- Develop and implement outreach and marketing plans for the five counties: Los Angeles, Orange, Riverside, San Bernardino and Ventura.

- Develop and implement outreach and assistance programs for small businesses and facilitate their undertaking concrete steps to become efficient energy users.
- Develop and implement outreach and education programs for nursing, hospices and/or convalescent homes that are owned and operated by and/or served members of the five targeted ethnic communities.

For program year 2013-2014, the Program will continue its outreach to the five ethnic communities and expand its efforts of promoting the energy savings programs of SoCalGas in Los Angeles, Orange, San Bernardino, Riverside and Ventura Counties).

For further discussion of goals, see Section 4(d).

d) Target Audience

The program will target residential and small business customers belonging to the Chinese, Filipino, Korean, Hispanicand Vietnamese communities.

e) <u>Identify if and how this program will provide any elements of Workforce Education & Training.</u>

The program will actively encourage customer participation in SoCalGas Energy Resource Center (ERC) seminars and workshops.

5. Program Rationale and Expected Outcome

a) Quantitative Baseline and Market Transformation Information

This section not applicable

b) Market Transformation Information

This section is not applicable.

c) Program Design to Overcome Barriers

The following table provides descriptions of the barriers that Program seeks to address and the solutions the Program proposes to overcome the barrier

| Barrier | Solution |
|---|--|
| Lack of consumer information about energy efficiency benefits | Program conducts extensive marketing, education and awareness efforts to raise target audience's levels of awareness about energy efficiency benefits. |
| Customers who do not have easy access to information or do not participate in energy efficiency are due to: | |
| | By targeting the Chinese, Korean, Filipino, Vietnamese and Hispanic/Latino communities, translating program materials to native languages, focusing on media outlets with ethnic audiences, and developing community and |
| Language: Primary language spoken is other than English and program information is not accessible | school educational programs in conjunction with municipalities, the Program is able to overcome language and other cultural barriers. |

| Barrier | Solution |
|---|--|
| | The Program targets small businesses, develops materials |
| Small businesses do not prioritize efficient energy use | specifically designed to raise small business owners' |
| due to small portion of overall cost structure and have | levels of awareness and seeks to assist these customers |
| a difficult time taking the steps to install energy | with efforts to pursue installation of energy efficient |
| efficient measures. | measures. |

d) Quantitative Program Targets

The PACE Energy Savings Project aims to conduct outreach activities in the appropriate ethnic language and culturally-sensitive approach directed towards identified ethnic customers of SoCalGas. Specifically, the program will work towards attaining the following major targets in 2013-2014:

Table 3

| | Energy Efficient Ethnic Outreach | Program | Program |
|-----|---|-----------|-----------|
| | (PACE Energy Savings Project) | Target by | Target by |
| | (Tried Energy Suvings Project) | 2013 | 2014 |
| 1. | Translate and/or update program materials into | | |
| | Chinese, Korean, Tagalog, Spanish and | 5 | 5 |
| | Vietnamese | | |
| 2. | Translate (oral) seminar and/or demonstration | _ | _ |
| | proceedings | | |
| 3. | Conduct orientation training/workshops on energy | | |
| | efficiency programs and easy-to-implement low- | 10 | 10 |
| | cost or no-cost actions among residential | - 0 | - 0 |
| | customers, in language | | |
| 4. | Develop and/or translate/update training and | | |
| | marketing materials (English and 5 ethnic | - | - |
| | languages) | | |
| 5. | Redesign/overhaul/maintain PACE Energy | | |
| | Savings Project web pages, to include ethnic | 12 | 12 |
| | translations, links to The Gas Co. website, other | | |
| | utility providers | | |
| 6. | Create public service announcements (English and | _ | _ |
| | five ethnic languages | | |
| 7. | Create/update PowerPoint/multimedia | | |
| | presentations (English and 5 ethnic languages): | 1 | 1 |
| | 1 res/1 biz | | |
| 8. | Conduct presentations to ethnic community, | | |
| | religious, social and educational associations or | - | - |
| | groups | | |
| 9. | 1 | - | - |
| 10. | Place articles, stories, ads in PACE quarterly | _ | _ |
| | newsletter/other ethnic/public media | | |
| 11. | Attend ethnic community events/gatherings and | 35 | 35 |

| Energy Efficient Ethnic Outreach (PACE Energy Savings Project) | Program Target by 2013 | Program Target by 2014 |
|---|------------------------|------------------------------|
| operate information booths | | |
| 12. Create and distribute follow-ups instruments (surveys, etc.) to determine effectiveness of outreach | - | 1 |
| 13. Design and implement an incentive program | - | - |
| 14. Create 12 lists and contact target small businesses | 1,500 | 1,500 |
| 14.1. Real estate companies | - | - |
| 14.2. HVAC/other home improvement contractors | - | - |
| 14.3. Appliance retailers | - | - |
| 14.4. Escrow/home inspection companies | - | - |
| 14.5. Financial/lending institutions | - | - |
| 14.6. Condo/apartment/townhouse owners/managers | - | - |
| 14.7. Foodservice owners/operators | - | - |
| 14.8. Laundromats/dry cleaners | - | - |
| 14.9. Small hotels/motels | - | - |
| 14.10. Beauty/nail salons | - | - |
| 14.11. Nursing homes/hospices | - | - |
| 14.12. Ethnic organizations/associations | - | - |
| 15. Coordinate energy audits by SoCalGas | - | - |
| 16. Coordinate use of ERC test kitchen facilities | - | - |
| 17. Coordinate attendance in regularly scheduled seminars at ERC/satellite venues (ethnic businesses) | - | - |
| 18. Coordinate in-language foodservice seminars | - | - |
| 19. Attend ethnic community events, other forums | 8 | 8 |
| 20. Distribute faucet aerators, single family customers | 4,500 | 4,500 |
| 21. Distribute faucet aerators, multi-family customers | - | - |
| 22. Distribute low flow showerheads | - | - |
| 23. Assist in completion of HEE Surveys, paper | 2,800 | 2,800 |
| 24. Assist in completion of HEE Surveys, online | - | - |
| 25. Contact/sign up residential customers re EE programs. | 5,500 | 5,500 |
| Follow-up activities | - | - |

Note: Values provided represent yearly targets.

e) Advancing Strategic Plan goals and objectives

This program supports the State's energy efficiency Strategic Plan in the following manner:

California Long Term Energy Efficiency Strategic Plan Goals and Strategies

| Description | Strategic Plan Sector | Strategic Plan Goal | Strategic Plan Strategy |
|---|----------------------------------|---|--|
| Promotes energy efficiency Chinese, Filipino, Korean, Spanish and Vietnamese residential customers using culturally-sensitive and language-appropriate | | | |
| outreach that is expected to lead to greater understanding of these programs and the benefits these bring. | Residential | Transform home improvement markets to apply whole-house energy solutions to existing homes. | 2-2: Promote effective decisionmaking to create widespread demand for energy efficiency measures. |
| Promotes energy efficiency Chinese, Filipino, Korean, Spanish and Vietnamese residential customers using culturally-sensitive and language-appropriate outreach that is expected to lead to greater understanding of these programs and the benefits these bring, | Residential | Develop comprehensive, innovative initiatives to reverse the growth of plug load energy consumption through technological and behavioral solutions. | 3-2 In coordination with Strategy 2-2 above, develop public awareness of and demand for highly efficient products. |
| By targeting underserved ethnic communities, the program will help improve delivery of SoCalGas's programs to a broader mix of customers. | Low Income Residential | By 2020, all eligible customers will be given the opportunity to participate in the LIEE program. | 1-3: Improve program delivery |
| Will actively promote SoCalGas financing programs to ethnic small businesses, many of whom may be income qualified. | Low Income Residential | The LIEE programs will be an energy resource by delivering increasingly cost-effective and longer-term savings. | 2-2: Coordinate and communicate between LIEE, energy efficiency and DSM programs to achieve service offerings that are seamless for the customer. |
| Disseminates information that promotes energy efficiency to targeted small businesses using appropriate ethnic language. | Commercial | 50 percent of existing buildings will be retrofit to zero net energy by 2030 through achievement of deep levels of energy efficiency and with the addition of clean distributed generation. | 2-5: Develop tools and strategies to use information and behavioral strategies, commissioning, and training to reduce energy consumption in commercial buildings. |
| Collaborates with ethnic community-based organizations, trade associations, religious organizations and educational institutions and other groups to bring the benefits of energy | Workforce Education and Training | Ensure that minority, low income and disadvantaged communities fully participate in training and education programs at all levels of the DSM and the energy efficiency industry. | 2-1: Collaboratively identify appropriate goals and strategies to build California's energy efficiency workforce through 2020, focusing on training that increases participation from within |

| Description | Strategic Plan Sector | Strategic Plan Goal | Strategic Plan Strategy |
|--|-----------------------|---------------------|--|
| savings to its identified markets through workshops, information booths, etc. | | | minority, low-income and disadvantaged communities in achieving California's economic energy efficiency potential. |

6. Program Implementation

a) Statewide IOU Coordination

- i. Program Name
- ii. All program delivery mechanisms
- iii. Marketing materials and message
- **iv.** IOU program interactions with CEC, ARB, Air Quality Management Districts, local government programs, other government programs, CBOs, nongovernmental organizations, manufacturers, retailers, trade and business associations, as applicable
- v. Similar IOU and POU programs

The Program is a collaboration with SoCalGas that aims to outreach to ethnic communities with historically low participation rate in its energy savings programs. By providing information and assistance in appropriate ethnic language and implementing culturally-sensitive outreach activities to Chinese, Korean, Filipinos, Spanish and Vietnamese customers, the program will encourage them to actively incorporate energy savings practices in their daily lives. The Program will make efforts to collaborate with local governments and other groups as appropriate to increase the Program's reach and effectiveness.

Although Program efforts will be aimed primarily at promoting identified energy savings programs of SoCalGas to the five ethnic communities, it will be prepared to assist customers in accessing information that supplements these programs and are supplied by other utility providers (Southern California Edison, Los Angeles Department of Water and Power, etc.). Program implementation will be sensitive to similar outreach efforts offered by other utility providers to ensure that overlaps do not occur. In particular, coordination with managers of other utility programs will be facilitated through a shared calendar of events where PACE participation is planned. Through this, it is expected that no duplication of efforts will occur.

b) Program delivery mechanisms

i. Funneling of program participants to resource programs
The program will assist customers with completing Home Energy Efficiency
Surveys (HEES).

ii. WE&T

Where applicable, program will promote the WE&T efforts within the specified regions.

iii. Coordination with other programs

The PACE Ethnic Outreach Program will coordinate with SoCalGas's residential and third-party programs, where applicable.

iv. Demand-side integration

The CLEO Program will seek to integrate information relevant to both SCE and SoCalGas into its program offerings and coordinate messages to maximize educational opportunities.

v. Non-IOU programs

This is not applicable to this program.

vi. Other

This is not applicable to this program.

c) Marketing Plan

i. Market research and/or segmentation.

This is not applicable to this program.

- **ii.** Proposed behavior change theories application, if available This not applicable to this program.
- **iii.** Proposed target audience/s, if applicable both primary and secondary The proposed target audiences are target residential and small business customers belonging to the Chinese, Korean, Hispanic, Vietnamese and Filipino communities.
- **iv.** Message development process, including pre-tests This is not applicable to this program.
- **v.** Delivery channels, if applicable include public relations and earned media activities

The specific delivery channels and applicable media activities are detailed in Section 4(d).

vi. Plans for developing message concepts This is not applicable to this program.

vii. Implementation timeline

This is not applicable to this program.

d) **Best Practices**

The Contractor is utilizing a number of best practices in managing the Program, including¹:

- Program Theory and Design: The program has a sound program plan, links its strategic approach to policy objectives and constraints, and demonstrates a thorough understanding of local market conditions.
- Program Management: The program has well-defined markets, areas of concentration, targets/goals and success indicators.
- Program Implementation Participation Process: The program aims to keep
 participation simple and develop participation strategies that are multi-pronged
 and inclusive. The program allows flexibility to evolve and adapt strategies that
 prove to be more effective in reaching its target market and areas.
- Organizational Practices and Customs—The program utilizes three or more strategies to promote programs, forms coalitions with and leverages its existing ties with ethnic community, social, religious and educational organizations and employs all appropriate mass media—mainstream and ethnic/regional—to bring the message of energy efficiency and its benefits to its target communities.

e) Innovation

The Program is innovative in conducting its outreach efforts in the ethnic language that is native to targeted customers in five counties in Southern California. The Contractor also employs staff who are bilingual (oral and written) and are the same ethnicity as the Program's target customers. Previously, this approach was little utilized in disseminating information among ethnic communities.

f) Integrated/coordinated Demand Side Management

Although this Program is not an Integrated Demand Side Management program, it will seek to incorporate information about energy efficiency programs offered by other utility providers in its outreach activities to ensure that all available avenues to conserve and efficiently use energy resources are disseminated to interested customers.

g) Integration across resource types (energy, water, air quality, etc)

It is therefore important that customers interested in programs other than what is offered by SoCalGas be provided at least basic information that will link them to other utility providers. Program staff will make an effort to be reasonably knowledgeable about the other energy efficiency programs offered by SoCalGas, Southern California Edison and/or the Department of Water and Power, among others and how these programs complement and/or reinforce the overall energy efficiency movement.

To accomplish the foregoing, Program staff will attend energy savings program seminars and/or workshops to learn about other programs it is not actively promoting and maintain a library of informational materials and program contact information. The Program staff

¹ See Volume S – *Crosscutting Best Practices Report and Project Summary*, National Energy Efficiency Best Practices Study, December 2004, pages S14-15.

will also familiarize itself with the California Long Term Energy Efficiency Strategic Plan to gain insight about the short, medium- and long- term goals and key result areas that guide overall energy efficiency efforts in California.

Where inquiries about these programs are raised, Program staff will provide program contact information to direct customers to the appropriate party(ies) and/or keep a record of the customer's name and contact information for appropriate referral. While Program efforts are directed to specific ethnic communities, information and assistance about energy savings and energy efficiency programs will be available to all interested residents and businesses.

The Contractor will closely coordinate with SoCalGas in order that it is kept abreast of any updates on program priorities as well as any program redirection it may need to adopt that reinforces the dissemination of information and promotion of energy savings initiatives among its target customers.

h) Pilots

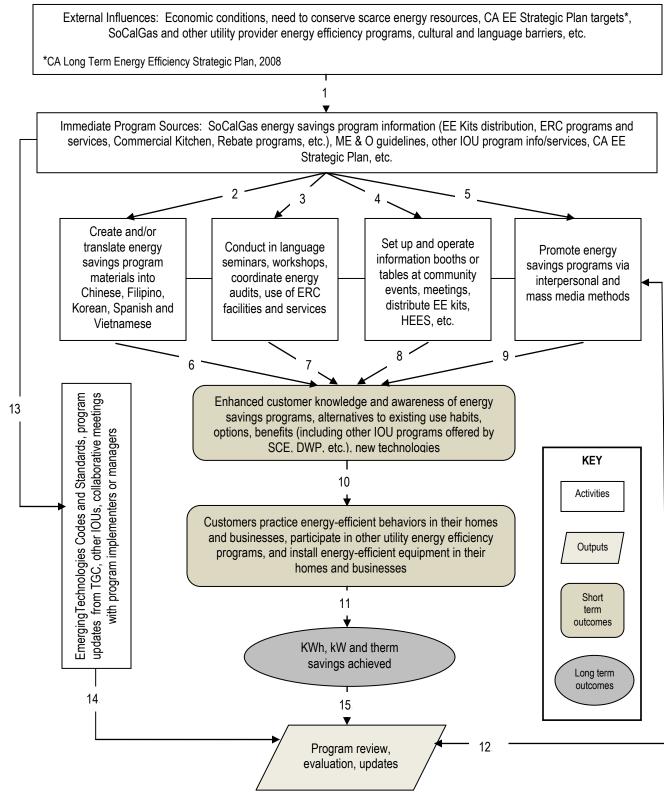
PACE Energy Savings Project does not plan to implement any pilot projects for program period 2013-2014.

i) EM&V

The utilities are proposing to work with the Energy Division to develop and submit a comprehensive EM&V Plan for 2013-2014 after the program implementation plans are filed. This will include process evaluations and other program-specific studies within the context of broader utility and Energy Division studies. More detailed plans for process evaluation and other program-specific evaluation efforts cannot be developed until after the final program design is approved by the CPUC and in many cases after program implementation has begun, since plans need to be based on identified program design and implementation issues.

7. Diagram of Program

Energy Efficient Ethnic Outreach (PACE Energy Savings Project) Program Diagram



The Energy Efficiency Ethnic Outreach (PACE Energy Savings Project) program goals and activities are influenced by: the need to conserve scarce resources and reduce carbon emissions footprints as articulated in California's Energy Efficiency Strategic Plan of 2008 (1), directives from SoCalGas and feedback/collaborative efforts with program managers or implementers of energy efficiency programs administered by other utility providers.

The Program is primarily geared at conducting in language ethnic outreach to member of five ethnic communities: Chinese, Filipino, Korean, Hispanic and Vietnamese residing and/or working and conducting business in Los Angeles, Orange, Riverside, San Bernardino and Ventura Counties.

Outreach strategies will involve the:

- Creation and/or translation of energy savings program materials into the five ethnic languages (2) to facilitate understanding and appreciation of the programs' benefits.
- Conduct of in language seminars and workshops to promote and explain energy savings programs, distribution of rebate application forms, low flow showerheads and faucet aerators, as well as the completion of the Home Energy and Water Efficiency Surveys (HEES) (3).
- Organization and operation of information booths and/or tables at ethnic community
 events, meetings (4). PACE will also utilize these events to distribute EE kits, rebate
 forms and assist customers in completing HEES. Program will also leverage its
 partnerships and affiliations among other ethnic groups to facilitate access to target
 ethnic communities.
- Promotion of program information through interpersonal and mass media methods (5). Creation and placement of press releases and other articles in ethnic newspapers and radio and television is anticipated to widen the program's information reach.

The foregoing strategies are envisioned to enhance the knowledge level of residential and small business ethnic customers about available energy savings programs and alternatives to current lifestyles or habits in utilizing natural gas, water and electricity (6-9). The increased awareness and understanding of available programs, their benefits and ease of participation are anticipated to encourage customers to employ energy-efficient behaviors in their homes and workplaces. As well, the Program expects this increased understanding to result in the purchase and installation of energy-efficient equipment (10), resulting in energy savings (11).

As is paramount in implementing an effective program, PACE will, in coordination with SoCalGas, conduct regular reviews of its program activities as well as information provided to customers (12). Such evaluations will take into account feedback from Gas Company staff as well as staff of other utility providers (Southern California Edison, LADWP). Feedback is expected to flow down from the overall economic and environmental conditions in California, as well as any updates or directives from the Public Utilities Commission (13, 14). Updates and other revisions or program refinements are then incorporated into the Program's activities and strategies. Collaboration and coordination with SoCalGas as well as other utility providers is expected to lessen, if not eliminate duplication of program efforts and promote a more integrated and cohesive outreach to targeted customers. Follow-through

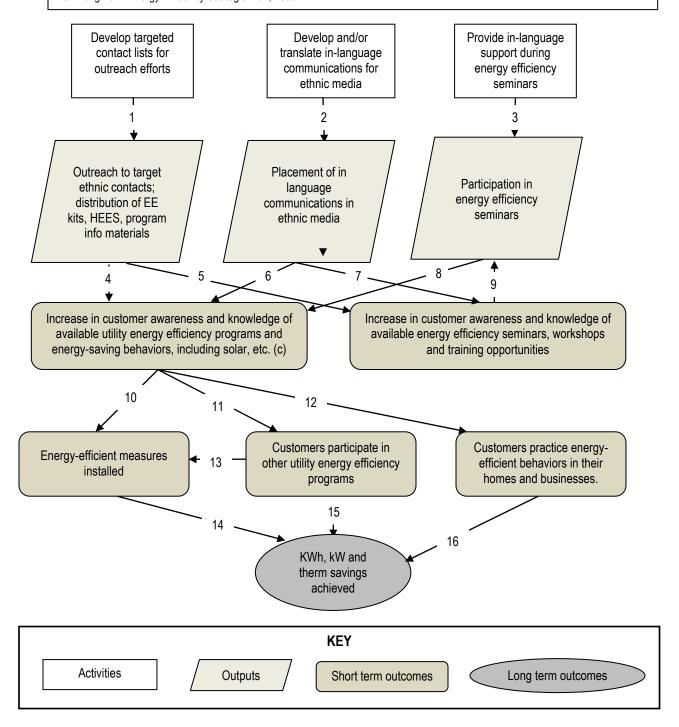
will also be conducted by the Contractor to ensure that its strategies to promote energy efficiency programs are positively received, understood and accepted by its targets. Feedback received from program participants will be reviewed and where appropriate, incorporated to strengthen program outreach (15).

8. Program Logic Model

Program Logic Model/Diagram – Energy Efficiency Ethnic Outreach (PACE Energy Savings Project)

External Influences: Broad economic conditions, mandated "adequate, affordable, technologically advanced and environmentally-sound energy" goal in California*, priority for energy efficiency*, IOU goals/programs, organizational behavior, etc.

*CA Long Term Energy Efficiency Strategic Plan, 2008



Program Diagram Description for Ethnic Energy Efficiency Outreach (PACE Energy Savings Project)

| Link Number | Program Theory Description | Potential Performance Indicator | Possible Data Source |
|----------------|---|---|---|
| 1 | A large number of residential and small business customers in SoCalGas service area are not fluent in English. PACE uses its specific knowledge of the identified ethnic communities and cultures to develop targeted contact lists. Through targeted outreach to these contacts the program will overcome both language and cultural barriers and increase the awareness and knowledge of non English-speaking customers about energy efficient behaviors, the benefits of energy efficiency and available programs and resources (including distribution of EE kits, HEES completion, etc.) | Number of community events, number of attendees; number of presentations to ethnic social, community and small business associations, number of attendees; number of workshops/seminars, number of attendees; and number of meetings with association leaders. | Review of program tracking databases. |
| 2 | A large number of residential and small business customers in SoCalGas service area are not fluent in English. PACE uses in-language communications (including public service announcements, press releases, etc.) in Chinese, Korean, Vietnamese, Filipino and Spanish media outlets to overcome language and cultural barriers, and raise awareness of the benefits of energy efficiency and the opportunities available. | Marketing collateral and communications are created and/or translated that have a clear and complete message that describes programs, procedures for participation and benefits accruing to customer, the environment. It is easy to understand the specifics of the educational opportunities through PACE and SoCalGas. | Review of marketing and communications materials. Focus group and/or quantitative survey of participants and non-participants. |
| 3 | A large number of residential and small business customers in SoCalGas service area are not fluent in English. Because of this, current energy efficiency foodservice and other energy efficiency seminars are not being utilized by non English-speaking residential and small businesses in Southern California. Making inlanguage support available will cause ethnic customers to attend foodservice and other energy efficiency seminars. | Number of seminars, number of attendees. In-language materials and/or translations are available and easy to understand. | Review of program tracking databases. Survey of participants who attended inlanguage seminars and workshops. Observation of seminar and workshop proceedings. |
| 4 | Ethnic customers do not know about the benefits of saving energy, energy-saving equipment and strategies, and the availability of other utility- (electricity, water) provided energy efficiency programs. Through PACE's targeted outreach to ethnic community and small | Self-reported increase in awareness, knowledge and change in attitude. | Survey of customers who attended community events, meetings or PACE presentations. |

| Link Number | Program Theory Description | Potential Performance Indicator | Possible Data Source |
|----------------|---|---|---|
| | business associations and operation of information booths at various cultural events, contacts increase their awareness and interest in additional opportunities. | | |
| 5 | Currently, SoCalGas energy efficiency foodservice and other energy efficiency seminars are not being utilized by non English- speaking residential and small business customers in Southern California. Through targeted outreach to ethnic community, religious, educational and small business associations and association leaders at community events, the program will overcome both language and cultural barriers and increase their awareness of available foodservice and other energy savings seminars. | Self-reported increase in awareness and knowledge about foodservice and other energy efficiency seminars. | Survey of participants who attended foodservice and other seminars. Survey of customers who attended ethnic community events, association meetings or PACE presentations. |
| 6 | The placement of in-language communications from a trusted source in ethnic media outlets will increase customers' awareness and knowledge about energy efficiency strategies and programs available for their homes and businesses. | Self-reported increase in awareness, knowledge and change in attitude. | Survey of participants and non-participants. |
| 7 | The placement of in-language communications from a trusted source in ethnic media outlets will increase customers' awareness of the available foodservice and other seminars. | Self-reported increase in awareness and knowledge about foodservice and other seminars. | Survey of participants who attended foodservice and other seminars. Survey of customers who attended ethnic community events, meetings or PACE presentations. Survey of customers about source of information concerning seminars/events. |
| 8 | Customers are taught the benefits of saving energy and energy-saving equipment and strategies and practices in an in-language group setting with other similar ethnic members and business categories. Foodservice and other seminars that are available in the ethnic customers' language and with others that speak his language will put the customer | Self-reported increase in awareness, knowledge and change in attitude. | Survey of participants who attended foodservice and other seminars/workshops. |

| Link Number | Program Theory Description | Potential Performance Indicator | Possible Data Source |
|----------------|---|---|---|
| | at ease. | | |
| 9 | Increased awareness and knowledge regarding foodservice and other seminars availability in appropriate ethnic language makes non-English customers want to attend the seminars. | Non English-speaking customers attend the foodservice and other seminars. | Review of program tracking databases. Survey of participants who attended energy efficiency seminars. |
| 10 | Increased awareness, knowledge and change in attitude makes non English-speaking customers want to change their practice in their use of energy, to purchase and install energy-efficient equipment and take advantage of available rebates. | Non English-speaking customers change their energy use habits, install energy- efficient equipment and apply for available rebates. | Survey of participants who attended energy efficiency seminars or workshops. Survey of customers who attended ethnic events or PACE presentations. |
| 11 | Increased awareness, knowledge and change in attitude, along with the ease of accessing information about the programs makes non-English-speaking customers want to participate in other programs and services offered by SoCalGas and other utility providers. | Non-English-speaking customers participate in other SoCalGas programs and services as well as those offered by other utility providers (electric, water). | Tracking databases for other programs. Survey of participants who attended seminars and workshops. Survey of customers who attended community events or PACE presentations. |
| 12 | Increased awareness, knowledge and change in attitude makes non English-speaking customers want to change their energy use habits and/or business operation and maintenance practices. | Non English-speaking customers change their energy use habits and/or business operation and maintenance practices. Survey of partici who attended ser workshops or eth events. Survey of custor who attended eth events or PACE presentations. | |
| 13 | By participating in other utility efficiency programs, non-English-speaking customers may want to change their use of energy and selection of home and business equipment. | y Non English-speaking customers change their energy use habits and selection of home and business equipment. Survey of participa who participated in other utility program | |
| 14 | Customers install energy-efficient equipment resulting in energy and demand savings. | M&V of savings | Impact analysis |
| 15 | Customers participate in other programs and services offered by SoCalGas and other utility providers resulting in energy and demand savings. | M&V of savings | Impact analysis |

| Link Number | Program Theory Description | Potential Performance Indicator | Possible Data Source |
|----------------|--|------------------------------------|----------------------|
| 16 | Customers change their use and maintenance practices resulting in energy and demand savings. | M&V of savings | Impact analysis |

2013-2014 Energy Efficiency Programs Third Party Placeholder Program Overview Template

1. **Program Name:** Innovative Designs for Energy Efficiency Activities

(IDEEA365)

Program ID: SCG3721

Program Type: Third-Party Placeholder

2. Description

Southern California Gas Company (SoCalGas), along with the other CA IOUs propose a new third party solicitation process called IDEEA365 that will promote the "rolling" concept for solicitations in the 2013-2014 cycle for new and innovative programs. The solicitation process is designed to allow for continuous introduction of innovative ideas and technologies into the energy efficiency portfolio by drawing from the skill, experience, and creativity of the energy efficiency community. The IDEEA365 process will create a mechanism for competitive solicitations offered year round for new third party programs that produce cost effective energy savings and demand reduction. Additionally, the programs selected in this new solicitation process may be allowed to continue beyond 2014 as a rolling program. This means that they would not need to reapply for the new program cycle beginning in 2015 if deemed successful based on statewide consistent criteria such as goal performance, cost-effectiveness, goals and expenditure alignment, service delivery, energy savings, and market potential.

With the IDEEA365 process, SoCalGas will offer an open request for abstracts (RFA). This RFA will be continuously open throughout the program cycle until allocated budget is depleted, and all submitted abstracts will be scored using consistent statewide scoring criteria, such as cost-effectiveness, innovation, feasibility, portfolio fit, comprehensiveness, deep savings, and supplier diversity. SoCalGas, collaborating with stakeholders, will also work to develop approaches to incorporate workforce diversity and inclusion goals into the third-party contractor selection process. SoCalGas expects to allocate about 30% of the two year budget for each third party contract as Potential Additional Funds, that will be awarded based on the contractor's performance. The Key Performance Indicators (KPIs) will include metrics for meeting the Diverse Business Enterprise (DBE) commitments originally agreed upon by the contractor, as well as their contribution towards higher DBE stretch goals that are consistent with SoCalGas' expectations. In addition, IDEEA365 will work with the Technology Resource Innovation Outreach Program (TRIO)² to provide awareness of this rolling solicitation opportunity and provide training for third parties who are new to the solicitation process. The "rolling" solicitations concept will be promoted by offering two unique types of solicitations.

¹ For purposes of this decision (D. 12-05-015), "rolling" portfolio cycles refer to any set of reforms which obviate the need for arbitrary cycles of preparation, regulatory review, authorization, evaluation, and termination of the program portfolio *in its entirety*.

² A statewide program that seeks to engage non-traditional methods and greater outreach to generate new innovative program ideas and identify newer technologies for capturing cost-effective electric energy savings

Targeted solicitation will support identified program and market needs and technologies such as, but not limited to, water/energy nexus, hard-to-reach markets such as tenant-landlord in residential and commercial customers, a high tech program incorporating state-of-the-art information technology, and programs supporting an integrative approach. Specifically, SoCalGas will include one special solicitation for the municipal, university, schools and hospital (MUSH) market during 2013-2014. There may be solicited programs that may have various goals with no specific segment targeted; or Industrial Energy Efficiency, with specific targeted segments and innovative delivery methods; or Statewide [SW] General, with reliable program designs for EE activities but with no specific segment targeted; etc. There are no specific measures requested in the IDEEA365 solicitation process. However, abstracts and proposals are encouraged to offer comprehensive measures relative to the industry or customer segment proposed. This would include water-energy nexus programs that manage leaks and water pressure.

The second type of solicitation promotes innovation delivered by Third Party programs. SoCalGas encourages new service providers who develop and deploy new and existing emerging technologies or have innovative ideas to submit proposals through this process.

The solicitation process, per se, does not have non-incentive customer services. However, the bidders' abstracts and proposal responses will typically include marketing and outreach to customers, audits, economic evaluations, and incentive application assistance.

The goal of this process is to address the expansion and quality of energy efficiency programs implemented by third parties and to streamline the solicitation process. The process will provide resources and accessibility to the solicitation process by third parties and will encourage comprehensive innovative programs. Also, it will assist in overcoming the barriers to third parties qualified but new to the energy efficiency bidding process.

The RFAs and RFPs will be posted on the statewide Proposal Evaluation and Program Management Application (PEPMA) website. This website was used to post statewide IOU RFP's and capture third party proposals for the 2010-2012 program cycle. PEPMA has been enhanced and can serve as a centralized point for energy efficiency program proposals. Using this site would not only provide for bidder registration and submission of abstracts and proposals, it would make proposals available for IOU's and the established stakeholder groups to review. Single site would help to leverage online consistent system, reduce bidders' confusion and multiple training that would be needed, if they have to post on various sites. Also, third party implementers will have the option to submit statewide or local proposals at this location. These enhancements will address the lengthy solicitation process by offering a one-stop shop for all IOU RFPs and make this open solicitation possible.

Upon receipt of RFAs, IOUs will coordinate program selection, evaluate potential for each IOU, and review with IOU internal groups for potential implementation. Successfully evaluated abstracts submitted to the IDEEA365 solicitation process will move to a second stage, request for proposals (RFP), which requires more detailed proposals that must address areas such as measures, cost-effectiveness, marketing and outreach plans. Third parties will be encouraged to offer comprehensive measures relative to the industry or customer segment proposed. RFPs will be reviewed and scored using consistent statewide criteria. The selected third parties would be funded through the IDEEA365 process.

Marketing and Outreach to third parties would be via current third party mailing lists, trade associations and TRIO and IOU websites. Upon Commission approval IOUs will discuss and develop detailed plan that will include description of the process, major bidding requirements and schedule for training Webinars and RFA/RFP. The plan will be communicated to all interested parties.

To support the Commission's vision for stakeholder involvement in the planning process, SoCalGas will collaborate and coordinate with the IOUs on a statewide stakeholder forum to be held midway through the program cycle to seek feedback on the solicitation process.. In addition, SoCalGas proposes to solicit input and feedback, as appropriate, from PRG members and other key stakeholders on third-party RFPs/RFAs, selection criteria, and proposals.

3. Total Projected Budget

Table 1: Total Projected Program Budget by Category

| Program # | Main/Sub Program Name | Administrative Amount | Marketing Amount | Direct Implementation Amount | Incentive Amount | Total Program Budget Amount |
|--------------|-------------------------------|--------------------------|---------------------|------------------------------------|---------------------|-------------------------------|
| | SoCalGas Third Party Programs | | | | | |
| 3771 | 3P-Placeholder | \$587,125 | \$303,087 | \$4,535,185 | \$0 | \$5,425,397 |
| | TOTAL: | \$587,125 | \$303,087 | \$4,535,185 | \$0 | \$5,425,397 |

Of the two-year budget for the IDEEA365 program, a greater percentage of the funds will be allocated for targeted solicitations with the balance allocated towards innovative programs solicitation. SCG also expects that approximately 25% of the targeted solicitation will include RFPs issued for the MUSH market. Some of the targeted programs that are being considered are: Savings By Design (targets schools and hospitals and other commercial developments in the SCG / LADWP joint territories), Sustainable Communities projects, programs that support water-energy nexus, and industrial retro-commissioning projects, etc. The remaining funds will be utilized for innovative solicitations, which may span a variety of market segments.

3. Projected Program Gross Impacts Table

Table 2: Total Projected Program Savings by Subprogram

| Program # | Main/Sub Program Name | 2013-2014 Gross kW Savings | 2013-2014 Gross kWh Savings | 2013-2014 Gross Therm Savings |
|-----------|-----------------------|----------------------------------|-----------------------------------|-------------------------------------|
| 3771 | 3P-Placeholder | 0 | 0 | 0 |
| | TOTAL: | 0 | 0 | 0 |

This program is filed with no projected program savings but savings are expected to be realized from accepted implementers.

4. Timelines

List the key milestones and dates. An example is included below.

Table 3

| Milestone | Date |
|-------------------------------|-----------------------|
| Project Initiation Meeting | 1/1/2013 |
| RFP Issued | |
| Training completed | 6/1/2013 |
| Marketing materials completed | |
| Installations completed | 8/31/2014 |
| Conclude Pilot Program | 12/31/2014 |
| Quarterly Progress Reports | 3/31/2013 - 12/8/2014 |
| Etc. | |