

PGE2063 Small Commercial Comprehensive Refrigeration—KEMA

2006 - 2008

1. Projected Budget*	\$2,966,375
2. Projected Net Impacts	
MWh	11,386
MW (Summer Peak)	1.794
Therms	0
3. Cost Effectiveness*	
TRC	1.81
PAC	2.33

*Does not include PG&E contract administration costs, which are estimated at 5 percent of expected contract value and included at the portfolio level.

4. Descriptors

Market Sector: Retail Nonresidential Mass Market
 Classification: Third Party
 Status: New

The Small Commercial Comprehensive Refrigeration Program (SCCRP) is designed to provide comprehensive energy-efficiency measures to small and very small commercial businesses with refrigeration loads. This target market is expected to encompass convenience stores, gas station convenience stores, independent grocers, butcher shops/meat markets, fish markets, small independent restaurants/cafes, drugstores, liquor stores, retail bakeries, caterers, cafeterias and assisted living facilities. These facilities are defined as the Retail, Ag and Food Processing and Hospitality market sectors.

Initial efforts will concentrate on the independently owned stores with additional efforts to reach the small chain stores and other facilities. Efforts to recruit participants by conducting on-site facility assessments, promoting the program through trade associations, and networking within ethnic communities will continue as concurrent activities, if necessary and proven to be successful.

Typical refrigeration opportunities found in the facilities described above include anti-sweat door heater controllers, evaporator fan replacement motors, and cooler control systems. The initial facility assessment may also identify opportunities for miscellaneous refrigeration measures, HVAC tune-ups, lighting upgrades and custom electric or gas measures. If the refrigeration contractor is not qualified to install any measure identified, it will be referred to another contractor within the program or to PG&E for coordination with another program. The proposed measures will qualify for incentive funding based on \$ per kWh of estimated savings. Deemed savings will be used for those measures identified as prescriptive and a calculated value will be used for measures identified as custom. Custom projects will be reviewed prior to advancing in

the program process. Many of the facilities in the target market, such as convenience stores and independent grocers, have extended run times; therefore, actual run times may increase the expected savings.

A web-based program will be utilized for project data entry, project approval, and milestone tracking. The intent will be to reduce the paper flow between parties, thereby creating fewer delays in the implementation process. Training will be provided to all participating contractors on use of the system and support maintaining the system will continue throughout the program implementation period.

Additional support services will include a program hotline and website with program information and links to the PG&E website. Additional reference links will be provided if they pertain directly to the program. KEMA will inspect a percentage of the projects to verify actual site conditions, equipment and quality of installations.

5. Statement

Small commercial refrigeration customers are generally an underserved market with several barriers to participation in energy efficiency programs. These barriers can range from cash flow to language to equipment complexity.

Many small businesses do not generate excess cash flow for capital investment in their facilities or will not invest in the facility because they lease the space. By providing incentives directly to the contractor and only requiring a small additional contribution from the customer, the participation rates are much higher than a traditionally structured rebate program.

Many of these types of facility owners have minimal knowledge of technical upgrades and energy-efficiency incentive programs due to language barriers and the technical complexity of refrigeration equipment. The door-to-door marketing approach builds relationships with these customers and provides direct education of the proposed energy-efficiency measures. Targeting facilities with older, inefficient vintage equipment will provide a larger potential for comprehensive energy saving improvements since it is likely that this type of facility has not previously participated in energy-efficiency programs.

Experience has shown that language barriers can be addressed in the marketing and sales approach. Many of the ethnic communities value a relationship with the contractor and need to gain trust in the contractor and program before participation. However, once successful projects have been completed then the success is transferred via word of mouth throughout the community. This process creates a longer lead-time to develop energy-efficiency projects but can result in exponential participation later in the program.

6. Rationale

There is significant opportunity for energy savings in convenience stores and for small commercial customers with refrigeration loads. However, several barriers have been encountered

on frequent basis, which are addressed in the program design and the proposed solutions lead to successful recruitment of program participants. Some of the largest barriers are language, capital cost and project lead time.

Small businesses lack the capital, expertise and staff time necessary to assess and act on energy-efficiency opportunities comprehensively and confidently. The small commercial refrigeration program is designed to mitigate these barriers effectively by lowering the first cost, minimizing customer hassle and transaction costs and reducing real and perceived risks associated with equipment performance and contractor reliability.

Lack of access to capital/first cost. Small commercial customers, particularly in the current economy, have limited access to capital. Because of this and other barriers, these customers rarely make energy efficiency related investments if they have pay periods of more than a few months. Based on past experience with these types of customers, the small commercial comprehensive refrigeration program is structured to offer incentives that pay for a majority of the project cost in order to achieve participation and measure penetration in this market

Hassle or transaction costs: the indirect costs of acquiring energy efficiency, including the time materials and labor involved in obtaining or contracting for an energy efficient product or service. The small commercial comprehensive refrigeration program reduces the hassle and transaction costs by offering comprehensive measures and cross referrals. The on-site facility assessment provides customer education with a follow-up of energy analysis, feasibility analysis, financial incentives, equipment procurement and installation.

Information or search costs: the costs of identifying energy-efficient products or services or of learning about energy-efficient practices, including the value of time spent finding out about or locating a product or service or hiring someone else to do so. The program is specifically designed to reduce the information and search costs for small commercial refrigeration customers. Marketing and outreach activities increase customer awareness of cost-effective measures and cross referrals assist customers in the program participation process leading to the installation of comprehensive measures.

7. Outcomes

The primary outcome of this program is to encourage and assist commercial businesses with the implementation of a sufficient number of projects to result in more than 11 million kWh of net annual savings and almost 1,800 net kW by the end of 2008.

The overall goal of this program is to reduce demand and energy consumption in small commercial facilities with a majority of the savings resulting from the installation of refrigeration measures. The program savings goals estimate that 75 percent is from refrigeration measures, 22 percent from lighting, 3 percent from other measures and the final 2 percent from HVAC measures.

The primary energy-based program metric for the Small Commercial Comprehensive Refrigeration program is savings achieved, which will be reported on a cumulative basis every

month and compared to the goal. A secondary energy-based program metric associated with savings achieved is savings committed, which will document the amount savings determined in the project agreement that has been received but not verified or installed. More detailed metrics on committed savings and achieved savings by measure will be included in the monthly/quarterly reporting.

Non-energy-based program metrics will include the number of relationships with associations, organizations or community groups, processing time for projects and payment. While these metrics are not directly related to savings achieved, they are critical to the success of the program. KEMA will form at least two relationships with target market associations, organizations or community groups that will be used as the channels to distribute marketing materials and promote participation in the program.

The non-energy-based program metrics that will be tracked are an average of 10 business days to process projects submitted with complete documentation and projects will be paid within 10 business days upon approval of project, documentation and payment notification period.

Customer service performance indicators that will be tracked and reported on a quarterly basis include all calls and email inquiries that are recorded and responses documented. A response or call back to the customer will be provided within 48 hours. All customers who have requested to pursue additional measures not included in the proposed program will be referred to PG&E for coordination with another program within 5 business days.

8. Strategy

The program will leverage networks of store owners and recent participants in energy-efficiency programs to increase participation and decrease lead time for project development. Many of these past participants experienced language barriers, rented their facilities and had little or no capital. The door-to-door sales approach provides direct education to the owners and builds relationships and trust. This method is leveraged in communities where language barriers exist and word of mouth becomes a strong sales and marketing tool.

Once a customer has a successful experience with the program, they are more likely to participate in additional measures. The cross-referral process will be an important component of the success of comprehensive measure installation. Additionally, it is expected that program marketing costs can be reduced if one customer participates in several measures and especially if participation was through a referral.

Past programs have been dominated by less complex measures with shorter project development time. The initial refrigeration focus of the program addresses the gap in project development time between refrigeration projects and other measures with fewer barriers to participation.

The initial facility assessment will address a comprehensive approach to identify all energy efficiency measures. This approach provides education and information on additional opportunities that may not be easily recognized by the customer. In addition, the referral simplifies the process and confusion of locating program information and contractors.

Many of the smaller, less than 50 kW, rent their facilities, and have very little capital to invest in facility improvement. The incentive structure of limited up-front cost and short payback periods encourages participation in the program.

9. Objectives

To achieve the net savings goal of 11, 386, 488 kWh and 1,794 kW, KEMA will recruit contractors and target market segment organization to promote the program. At a minimum, KEMA will build relationships with two organizations or associations supporting the convenience store market in the first year of implementation. Through these relationships, KEMA will identify potential program participants and offer facility assessments to identify a comprehensive list of measures.

KEMA's first contractor recruiting efforts will focus on refrigeration contractors and provide training at the time of program launch. The training will provide the program details to minimize customer confusion and program policies to ensure project success. Within 6 months KEMA will train several other contractors to provide a comprehensive list to potential participants.

Several of the program metrics focus on the efficiency of the response to contractors and customers. This program will be based on other small commercial programs implemented by KEMA in the past 5 years. Through this experience KEMA has been able to improve the processing procedure and provided quicker responses to customer inquiries. The efficiency metric has been added for turn around time on approving projects and paying contractors. The customer service indicator has a maximum 48-hour response time on customer inquiries.

10. Implementation

A detailed chart of activities associated with program development and implementation is provided below. The dates provided for each task assumes that the CPUC approves PG&E's portfolio of programs by the end of the first quarter of 2006 and contract execution within several weeks after CPUC approval. Based on this assumption, a program launch at the beginning of the third quarter 2006 is anticipated.

Market Integrated Demand Side Management Small Commercial Comprehensive Refrigeration

Program Descriptions

Small Commercial Comprehensive Refrigeration Program														
Performance Targets and Deliverables														
Program Activity	2006				2007				2008				2009	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	
Program Development														
Sign Contract														
Coordinate Program Activities w/P&E														
Establish Standard Price Guidelines														
Develop Policy and Procedures Manual														
Develop marketing materials														
Customize Tracking Database and Proposal Generation Software														
Establish website														
Establish toll free hotline														
Develop application forms														
Create Customer Contact Forms and tracking logs														
Recruit Contractors														
Contractor training														
Establish relationships with associations														
Identification of geographic target areas														
PG&E coordination meetings														
Program Implementation														
Recruit Contractors														
Contractor training														
Incorporate PG&E provided customer information into marketing plan														
Coordination Meetings														
Identify target market organizations														
Site facility assessments														
project approvals														
Referrals														
Project verification														
Rebate processing														
Update policy and procedure manual														
Update website content														
Update to web based system and tracking software														
reporting														

Specific tasks are outlined below:

Development

Task 1 – Program Design

- Development of Policies and Procedures
- Development of Contractor Application and Requirements

Task 2 – Program Infrastructure

- Web-based software system and project forms
- Website launch
- Toll-free hotline

Task 3 – Marketing Materials

- Development of program flyer
- Alternate language flyer

Task 4 – Program Marketing

- Identify key CBOs
- Develop program presentations

Implementation

Task 1 – Program Marketing

- Establish relationships w/CBOs and trade groups
- Develop marketing materials, non-English and target market segments
- Referrals to hotline
- Facility assessments

Task 2 – Program Administration

- Monthly reports
- Quarterly scorecard
- Annual reports
- Coordination meetings
- System updates and P&P manual updates

Task 3 – Project Processing

- Monthly progress report
- Quarterly scorecard
- Annual reports

Task 4 – Payment Schedule

Approximately 10 percent of the total savings for the program should be installed in 2006. In 2007, we anticipate achieving 50 percent of the total savings with the remaining 40 percent to be achieved in 2008.

Program Strategy and Market Actors

- KEMA SERVICES will team with participating program contractors who will perform door-to-door recruitment, material procurement, and installation of the energy efficiency measures. The contractors will be required to follow program guidelines and specifications.
- Program participants will be recruited via door-to-door marketing activities.

Program Activities

- Initial program launch will include developing program marketing materials.
- Initial program launch will involve recruitment of participating contractors.
- KEMA SERVICES will build relationships with community-based organizations (CBOs), industry associations, trade allies, and other networking groups to promote the program.
- The program will offer a comprehensive suite of services to customers including:
 - Site-specific energy analysis
 - Recommendations for energy efficiency projects
 - Financial incentives
 - Equipment procurement
 - Equipment installation
 - Quality assurance inspections

11. Customer Description

The target market is expected to encompass convenience stores, gas station convenience stores, independent grocers, butcher shops/meat markets, fish markets, small independent restaurants/cafes, drugstores, liquor stores, retail bakeries, caterers, cafeterias and assisted living facilities. These facilities are defined as the Retail, Ag and Food Processing and Hospitality market sectors. It is anticipated that a majority of the participants will have an average annual demand of less than 50 kW. Specific rate schedules are likely to include but not be limited to customers on A-1, A-6, A-10, and E-19 rate schedules.

12. Customer Interface

Customer interface activities include the following:

- Program contractors will begin with door-to-door facility assessments, marketing and project development.
- During the initial site visit by the contractor, the potential for refrigeration measures will be identified and additional measures will be noted for referral.
- The facility assessment information will be entered into the web-based system and a proposal will be generated to provide the customer energy analysis, financial analysis, and project description. Additional measure(s) not included in the project will be referred to other program contractors or to PG&E for coordination with another program.
- Program contractor will present the project proposal to the customer for acceptance. The project then is either accepted through the web-based system (standard measures) or is submitted for review and acceptance (custom measures).
- A program agreement with the terms and conditions of the project must be signed by a person authorized to legally sign for the business stated on the agreement.
- Eligibility of the customer and the project will be determined upon submission of a project agreement. Prior customer eligibility may be determined through PG&E provided data. The contractor will be required to submit PG&E billing data or billing authorization with the project agreement for KEMA to determine customer eligibility.
- KEMA will refer any measures not within the contractor's specialty to another contractor in program or to PG&E for coordination with another program.
- The upgrades will be installed and a portion of the total projects will be inspected to ensure quality and standards are met as well as customer satisfaction achieved.
- KEMA will pay the incentives to the contractor(s) and the contractor(s) will collect the customer contribution directly from the customer.
- The customer is provided with the toll-free program number that they may use to contact KEMA at any time through the process for assistance. The toll-free hotline will be answered during business hours and voicemail will be available at other times. All complaints will be logged and the resolution documented.

13. Energy Measures and Activities

13.1 Prescriptive measures.

Prescriptive measures include the following: refrigeration fan controls, cooler door heater controls, freezer door heater controls, EC motors, Novelty Cooler controllers and HVAC system tune-ups.

13.2 kWh Level Data

The remaining measures for this program are custom in nature and primarily involve determining kWh savings to determine incentive payment. Custom measures include

refrigeration measures not covered under the prescriptive measures, CFLs, fluorescent fixture upgrades, LED exit signs, custom lighting upgrades, HVAC controls, and other measure that result in verifiable electric savings.

13.3 Non-energy Activities

13.3.1 End-use Load: Refrigeration, lighting, HVAC, other

13.3.2 Targeted Sector:

Nonresidential Mass Market

13.3.3 Activity Description

Marketing activities, contractor recruitment and training, facility assessments and administrative activities will not directly produce energy savings. However, all are essential to the success of the program and directly proportional to the number of projects received.

A majority of the administrative activities during program implementation will not directly produce energy savings. Examples of these activities are coordination meetings with PG&E, reporting activities, and updating the policies and procedures manual.

The direct implementation activities that support energy savings include: determining customer eligibility, conducting inspections, entering project information into the project database, updating the software system, verification of project completeness and the project payment process.

To summarize, implementation activities without measurable energy savings include:

- Marketing activities
- Contractor recruitment and training
- Facility Assessments
- Administrative activities
- Coordination meetings
- Direct Implementation Activities
- Project proposal development
- Site-inspections
- Incentive application processing and tracking
- Reporting.

13.3.4 Quantitative Activity Goals

The primary energy-based program metric for the Small Commercial Comprehensive Refrigeration program is savings achieved, which will be reported on a cumulative basis every month and compared to the goal. The following table displays net kWh and kW savings targets by quarter.

Savings Targets

Total	Q4 06	Q1 07	Q2 07	Q3 07	Q4 07	Q1 08	Q2 08	Q3 08	Q4 08
11,386,488 kWh	11,38649	11,38649	11,38649	17,07973	17,07973	11,38649	11,38649	17,07973	569,324
1,794 kW	179	179	179	268	268	179	179	268	95

13.4 Subcontractor Activities

Overall program management, program compliance, quality control, cross referrals, and reporting will be completed by KEMA. KEMA does not plan to utilize any subcontractors in this program.

Participating program contractors will be perform door-to-door recruitment, material procurement and installation of the energy-efficiency measures. The contractors will be required to follow program guidelines and specifications.

The small commercial comprehensive refrigeration program works with selected contractors to conduct facility assessments, solicit proposals, procure equipment and install measures. While the contractor will conduct most of the door-to-door recruitment, KEMA will participate in chain store recruitment, developing marketing materials, and building relationships with communities to promote the program.

Individual customer marketing, project development and energy efficiency measures will be tasks assigned to a contractor specializing in the identification and installation of refrigeration measures. The contractor will conduct a facility assessment with a comprehensive approach and refer any additional opportunities to other program contractors or to PG&E for coordination with another program..

One participating contractor will be National Resources Management (NRM), a licensed California contractor, to identify and install most of the refrigeration measures. However, rather than a subcontractor arrangement, NRM will be paid from incentive funds. Additionally, lighting and HVAC contractors will be paid on a similar basis. KEMA has worked with NRM on the B.E.S.T. program since 2002 and will leverage their experience with market segment networks, industry organizations, and refrigeration measure installations to recruit program participants and provide quality installations.

Other contractors, specializing in HVAC tune-ups, miscellaneous refrigeration and lighting, may be added to the program for door-to-door marketing, project development, equipment procurement and installation.

13.4.1 Detailed Information

Subcontractors will not be used in program development or implementation. Approved program contractors will market and install the energy efficiency measures. Incentive funds will be paid to these contractors for the actual measures installed.

KEMA will recruit contractors throughout the program development and implementation phases. Once their qualifications, licenses and references have been reviewed and approved, they will sign an agreement to uphold equipment specifications, equipment and labor warranties, installation standards and a high level of customer service. KEMA reserves the right to remove contractors' privileges to program participation. The names of all approved program contractors will be posted on the web site with contact information.

The approved contractors will be allowed to submit project proposals on behalf of customers using the KEMA proposal generation software on line after they have completed a training session with KEMA. The program is structured for small commercial customers that do not have the time to follow through a project or the excess capital to invest in their facility. The project cost is paid by the contractor who then invoices the customer for their portion and submits the completion documents to KEMA for the incentive payment.

13.5 Quality Assurance and Evaluation Activities

The approved program contractors will have the responsibility of procuring the equipment and installing the measures while KEMA will be responsible for the project processing and measure verification.

Equipment is procured and installed by the approved contractors per the contractor agreement, which they sign at the beginning of the program. The agreement requires the contractor to meet a level of installation standards and the equipment must meet the specifications outlined in the policies and procedures manual. Any measure not defined in the policies and procedures manual will be reviewed and approved by a KEMA staff engineer.

The equipment specifications outlined in the policies and procedures follow those included in the express efficiency program. For measures listed in the proposal but not included in the express program, documentation is given on how the savings was determined in Section 2.3 and any history of evaluation reports that support those values.

Verification of the pre and post equipment will be the responsibility of KEMA, and documentation of the results will be available through the web-based system. Facility pre- and post-installation inspections will be conducted on a percentage of each contractor's projects to ensure the program standards and specifications are being met. The project will be modified to

reflect inspection results or the contractor will be notified to correct the deficiency before payment is finalized.

All complaints received by KEMA through the program hotline and e-mail will be logged and the resolution documented. KEMA will make every effort to have a positive outcome while maintaining the program parameters.

13.6 Marketing Activities

The program marketing will be the combined efforts of KEMA and the approved program contractors. A marketing flyer will be developed by KEMA to generate interest in the program, develop relationships and describe the program process. Materials will be distributed by KEMA, the contractors and others with the ability to reach the target market. In addition, a web site will be developed for program information, program funding status, web-based system access and downloads.

13.6.1 Marketing Materials

A two-sided program flyer will be produced in English with a short description of the program, and contact information on the front and the back will outline the step-by-step program process. The flyer will be produced for the initial contractor training session and posted on the web site for download. The flyer will be designed as a template that may be adapted to different target markets and geographic areas within PG&E's territory. If warranted, non-English versions of the flyer will be developed to assist ethnic communities in understanding the benefits of the program.

Based on energy savings results in the first 9 months of the program, a program brochure may be developed to generate additional interest in the program from multiple markets (convenience stores, flower storage, caterers, etc.).

13.6.2 Program Marketing

The marketing efforts will be a combination of door-to-door marketing by approved contractors and KEMA building relationships with community groups, trade associations and organizations. Past results have shown success with this method and with outreach to the ethnic communities who have significant ownership of the convenience store market. Presentations to trade organizations and associations will be made on an as-requested basis.

Small businesses have been responsive to direct contact and the ability to have a person walk them through the process. Door-to-door marketing with support from the hotline is another proven marketing strategy for the small business sector that will be included.

13.6.3 Web Site and Hotline

A program web site will be developed and a toll-free hotline established prior to launch of the program. Both potential participants and contractors will have access to both and all program flyers will clearly state the contact information. The web site will contain program information,

funding status, all program documents for download, access to the program database via secure access, list of approved contractors and program contact information. The web site will also contain an e-mail address for questions and concerns.

The toll-free line will be answered during normal business hours by a trained staff person. If the staff person is unable to answer the question or resolve the complaint, it will be referred to the program manager or program engineer, depending on the issue.

13.6.4 Integrated Demand Side Management Activities

The initial visit and marketing of the program will focus on refrigeration and include a comprehensive assessment of the facility. Additional measures will be referred to the appropriate program with in PG&E's portfolio. This program may include comprehensive measures or a combination of programs may be presented to the customer. Potential opportunities for demand response may exist with larger customers and if appropriate they will be referred to the appropriate program.

14. Conclusion

KEMA SERVICES will deliver to PG&E more than 11 GWH of annual net energy savings and about 1.8 MW of net demand reduction by working with small commercial customers in PG&E service area. KEMA Service's extensive experience in the administration, marketing and implementation of small commercial programs was incorporated in the design of the SCCRP. Program marketing and implementation barriers have been addressed by integrating successful marketing approaches and unique program processes to ensure a high rate of program participants. The SCCRP concentration on refrigeration measures is intended to reach a broad base of customers that have potential to reduce their refrigeration load. The program further guarantees comprehensive participation opportunities for the customer by referring any measure that is not included in the contractor's project proposal to PG&E for coordination with another program..