PA Consulting Group

Pacific Gas and Electric Company (PG&E)

Summary Report: Process Evaluation of the 2006–2008 Statewide Partnership Programs

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Prepared by: Laura Schauer
Carol Sabo

PA Consulting Group
6410 Enterprise Lane
Suite 300
Madison, WI 53719
Tel: +1 608 443 2700
Fax: +1 608 661 5181
www.paconsulting.com

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EXECUTIVE SUMMARY

This executive summary overviews the results of the process evaluation for Pacific Gas and Electric Company's (PG&E) 2006–2008 Statewide Partnership Programs. PA Consulting Group conducted the process evaluation from November 2007 through October 2008 with follow-up interviews conducted in June 2009.

The California Energy Action Plan of 2005 established energy efficiency as the state's top priority procurement resource and called for the utilities to invest in energy efficiency whenever it is more cost effective than power plants. The Energy Action Plan permitted utilities to fund partnership programs between a regulated utility and a designated "partner," where the partner will work directly with the utility to provide energy-efficiency services.

The investor-owned utilities (IOUs) administer these partnerships—in some cases with implementation support from government agencies or non-profit community organizations to encourage increased energy-efficiency behaviors in targeted groups. The 2006–2008 programs receive funding from the California Public Utilities Commission under the Public Goods Charge (PGC)[1].

The goal of the partnerships is to more effectively assist partners with addressing barriers to understanding and implementing energy efficiency and other demand side management (DSM) initiatives. Activities include, but are not limited to, retrofits, retro-commissioning, education and training opportunities, outreach to target customer groups, direct installation or delivery of energy-efficiency equipment, and referrals into utility programs.

PG&E's energy efficiency portfolio included 21 partnership programs within the 2006–2008 program cycle, four of which are statewide programs. In November 2007, PG&E contracted with PA Consulting Group (PA) to conduct a process evaluation of four[2] of its 2006–2008 Statewide Energy Efficiency Partnership Programs:

1. Bakersfield-Kern Energy Watch Partnership (Bakersfield-Kern)
2. University of California/California State University Partnership Program (UC/CSU)
3. California Community Colleges Partnership Program (CCC)
4. California Department of Corrections and Rehabilitation Partnership (CDCR).

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[1] The Public Goods Charge (PGC) originated with Assembly Bill 1890 in 1996, which restructured the state's electricity markets. As part of AB 1890, energy efficiency programs were funded with proceeds from the PGC. With the passage of Assembly Bill 1105 in 1999, authority over the PGC energy efficiency programs were shifted from the CPUC to the CEC.[1] In September 2002, AB 117 was passed into law. Section 381.1, which was added to Public Utilities Code, permits community choice aggregators (CCAs) to apply to administer cost-effective energy efficiency and conservation programs. The CPUC also adopted certain procedures in Decision (D.) 03-07-034 (dated July 10, 2003) to implement portions of AB 117 affecting the allocation of energy-efficiency program funds.[1]

[2] The State of California Partnership program is also considered a statewide program. However, due to limited activity, this program was not included in the evaluation.

Being statewide programs, three additional utilities were partners for these programs: Southern California Edison (SCE), Southern California Gas (SCG), and San Diego Gas and Electric (SDG&E). PA simultaneously performed process evaluations of these programs for these utilities and data collection activities were coordinated across the utilities to maximize evaluation efficiency and minimize intrusions on target audiences.

EVALUATION METHODOLOGY

The process evaluation planning and activities were consistent with the requirements detailed in the *California Energy Efficiency Protocols: Technical, Methodological, and Reporting Requirements for Evaluation Professionals*[3]. The activities were designed to provide information that would allow evaluators to provide recommendations for changing program administration, structure, design, operations, and targets.

Consistent with the evaluation protocols, the primary objectives of the process evaluation were to: provide feedback on the four statewide partnership programs administered by PG&E, describe where they stand in relation to the achievement of targets and goals for the 2006–2008 cycle, and provide findings and comments for consideration in the next cycle of partnership programs for 2009–2011. The evaluation's goals were to:

- Review the programs within the context of the partnership market segment to determine if there are unnecessary overlaps between the programs, the program designs are missing significant parts of the market, and/or the targeted markets should be defined differently
- Document program theories, program goals, and implementation strategies
- Provide real-time feedback to program implementers with specific focus on improving program recruitment and delivery and identifying both implementation and program design problems for review and modification
- Assess the effectiveness of the programs and provide recommendations for improvement. Recommendations should include comparison to current industry best practices
- Evaluate areas of customer and partner satisfaction/dissatisfaction and provide recommendations for developing an ongoing system for tracking customer feedback
- Identify barriers and obstacles to meeting program goals.

The process evaluation included secondary data review and analysis as well as primary data-collection activities to support the evaluation's objectives. Primary data-collection activities included:

- In-depth interviews with utility, program partner, third-party implementation staff, and participating facility managers across the programs
- Interviews with PG&E staff working with each partnership

[3] Prepared for the California Public Utilities Commission by the TecMarket Works Team (April 2006).

- Surveys of residential and commercial program participants (relevant for Bakersfield-Kern evaluation only).

OVERARCHING CONCLUSIONS AND RECOMMENDATIONS

The evaluation documented many successes of these statewide partnership programs. The positive relationships among the utility, program partners, and participating facilities received special attention for all programs.

Additionally, one significant area for commendations for the programs was their ability to react to programmatic issues and reconcile those issues within the program cycle. All programs experienced issues and instituted changes within the program cycle to react to these issues.

Moving into the next program cycle, the partnerships will likely experience additional difficulties, one significant factor being the economic conditions at a national and statewide level. However, the programs will undoubtedly reap the benefits of the efforts expended over the previous program cycle within the next program period.

The following overarching issues were identified in the evaluation report as key findings or by PG&E as of concern at the project initiation meeting. Conclusions regarding these issues are presented below based on the research conducted in the process evaluation. These conclusions are followed by recommendations.

CONCLUSIONS

ACHIEVEMENT OF GOALS

The statewide programs, as a consolidated group, did not reach their kWh or kW stated goals. However, they did exceed their therms goals as a group. This progress was a result of a large project implemented in the UC/CSU Partnership Program.

PG&E expressed concern that the partnerships' slow start up has resulted in their inability to achieve goals for 2008 and that an examination of the numbers alone does not reflect the barriers to progress. This issue is not unique to PG&E, as all of the IOUs experienced significant delays in finalizing contractual relationships with partners. Stakeholders appeared to have underestimated the amount of time required for ramping up programs. Additionally, unrealistic program goals may have played a part in the utility's inability to reach their goals. Each unique target population faces its own unique challenges, and the goals need to take into consideration the time it will take to realize and overcome these challenges.

Each program recognized its unique challenges to reaching their goals. Some programs even exceeded their goals. These challenges and means for overcoming them are detailed within the evaluation report for each program.

NEED FOR BUY-IN FROM VARIOUS ACTORS

The statewide programs generally share a tiered decision making structure. In some cases, the champion resides at the state office, in others there are individual champions. Each of these decision-making individuals have to be educated, coordinated, marketed and convinced to act before an actual project can take place. At the same time, these individuals all have existing full time responsibilities.

Some programs addressed these needs through highly successful statewide conferences and workshops (e.g. the university and college programs); while others pursued different more individualized approaches (Bakersfield-Kern visits to individual municipalities). Even so, decision-makers require time to process the information, no matter how effectively and efficiently it is delivered.

CAPACITY BUILDING BENEFITS

There is considerable capacity being built from this program cycle that will come to fruition in the next cycle (2009-2011) in spite of the likelihood that PG&E may not be given credit for such savings in this cycle. Out of necessity, the programs focused on completing projects before year-end; however, additional energy savings can be anticipated to result from the activities of the 2006-2008 cycles that will need to be credited to the programs.

There is also significant technical education and training taking place in the statewide programs; BOC has trained hundreds of individuals which, if requirements are met, led to certification. This component is a significant up front cost that will not show savings for a long time. However, it is clear that capacity is indeed being built through the programs that will show benefits in the long run, even if not in the 2006-2008 program cycle.

USE OF CONTRACTORS

PG&E raised concerns regarding the allocation of funds to third party providers, or private firms hired to serve as administrators or implementation contractors (e.g., Staples Marketing). One reason given is that local governments would prefer to reserve PGC funds for themselves rather than funding outside firms to do the work.

This process evaluation did not identify any direct information to support these specific concerns one way or another. Interviews with stakeholders focused on the issues associated with individual programs. However, there is a movement in the next program cycle to increase the local government role. One example is the Bakersfield-Kern program, where the plan for the 2009–2011 cycle is to partner directly with the Kern Council of Governments (KCOG) and have Staples Marketing operate under the KCOG.

ROLE OF THE PROGRAM CHAMPION

PG&E expressed concern that without a champion there would be limited activity. The process evaluation identified a couple of findings regarding this issue. First, while a program champion is important to success, particularly when a program is starting up, it is important to get others involved in order to achieve established goals. Second, it is important to identify a succession plan or other team to take up program operations when a champion leaves so that not all depends upon one person.

FULLY CAPTURING PROGRAM IMPACT, INCLUDING INDIRECT IMPACTS

Evaluation data requests and reviews indicate that PG&E has adequate processes set up to capture the resource impacts of these programs, but inadequate processes for capturing indirect impacts from non-resource activities. It behooves the utilities to accurately and systematically record non-resource activities and the funds spent on those activities. Capturing this information will enable the programs to better evaluate these activities and

potentially provide the program additional credit for influencing behaviors or purchases that produce further savings not captured through the resource component.

LONG TERM BENEFIT OF FINANCING

Financing options such as the state Department of General Services and its Energy $mart financing program will provide funding opportunities for state buildings moving forward, although the current financial and economic crisis may limit the uptake of financing programs such as this. All stakeholders acknowledged the important role that PG&E and the other utilities played in working with and putting pressure on state agencies to improve the financing procedures that had led to delays in implementing projects in the CDCR partnership. These important steps have laid the groundwork for creating long lasting benefits.

COORDINATION WITH OTHER PROGRAMS AND FUNDS

There are outside influences that exist that need to be taken into account when considering energy efficiency activities – e.g., UC/CSU and CCC already have Campus Sustainability policies, and the stimulus funding will provide an additional education and funding source outside of these programs. While these outside initiatives provide resources that can result in positive benefits, keeping records straight regarding which actions are associated with the individual initiatives is complex. As such, it is important that the IOUs maintain clear records of that funding stream. This appears to be happening in regards to the resource activities of these programs, but is more challenging to maintain for the non-resource programs.

LEAD UTILITY MODEL IMPACT ON PROGRAM TRACKING

Each of the statewide programs has a lead utility. The lead utility model leads to complications related to administrative issues such as program tracking and invoicing processes. When managing a program within a lead utility model, it is important to identify the procedures that will ensure efficiency. Moving forward, one program in particular will be shifting the accounting and tracking responsibilities to eliminate some of this burden. Staples Marketing will coordinate and track components of the Bakersfield-Kern program for all utilities in the 2009–2011 program cycle, relieving the lead utility from the need to process invoices and track customer data.

RECOMMENDATIONS

Recognizing the success of the partnership programs on many levels, we offer the following recommendations for PG&E to consider for the 2009–2011.

Consider reacting to the variance in sophistication and population among partnership programs by revising funding cycle's structure or goals established. It takes many years to build strong partnerships and programs need different levels of support given their target population. Given this, we recommend that either the length of the funding cycles be reviewed *or* savings goals be established understanding the limitations of the funding cycle. Three-year funding cycles for local government and institutional partnerships are too short. This is not only a result from evaluations of these statewide programs. Other municipal program evaluations have found similar comments, as project planning periods have long life cycles. Five-year funding cycles were noted as an appropriate timeframe.

Ensure funding streams do not lapse. The history of DSM is littered with good programs that have been destroyed because of lapses in funding. Currently, there is bridge funding that will mitigate the threat of the funding lapsing. It is incumbent on the IOUs and the CPUC to continue to provide bridge funding to prevent lapses.

Review the need for resources by program, taking into consideration the individual needs of the programs. A recurring theme through all of the programs is the need for more resources. We recognize that the CPUC and the IOUs have a fiduciary responsibility to optimize the energy-savings benefits across programs. Programs where the partners or target populations themselves are resource constrained may be a target for an additional level of funding for staffing. One example is CCC, a program that positively reacted to the need for more staffing due to the limited availability of facility managers. Along that line, newer programs also may have greater needs than established programs.

Provide ongoing support for technical assistance. A consistent finding across the partnership programs is the heavy workloads of the staff in partnerships including the local governments, organizations, and utilities. Some partners, being time and staff constrained, believed their lack of technical expertise was a barrier to moving forward. This issue was most prevalent with the UC/CSU and CCC partnership programs. Within that context, we recommend that the IOUs create a pool of technical talent that local government and institutional partnerships can draw upon to support their programs.

Communicate regularly and provide consistent and timely feedback. Effective communication and interaction are keys to the success of the partnerships. An emergent theme across all of the partnership programs was the need for consistent, frequent, and timely feedback and communication. First, we recommend periodic teleconferences and perhaps an annual gathering be held in order for partnerships to exchange information (if this is not being done already). In addition, feedback needs to be streamlined so that each utility can have immediate feedback about activities and the commitments by customers. The logistics to integrating participant data can be challenging, but having a central source of information available to all participating utilities would facilitate this feedback process (per recommendation below).

Develop a tracking system that is usable and accessible between partners and utilities for multi-utility programs. The data tracking system was identified as an opportunity for improvement, particularly for the Bakersfield-Kern Partnership (although this was rectified within the program cycle). Maintaining a thorough and accurate tracking system is a need that is relevant for any program. Such a tracking system would ideally allow the programs to report direct and indirect program progress accurately and in a timely fashion. There are significant limitations to developing universal tracking systems. Financing and IT requirements are a primary barrier to these types of projects. However, given the importance of a tracking system, if at all feasible, PG&E and the local government and institutional partners should consider developing universal tracking systems for the partnership programs.

LIST OF ACRONYMS

ACEEE	American Council for an Energy-Efficient Economy
ASHRAE	American Society of Heating, Refrigeration, and Air Conditioning Engineers
BK	Bakersfield-Kern
CCC	California Community Colleges
CDCR	California Department of Corrections and Rehabilitation
CFL	Compact Fluorescent Lamp
CPUC	California Public Utilities Commission
CSU	California State University
DSM	Demand Side Management
EEGA	Energy Efficient Groupware Application
EMS	Energy Management Services
ESCO	Energy Services Company
GHG	Greenhouse Gas
IOU	Investor Owned Utility
KCOG	Kern Council of Governments
LED	Light Emitting Diode (high-efficiency lighting)
LEED	Leadership in Energy and Environmental Design
LGIP	Local Government and Institutional Partnership
LGP	Local Government Partnership
MBCx	Monitoring Based Commissioning
NAM	Newcomb Anderson McCormick
PGC	Public Goods Charge
PG&E	Pacific Gas & Electric
SCE	Southern California Edison
UC	University of California
UCOP	University of California Office of the President

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Appendices

1. INTRODUCTION

The California Energy Action Plan of 2005 established energy efficiency as the state's top priority procurement resource and calls for the utilities to invest in energy efficiency whenever it is more cost effective than power plants. The Energy Action Plan permitted utilities to fund partnership programs between a regulated utility and a designated "partner," where the partner will work directly with the utility to provide energy efficiency services.

These partnerships consist of activities managed by government agencies or non-profit community organizations to encourage increased energy efficiency behaviors among targeted groups. Partners' roles vary depending upon the specific activities undertaken and the skill sets and resources of each. The presumption in each partnership, however, is that the utility and the other partner (whether local or state government agency or a community-based non-profit) each bring something to the table to make the partnership work.

1.1 STATEWIDE PARTNERSHIP OVERVIEW

Pacific Gas and Electric Company (PG&E) administered 21 partnership programs within the 2006–2008 program cycle, five of which are statewide programs. In November 2007, PG&E contracted with PA Consulting Group (PA) to conduct a process evaluation of four of its 2006-2008 Statewide Energy Efficiency Partnership Programs:

1. Bakersfield-Kern Energy Watch Partnership (Bakersfield-Kern)
2. University of California/California State University Partnership Program (UC/CSU)
3. California Community Colleges Partnership Program (CCC)
4. California Department of Corrections and Rehabilitation Partnership (CDCR).

This report details the results of the process evaluation of these four statewide partnership programs. The process evaluation was conducted from November 2007 through October 2008 with follow-up interviews conducted in June 2009. Although the State of California partnership program was also included in the statewide partnership program portfolio, it was not included in this process evaluation due to limited activity.

Being statewide programs, three additional utilities also partnered with these programs: Southern California Edison (SCE), Southern California Gas (SCG), and San Diego Gas and Electric (SDG&E). PA simultaneously performed process evaluations of these programs for these utilities. Data collection activities were coordinated across the four studies to maximize evaluation efficiency and minimize intrusions on target audiences.

Table 1.1 provides an overview of the programs evaluated. The programs are described in more detail within their individual chapters.

Table 1.1 Statewide Partnerships Program Descriptions

Program		Overview
PG&E 2017	**Bakersfield-Kern County Energy Watch**	The Bakersfield and Kern County Energy Watch Partnership is designed to achieve immediate, long-term peak energy and demand savings and establish a permanent framework for sustainable, long-term, comprehensive energy management programs. Additionally, it sets the foundation for sustainability and best practices for the partnership's participating jurisdictions and customers through information and direct installation of energy efficiency equipment. The program is a continuation of a successful 2004–2005 program. PG&E is the partnership's lead utility.
PG&E 2036	**University of California/California State University Program (UC/CSU)**	The partnership is a statewide program designed to achieve immediate and long-term energy savings and peak demand reduction within California's higher education system. The combined funding of nearly $40,000,000 for the 2006–2008 program establishes a permanent framework for sustainable, comprehensive energy management at campuses served by California's four IOUs. The program employs three key strategies to meet its goals—energy efficiency retrofits, monitoring-based commissioning (MBCx), and training and education.
PG&E 2018	**California Community Colleges Program (CCC)**	The partnership offers incentives for retrofit and new construction projects, MBCx, and educational training for the community colleges targeted to facilities staff. The CCC system includes 112 campuses, each of which is responsible for its own energy use. This partnership is modeled after the UC/CSU partnership. Unlike the UC/CSU systems in which all the campuses coordinate closely with central offices, California's community colleges have full autonomy over their campuses and facilities, with little to no central coordination. This results in a different set of issues and barriers for the CCC Partnership.

Program		Overview
PG&E 2019	**California Department of Corrections and Rehabilitation Program (CDCR)**	The CDCR Program is a statewide program with partnership participation by all four California IOUs. It focuses on increasing the energy efficiency of the facilities on prison campuses, and as such is similar to the statewide UC/CSU partnership. There are two components. (1) The attainment of immediate long-term energy and peak demand savings through customized assessments, calculated rebates, and building commissioning. (2) The establishment of a permanent framework for sustainable energy management program at CDCR facilities statewide through training of building design and project staff, facilities and energy managers in improved operation and management techniques and how to identify and obtain additional energy efficiency opportunities. The program seeks to implement projects identified in utility energy audits, and to secure additional facility savings. The program uses energy service companies (ESCO) for project development and implementation. The Energy $mart Program provides financing for the projects.

1.2 EVALUATION STRATEGIES

Per the *California Energy Efficiency Protocols: Technical, Methodological, and Reporting Requirements for Evaluation Professionals*[4], the primary objective of a process evaluation is to identify program-related improvements or modifications to facilitate increased cost-effectiveness and operating effectiveness of energy efficiency programs. The process evaluation is employ systematic procedures, including appropriate sampling and data collection strategies.

These protocols were considered in developing the evaluation plan for each evaluation. The activities were designed to provide information that would allow evaluators to provide recommendations for changing program administration, structure, design, operations, and targets.

Additionally, in developing the evaluation plan, PA considered the goals of the evaluation. These goals were shared with PG&E and shaped the evaluation activities. As is consistent with the outlined protocols, the evaluation set out to:

- Document program theories, program goals, and implementation strategies
- Provide feedback to program implementers regarding program design, implementation, and delivery
- Assess the effectiveness of the programs and provide recommendations for improvement
- Evaluate areas of customer and partner satisfaction/dissatisfaction

[4] Prepared for the California Public Utilities Commission by the TecMarket Works Team (April 2006).

- Identify barriers and obstacles to meeting program goals.

This process evaluation consisted of traditional, protocol-encouraged methods appropriate to the investigation of the issues of interest to PG&E. First, program managers were interviewed as a group to understand the status of the portfolio, any cross-cutting issues of concern, and which issues were of specific interest regarding the four statewide programs. Documents and access to program databases were obtained for review and, based on the documentation and program manager interviews, logic models were developed. This was followed by a series of in-depth interviews of key stakeholders (e.g., IOUs, state organization partners, and implementation contractors) conducted by PA evaluation staff. Finally, quantitative telephone surveys of larger populations were designed and conducted by PA data collection staff.

PA's scope of work with PG&E encompassed four tasks, detailed in the evaluation plan as seven subtasks:

- Task 1a: Conduct the project initiation meeting
- Task 1b: Develop the final research plan
- Task 1c: Review tracking databases
- Task 2: Interview partnership representatives
- Task 3: Conduct and analyze target market surveys
- Task 4a: Present results and prepare reports
- Task 4b: Project management and progress reporting.

Tasks 2 and 3, data collection and analysis comprised the bulk of the evaluation. The activities undertaken for this evaluation are described in detail in Section 1.3 below.

1.3 PRIMARY DATA COLLECTION ACTIVITIES

The primary data collection activities included in-depth interviews and telephone surveys with residential and commercial participants and nonparticipants. Table 1.2 details the primary data collection activities conducted for each partnership.

In summary, in-depth interviews were conducted with utility staff, government or institutional partner staff, program implementation staff, ESCOs, and participating facility managers. Program-specific plans identified the groups of individuals to be interviewed, as different programs comprised of a different mix of stakeholders and market actors. In total, PA conducted 45 in-depth interviews with utility, partner, and implementation staff across the four programs. Depending on the role of the interviewee, interviews ranged from 20 minutes to over an hour.

PA also conducted telephone surveys with residential and commercial program participants and nonparticipants for the Bakersfield-Kern program to further assess this program and its offerings, paying particular attention to the marketing activities and awareness of the program via different marketing venues. The Bakersfield-Kern survey focused on two program elements: direct install and workshop attendance. The participant surveys were administered in May and June 2008. The nonparticipant surveys were administered in October 2008.

The sample source for the participant data was a program file provided by PG&E that detailed customer contact information, as well as the measures customers received. The data also provided the number of measures installed, and cost of measure for the program.

The PG&E sample, aggregated so each record only represented one household or one contact at an organization, included 231 residential direct install recipients. PG&E also provided 192 small commercial participants: 75 that received direct install measures, and 117 that participated in workshops.

PG&E also provided lists of residential and small commercial customers within the Bakersfield-Kern territory, identified via zip code. These customers were contacted and screened for program participation. Customers that said they did not participate in the program were deemed nonparticipants. Customers that said they did participate in the program were retained in the data analysis to further inform the evaluation.

Table 1.2 Summary of Data Collection Activities

Program Name		Interviews
PGE 2017	Bakersfield-Kern County Energy Watch	• 2 PG&E staff • 2 Bakersfield-Kern staff • 2 implementation contractor staff • 37 residential participants • 36 commercial participants • 57 residential nonparticipants • 56 commercial nonparticipants
PGE 2036	UC/CSU program	• 2 PG&E staff • 2 UC/CSU state staff • 2 implementation contractor staff • 9 campus energy managers
PGE 2018	California Community Colleges Program	• 2 PG&E staff • 2 CCC state staff • 1 implementation contractor • 9 campus facility managers
PGE 2019	CDCR Rehabilitation Program	• 1 PG&E staff • 1 implementation contractor • 2 CDCR staff • 7 ESCOs • 3 facility managers

In addition to conducting primary research, PA's evaluation team reviewed a significant number of background documents and reports, both on each individual program and on the portfolio overall. The materials reviewed included:

- PG&E's filings with the CPUC regarding its 2006-2008 program portfolio
- PG&E's quarterly and monthly reports on the Energy Efficiency Groupware Application (EEGA) website
- All program application materials and tracking systems
- Program marketing materials and forms, where appropriate
- Evaluation reports from the 2004-2005 program cycle, for those programs for which such reports were available.

The evaluation results, being based on statewide programs, also represent findings that are also relevant to other IOUs and gleaned from interviews with non-PG&E-related staff, such as:

- ESCO and facility manager interviews with other companies involved in the statewide programs at non-PG&E sites
- Interviews with other IOU project managers for the statewide programs.

Finally, PA conducted final, follow-up interviews with program managers in June 2009. These interviews provided updated information on program progress through December of 2008 and detailed program changes for the 2009 – 2011 program cycle.

1.4 REPORT CONTENT

In addition to the Executive Summary and this introduction, this report discusses key findings through the following chapters:

The remainder of this report consists of the following sections:

- Chapter 2 – Portfolio-level Program Theory and Progress
- Chapter 3 – Bakersfield-Kern County Energy Watch Partnership
- Chapter 4 – University of California/California State University Partnership
- Chapter 5 – California Community Colleges Partnership
- Chapter 6 – California Department of Corrections and Rehabilitation Partnership
- Chapter 7 – Conclusions and Recommendations.

2. PORTFOLIO-LEVEL PROGRAM THEORY AND PROGRESS

This chapter presents a discussion of the portfolio-level program theory and logic for the purpose of revisiting the original intent of the CPUC's Government and Institutional Partnership program model. This discussion is followed by the portfolio-level logic model that has been developed by PA for the Government and Institutional Partnership programs of the four IOUs.[5] Individual program theories and logic models for the four statewide partnerships are included in each program chapter.

This chapter also presents the four statewide programs' progress against their savings and budget goals. The analysis is based on the December 2008 monthly reports found on the Energy Efficiency Groupware Application (EEGA) website[6].

2.1 PORTFOLIO-LEVEL PROGRAM THEORY

Local Government and Institutional Partnership programs are intended to address a perceived gap in the delivery of energy efficiency services that local governments are in a unique position to fill. While IOUs and third party providers in California have accomplished significant gains in energy efficiency, there are still segments of the population that are underserved or, for various reasons, have not fully participated in these programs.

By leveraging existing services and communications vehicles in their communities, local governments are seen as ideal conduits for delivering energy savings. Because of their similar capabilities, some state agencies and non-profit organizations have also been included under the Local Government and Institutional Partnership programs portfolio for the 2006–2008 cycle.

Local governments and institutions can play a key role in promoting energy conservation, energy efficiency, and alternative energy. The CPUC's 2008 "straw man," *Achieving Aggressive Energy Efficiency Goals in Local Communities and Statewide*[7] enumerates the following functions of local governments that need to be recognized, strengthened, and reinforced for a statewide approach to energy. Functions include:

- Setting policies and establishing goals for their communities
- Leading by example, with built projects and implementation of policies
- Enforcing state energy efficiency/conservation codes and standards
- Adopting stricter local codes for new and existing buildings
- Incentivizing projects that voluntarily exceed state and local minimum energy standards

[5] This diagram is consistent with the portfolio level LM developed by PA as part of the CPUC evaluation of the LGPs.

[6] http://eega2006.cpuc.ca.gov/

[7] http://www.californiaenergyefficiency.com/local_govt.shtml.

- Requiring higher energy standards for projects in redevelopment districts and/or for meeting affordable housing goals
- Requiring municipal contractors and vendors to meet higher energy efficiency standards for services and products that they provide to the local government
- Developing and implementing programs that are tailored to their communities' needs
- Collaborating with other entities, including IOUs, in outreach initiatives and providing education and technical assistance to local residents and businesses if resources are available
- Promoting energy efficient communities through community design, land use, and zoning requirements
- Recognizing local individuals and businesses for exemplary energy management
- Promoting green technology oriented economic development.

The partnership model is intended to build the capacities (resources) and capabilities (skills) of local governments and institutions. Partners would then have the resources and skills for delivering energy services within communities; raising awareness among the public (households and businesses) about energy saving opportunities; and directly realizing opportunities to save energy within homes, businesses, local and state government, and community facilities.

The partnership program model has two main dimensions; it is both a resource acquisition vehicle and a community outreach and engagement tool. The challenge is that the partnership program model assumes local governments have significant roles to play in delivering direct and indirect kWh savings—roles that are important but necessarily vary with each partnership based on the capacity and capabilities of each partner. This challenge is addressed in the program design documents, written commitments, and contractual documents that articulate the responsibilities of the external partners that they must fulfill in exchange for the Public Goods Charge (PGC) funding provided.[8]

PA's evaluation effort examined the extent to which PG&E's external partners (1) fully understand and accept this obligation, (2) have the capacity (resources) and capability (skills) to fulfill this role, and (3) feel a direct obligation to fulfill the energy savings commitments. Not surprisingly, the partners that are most fully engaged are those that meet all three of the above criteria. Less effective partnerships tend to be those where one or more of these components are missing.

[8] The Public Goods Charge (PGC) originated with Assembly Bill 1890 in 1996, which restructured the state's electricity markets. As part of AB 1890, energy efficiency programs were funded with proceeds from the PGC. With the passage of Assembly Bill 1105 in 1999, authority over the PGC energy efficiency funds were shifted from the CPUC to the CEC. In September 2002, AB 117 was passed into law. Section 381.1, which was added to Public Utilities Code, permits community choice aggregators (CCAs) to apply to administer cost-effective energy efficiency and conservation programs. The CPUC also adopted certain procedures in Decision (D.) 03-07-034 (dated July 10, 2003) to implement portions of AB 117 affecting the allocation of energy efficiency program funds.

2.2 PORTFOLIO LEVEL PROGRAM LOGIC "META-MODEL"

A program logic model illustrates a set of interrelated program activities that combine to produce a variety of outputs that in turn lead to key short-term, intermediate, and long-term outcomes. The following evaluation activities supported the development of the Local Government and Institutional Partnership programs portfolio-level logic model:

- Program documentation review
- Interviews with program design and delivery staff.

The program logic model can lead to cost-effective determination of program effectiveness. According to Huey-Tsyh Chen, who authored *Theory-driven Evaluations,*

> *…specifying the underlying theory of a program within the evaluation allows that theory to be tested in a way that reveals whether program failure results from implementation failure or theory failure. Program theory clarifies the connections between a program's operations and its effects, and thus helps the evaluator to find either positive or negative effects that otherwise might not be anticipated. It also can be used to specify intermediate effects of a program that might become evident and measurable before final outcomes can be manifested, which can provide opportunities for early program assessment in time for corrective action by program implementers.*[9]

While the *California Energy Efficiency Evaluation Protocols: Technical, Methodological, and Reporting Requirements for Evaluation Professionals*[10], based largely on the *California Evaluation Framework* does not require a program theory and logic model for every program, PG&E agrees with the CPUC that program theories and logic models are useful tools for the effective and efficient design and delivery of the programs and assessing their energy and demand impacts. The portfolio level Government and Institutional Partnership program logic model flows from top to bottom and is organized according to six basic categories:

1. Program resources
2. Program activities
3. Outputs
4. Short-term outcomes
5. Intermediate outcomes
6. Long-term outcomes.

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[9] Chen, Huey-Tsyh. *Theory-Driven Evaluations.* Sage Publications, Inc. 1990. p. 29. A thorough discussion of program theory and logic models can be found in Chapter 4 of the *California Evaluation Framework* (The TecMarket Works Team, 2004).

[10] The TecMarket Works Team, 2006

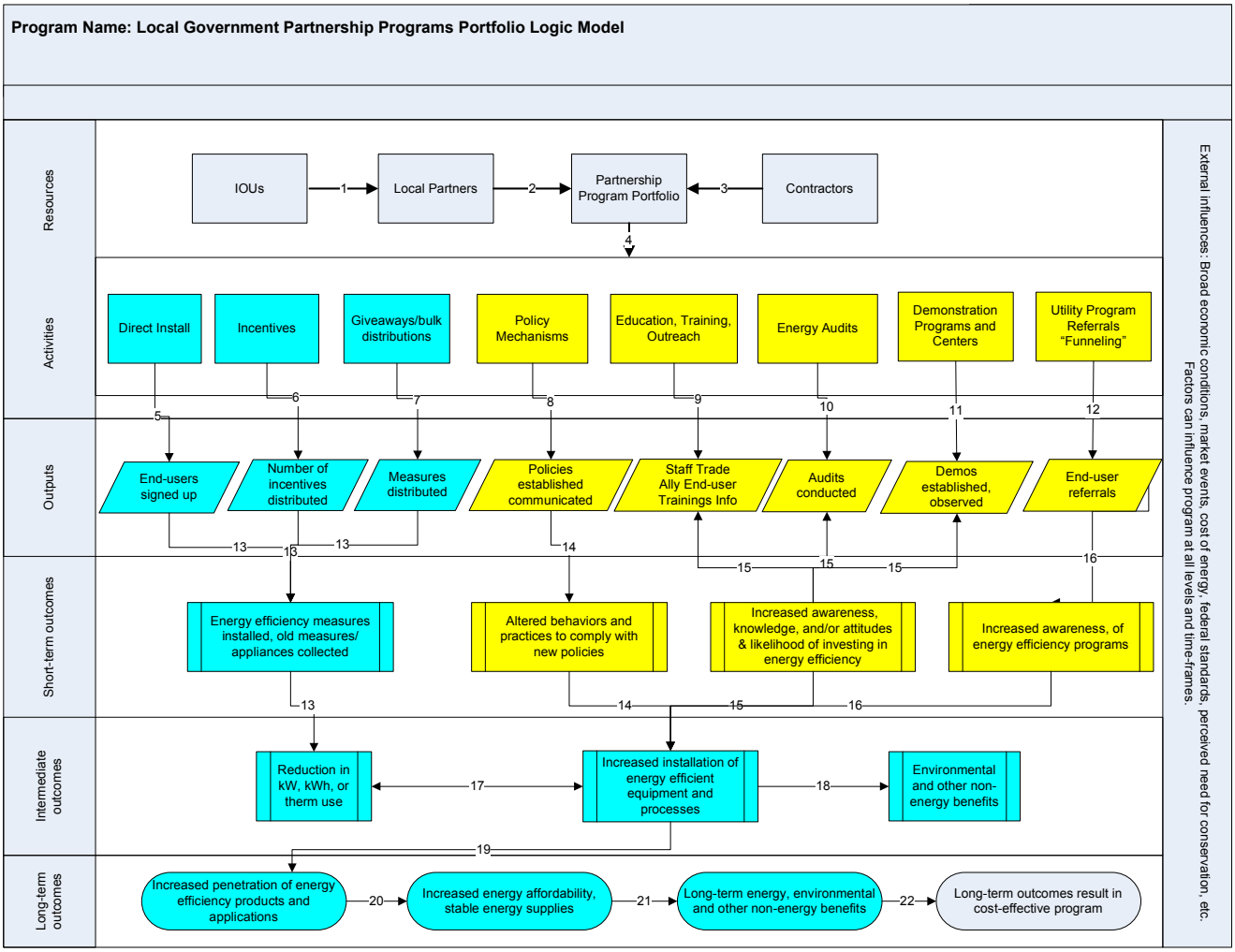
In addition, the logic model notes a variety of external influences that can also influence the program's outcomes. External influences include political and economic factors such as the housing and credit crisis that will affect local government tax revenues and gasoline prices.

Figure 2.1 provides the Local Government Program Portfolio-level logic model developed for the CPUC to broadly characterize the Local Government Partnership programs. The logic model is not specifically tailored to the PG&E programs included in this process evaluation. PG&E specific logic models are detailed within each program chapter.

Direct resource activities are highlighted in blue in the logic model. These include partnership efforts that include direct installs and incentive mechanisms.

Indirect resource activities are highlighted in yellow. Most of the indirect resource activities involve capacity building such as policy-work, education and demonstration projects. Another major indirect resource activity for partnerships discussed earlier is partnership efforts to "funnel" customers to participate in IOU DSM programs. The theory behind all of these activities is that in the long-term they will result in sustainable energy, environmental and other non-energy benefits.

Figure 2.1 PG&E Local Government Program Portfolio Logic Model



2.3 ENERGY SAVINGS FOR EVALUATED PG&E LOCAL GOVERNMENT AND INSTITUTIONAL PARTNERSHIP PROGRAMS

All of the statewide programs evaluated have specific resource savings goals. Discussions with PG&E staff provided context surrounding these goals.

First, when reviewing program progress against goals it is important to note that some of the goals were set with little research directly measuring the potential for program uptake. This is particularly true for newer programs, such as CCC. The goals for CCC were based on progress for UC/CSU, although as discussed in the CCC chapter the target population faced unique barriers than UC/CSU. Therefore, PG&E staff believes the goals established for the 2006–2008 were set higher than realistically achievable.

Additionally, although much attention is paid to program-specific progress toward goals, PG&E staff commented that it is the LGP portfolio-level progress that is most critical in

reviewing progress against savings. Therefore, this section provides discussion related to PG&E's progress toward the statewide goals considering the statewide partnership programs at a portfolio level, with supplemental discussion regarding program-specific progress.

A review of the program progress data published on the EEGA website (December 2008 monthly report[11]) shows that while programs varied in their ability to meet savings goals, the statewide partnership programs as a whole did not reach their kWh or kW targets. The statewide partnership program portfolio met 51 percent and 37 percent of its kWh and kW targets, respectively.

However, the statewide partnership programs evaluated, as a group, exceeded the therms savings goals. This significant progress was largely attributed to the performance of the UC/CSU partnership program and one large project completed within the program cycle. This program's actual therms savings was over double the projected savings.

The following three figures present the savings as of December 2008 in relation to the 2006–2008 partnership program budget and goals. This section simply describes the savings claimed by the program; the program-specific chapters expand on these analyses and provide background data that explains each program's progress.

While these data are representative of the most recent information posted for the 2006–2008 cycle, interviews with PG&E staff in June 2009 indicate that project data is still being reported for this program cycle. CDCR progress was highlighted as one program that may change significantly yet[12]. Therefore, it is probable that the progress data presented in this report will not be the final savings claimed by the program.

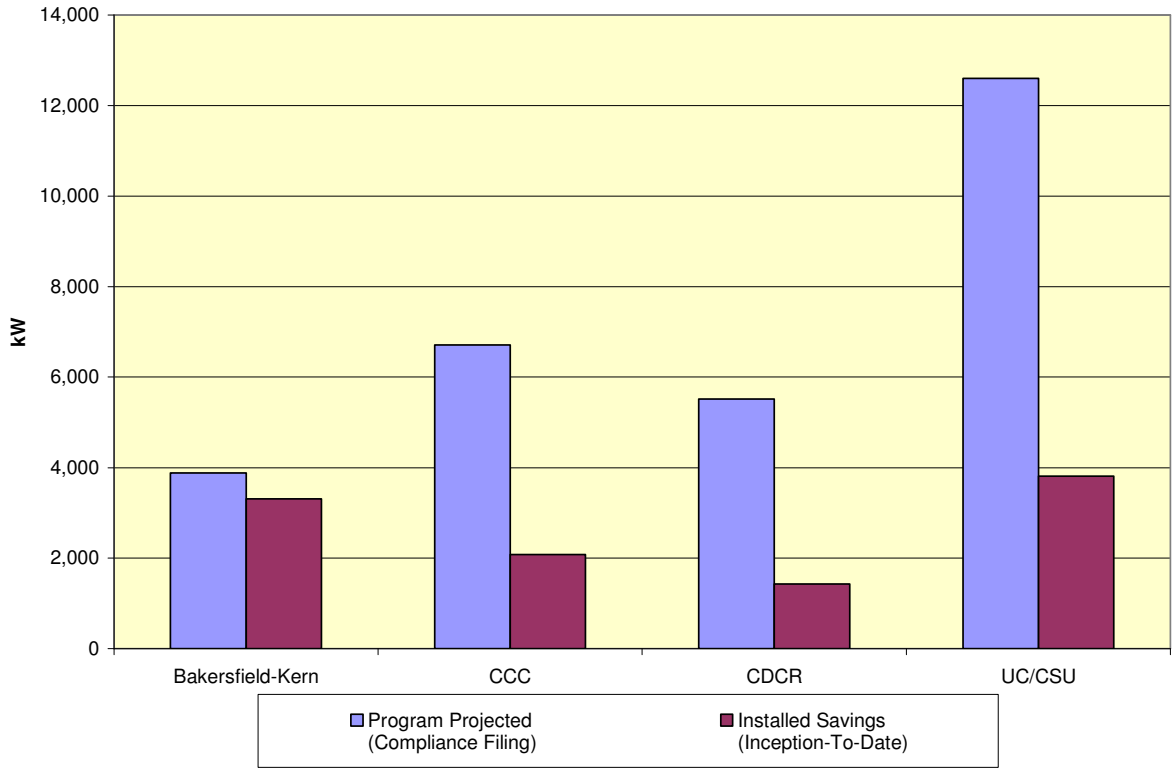
[11] Report posted March 2009 (PGE[1].MR.200812.4.xls)

[12] Staff projects that CDCR will meet 65 percent of kW, 86 percent of kWh, and 46 percent of therms goals compared with 26 percent of kW, 39 percent of kWh, and 9 percent of therms goals.

2.3.1 Progress Toward kW goals

As Figure 2.2 shows, UC/CSU had the most aggressive kW goals of all the programs. Approximately 30 percent of the kW goals were achieved. Bakersfield-Kern was the closest to achieving its target goal with 85 percent of the projected kW claimed, although it also had the lowest target of all programs.

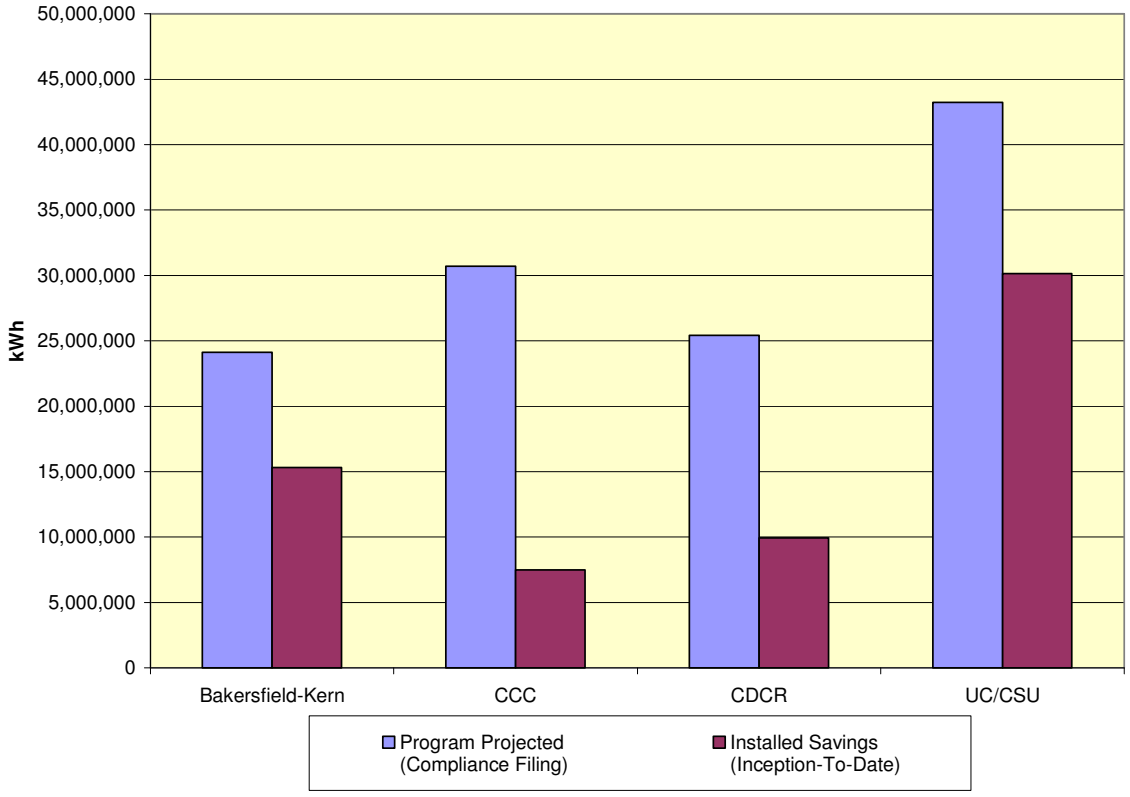
Figure 2.2 Progress Towards Summer Peak Goals (kW) for PG&E Partnership Programs



2.3.2 Progress Toward kWh Goals

A review of the net annual kWh savings provides a similar picture (Figure 2.3). In terms of net annual kWh savings, UC/CSU has the most aggressive kWh goals, followed by CCC and CDCR. None of the programs met their kWh goals although UC/CSU came closest to meeting their goals (70 percent target savings were realized).

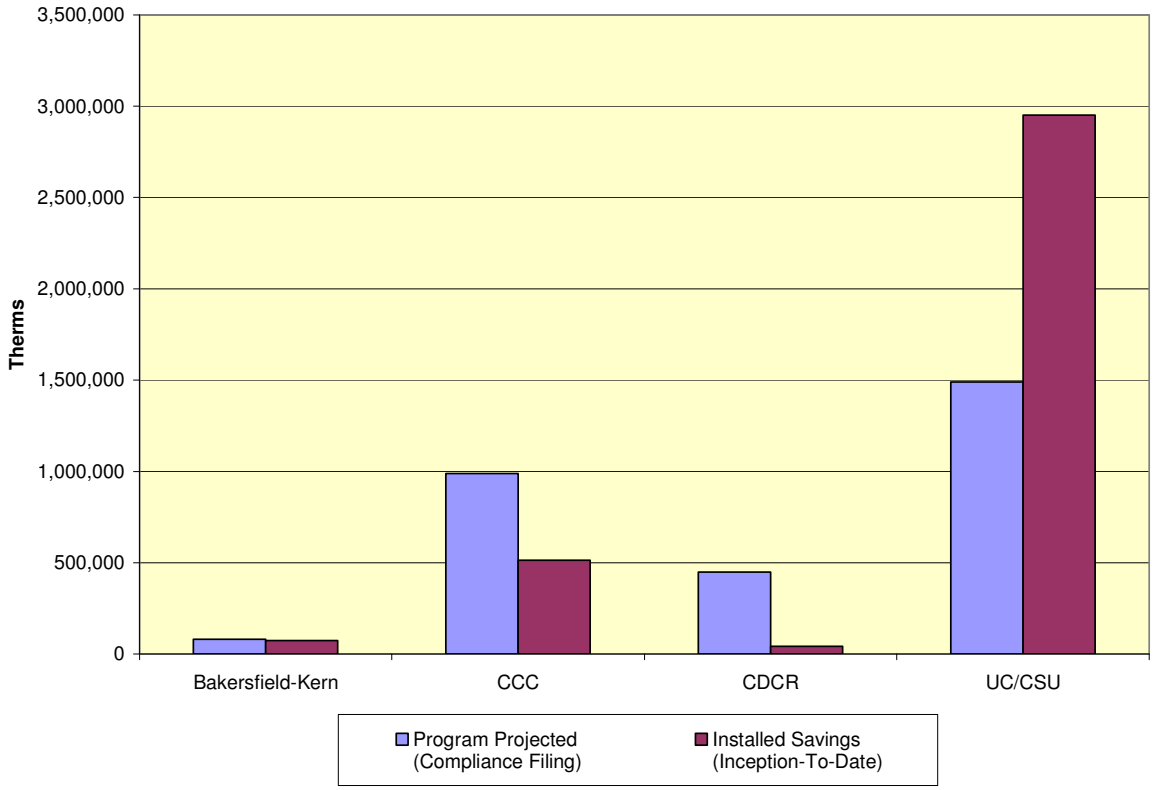
Figure 2.3 Progress Toward Energy Savings Goals (kWh) for PG&E Statewide Partnership Programs



2.3.3 Progress Toward Therms Goals

Programs were more likely to reach their therms goals than kWh or kW goals (Figure 2.4). UC/CSU significantly exceeded their therms goals. Bakersfield-Kern was very close to meeting their therms goals (91 percent committed were achieved) although, as with the kW targets, Bakersfield Kern had the lowest target of all the statewide programs.

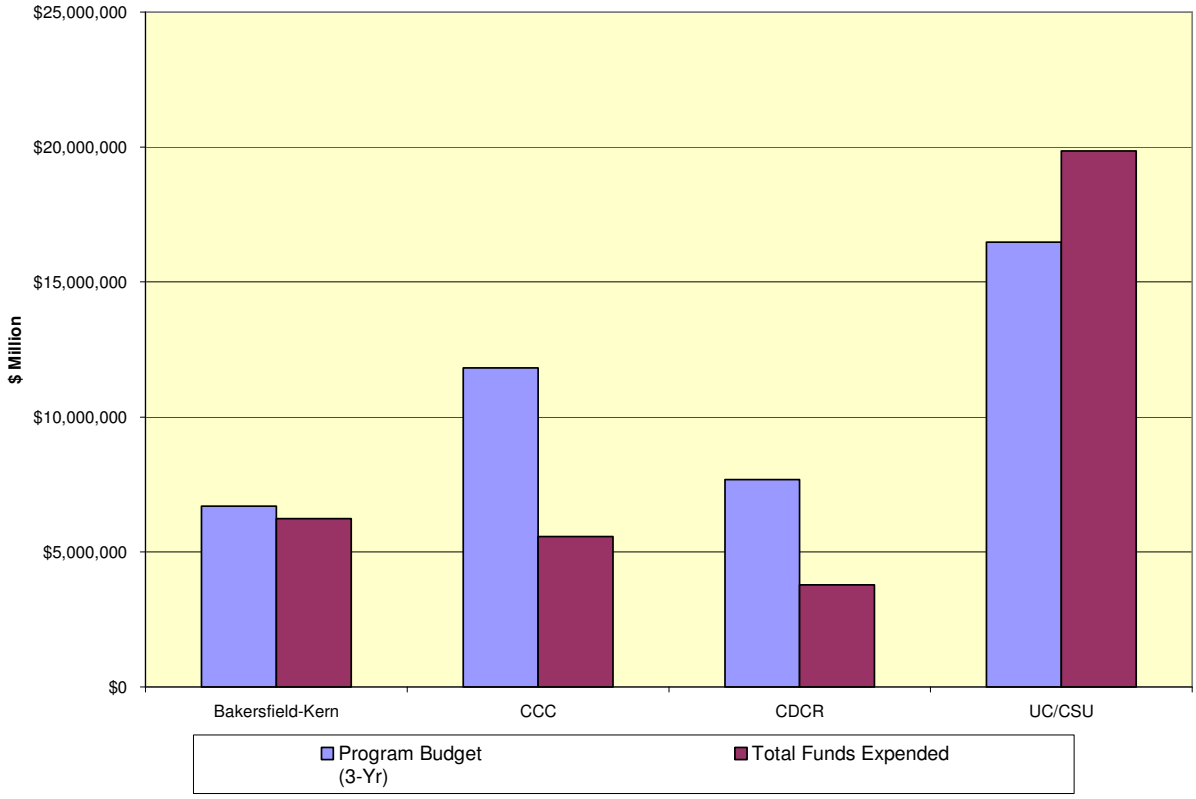
Figure 2.4 Progress Toward Therms Savings Goals for PG&E Statewide Partnership Programs



2.4 PARTNERSHIP EXPENDITURES

Figure 2.5 shows expenditures per partnership relative to their budget for the 2006–2008 cycle. All the programs spent significant amounts of their budgets; in fact, the portfolio as a whole expended 83 percent of its allocated budget. This is particularly notable for UC/CSU; this program went over its budget (121 percent of allocated budget was expended).

Figure 2.5 PG&E Statewide Partnership Program Expenditures and Total Commitments against Budgets



3. BAKERSFIELD-KERN ENERGY WATCH PARTNERSHIP PROGRAM

3.1 INTRODUCTION

The Bakersfield-Kern Energy Watch Partnership (Bakersfield-Kern) was designed to achieve immediate, long-term peak energy and demand savings, and establish a permanent framework for sustainable, long-term, comprehensive energy management programs. The program is a continuation of a successful 2004–2005 program.

The partnership was jointly offered by PG&E, SCG, and SCE, collaborating with the City of Bakersfield (the City) and Kern County (the County). The partnership reduced energy use by providing energy efficiency information and direct installation of energy-efficient equipment to homeowners and small businesses in targeted areas, while continuing to retrofit municipal properties. Both existing homeowners and new homebuyers were targeted with audit and direct install measures, while small businesses receive walk-through audits and direct install measures. The program was enhanced in 2008 to offer training to city building inspectors.

For the next 2009–2011 program cycle, the program will shift from partnering with both the City of Bakersfield and Kern County to only partnering with Kern County. The Kern Council of Governments (KCOG) will administer the program on behalf of the County. Subsequently the partnership will be called the Kern Energy Watch Partnership Program, of which the City of Bakersfield will participate.

3.2 PROGRAM BACKGROUND AND STRUCTURE

3.2.1 Program Description

The Bakersfield-Kern Partnership was a multi-faceted program that provides services to multiple sectors of the population, including residential, small commercial, and municipal facility customers. The program strived to achieve savings through installation of energy-efficient technologies while promoting long-term savings through workshops and education opportunities.

Staples Marketing contracted with the partnership to provide the direct installation and direct delivery to municipal facilities, as discussed below. PG&E worked closely with municipal facilities to recruit for and administer retrofit projects and provided funding to offset the costs of those projects.

The program had three major components—direct installation, municipal audit and retrofit, and training and education. The program design also included a homebuyer program.

- **Direct installation for residential and small business customers.** The program directly installs electric and natural gas measures into residential and small business facilities. The direct installation is based on a walk-through audit conducted by a CHEERS-trained auditor. For small commercial customers, the program retrofits inefficient lighting with more efficient options such T5 and T8 lamps and occupancy sensors. For residential customers (including low-income customers, a targeted hard-to-reach population), the program provides compact fluorescent light bulbs and indoor hardwired fixtures. Additionally, the program installs water conservation and natural gas technologies. A direct installation contractor, Staples Marketing,

canvasses targeted areas and provides the efficient equipment to businesses and households at no cost.

- **Municipal facility projects.** There are two types of municipal facility projects. The first is an audit and retrofit component. The program completes audits of municipal facilities to identify project opportunities for energy efficiency retrofits. PG&E provides the municipal facility audits and identifies the opportunities for these facilities. The program offered incentives rates for municipal retrofit projects that were higher than PG&E core program rates.

  The second type of project is direct delivery where the program provides the equipment to municipal facilities who in turn install the equipment. This component was developed due to contract limitations local governments have with labor unions, which affect the ability for IOUs to perform the installations. Staples Marketing administers the direct delivery of the municipal facility projects.

- **Energy education and training.** The program offers education and training through PG&E's Pacific Energy Center. These training events are offered to city staff, residential and small business contractors, and other market actors on topics such as energy management systems, new construction, codes and standards, and emerging energy efficiency technologies. The partnership selects courses based on the potential to effect energy savings and the needs of the community. While training offerings exist for end-users, the program shifted its focus early in the program cycle to provide training for groups that would influence behaviors and purchasing patterns such as the contractors and architects.

- **Homebuyers program.** Through this component of the program, homeowners were to receive an energy audit of their recently purchased home and along with free energy-efficient equipment (e.g., CFLs, faucet aerators, and low flow showerheads). Trained CHEERS-certified professionals complete the audit and identify ways the homeowner can improve the efficiency of their home. Additionally, the program provided recommendations for incentive programs they can participate in through one of the three participating utilities from which they receive their electric and gas service. Staples Marketing marketed the program through realtors and events. The homebuyers program was not a significant component in the partnership, and will not be included in the 2009 – 2011 cycle.

When planning for the 2009–2011 program cycle, the California Energy Commission expressed an interest for there to be more involvement from the local government. The county identified the Kern Council of Governments (KCOG) as the organization to administer the program on behalf of the county for the next program cycle. Staples Marketing will still be involved in the partnership, but will be under the direction of the KCOG. The partnership name will change to the Kern Energy Watch program.

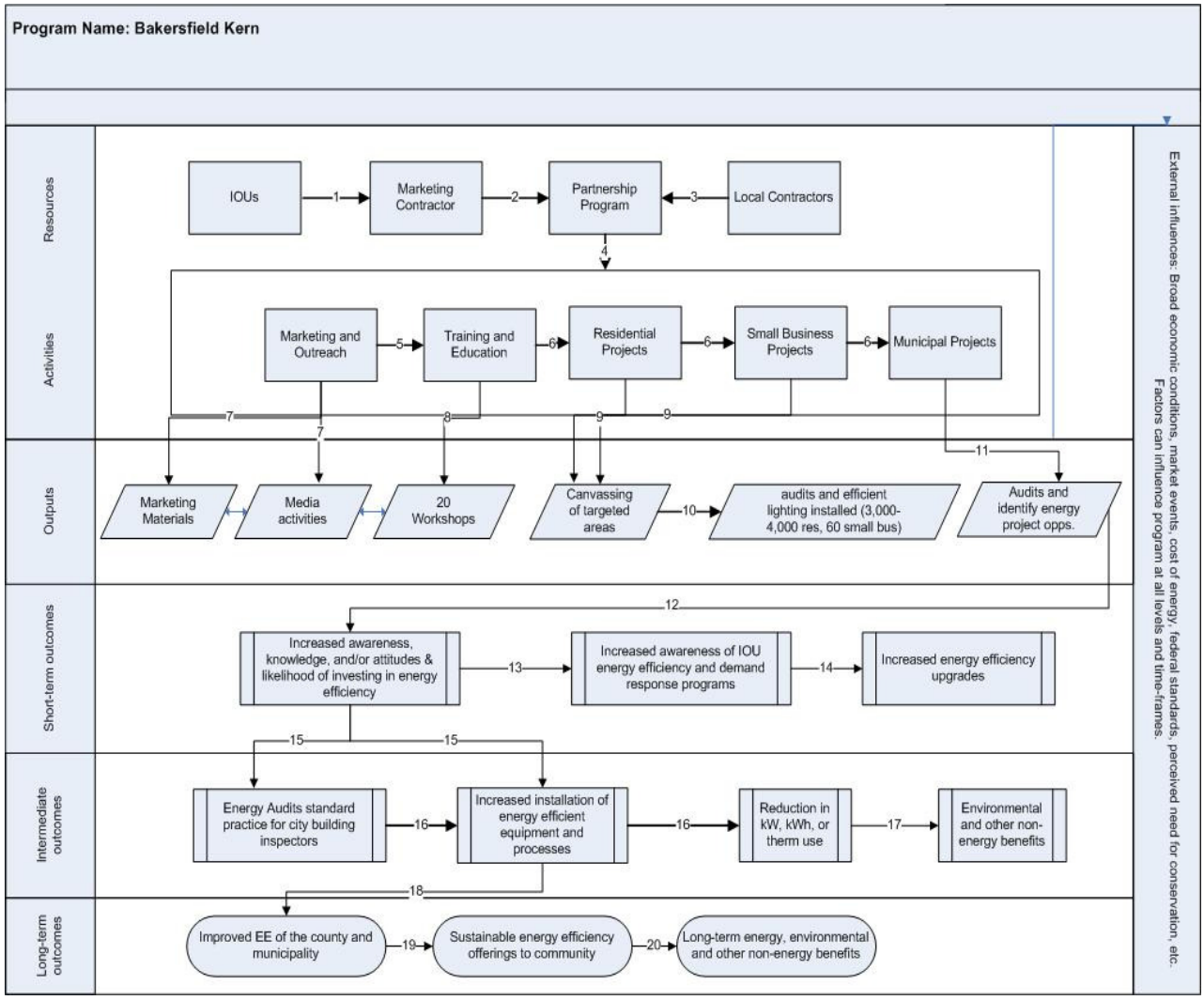
3.2.2 Program Logic Model and Implementation Theory

Figure 3.1 shows the logic model for the Bakersfield-Kern Partnership. As the logic model shows, the partnership's primary activities include marketing and outreach, training and education, residential projects, small business projects, and municipal projects. These activities are to result in six outputs (1) marketing materials, (2) media activities, (3) 20

workshops, (4) canvassing of targeted areas, (5) audits and installation of energy-efficiency equipment, and (6) identification of additional projects via audits.

This logic model represents the initial program concept. The logic model is, for the most part, consistent with the program as it was offered in the 2006–2008 program cycle. One difference is that the Homebuyers program is not detailed as a separate programmatic component; rather, it is represented in the Residential Projects section. Another programmatic component not explicitly relayed in the logic model is the retrofitting of municipal facilities.

Figure 3.1 Bakersfield-Kern County Logic Model



3.3 KEY FINDINGS

This section details the key findings resulting from the in-depth interviews, telephone surveys, and document review.

3.3.1 Program Progress against Key Program Offerings

The program was close to meeting its energy savings and therms goals in the 2006–2008 program cycle. Work completed through both the direct install and municipal retrofit components of the program contributed to the program progress.

Earlier in the program cycle, the residential and small commercial direct install component comprised a significant portion of the energy and therms savings. Staples Marketing exceeded their goals for the direct install component of the program, and expended its Small Business direct install budget.

However, the program realized savings from municipal retrofit projects further in the program cycle, which boosted its program progress. These municipal retrofits, by nature of the decision-making and budgeting processes of the municipalities and large scale of projects, traditionally take longer to come to fruition than commercial and residential projects.

The increase in savings progress in the latter part of the program cycle is, in part, reflective of these municipal projects being completed. As of the *Monthly Energy Efficiency Program Data Report* from August 2008, the program achieved 49 percent of its energy saving goals and 80 percent of its therms savings goals. The program reported significant progress in the December 2008 monthly report, particularly related to energy savings. The program reported achieving 85 percent of kWh goals and 91 percent of therms goals by the end of December 2008.

There are several reasons why the program did not fully meet its goals. First, larger municipal projects did not come to fruition as planned. Due to economic constraints and the length of planning time required, the utility did not realize the savings initially planned from these projects.

Additionally, changes in savings detailed in the Database for Energy Efficiency Resources (DEER) affected the program by decreasing the overall savings reported. The California Energy Commission routinely reviews the deemed savings values reported in the DEER database, upon which the gross project savings are based. Adjusting these deemed savings could have significant impacts on program progress, which was the case for the Bakersfield-Kern Partnership Program.

The budget spent is reflective of the savings reported with 93 percent of the Bakersfield-Kern program budget expended as of December 31, 2008.

Contractors suggested incorporating an education piece as part of the audit process to leave with participants.

As the Bakersfield-Kern program is primarily a resource program, it is reasonable to expect that there would be the greatest emphasis on making progress toward its resource goals. However, program partners interviewed expressed that this focus on reaching resource goals

may be limiting the impact the program has on its customers by limiting the education opportunities[13]. Individuals interviewed felt that the direct install component presented more of an opportunity for education of customers than was being taken.

Respondents specifically noted the need to provide more information after the audit process as an area for improvement. Beyond standard energy education brochures and information, no information is left behind for program participants to review and refer to after an audit is complete. They recommended that a printout of specific recommendations and other resulting data from the audit would be beneficial to customers. Providing this information would provide an opportunity for the contractor to discuss the recommendations more fully and reinforce the messages conveyed during the walk-through audit.

Additionally, from an evaluation perspective, capturing specific recommendations would enable the evaluation to follow up with program participants and identify whether they followed up with specific recommendations. While the evaluation was able to speak generally to participants regarding their activities because of program participation, the recommendations data would likely allow the evaluators to more specifically note any actions participants took because of program recommendations and whether those actions could be attributed to program intervention.

3.3.2 Program Staffing

Staples Marketing's role in the partnership program addressed the needs of Residential, Small Business, and Municipal direct install customers.

Staples Marketing provides a multitude of services for the Bakersfield-Kern Partnership. Their responsibilities included marketing and outreach, residential audits and direct installations, small business audits and direct installations, and direct delivery of municipal retrofits. Staples Marketing's activities under these elements are described in more detail below.

Marketing and outreach activities. Staples Marketing provided marketing and outreach for the direct install component of the program, focusing on residential and small business customers as well as low-income populations within Kern County. These activities were conducted at fairs, home shows, etc. For example, there is a home show twice a year in Bakersfield where Staples Marketing set up displays such as a PG&E pool pump display.

PG&E, as lead utility, maintains the database that tracks the marketing and outreach activities. Utilities raised, in interviews, concerns that the system may be inadequate for tracking these activities. They would like to see a better system to track these activities, as well as participants or individuals reached under these activities if available.

While the evaluation team is a large proponent of tracking marketing and outreach activities—doing so is necessary in the ability to claim indirect impacts and assess program processes—it is important to recognize the challenges in maintaining such a tracking system. Such a system necessitates the implementing contractor to collect the information completely and accurately at marketing and outreach events.

[13] PA process evaluations with the four IOUs identified this as a common issue across many of the government Partnership programs.

Residential audits and direct installations. Staples Marketing used the home shows and canvasses neighborhoods to recruit households for the residential audit and direct install program component. The residential audit consists of a walk-through with the homeowner by a representative from Staples Marketing. Although the audit results mostly in CFLs replacing incandescent bulbs, program data shows that residential customers are also receiving gas-saving water efficiency measures (low-flow showerheads and faucet aerators).

Small business audits and direct installations. Staples Marketing recruited small businesses through events and canvassing targeted areas. The program also leveraged the visit to a participating small business to meet other businesses in the area when doing the audit and direct installation. The expanded marketing is most prevalent when installing equipment in strip malls. The contractor went door-to-door to recruit additional participants.

Staples Marketing used a software tool proprietary to the Bakersfield-Kern program to determine what type of equipment should be installed in the small business and to provide additional recommendations for energy efficiency retrofits. As discussed above, the program does not provide any type of report that the small business can reference, which was identified by program partners as an area where the program could improve and optimize the recommendation and referral process.

Direct delivery of municipal retrofits. Through the direct delivery of municipal projects, Staples Marketing made recommendations and ordered equipment but did not complete the installation. This arrangement avoided problems with the municipal unions, and the use of government employees to install the devices as part of their regular building maintenance improves the cost effectiveness of the service.

The program only realized the savings and made payments toward the equipment if the equipment was installed. Additionally, the equipment needed to be installed properly. Therefore, Staples Marketing visited the facility to make sure the equipment was installed. The utilities completed quality assurance checks on the installation.

The program benefited from PG&E staffing, who beyond project management provided significant municipal retrofit services. PG&E staff identified distinctions in the implementation of municipal retrofit projects between the City of Bakersfield and Kern County.

The municipal retrofit component of the program was led by PG&E. Through this component, PG&E recruited municipal participants, identified energy efficiency projects, and offset the costs of those projects through program rebates. Additionally, PG&E provided quality assurance checks to ensure the equipment was installed properly.

According to PG&E project management, the municipal retrofit projects contributed significantly to the program's savings. Kern County's share of the municipal retrofit exceeded the City of Bakersfield's municipal retrofit projects, although the City of Bakersfield completed approximately seven to eight projects within the last two years of the program. The distinction between the two partners, and how those distinctions impacted their ability to move retrofit projects from concept to completion, is discussed in more detail later in this chapter.

The partnership program experienced staff turnover and contractor changes in the 2006–2008 program cycle. With staffing stabilized, these changes do not appear to have affected program progress.

Early in the program cycle, Winegard Energy Inc, a California-based contractor specializing in marketing and weatherization of residential and small business buildings, was responsible for direct installation for residential customers. However, their contract ended early in the program cycle and Staples took over the direct install component of the program after Winegard's contract ended. By most accounts, this change did not hinder the progress of the residential direct installations. PG&E's staff overseeing the direct install component expressed satisfaction with the work being done, and Staples management similarly appeared fairly enthusiastic and satisfied with their expanded role.

In addition to the shift in contractors, PG&E experienced staff turnover within the 2006–2008 program cycle. This turnover does not seem to have had a significant impact on program operations and was not raised an as issue within process interviews. Once the current program manager for PG&E was in place, the program operated smoothly, and the partners appear to be positively engaged. Turnover at PG&E does not appear to have been a continuing issue.

3.3.3 Program Satisfaction

Partners interviewed expressed satisfaction with the program and relationships with each other. The billing and tracking mechanisms were noted by partners interviewed as an area for improvement earlier in the evaluation. PG&E reported improvements in the billing and tracking mechanisms by the end of the program cycle, which will continue into the 2009 – 2011 program cycle.

All individuals interviewed as of the Bakersfield-Kern Partnership program expressed satisfaction with the program relationships and communications. Staples Marketing lauded the communication with PG&E and partners as one of the best aspects of the program. They specifically noted the collaboration between themselves and the City and County to identify savings opportunities as particularly effective.

Interviewees also expressed satisfaction with Staples Marketing. They believed that Staples Marketing was effective in delivering services, particularly to the residential customers. One interview specifically singled the residential component of the program out, saying that Staples Marketing was "doing a good job in reaching the target population and providing value to them." All parties interviewed also expressed satisfaction at how they work together to market the program and identify opportunities, a program element managed by Staples Marketing.

However, interviews identified that while the relationship with the three partnering utilities has been largely successful, program billing was initially problematic. All invoices needed to pass through PG&E because they held the contract with Staples Marketing. PG&E received hardcopy invoices from Staples Marketing for measures installed in other IOU territories, and a more detailed invoice is sent to the respective IOUs for their approval.

PG&E needed to receive approval from the IOUs in order to pay the invoice. According to PG&E interviews, this approval did not always take place in a timely manner, which delayed payment.

PG&E, in the next program cycle, has changed their process and will not be contracting to Staples Marketing on behalf of all participating utilities. Rather, each utility will contract

individually with Staples Marketing. This program administrative change will eliminate any issues related to utility invoice processing.

On a related topic, the evaluation found the tracking systems did not always effectively capture program participant data. One of the greatest challenges for the overall evaluation has been to get good data lists from PG&E for each of the three utilities. PA staff attempted to work with PG&E to obtain the lists for the facility manager surveys. PA was never able to receive lists for these facility manager interviews, although it is not clear if such a list existed.

PA researchers also had trouble obtaining lists for the participant surveys. Each utility maintains their own program tracking system rather than recording participant data in one centralized system. Therefore, PG&E could only provide lists for participants within their own territory. Interviews suggest that PG&E does not capture customer specific data as logging other utilities' customer data is a confidentiality concern for PG&E and the other utilities.

The problems surrounding an incomplete tracking system should be rectified in the next program cycle with Staples centrally managing program activities. Whereas the program data came from each utility, Staples Marketing will now capture the program-related activities for all utilities. However, it will still behoove PG&E to establish a tracking system that effectively captures activities not managed by Staples Marketing, such as the municipal facility retrofit projects and any education and/or outreach offerings provided to customers.

Program participants also voiced satisfaction with PG&E's Bakersfield Kern Partnership program. In addition, partnership efforts have increased customers' satisfaction with both PG&E and the partner organization.

Participants generally voiced high levels of satisfaction with the Bakersfield-Kern Partnership. When asked to rate their satisfaction, 83 percent of residential respondents said either that they were satisfied or very satisfied.

Furthermore, all but one of the residential participants interviewed said they were either more satisfied or just as satisfied with PG&E because of the program experience. Similarly, commercial customers stated they were very satisfied with PG&E because of participating in the program. Below are responses from several respondents on their experience with the partnership.

> *"[The representative] was very efficient and did a good job."* (Residential participant)
>
> *"[I was] able to learn about more about energy efficiency"* (Residential participant)
>
> *"The instructor was very good about explaining things in simple terms."* (Small commercial participant)
>
> *"It was a blessing; [the representative] saved me money for something I wanted to do anyway."* (Small commercial participant)

Although the last comment indicates free-ridership[14], this study did not intend to measure free-ridership. It is not clear from the comment when the participant would have purchased and installed the equipment, even though the participant claims to have wanted to do it anyway. Neither does it say if the participant would have purchased the same quantity of equipment in the absence of the program.

3.3.4 Barriers to Program Administration

Interviews identified a variety of barriers to administering the program. These barriers include the vastness of Kern County in terms of size and reach, competition for funds, and the level of financial investment required to implement retrofit projects.

Interviewees for the most part felt the program was operating well. Other than the invoicing issue referenced above, the program partners were positive about their relationships with the utilities.

However, from a program-specific standpoint, interviews identified numerous barriers for program administration. One issue is the relatively large size of Kern County, noted as the biggest obstacle in program administration by one interviewee. Because the county is large, and distances need to be covered to deliver program benefits, it is not cost-effective to visit some areas of the county frequently, particularly the rural areas. To make the process more cost-effective, a minimum number of installations needs to be set up to warrant a visit to the area.

Interviews also identified marketing to the rural areas as a barrier for program uptake. The partnership has tried different marketing strategies, such as radio and local television advertisements. According to the partner, these approaches yielded “limited success”, although the individual did not expand on why they felt the marketing approaches were not as effective.

The City of Bakersfield representative specifically noted the difficulty in directing resources to energy efficiency projects when other projects compete for the resources. For example, at the time of the evaluation the City was concerned with building roads to support the recent population growth. Over the past 10 years, the City’s population has approximately doubled, which increases the need for more roads. As another example, the City directs significantly more finances toward services such as graffiti abatement than energy efficiency. Overall, the City will spend $200,000 out of its $500M budget for energy efficiency. In comparison, $2M is spent annually on graffiti abatement—10 times more than energy efficiency.

One last barrier identified by a representative of the City of Bakersfield is the level of investment required by target populations to complete retrofit projects. The City of Bakersfield focused its attention on government building upgrades and low-income and small business installations. These populations tend to have significant funding constraints and little to no disposable income. This constraint, coupled with a reduced level of funding for the 2006–2008 program cycle, hindered the City’s ability to move projects from concept to completion.

[14] Free riders are those who would have installed the equipment in the absence of the program.

The level of effort toward municipal retrofits differs by location. Municipal retrofits will be a focus for the 2009-2011 contract period.

Municipal building retrofit activity differs markedly between Kern County and Bakersfield. In Kern County, there is more of an infrastructure, commitment and resources for pursuing energy efficiency improvements under the program. Additionally, Kern County employs a dedicated staff person to promote and follow projects from concept to completion.

In contrast, Bakersfield City representatives report that they have to compete with other funding priorities in spite of the incentives and technical assistance offered by the partnership. The costs associated with the staff time and labor-intensive nature of the program has rendered the incentives less attractive than originally thought.

The program is moving beyond municipal retrofit opportunities in just the two partners, and has been expanding its outreach to other cities and towns within the County. This is shifting the program toward a peer model for the 2009-2011 cycle, taking lessons learned and experience to help improve the energy efficiency of other local governments within the same geography. The County will take more of a leader partner role in this next cycle given this shift in priorities, as is represented with the engagement of the KCOG partnership agreement.

3.3.5 Marketing and Outreach

The program marketed direct install services to residential and small commercial customers via a variety of venues, including canvassing of neighborhoods and business locations, and presence at local events. Residential customers were most likely to hear of the program through word of mouth, whereas the door-to-door efforts proved to be the strongest marketing tool for small commercial customers.

A review of program collateral and *Quarterly Report Narratives* paint a picture of the marketing efforts undertaken by the program to draw households and small businesses into the program. The marketing efforts included radio spots and presence at street fairs, church events, and other small business event such as picnics. The program also published information in newspapers and other print material, touting the benefits of the “free home or business energy survey.”

The program also marketed to residential customers by canvassing neighborhoods and small business locales. Residential customers were sent a flyer with information about when the program will be in their neighborhood, and asked the household to call a number to schedule a visit. Program representatives from Staples Marketing also visited small businesses by going door-to-door in locations where small businesses are concentrated (such as strip malls) and offer to provide the direct installation of services.

This process evaluation assessed the impact of these marketing efforts by asking program participants and nonparticipants that heard of the program about the venue in which they heard of the program. The telephone survey asked these respondents “How did you hear about the program” and captured the responses from this question.

Residential participants most prevalently said they heard about the program via word of mouth through friends, neighbors, or relatives (27 percent). The second most common way residential participants heard of the program was through their landlords or apartment managers (15 percent). Other responses include through local government partnership

activities, electric/gas utility bill inserts, other programs, water utility bill inserts, community displays, energy fairs, and newspaper articles, and radio.

Twenty percent of residential nonparticipants interviewed said they heard of the program (10 of 51 respondents). Similar to residential participants, nonparticipants who had heard of the program primarily noted awareness was from word of mouth. A few people also mentioned that they received some type of literature about the program via flyers distributed, although from where they received this literature is unclear to evaluators.

For small commercial customers, the personal visit and information provided by program and/or utility representatives is a particularly strong means for promoting the program. Unlike residential customers, small commercial participants were most likely to learn of the program through the door-to-door marketing efforts or information provided by PG&E representatives[15] (25 percent). Only a few participants said they heard of the program through word of mouth. Small commercial program participants also said they heard of the program through the PG&E website (n=3). Other means include flyers from PG&E, from a manufacturer or distributor, local partnership activities, walk-ins, and water utility bill stuffers.

There were few small commercial nonparticipants interviewed that heard of the program but chose to not participate (n=7). These respondents said they learned of the program through PG&E's website and word of mouth. One respondent also reported seeing information about services offered to small commercial customers through television advertisements.

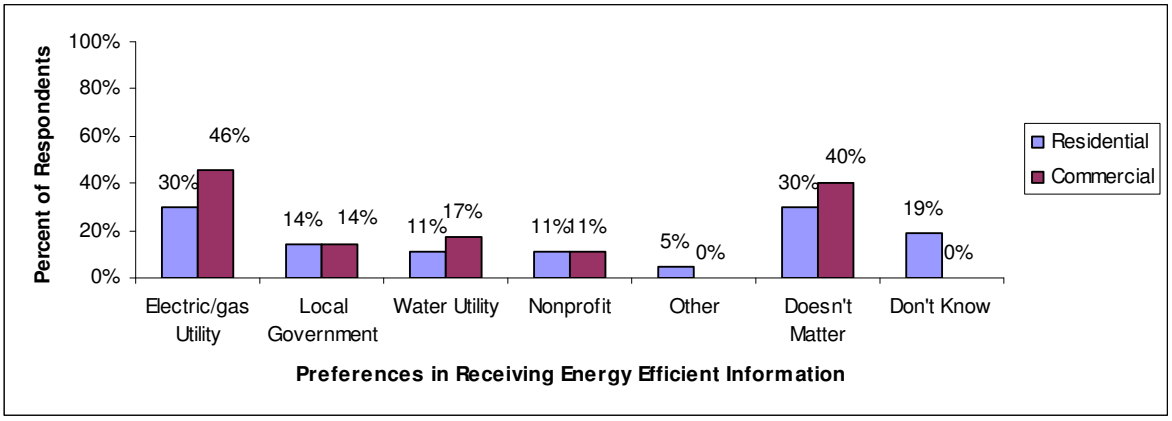
For both residential and small commercial customers, PG&E is a preferred and trusted source for energy efficiency information.

PA researchers asked all survey respondents about their preferences for energy efficiency services and information (Figure 3.2). Thirty percent of residential survey respondents prefer to receive energy efficiency services from PG&E, and another 30 percent said they did not have a preference about the provider of energy efficiency services. Fourteen percent prefer to receive services from a local government and eleven percent from a nonprofit agency and their water utility.

Similarly, the highest percentage of commercial respondents surveyed would prefer to receive energy efficiency information and services, such as those offered in the partnership programs, from PG&E (46 percent) and 40 percent do not have a preference.

[15] It is not clear from an analysis of responses whether the representatives were PG&E contractors, account managers, etc.

Figure 3.2 Preferences in Receiving Energy Efficient Information (n=72)



Source: Residential participant and commercial participant surveys (2008), question PD1

When asked if various organizations differed in their ability to provide energy efficiency information and services, less than 40 percent thought there was a difference (37 percent of commercial customers and 35 percent of residential customers).. According to one commercial customer:

> *"The utility companies have more knowledge based on experience"*

3.3.6 Participants' Reports on Services Received

Nearly all program participants said they received information from the representative related to ways to save energy.

Interviews asked what type of information participants received as part of the program. Eighty percent of residents received information from the representative. Most notably, twenty-five percent received information on how to save energy in the home. Other responses include ways to save money on their energy bills, which measures would save energy in their home, the impact of CFLs on the environment, and the wattage of CFLs versus incandescent bulbs.

Of those who received information from the representative, 65 percent found the information very useful. The average usefulness was rated at 4.4 on a 5-point scale with 5 being very useful. Only one respondent said the information was not at all useful. According to this respondent:

> *"[The representative] could have explained a little more about the lights because they just came out and put the lights out."*

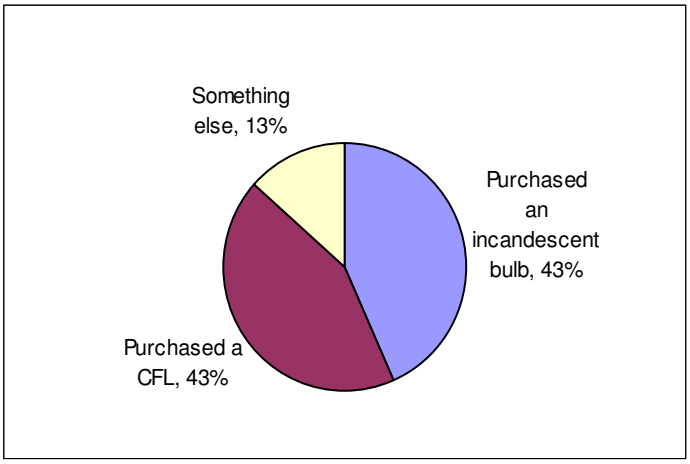
Customers that received lighting through the program claim the bulb(s) still remain installed. Without the program, nearly half-residential respondents would have purchased an incandescent bulb.

Bakersfield-Kern directly installed lighting equipment within residences, specifically energy efficient fixtures and compact fluorescent light bulbs. On average, residential respondents said they received one bulb and that the bulb was still installed at the time of the interview

(n=25). About 80 percent of respondents said they were either satisfied or very satisfied with the lighting they received through the program (average 4.3 where 5 is very satisfied).

When asked what they would have done when their light bulbs had burnt out if the direct install program was not available, forty-three percent said they would have purchased an incandescent bulb, and the same percentage said they would have purchased a CFL (Figure 3.3). This finding suggests that there is significant awareness of CFLs in the residential market served by the program, yet room for the program to promote energy savings. Also, in market research it is not uncommon to see survey respondents say something they think the interviewer or survey sponsor would like to hear, referred to as social response bias. It is possible that the responses will have been positively inflated for social response bias; however, the results still provide an indicator that the program influenced the purchase of the energy-efficient lights.

Figure 3.3 Replacement Action when a Bulb Burns Out (n=30)



Source: Residential participant survey (2008), question C6

The Bakersfield-Kern Partnership also provides direct install services to commercial customers. They go into businesses and primarily replace lighting equipment. Lighting is the focus of this analysis, as it is the most commonly provided measure.

All except two of the fourteen small commercial respondents reported that all of the lighting equipment they received through the program was still installed. As part of the program, respondents said they received an average of 116 efficient bulbs or fixtures. Respondents' responses to the number of bulbs or fixtures still installed averaged 104 pieces of lighting equipment. Both customers who removed some of the lighting equipment they received reported that it was due to the bulbs burning out.

Commercial customers attended workshops and training events offered by Bakersfield-Kern for a variety of reasons, most notably to learn how to save energy in their business. Nearly three-quarters of participants felt the event was very useful, and over half of respondents reported using the information to make changes in their organization.

PA spoke with 22 small commercial customers that participated in workshops offered by the Bakersfield-Kern program. Nearly forty percent of the respondents said that they attended the workshop to learn how to save energy in their business, followed by the objective to learn about new energy efficient technologies (Table 3.1). Other responses included to learn about the new requirements and to gain more information on requirements that would allow buildings to meet the California Building Standards Code, also known as Title 24.

Table 3.1 Reasons for Participating in Workshop (n=22)

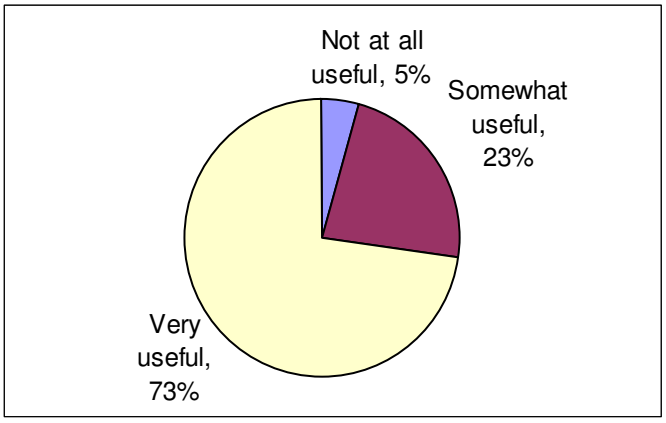
Reason	Percent
Learn ways to save energy in business	37%
Learn about new energy efficient technologies	32%
Learn how to install energy efficient measures	23%
Understand 'green' building issues/practices	9%
Learn ways to save money	9%
Learn about ways to be more environmentally friendly	5%
Other	50%

Source: Commercial participant survey (2008), question W3

Over half of the program participants, 52 percent, stated that their organization has used information from the workshop to make changes in their facility. Survey respondents said that they feel the biggest change in organization practice is that the employees are more educated and they can now better serve their customers.

Respondents said they found the event quite useful in helping to understand ways to save energy. Only five percent of the commercial customers at the Bakersfield-Kern workshop found the event not at all useful (Figure 3.4).

Figure 3.4 Usefulness of Workshop in Understanding Ways to Save Energy (n=22)



Source: Commercial participant survey (2008), question W9

3.3.7 Energy Efficiency Awareness and Program Participation

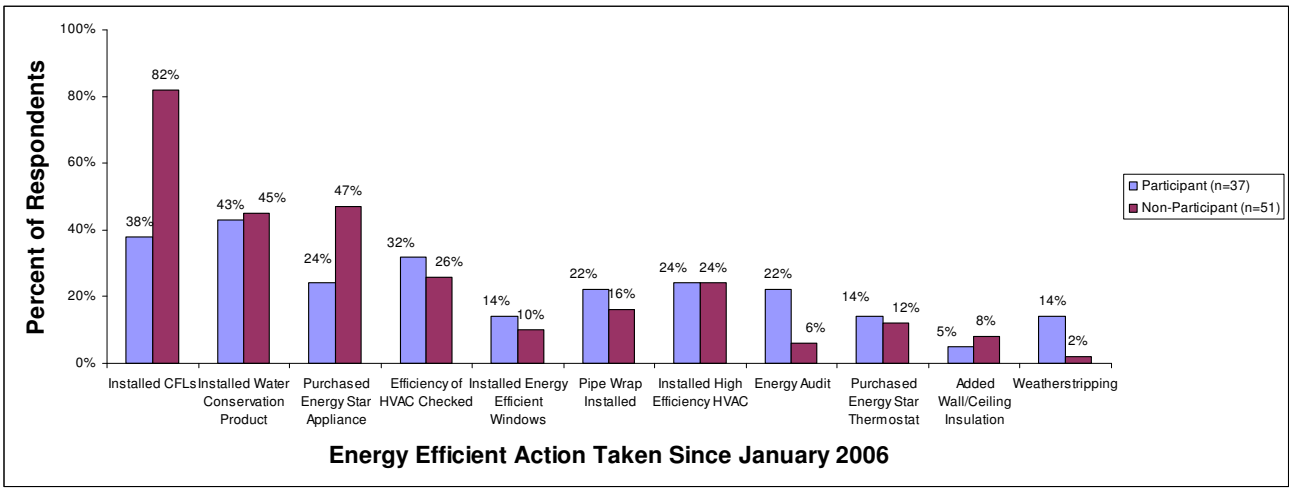
PG&E's residential customers in Bakersfield-Kern areas are fairly energy conscious with the majority of customers reporting haven taken some energy efficient action. The

survey results indicate the partnerships may have reached people who had taken fewer energy efficiency actions on their own than nonparticipants. To the extent that is the case, this is a strong accomplishment.

Residential program participants and nonparticipants interviewed claim to have taken a variety of energy efficiency actions in the past two years (Figure 3.5). The most common actions taken by both participants and nonparticipants in the partnership programs were installing CFL or energy efficient lighting, purchasing ENERGY STAR® appliances, installing water conservation products, and having the efficiency of their HVAC systems checked.

A significantly[16] higher percentage of nonparticipants say they took energy efficiency actions since January 2006 compared to participants (6 percent compared to 24 percent). In addition, 82 percent of nonparticipants surveyed said that they have installed CFLs compared to 38 percent of participants. This could suggest that the partnership reached customers who were less energy efficient than nonparticipants, especially in relation to lighting.

Figure 3.5 Energy Efficient Action Taken Since January 2006



Source: Residential participant and residential nonparticipant surveys (2008), question EE1

The survey results suggest limited progress in distributing program referral information and effectiveness of this information for residential and commercial customers.

As part of the Bakersfield-Kern program, participants received materials or application forms for other utility programs. Less than one quarter of commercial respondents said that they received this type of material. Of those who received the material, 38 percent have signed up for the other utility programs.

Twenty-seven percent of residential customers received information about other utility programs. One-third of those who received information signed up for the utility programs.

[16] Difference is statistically significant at the 95% confidence level.

There is a modest level (22 percent) of program awareness of the partnerships among nonparticipants. The majority of both commercial and residential customers are very or somewhat interested in participating in the partnership, yet customers report a variety of barriers to participation.

As part of the nonparticipant survey, PA's researchers described the Bakersfield-Kern Partnership and asked nonparticipants if they had heard of the program. A higher percentage of commercial customers have heard of the program than residential customers (26 percent compared to 20 percent).

Researchers then asked nonparticipants to rate their level of interest in participating in the program. Commercial and residential respondents reported similar levels of interest in the program; nearly one-quarter of commercial and residential respondents said that they were very interested in the program. A higher percentage of commercial customers reported that they were not at all interested in the program compared with residential customers, although the difference is not statistically significant (39 percent compared to 30 percent).

As a follow-up for those indicating that they are not at all interested in participating in the program, respondents were asked why they were not interested in receiving the services from the various programs. The most prevalent reason residential respondents cited for not wanting to participate in a program was because they believe that their home was already energy efficient (4 out of 15 respondents). Other reasons include disliking CFLs, concerns over the installation of lighting equipment, and having a new home. In addition, one respondent was pessimistic about the value of participating in program, stating:

> *"I don't think [participating in the program] will be worth it."*

The main reasons commercial customer gave for not being interested in participating in the program related to their type of business. Two respondents noted that their business was too small to benefit from an energy efficiency program. Several respondents also were not interested because their business mostly involves work outside of any building.

Other responses include time constraints, building is new, and that the program's services are not needed. One respondent also stated that someone informed him/her that their business did not qualify.

> *"The energy bill is like 75 bucks as it is. I don't see how [the program] could make it cheaper".*
>
> *"Don't have the time"*
>
> *"Don't have that many lights - relatively small shop"*

3.4 CONCLUSIONS AND OPPORTUNITIES FOR IMPROVEMENT

Overall, the government partners feel that the program has been successful, and are expanding it for the 2009-2011 program cycle focusing on municipal retrofit projects. One partner representative said the program has had a significant impact on the priority for energy efficiency in Kern County and that it has resulted in an increase in public funding for such projects by over 300 percent. The services to hard to reach/serve residential households

would not have been provided without the program or they would have been much more limited.

Bakersfield-Kern is a strong partnership that has matured over time. The partnership is shifting toward a peer exchange model, whereby the experienced County staff is now moving toward engaging more local governments within the County to participate in the program. It is large in its multifaceted approach, in that it takes more than one IOU lead to manage all the components, but each of the components have been doing well so one cannot conclude that there is a need to change the multifaceted approach.

The most significant area for improvement noted by all parties interviewed is the need for a central tracking system that is capable of capturing all program-related data. This information includes participant information, workshop attendance, and invoicing status. The process evaluation found that using a lead IOU to maintain the database created confidentiality and staff resource issues. The utility is not able to capture information about other IOU customers. Program managers believe this issue will be at least partially rectified in the next program cycle by having the utilities contract individually with Staples Marketing rather than funneling the administrative processes through a lead utility.

Moving forward, the program should also continue to evaluate different means for reaching rural customers. One means of doing this is by connecting with other programs that effectively market to rural customers to identify "best practices." In 2008, the program shifted its attention toward smaller cities within Kern County as they feel they have sufficiently reached other locales within the County. These smaller, more rural cities are difficult to reach, however, and the program may need to look to less traditional methods to reach the population.

Last, the program should continue to evaluate a means for providing a post-audit report for residential and small business customers after an audit is complete. The report would serve several functions. First, it would provide an opportunity to reinforce the messages and recommendations relayed during the audits. Second, participants may forget specific recommendations, and the report would provide a good reference and more effectively funnel customers into IOU programs. Finally, the program could use data captured in the report to track customers funneled into IOU programs and provide opportunities for additional follow-up.

4. UC-CSU PARTNERSHIP PROGRAM

4.1 INTRODUCTION

The State of California houses 23 California State University (CSU) and 10 University of California (UC) campuses. PG&E's territory includes 12 CSU and five UC campuses[17]. These systems consume a significant amount of energy and represent a significant portion of the energy use in the state, which partners recognize as an opportunity for energy efficiency improvements.

The UC/CSU program began during the 2004–2005 cycle to overcome the barriers universities faced when trying to participate in utility energy efficiency programs. The partnership's success during the 2004–2005 program cycle led to its inclusion during the 2006–2008 program cycle. The success of this partnership also led to the creation of the CCC and CDCR Partnership partnerships for the 2006-2008 program cycle (described in Chapters 5 and 6).

The UC/CSU program is a statewide partnership that includes all four of the state's investor-owned utilities as well as all 33 of the campuses within the University of California and California State University systems. SCE was the lead utility. The program offered incentives for energy efficient retrofits and monitoring-based commissioning (MBCx), along with training for campus facility staff.

The program was one of the more ambitious partnership programs, with a significant statewide 2006–2008 budget of $40 million, $16.5 million of which is allocated to PG&E. PG&E's goal for the 2006–2008 program includes energy savings of 43 million kWh and 12.6 MW peak demand.

4.2 PROGRAM BACKGROUND AND STRUCTURE

4.2.1 Program Description

The university systems are run out of central offices—the University of California Office of the President (UCOP) and the California State University Chancellor's Office (CSUCO). Both central offices are directly involved in developing system-wide budgets and work closely with the respective campuses in each system. The program concept included three major components—energy efficiency retrofits, monitoring based commissioning, and energy efficiency education and training.

1. **Energy efficiency retrofits.** Retrofit efforts included lighting and controls, HVAC systems, and energy management systems. According to interviews, the majority of the savings were realized through the retrofit component of the program. Retrofits need to be deemed cost-effective to be considered for installation.
2. **Monitoring based commissioning (MBCx).** The monitoring based commissioning reviews building operations and installation of the equipment. The service went beyond this traditional definition in several ways. First, the installations provided a

[17] PGE 2036, UC/CSU/IOU Energy Efficiency Partnership Program Implementation Plan (PIP) per the EEGA website.

built-in measurement and verification capability. Additionally, it provided education necessary to identify further energy efficiency investment-opportunities and become a "continuous commissioning" program and sustain savings.

3. **Energy efficiency education and training.** This non-resource component of the program provided education and information dissemination to UC/CSU campus managers, project managers, and staff. The partnership's training component had three sub-components:
   a. Courses held directly by the partnership, most of which are run internally on the campuses on such issues as MBCx
   b. External courses on such topics as LEED and Building Operator Certification (BOC), for which participants are reimbursed
   c. Attendance at the annual sustainability conference, at which one campus receives an annual best practices award.

The UC/CSU partnership was supervised by a management committee that consists of representatives from each of the four utilities, the UCOP and the CSUCO. SCE, as lead utility, employed the statewide program administrative manager. The firm of Newcomb, Anderson, McCormick (NAM) was hired as the program administrative manager through a competitive bidding process. NAM coordinates bi-weekly management meetings with the management committee via teleconference and in-person meetings every few months.

Campus facility managers identified potential projects on their campuses, and then worked with the UCOP and the CSUCO to obtain funding. The partnership paid up to 80 percent of the project cost, depending on the energy savings associated with qualifying measures. The remainder came from the campus budget.

Once the UCOP/CSUCO signed off on a potential project, it went through a due diligence review, a component of which is the pre-inspection of all retrofit projects. The next step was a review by the full management team, who must approve the project before work begins. Once the project has been approved, the campus signed an agreement and work proceeded on the project.

The agreement included a schedule. Campuses received 60 percent of the projected rebate when the project agreement is executed, and 40 percent after the project has been completed and passed inspection.

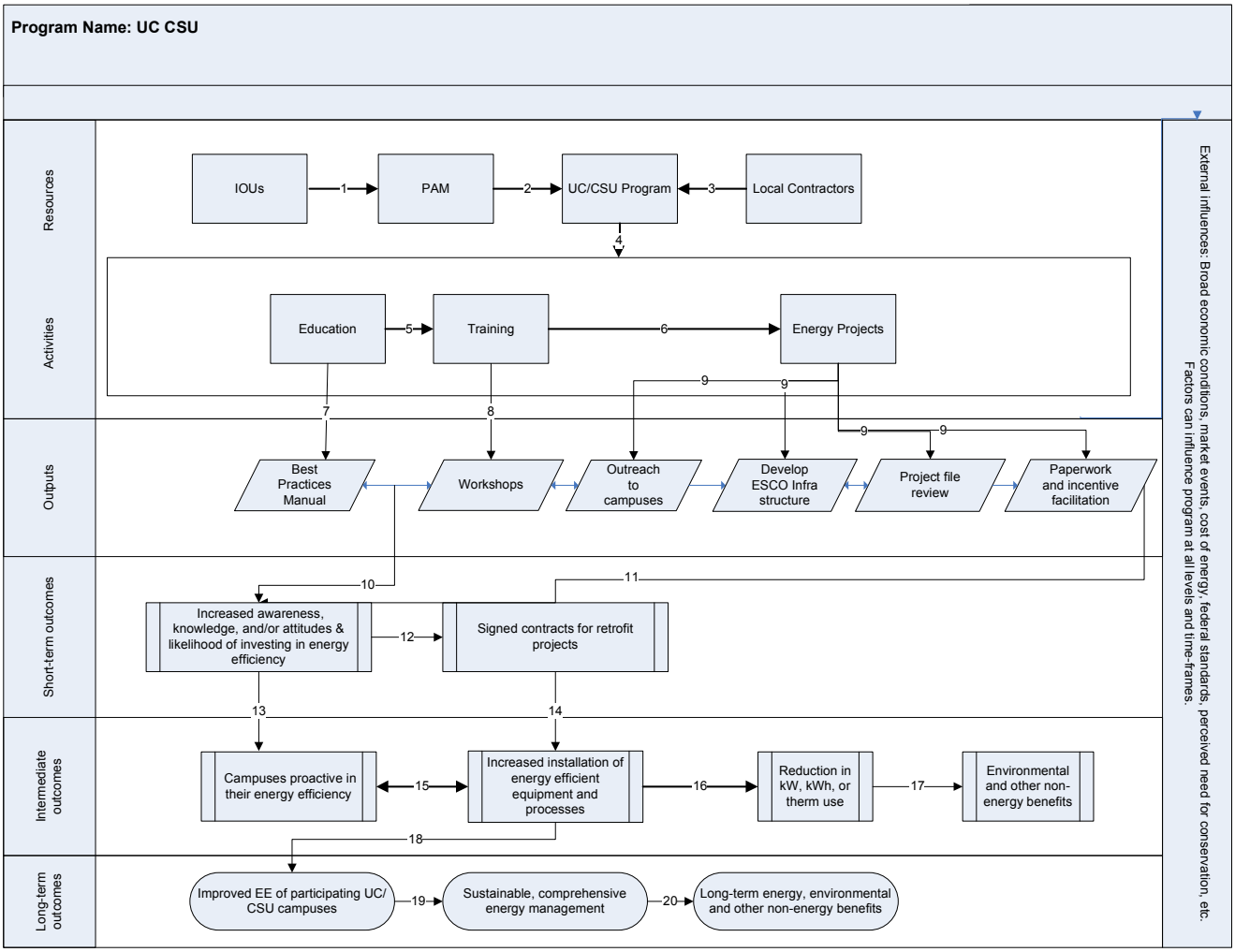
The rationale behind this schedule was to decrease the financial barriers associated with the projects. Unfortunately, this incentive payment structure created accounting issues, particularly when there was a reduction of project scope or a project that was partially paid got cancelled. The UC/CSU Partnership Program, which will continue in the 2009–2011 program cycle, will change the payment schedule so that the full project is rebated at the end of the project when the installation is verified and passes quality assurance checks. This change will eliminate the accounting issues encountered through the pre-payment schedule.

4.2.2 Program Logic Model and Implementation Theory

According to the logic model illustrated in Figure 4.1 below, the UC/CSU's main activities included education, training, and energy projects. These activities are to result in six outputs: (1) a best practices manual, (2) training via workshops, (3) outreach programs on all 14

campuses, (4) development of an Energy Services Company (ESCO) infrastructure, (5) project file review, and (6) paperwork and incentive facilitation.

Figure 4.1 UC/CSU Logic Model



4.2.3 Data Tracking

NAM was responsible for maintaining the program tracking system and database. The tracking system detailed the status of projects over the life of the program cycle. The online tracking system also included a document library with all program records and a system that tracks each project's progress from design to completion.

All partners had access to the project tracking system, but its use varied by utility. Partners could use it to run a variety of reports at any time.

4.3 KEY FINDINGS

The program significantly exceeded its therms savings goals, but did not meet its kWh or kW goals. Program documentation cites length of time devoted to project

development and approval as a reason for not meeting its kWh and kW goals. PG&E program managers also surmised the goals were set too high.

According to the monthly report data from December 2008, the program significantly exceeded its therms savings goals. The reported savings of 2.9M therms doubled the programs goals of 1.49M therms. The savings include one large project completed for UC Davis' campus.

The program did not reach its electric or demand savings target, reaching 70 percent of kWh and 30 percent of kW goals. However, this analysis represents considerable progress when reviewing the reported savings as of August of 2008, when the program only claimed 3 percent and 10 percent of projected kW and kWh goals, respectively.

The *Quarterly Report Narrative* from Fourth Quarter 2008 commented on the reason why the program is short of its goals, stating that the efforts over the program period revolved around program development, review, and approval, and that the vastness of the college projects pushed the completion dates beyond the program cycle.

However, the appropriateness of the goals themselves, including whether the goals could realistically be achieved, need to be considered. PG&E program managers provided background regarding how these goals are established, and explained that in hindsight they believe the goals were set too high. For example, the economic impacts on the state have had implications on funding available to the CSU system, which is tied closely to state funding. Although program managers may not have been able to predict the affect the economy could have on their ability to implement projects in these facilities, it is one of the confounding factors that would make goals difficult to achieve.

The UC/CSU Partnership Program, recognized by a national organization as an exemplary program, is well subscribed to in terms of education components of the program.

The UC/CSU Partnership program ran well. It was written up as an ACEEE *Exemplary Energy Efficiency Program*[18]. According to the report, "The program is effectively transforming the California commissioning marketplace as many of these professionals [referring to engineers, consultants, and campus facility staff] have carried their knowledge and experience into other market sectors." ACEEE lauds the program for providing the nation's most comprehensive energy efficiency program serving the higher education sector.

Campus participation in the internal partnership-offered training courses as well as external course offerings marketed and reimbursed by the partnership totaled approximately 2,045 person-days of training through December 2007. Most programs were oversubscribed, which indicates the high level of demand from the campuses for the training. Campus facility managers indicated that the building operator training, in particular, was one of the partnership's most valuable opportunities, and that they would like to see more opportunities to offer that course to participants.

[18] York, Dan, Marty Kushler, and Patti White, "Compendium of Champions: Chronicling Exemplary Energy Efficiency Programs from Across the U.S." Published by American Council for an Energy Efficient Economy, Report Number U081 (February 2008).

The program grew to such a degree that the plan is for funding levels to increase significantly in the next program cycle. Discussions earlier in the evaluation process revealed that funding could increase significantly from $30 million across the three-year program to $30 million annually. Both the UC and CSU representatives welcomed the potential expansion and believed the strong working relationships that existed in the 2006–2008 program cycle today will pave the road for greater savings during the 2009–2011 program cycle.

The UC and CSU representatives expressed high satisfaction for the program. Campuses identified several opportunities for improvement, most prevalently being the application and incentive allocation process.

PA researchers interviewed representatives from the two university systems. The UC and CSU representatives remarked on their satisfaction with the program, stating that the university systems would not be providing the energy efficiency planning services if the program did not exist. Specifically, representatives said they would not be able to provide the same services without the partnership program and that the utility funding had produced energy savings that would not otherwise have been captured. Additionally, numerous respondents noted their appreciation of the support they received from PG&E and commented on the communication with the utility.

> *"There is good support from PG&E."*
>
> *"Communication with PG&E is good."* (CSU Facility Manager and UC Physical Plan Energy Manager)

Training and support offerings provided to campuses were often noted as one of the most valuable components of the program. The Building Operator Certification provided through the program was most commonly noted as a service they found to be most useful. *"[The] BOC training is exceptional"* (CSU Facility Manager).

When asked about areas for improvement, representatives interviewed most consistently noted PG&E's intensive application review process as an area for dissatisfaction, and an issue that potentially inhibits savings realized by the program. PG&E uses a contractor to review all program applications (EMCOR Group). Interviews reported that this process is drawn out and the contractor is extraordinarily strict in terms of the projects approved. This is a unique issue to PG&E; individuals interviewed from the UC and CSU systems believe that participants through the other utilities are not affected by this issue because the other utilities use a different contractor than PG&E.

Two individuals interviewed in particular believed that PG&E requires the universities to provide significantly more information on their application forms than do the other utilities, and that measures routinely approved by other utilities are rejected. In their view, this potentially overzealous due diligence has contributed to PG&E not meeting its program goals.

Parallel to projects not being approved is the incentive funding made available for planned projects. While reducing the scope of the project, the contractor also reduces the funds available to the system.

While from a participant standpoint this verification and rebating process is cumbersome, from a verification standpoint, the utility should be commended for placing such emphasis on the high quality of information and reporting requirements necessary to ensure a project is

worthwhile and done to the expected standards. With that said, organizations are continually reporting shortfalls in staffing and increasing time constraints. The barriers that may be introduced by the intensive application process should be considered against the benefits to the program. PG&E may want to consider some means to mitigate the barrier and provide more of a turn-key service if it appears to become more of an issue in the next program cycle.

Campuses more routinely involved in energy efficiency do not believe there are significant opportunities available to them in the future based on the current offerings.

Several UC representatives interviewed commented on the fact that they are concerned about the energy saving opportunities and related incentives available to them. These facility managers commented that they have been implementing energy efficiency projects through PG&E incentives for up to three years, and that they have already implemented what they believe to be the projects most likely to receive rebates. Now they are looking to make their facilities more energy efficient through technologies that are not part of the current program, or have a longer payback period due to lack of incentive funds available. They are concerned that they will not be eligible to receive the incentives necessary to move forward with these improvements.

This issue of moving beyond the “low hanging fruit” and completing more complex and expensive projects may impact the savings opportunities moving into the next program cycle. Understanding these campuses and identifying incentive opportunities that can help these campuses implement these projects cost-effectively may be a challenge for the program in the next cycle. However, pushing the envelope in terms of these technologies may also help to shift the market and provide additional opportunities for reaching program goals.

The program’s marketing was initially handled by PG&E’s customer service representatives. This approach was noted as a less effective approach than offering a dedicated program staff member. Later in the program, PG&E introduced an expanded team of service and sales individuals to serve as a primary source of contact.

PG&E assigned the responsibility for program marketing to its existing customer service representatives. PG&E’s representatives are geographically based, thus providing support to all types of customers within their service areas.

Using a single account representative proved to be valuable in other utilities, specifically SCE who employed a single account representative dedicated to working with the university campuses. PG&E’s approach may be driven by the much wider geographical dispersion of campuses in the PG&E service territory and resulting difficulty for one account representative to serve them.

Interviews indicate that PG&E would be more effective if it employed a dedicated staff to interact with the campuses. The dedicated staff provides uniformity to the process and would carry knowledge of this unique customer sector that would be useful in directing them to programs and helping them begin and follow through with projects.

Two program partners were interviewed as part of the evaluation of the UC-CSU program. These partners also raised the ineffectiveness of field staff as an issue; neither partner felt that it has received sufficient support from PG&E’s field staff. The respondents attributed this ineffectiveness to the fact that the staff have no goals associated with the program and do not suffer consequences if the program does not meet its goals.

Later in the program period, PG&E restructured their account representative and marketing system to include a team of service and sales individuals. This system is structured more like SCE's where dedicated staff will work with the universities. The program partners interviewed believe this will strengthen the program through PG&E.

Barriers to program implementation and/or achieving higher level of savings were identified through the research process. The barriers include staffing, funding levels, program cycle, project duration, and new construction needs.

Interviewees identified five additional barriers to program implementation and/or achieving a higher level of savings. The first barrier identified was inadequate internal staffing on campuses. Interviews noted the campus capital staff has many responsibilities, and it is hard to get their attention. Smaller campuses have to hire a third party to do full project design, which takes time and money. Therefore, they would like to see more technical assistance from utilities.

Second, interviewees expressed that it was difficult to get money from the campuses to cover portion of project that the partnership does not cover. The campuses have a fixed amount of money to spend on capital improvements annually, so energy projects compete with other non-energy investments for that funding. An advanced/early notification by the utility about the amount of funding available for the next program cycle will help facility managers to better planning of energy efficiency projects.

The third barrier, an administrative barrier, identified is the length of a program cycle. The time restriction of a program cycle, while not noted as a barrier per se, was discussed by universities as a limitation to the program. Universities would like to see an ongoing program that is not bound by the artificial restrictions of the CPUC's program years. Interviews describe the desire for an "evergreen" program that provides funding on a rolling basis rather than a strict 36-month cycle as currently established. The sentiment is that the program takes a considerable amount of time to ramp up and by the time the program is steadily making progress or worked out any issues it begins to ramp down.

Along the same lines as the program cycle, program partners would like to see a longer project duration period. Projects usually take a long time to develop, at least a year. Therefore, it would be desirable to have a project pre-planning period of one year, submit projects, get them approved, and then roll them into a three- to five-year cycle.

Last, the inability to address new construction needs was cited as a barrier. New construction is provided by a separate program—Savings by Design. According to interviews, there is significant opportunity for the program to address and achieve greater savings from these new construction projects. Interviewees suggested that new construction be an active component of the program.

Program managers recognized this issue and will be incorporating new construction in the 2009–2011 program cycle. Specifically, the Savings by Design program will be incorporated into the next cycle's program design.

4.4 CONCLUSIONS AND OPPORTUNITIES FOR IMPROVEMENT

All of those interviewed believe the partnership management team and the executive team work well together, which is contributing to the partnership's overall statewide success. Both non-IOU partners interviewed indicated that they would not be able to provide the same services without the partnership program, and that the utility funding has produced energy savings that would not otherwise have been captured.

Discussions about the 2009–2011 program cycle have focused on potentially expanding this program significantly. Both the UC and CSU systems welcome the potential expansion, and believe the strong working relationships that exist today will make it possible for the partnership to achieve much greater savings during the 2009–2011 program cycle overall. At the same time, they believe additional savings opportunities may not be adequately addressed by the current program.

The statewide program overall is successful. Several factors clearly play a role in the program's success.

- All of the partners were engaged and committed to making the program work. The partnership was able to work out some issues during its initial cycle, leading to a much stronger program overall during the 2006–2008 program cycle.
- All partners' roles were defined clearly and are operating as defined. The UCOP had staff changes during the 2006–2008 program cycle, but those changes did not impact the program negatively because each partner's roles are clear, NAM was a very able administrator, and new staff stepped right into those roles.
- The program was able to grow and evolve. The 2006–2008 program incorporated several changes from the 2004–2005 program, based on the experience gained during the initial two program years. And per discussions with program managers, the 2009–2011 program cycle will incorporate additional changes to strengthen the future program.

However, as detailed in this analysis, there are areas where PG&E could improve its processes and increase savings in its territory. The most notable issues were the structure of the account management team within the program and the application review process.

Several partner concerns already are being addressed in the 2009–2011 program design. First, PG&E is currently examining the potential of revising its account management structure to best facilitate with the universities and campuses. Also, the partnership is examining how best to meet the universities' request for an "evergreen" program that will better match campus planning cycles rather than being tied directly to the CPUC's defined program periods. The current cycle is only three years, but there is a sentiment that this is not a long enough period to ramp up the program and then achieve the targets established.

Discussions about the 2009–2011 cycle have focused on expanding program funding significantly from $30 million across the three-year program to $30 million annually. Both the UC and CSU representatives welcome the potential expansion and believe the strong working relationships that exist today will pave the road for greater savings during the 2009–2011 program cycle.

In addition to the points above, interviews identified additional opportunities for improvement.

- **Training.** BOC (Building Operator Certification) has been very successful and popular among facility staff. They would like to have it promoted more and combined with training at utility facilities. The program should review the option of providing specialized training to individual campuses (e.g., proprietary system of control).

  Interviews also revealed that additional in-depth training for facility staff would be beneficial. The in-depth training should be customized, and focus on the needs of the individual campus.

- **Online energy efficiency forum.** In a peer-to-peer networking approach, an online energy efficiency forum could provide an opportunity for facilities to share and disseminate information with each other. The format of this forum could include a chat room, space for posting success stories, hurdles faced in implementing projects, and reference sources.

5. CCC PARTNERSHIP PROGRAM

5.1 INTRODUCTION

The California Community Colleges (CCC) program is a nonresidential program, first established in the 2006–2008 program cycle. The CCC program is a statewide partnership program that includes all four of the state's investor-owned utilities. SDG&E is the lead utility for the CCC Partnership.

The momentum for developing the CCC program came from the success of the 2004–2005 UC/CSU program. CCC was designed to follow the UC/CSU model, with a central management committee that would work with the Community College Chancellor's Office (CCCO) to promote energy efficiency at the state's 112 community colleges. CCCO opted to participate in the partnership program because of its comprehensive approach to energy efficiency.

The CCC system is not organized centrally, thus each community college manages its participation in the program individually. Currently, 38 community colleges are participating in the program in PG&E territory as of as of January 1, 2009. Data were not provided on the total number in PG&E's service area but the participants represent close to one-third of the total community colleges in California.

5.2 PROGRAM BACKGROUND AND STRUCTURE

5.2.1 Program Description

California's Community Colleges have $22 billion in local public bond funding and another $2 billion in state bonds to spend on improving the facilities of CCCs. The funding will, among other improvements, support retrofit and new construction projects over the next ten years.

The CCC Partnership program was developed to incorporate energy efficiency efforts into these planned retrofit and new construction projects. It is set up similar to the UC/CSU Partnership with a management committee that includes the four participating utilities, the CCCO, representatives from college Districts and campuses, and the program administrator. Newcomb, Anderson, McCormick was selected to serve as the program administrator through a competitive bidding process similar to the one carried out for the UC/CSU program.

The program concept included three major components—energy efficiency retrofits, new construction assistance, and energy efficiency education and training. One additional component is presented separately in this discussion—monitoring based commissioning.

1. **Energy efficiency retrofits.** The program met with community college district administrative and facility staff to identify potential energy-efficiency opportunities. The program also directed participants to incentive resources that will help offset the costs of the investments. Examples of retrofit opportunities include lighting retrofits (T5 technology, LED applications), lighting control applications, and HVAC upgrades.
2. **New construction assistance.** As outlined in the program concept, this element of the program intended to help community colleges in designing their new construction projects to comply with Title-24 minimum standards. This assistance was to include design review, development of design guidelines, and incentivizing of the

incremental costs of energy efficiency in these new construction projects. New construction, while included in the program concept, is in practice not offered by the program. As discussed in the "Key Findings" section below. Savings by Design addresses the new construction needs. Incentives provided for New Construction through the Partnership was primarily limited to new capital projects such as central plants.

3. **Energy efficiency education and training.** The program offers training opportunities to CCC staff and project managers. The trainings piggyback on training opportunities offered through the UC/CSU program as well as exiting programs offered through the IOU training centers. The subject matter of the trainings is determined by the needs of the campuses participating in the program.
4. **Monitoring based commissioning (MBCx).** Not detailed as a separate line item in the program implementation plan, monitoring-based commissioning ensured that the facilities were operating at an optimal energy efficiency level. Additionally, it provided opportunities to identify further energy efficiency investment opportunities. The monitoring-based commissioning component of the program was deemed a pilot, and has not resulted in significant energy savings yet. The *First Quarterly Narrative Report* from 2008 noted the program had several projects approved at campuses, which included two MBCx workshops to provide information related to program requirements and promote program participation.

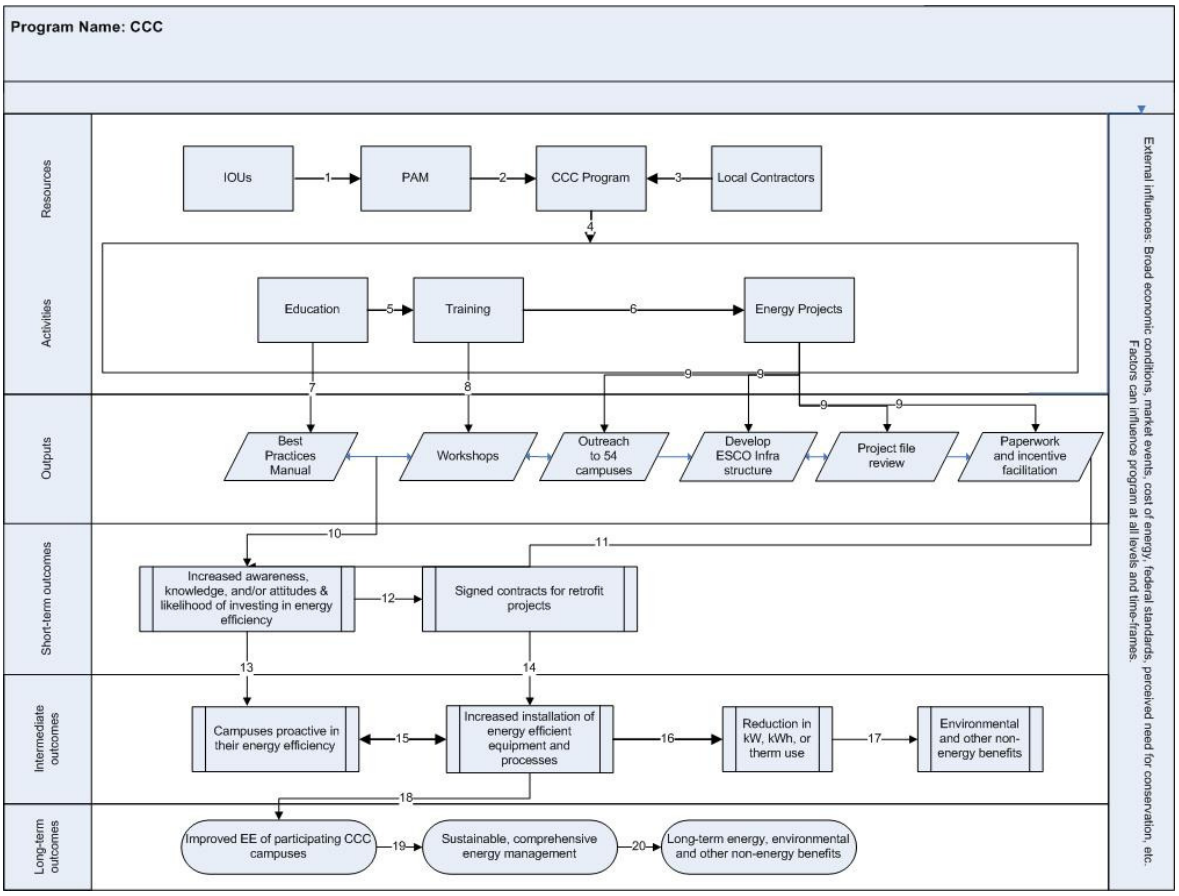
The partnership's focus in the 2006–2008 program cycle was almost completely on developing retrofit projects. Savings for new construction projects were being recognized under the Savings by Design program except for capital project opportunities such as central plants.

The CCC Partnership program was designed with the assumption that the CCCO would be able to play a role similar to that played by the UCOP and CSUCO with the UC/CSU Partnership. In this role, the decision-making and management is centralized. However, the community colleges have a decentralized, district-based structure, in contrast to the UC/CSU centralized decision-making structure. The lack of centralization has posed a challenge to the partnership overall in terms of reaching the individual community college campuses. Campuses must be contacted through their districts, each of which has its own elected Board of Governors. The Board of Governors is the decision-making entity on program participation. And while the CCCO can advertise the program, it has no direct influence on participation.

5.2.2 Program Logic Model and Implementation Theory

Figure 5.1 illustrates the program's overall program theory and logic model. The program theory and logic model is identical to the UC/CSU program. The major activities are education, training, and energy projects. These activities are to result in six outputs: (1) a best practices manual, (2) training via workshops, (3) outreach programs on all 54 campuses, (4) development of an Energy Services Company (ESCO) infrastructure, (5) project file review, and (6) paperwork and incentive facilitation.

Figure 5.1 CCC Logic Model



5.3 KEY FINDINGS

The CCC Partnership program reported achieving almost a third (31 percent) of its demand savings and almost a quarter (24 percent) of its energy savings. The program made greater progress on its therms savings, reporting they reached 52 percent of their therms goals. Initially noting a shortfall in savings for participating utilities, the program redirected its marketing and outreach efforts.

The PG&E CCC Partnership goal for the 2006–2008 cycle is energy savings of 30.7 million kWh, 6.7 MW of peak demand, and nearly 1 million therms[19]. As of December 31, 2008, the program reported energy savings of 7.5 million kWh, which amounts to 24 percent of the total program goal.

[19] These goals are cited from the Program Projected data represented in the monthly reports obtained from EEGA. They differ from program manager reported goals of 38.4 million kWh, 8.4 MW of peak demand, and 1.2 million therms.

The program also fell short in reaching its peak demand and therms goals. As of December 31, 2009, the program achieved 31 percent and 52 percent of its kW and therms goals, respectively.[20].

An enhanced outreach, marketing, and program development effort attempted to identify opportunities to promote greater savings resulting from the program. This effort was initially directed to help PG&E improve their progress toward savings goals, along with SCG and SDG&E customers. Examples of these efforts include sweeps of campuses to identify project opportunities and identification of "quick turnaround projects" that could deliver significant savings such as emerging technologies and monitoring-based commissioning information technologies applications.

The program identified targeted project opportunities to pursue. These opportunities were considered untapped markets and include information technologies, food service technologies, monitoring-based commissioning and emerging technologies.

As the *Fourth Quarterly Report Narrative* in 2008 commented, a primary reason the program did not meet its savings goals was because of the long planning time frames of community colleges. Additionally, there were projects that could not be completed within the program cycle and are being carried over into the 2009–2011 program cycle.

However, as this chapter of the evaluation report details (and program managers recognize), there were additional complications, such as the decentralized program approach, that initially delayed program activity. When initially planning for this program, the utilities did not recognize the unique differences between the CCCs and UC/CSU. The utility reacted to these differences at the latter end of the 2006–2008 program cycle, and program managers expect the program to be more on target for the 2009–2011 program cycle as a result of these changes.

Interviews with CCC facility managers revealed that, while there is general satisfaction with the program and the utility, the application and project approval process was an area for improvement.

Interviews asked facility managers about their satisfaction with their participation in the program and their relationship with PG&E, areas of the program that were working well, and areas for improvement. Interviewees noted their satisfaction with PG&E, commenting that the communication with PG&E and the incentives provided through the program are the areas most useful to them and/or working best.

As with the UC/CSU program, when asked about areas for improvement, representatives interviewed most consistently noted PG&E's intensive application review process as an area for dissatisfaction, and an issue that potentially inhibits savings realized by the program. PG&E uses a contractor to review all program applications (EMCOR Group). Interviewed CCC facility managers commented on the length of time, and levels of approval, that take place before a project can be approved, implemented, and completed. Although some of the interviewees commented that they understood the logic behind the layers of approval, they still felt that it was overly extensive.

[20] Source: EEGA Website

> *"Savings analysis is difficult and bureaucratic. It needs to be simplified… the project application process is difficult and costly."*
>
> *[It] should be quicker and easier to submit proposals and projects...simplify forms."*
>
> *"[The] third party verification (EMCOR) of projected savings and benefits from proposed energy efficiency projects takes time and adds another layer of procedures."*

As also discussed in the UC/CSU chapter, PG&E's efforts to ensure the planned projects are sound and specified accurately should be recognized. And while PG&E should not compromise their needs, the requirements of the application process should be considered in light of the burden they put onto community college staff that tend to wear many hats and be time constrained (as discussed in the next section). A more turn-key approach, which would include application processing and reporting, could be one approach to reducing this burden while maintaining the administrative requirements.

Time and staffing constraints within the community colleges hinder the ability for facility managers to support project opportunities through the program. Interviews identified that having a single point of contact would be help support these overtaxed community colleges.

Community college staff with whom PA spoke indicated that they are pulled in too many directions to devote significant time or resources to exploring energy efficiency projects. While some community colleges cited financial constraints, most campuses are constrained by the demands on the facility manager. Not only are these facility managers responsible for any projects requiring capital investment, but they are also generally responsible for maintenance projects. The staff constraints, along with the additional funding for community college upgrades, means that there is not significant time to devote to the program. Therefore, it was not surprising that nearly all said that they could not participate in the program without extensive utility support.

Whereas the UC/CSU usually have dedicated energy managers for each campus, the community college campuses tend to have one facilities manager whose job includes, but is not focused on, energy issues. Additionally, community college campuses tend to be more expansive in terms of the physical space they encompass and the location of their buildings, which creates additional time constraints on the facility managers. Therefore, it is often the case that they have difficulty even completing the administration processes.

As a result of these constraints, the CCC program needs much more time and effort from the program manager than does the UC/CSU program. Facility managers voiced that it would be beneficial to them if utility program staff provided a greater level of assistance, particularly early in the planning process. Specifically, they stated they would benefit from greater engineering assistance from the utility to do the preliminary assessment.

Recognizing these issues, PG&E hired three sales and support representatives to support the program in September of 2008 and serve as central points of contact. These representatives work strictly with the community colleges focusing on their energy efficiency needs and how PG&E services can help to meet those needs. PG&E program managers are confident that the addition of these staff will streamline the process for community colleges and encourage greater levels of participation. In fact, PG&E program managers stated that although the additional staff started late in the program cycle, they could see a significant upswing in activity as a result from their efforts.

Program marketing and outreach has continually evolved throughout the program cycle. PG&E responded to the need for a centralized point of contact and added three staff to serve that role.

Program marketing to the community college campuses evolved throughout the program cycle. In 2006, the partnership management team contracted with a non-profit group called the Foundation for Community Colleges to market the program across the state. The rationale was that because the Foundation works with many community colleges on issues like bulk purchasing, its existing relationships could be leveraged to market the partnership. However, at the end of the first year, the Foundation had done little to market the program and the management team had to develop a new statewide marketing and outreach approach.

SDG&E and PG&E relied heavily on the Foundation for marketing and outreach, whereas SCE took a more proactive approach and had an account representative dedicated to working with community colleges. This account representative served as a single point of contact for all the community colleges' needs, including their participation in this partnership program. The account representative quickly built on her existing relationship with the community colleges to enroll them in the program.

As discussed above, PG&E instituted a centralized staffing approach by integrated three individuals to focus their attention in the community colleges. As part of their role, these individuals will be providing marketing and sales support. Program managers believe their roles are already proving to be effective, as they noticed an increase in activity in the last quarter of 2008.

There has been little activity within the training and education component of the program; resource efforts have taken a higher priority. However, one pilot effort—a multi-campus training that used video conference as the media—was deemed successful and will be integrated into the next program cycle.

The CCC Partnership includes a training and education component similar the UC/CSU Partnership. However, training was a relatively low priority during this program period compared to meeting resource goals.

In one example, the management team spent a year working on getting community college districts to adopt the California High Performance Schools system[21], which covers every aspect of operations from landscaping to equipment maintenance and ties in with overall state sustainability and energy efficiency goals. It became clear after a year that it would take longer than one partnership program cycle for the community colleges to adopt this system, so the management team instead focused on enrolling community college facility managers in programs offered through IOU-funded Energy Centers. Management team members anticipate that the training will be a greater focus in the partnership's next phase.

[21] "The mission of the Collaborative of High Performance Schools is to facilitate the design of high performance schools; environments that are energy and resource efficient, healthy, comfortable, well lit; and contain the amenities needed for a quality education. CHPS developed the nation's first green building rating program especially for schools." See website for further details: http://www.chps.net/.

However, there are efforts that gained momentum at the latter end of the program cycle. One effort—the Energy Efficiency Maintenance and Operations Training Pilot Project—was delivered to six campuses across SCE, SDG&E, and PG&E service territories. The trainings employed a long-distance multi-media approach, using a combination of video conferencing and webinar format. The benefit of providing the training using this medium was that it minimized the need for community college staff time and travel.

Program managers felt the training was well received and successful in providing education to the community colleges. They will be reviewing the option of integrating the training into the next program cycle.

In addition to these efforts, representatives from the community colleges have participated in a large number of sustainability conferences during the 2006–2008 Partnership. Facility staff members from the community colleges have attended the annual UC Santa Barbara UC/CSU Sustainability conferences and energy efficiency-related presentations at the annual Community Colleges Facilities Coalition conferences in Sacramento.

The management team is also discussing how the partnership might be integrated into curriculum development at the individual campus level. One example being considered is training HVAC technicians on energy efficient maintenance.

While training has not played as great a role in this initial CCC Partnership program as initially conceived, several of the staff interviewed feel strongly that the partnership has successfully increased awareness about energy efficiency issues at the individual district and campus level. They feel this increased awareness will make project implementation easier in the next program cycle.

Interviews reported resource barriers to incorporating partnership and project information into the program-tracking database in a timely manner. The program is considering alternative means for collecting and documenting project data, potentially piggybacking on the current community college database system.

As is the case with UC/CSU, NAM maintains the program tracking system and database. All partners have access to the project tracking system, but its use varies by utility. The online tracking system includes a document library with all program records and a system that tracks each project's progress from design to completion. Partners can use it to run a variety of reports at any time.

NAM has found it difficult to get timely information from the campuses to put into the database. The original thinking was that the campuses would maintain their own information on the website, but that did not happened because campus facility managers were overextended. The utilities took on the responsibility for getting information updates from the campuses, but the campuses do not always respond quickly to requests for updates. Therefore, the information is not as current as is the data on the UC/CSU system.

The community colleges developed their own database system for tracking campus maintenance (known as the FUSION program). The system does not include energy efficiency at this time but does have significant information on campus facilities. CCCO is working with the utilities to get access to this system, which will provide the utilities with information about their local campuses' needs.

Interviews identified barriers to program implementation and/or achieving higher level of savings. The barriers include staffing, funding levels, program cycle, project duration, and new construction

Interviews identified five barriers to program implementation and/or achieving a higher level of savings. These barriers are similar to those identified for the UC/CSU program. However, it is important to note that while the barriers are similar, due to the high resource constraints discussed earlier in this chapter the barriers tend to be more pronounced for the CCC Partnership.

- Inadequate internal staffing for community colleges. Community colleges are expansive and include many more buildings than the UC and CSU campuses. Interviews with each community college staff confirmed how overextended they are. Therefore, they would like to see more technical assistance from utilities. For the next program cycle, it is expected that this additional technical assistance should be available to them through the central points of contacts added to the program.
- Getting money from the campuses to cover portion of project that the partnership does not cover. The community colleges have a fixed amount of money to spend on capital improvements annually, so energy projects compete with other non-energy investments for that funding. Also, an advanced/early notification by the utility about the amount of funding available for the next program cycle will help facility manager's plan for future energy-efficiency projects.
- Length of program cycle. The process findings from the CCC Partnership interviews illustrates why community colleges would prefer a longer program cycle. It takes time to understand the unique opportunities and challenges inherent in community colleges that must be addressed by the program. Although the program is modeled after the UC/CSU program, the culture and organization of community colleges differs significantly from UC and CSU campuses. By the time the program begins to make progress or work out any issues it will begin to ramp down.
- Inability to address new construction needs. New construction is provided by a separate program—Savings by Design. Incentives provided for New Construction through the Partnership was primarily limited to new capital projects such as central plants. According to interviewees, there is significant opportunity for the program to address and achieve greater savings from these new construction projects. Interviewees suggested that new construction be an active component of the program. It is not the intent that Savings by Design would be replaced by the partnership program's activities; rather, that the CCC would have the opportunity to serve new construction needs. The program identified this as an area in need of change for the next program cycle and is planning to incorporate new construction into its program offerings.

5.4 CONCLUSIONS AND OPPORTUNITIES FOR IMPROVEMENT

All parties believe that one of the most effective aspects of this program is the regular and ongoing communication among all the partners. While the partnership continues to identify and address various issues, the strong communication between the partners makes such work possible.

The evaluation process identified several issues that the partnership needs to address for the 2009–2011 program cycle. First, community colleges have significantly less resource capacity to implement this partnership than do the UC and CSU campuses on which the program was modeled. This means the utility is required to provide more assistance to the program to help support the resource-constrained facility managers. The utility provided central points of contacts, which should benefit the program considerably. This role should also include the task of working with community colleges to reduce the burden of the application and rebate processing, an area noted by facility managers as a potential barrier for program implementation.

In addition to increasing staff resources, program partners and managers also plan to make the following enhancements for the 2009–2011 program cycle:

- The partnership plans to increase education opportunities and provide assistance in developing energy efficiency plans. For example, the Energy Efficiency Maintenance and Operations Training Pilot will likely be integrated into the next program plans. The evaluation found campus need for greater assistance with their energy efficiency plans and direction for how to integrate those activities into their existing plans. Building in this type of assistance will increase program effectiveness overall. The CCCO hopes to work with districts to develop an energy plan that will be reviewed and approved at the central level.
- The 2009–2011 program will include new construction opportunities. Incorporating new construction into the program profile will introduce greater savings opportunities for the partnership in addition to those captured by Savings by Design.

Additionally, evaluation efforts identified the following opportunities for improvement.

- Work with at least one community college within each utility service territory to develop and deliver the program's training and education component. Using community colleges to provide training will ensure capacity is built locally and will provide a model other colleges can adopt.
- Implement a peer-to-peer program. The CCC Partnership already offers community colleges an opportunity to learn from each other through its participation in the UC/CSU Sustainability conference and the annual Community Colleges Facilities Coalition conference. The partnership can build on that base by matching colleges within utility service territories so that those that are active in the program can provide advice to others that are less active. Such a program will also help to reduce the overall burden on the utility to provide ongoing support to the community colleges, thus helping the program to move in the direction of a more even partnership.
- Consider the viability of taking the community colleges out of the three-year funding cycle and giving them their own cycle that better meets their decision-making structure (such as five years). This recommendation is similar to the UC/CSU recommendation that suggests an "evergreen" program moving forward.

6. CDCR PARTNERSHIP PROGRAM

6.1 INTRODUCTION

The California Department of Corrections and Rehabilitation (CDCR) Partnership was a new statewide partnership under the 2006–2008 program cycle. This statewide partnership program, led by PG&E, was a nonresidential program targeting prisons and youth detention facilities. Program offerings include incentives for retrofit projects, continuous commissioning, and training for the facility managers.

The CDCR web-site indicates that as of 2008, they operated 33 state prisons, 40 minimum custody wilderness camps, 12 community correctional facilities (CCF's); 5 prisoner-mother facilities, 8 youth facilities, and 21 parole facilities throughout California, with a combined conditioned space of almost 50 million square feet. According to program documentation, 18 facilities are served by PG&E.

According to interviews, facilities experience a range of maintenance levels, with some poorly maintained and others exhibiting pride of ownership with consistent attention. Most have managed with a triage system that fixes what is broken but not much is done to prevent equipment and systems from breaking in the first place. Energy efficiency is part of the bailiwick of the facilities managers but most do not make the effort to find (i.e. prioritize) the funding. The partnership was developed to help overcome these barriers and make energy efficiency a higher priority.

6.2 PROGRAM BACKGROUND AND STRUCTURE

6.2.1 Program Description

The CDCR Partnership promoted energy efficiency projects and best practices at the correctional facilities and offices run by the CDCR. The CDCR Partnership was a new program within the 2006–2008 program cycle.

The CDCR Partnership is a centrally managed program. The Department has a Director of Energy Management who oversees the facilities management operations of all California correctional facility campuses (over 130 campuses, some with multiple buildings). This individual identifies energy efficiency opportunities, trains facility managers, and coordinates project work. Using a central management approach eliminates the need for each individual campus to pursue its own facilities' maintenance, improvement, and construction projects.

PG&E has a part-time project manager who also is involved in other statewide programs for the utility. In addition, the program is managed by an outside firm and has strong partner leadership, resulting in less of a need for a high level of IOU oversight.

The program implementation plans developed by the four IOUs for the CDCR Partnership envisioned at least three major components—retrofit projects, retro commissioning, and education and training:

1. **Energy efficiency retrofits.** ESCOs worked with the CDCR to update early feasibility studies with their own detailed assessments, and install measures using incentives from the program. The projects, capped at $1 million, were required to fall within a five-year payback. ESCOs install the measures and the IOUs provide

incentives based on first-year savings at a specified rate for kWh (or Therm where appropriate) for lighting, motors, and HVAC.

2. **Monitoring based commissioning.** This program component was designed using the 2004–2005 UC/CSU commissioning program as a basis. The program defined this offering as going beyond the standard commissioning program in that (a) the installation will ensure an extensive and comprehensive built-in measurement and verification capability, (b) the commissioning will be combined with education and training to optimize and sustain the energy savings, and (c) the program will use the institution's facility management to identify additional opportunities.
3. **Education and training.** The program was designed to offer training opportunities to CDCR project managers and facilities staff on energy efficiency and best practices, building upon work that was done during the 2004–2005 cycle for UC/CSU modified to the CDCR facility environment.

The partnership focused almost completely on developing retrofit projects during the 2006–2008 program cycle. The retrofit component of the program was viewed as having the greatest energy savings potential; therefore, the CDCR and IOUs decided to devote their resources and energies to honing the process for this program element.

In 2006, the four IOUs commissioned audits of the major CDCR facilities. Those audits provided a preliminary list of cost-effective retrofit measures at each of the institutions. In the same period, the CDCR issued a Request for Qualifications to energy service companies, lighting contractors, and energy management companies to develop energy efficiency projects for the CDCR. Eleven ESCOs were selected through this process.

The CDCR provided selected ESCOs initial audit results and instructed them to perform an investment grade audit of the facilities assigned to them. Based on this audit, ESCOs proposed to the CDCR a project plan that passed several financial criteria. Specifically, the project was required to (1) have a maximum payback of five years, (2) provide a positive cash flow from savings in the first year, and (3) cost less than $1 million.

The partners hired Newcomb, Anderson, McCormick to act as an "owner's representative" for the program. NAM is responsible for conducting technical assessments, verifying the financial calculations, and supporting the partners in processing and approving the projects.

The financing of the capital investment retrofit projects came from two sources. First, utility-offered rebates offset the initial cost. The value of the rebates was determined based on the first year kWh and therms savings. The Energy $mart financing program offered by the California Department of General Services, provided another financing source for costs not funded by IOU incentives. Through the Energy $mart program, California government entities obtain financing at rates that are typically half those of commercial loans.

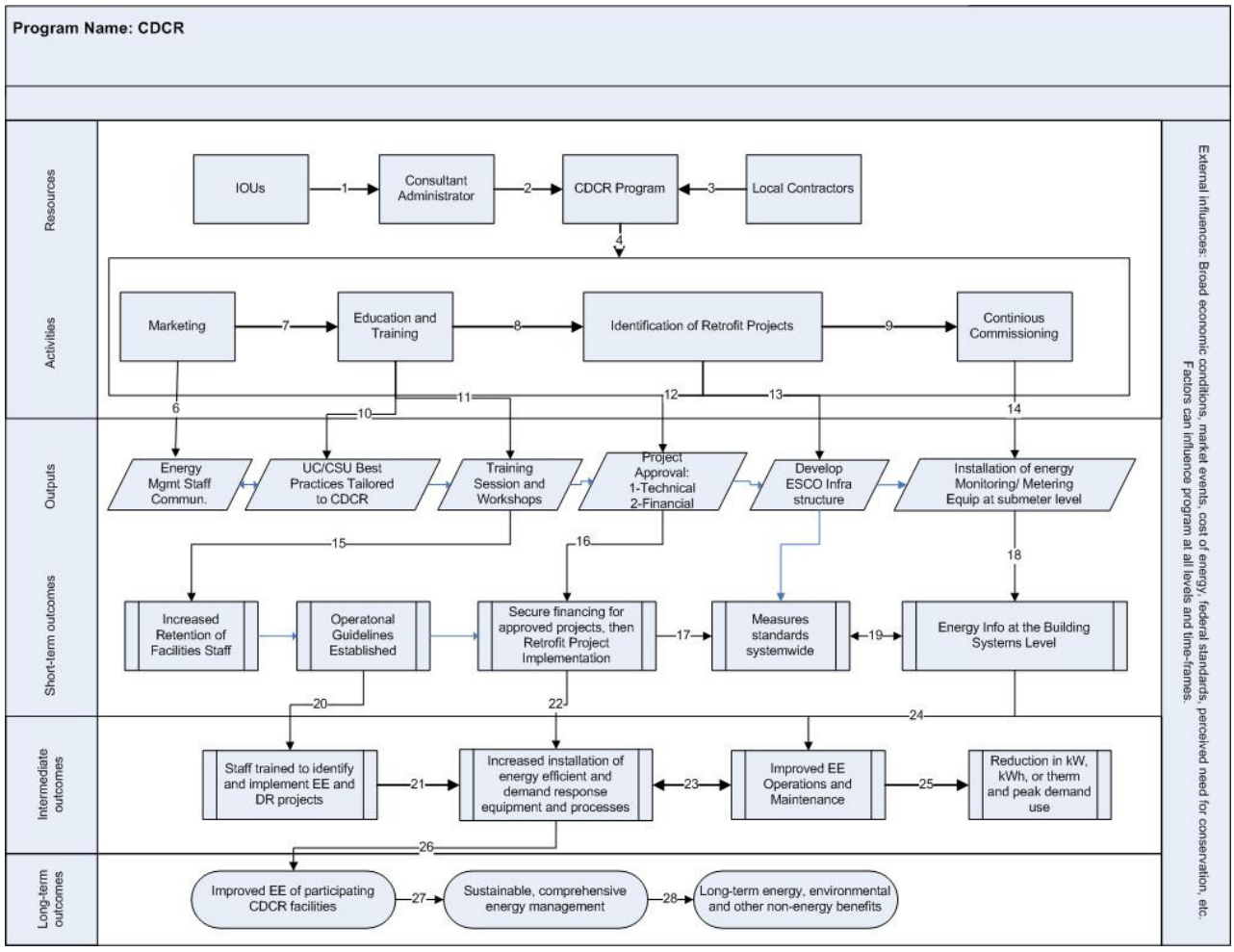
6.2.2 Program Logic Model and Implementation Theory

As shown in Figure 6.1, the main activities of the CDCR program were marketing, education and training, identification of retrofit projects, and continuous commissioning. These activities are to result in six outputs: (1) energy management staff communications, (2) identifying best practices exemplified by the CDCR program such of the use of Energy $mart financing, (3) trainings and workshops, (4) project approval, (5) develop ESCO infrastructure, and (6) installation of metering equipment.

Based on this process evaluation, only one element of the program logic can be confirmed for PG&E—the Retrofit Project element. This is the only program element that achieved any level of implementation to date. Based on our research, two elements were not reflected in the original logic model that we have now included in the logic model in this final report.

- Technical review of work scope proposals. All projects experience a technical review, whereby recommended retrofits must pass a five-year payback criteria. ESCOs comment that this was not originally articulated as a requirement but based on interviews, it is a confirmed element of the approval process for projects to proceed.
- Financial package. The securing of financing for the project was not reflected in the original logic model, and yet this became a critical factor in the program process. Projects that receive approval for the financing step can proceed to implementation.

Figure 6.1 CDCR Logic Model



6.3 KEY FINDINGS

The program did not meet its savings target by the end of the program cycle. The delay in achieving savings was attributed to financing issues at the state level.

The program fell short of meeting its energy, demand, and therms goals for the 2006-2008 program cycle. The CDCR program for PG&E has a three-year net goal of 25.4 million kWh energy savings, 5.5 MW demand reduction, and 448,000 therms savings. The December 2008 monthly program report indicates that the program achieved 39 percent of its kWh, 31 percent of its kW, and nine percent of its therms goals.

Staff interviewed believe that the program has suffered from stalled project implementation due to financing issues for the State's portion of the costs. Those issues, which were not resolved until 2008, resulted in a significant backlog of projects awaiting implementation. The partnership expected that those projects would move forward quickly from the point of the resolution.

According to the *Quarterly Report Narrative* from fourth quarter 2008, eighteen projects were completed through the program, although an additional four projects began but were not completed. Projected completion of these projects is in 2009.

Additionally, the report noted that due to delayed funding, five projects were not achieved as projected in the 2006-2008 program cycle. One of these projects would have yielded significant gas savings.

The education component of the program was non-existent in this program cycle as the program focused on reaching resource goals.

Due to the delays in implementing projects, none of the training has taken place. The focus of the program for the remaining program cycle was to get as many projects completed as possible to contribute to the resource energy savings goals. While the program had intended to tap into energy efficiency training for facilities managers that had been planned for the UC/CSU program, that initiative did not materialize.

However, the project partner at the CDCR commented that education and training for on-site staff is critical to increasing maintenance and improving operation. He believes it is a key component to the retrofit process and sustaining the savings. The intent and future hope is that there will be three prongs of outreach and education within the partnership:

1. Promoting energy efficiency by illustrating the cost-effectiveness and benefits to the facilities
2. Educating the trade allies, including mechanics and facility engineers who are responsible for the day-to-day maintenance and operations that need training to implement improvements
3. Educating correctional officers who are responsible for the day-to-day correctional aspects of the facility. Providing information to this group can provide the means for additional energy efficiency through behavioral changes such as turning off lights during the day, reducing light at night, and minimizing the use of HVAC equipment.

While these elements were not implemented this past cycle, the recognition exists that they are important aspects of realizing the energy savings potential in these facilities.

Establishing a means for providing financing to participating facilities is seen as a primary success for the partnership program. With that said, the process to set up the financing procedures and begin to intake loan applications took longer than expected. Therefore, the ability to finance projects was an initial barrier to project implementation.

As described above, the program provides a financing option to participating facilities through the Energy $mart program. The partners worked closely with the California Department of General Services to integrate the financing option into the CDCR Partnership program.

Unfortunately, while the financing mechanism was established early in the program period, the time it took to ensure all the necessary requirements (e.g., loan terms and conditions were agreed upon), processes, and procedures were established and approvals were made took longer than anticipated. This delay, in turn, was a significant barrier to project implementation. The financing needed to be in place to approve the projects and, without the financing option being in place, projects stalled.

With the mechanism for financing established, an additional barrier arose—the financing approval process for projects. The financing has to be approved for a project before it can move forward; therefore, any delay in financing approval delays program progress. To illustrate the significance of the barriers caused by the delay in securing the financing, it is useful to review the amount of time that lapsed between project approval and loan funding. The average time that elapsed between project approval by the management team and funding was 290 days. One project saw a delay as great as 423 days.

The resolution of the financing problem—using Energy $mart—had the potential for resolving funding barriers for energy efficiency projects in state facilities. These funds will allow state facilities beyond prison facilities to be upgraded. CDCR provided the impetus for establishing a system to finance facilities such as correctional facilities. As such, the evaluation credits the partnership for its contribution to breaking down that significant barrier to energy savings in the government sector.

Program partners believe that the early feasibility studies were useful for informing the program in the planning process; however, ESCOs were not as satisfied with the process as considerable investment was required to review the initial feasibility studies in light of facility changes. Even so, they are excited about productively moving the program forward.

Early in the program cycle, the program partners conducted preliminary feasibility studies, which were walk-through audits. These studies were then provided to ESCOs when they were assigned to a facility.

Although the feasibility studies did not result in project plans as quickly as anticipated due to the delays in securing the financing option, program partners believed that conducting these feasibility studies was a useful activity. The information obtained allowed the program to develop a reasonable plan for budgeting, assess the capacity needed to address the opportunities, and estimate potential energy savings and demand reduction. Also, the audits

that fed into the feasibility studies provided the program with the information necessary to develop a program database.

Unfortunately, partners did not anticipate such a long delay between the original feasibility studies and project implementation, and the feasibility studies had to be redone by the individual ESCOs. These feasibility studies, which were upgraded to investment grade audits for specific measures, enabled the ESCOs to develop a scope of work that considered constructability, payback and project costs. Additionally, these studies included savings estimates, which the ESCOs were contractually required to fulfill. These feasibility studies took a considerable amount of time and expense to complete.

Given the delays in project approval, and the possibility of project rejection by the management team, some ESCOs did not want to incur these costs and wanted the program to reimburse them for these investment grade audits.

Aside from the audit issue, at the time of the interviews in 2008 most ESCOs expressed their excitement that the program was moving forward and much-needed work was being done. They were pleased that the program had finally passed the financial hurdles and contracts were being released. They also reported that the CDCR Partnership communicated with them and the other stakeholders regularly and effectively.

Program partners and participants expressed satisfaction with the program and PG&E. Project management, particularly the champion model, was reportedly effective. However, ESCOs and facility managers expressed some frustration with the central management model. They would like to communicate directly with each other and the utilities rather than explicitly through the Director of Energy Management.

Facility managers report that interactions with PG&E, and/or CDCR have been generally positive. The CDCR Partners and facility managers discussed the positive communication, and positively commented about PG&E for regularly participating in partnership management meetings. Additionally, interviewees expressed satisfaction with the fact that PG&E specified dedicated account representatives to the partnership, which they said was working well.

Several facility managers also noted their satisfaction with the ESCOs. However, the lack of project implementation at the time of the facility manager interviews made it difficult to evaluate the effectiveness of the ESCOs.

Additionally, program partners were positive about their interactions with each other. All IOU program managers appeared to be aligned in their shared goal of getting as many projects implemented before year-end as could be done in a quality manner.

It is clear that the program enjoys a strong central champion in the CDCR Program Manager. The program champion was the head of facilities for the entire CDCR operation. This central leadership and strong champion model was particularly useful during the first phase of the program at the point of establishing processes and procedures. The nature of the work required, such as the political and organizational tasks of working through policy and procedural mechanisms, reportedly pulled from the champion's strengths. Additionally, the champion was in the position to entreat individual facility managers to participate actively in the program.

However, securing financing options consumed the champion's time to the exclusion of other activities (e.g., facility manager training). A less centralized management structure may have resulted in more activities being addressed; it is possible that other tasks could have proceeded while the financing issue was being worked out.

Some ESCOs interviewed registered some frustration at the centralized management model in that they would have preferred to interact directly with the individual facility management teams rather than communicate via the CDCR. These ESCOs commented that there were times when it would be more efficient to follow up directly with facilities managers on project progress and issues; however, they are required to communicate through the CDCR.

Like the ESCOs who would like more opportunity to communicate directly with the facility managers, the facility managers would like to see the utilities work directly with CDCR individual sites more regularly, rather than communicate exclusively through the Director of Energy Management. They commented that there is a relationship building opportunity between the utility and themselves that is missed by this lack of direct communication. There are utilities that do have representatives that interact directly with correctional facility managers; these facility managers expressed high satisfaction in their relationship with the utility.

Program partners and ESCOs stated NAM was effective as a project administrator.

Initially, the project due diligence and management was to be completed in-house by CDCR. The process was more cumbersome than anticipated, and CDCR was quickly overwhelmed and looked to outside contractors for assistance.

The management team selected NAM to serve as project administrator. NAM was hired to assist CDCR especially in the areas of ESCO coordination and technical evaluation and oversight. The contractor performs the due diligence for CDCR and packages the projects for financing.

The management team seemed generally pleased with NAM's performance and believed using NAM was a cost-effective solution to the internal lack of staff time. Interviews estimate that using NAM saved the CDCR a considerable amount in personnel costs. Additionally, the management team reported that NAM greatly facilitated project flow by standardizing project submission forms, simplifying costing, and providing cost-benefit analysis.

One ESCO lauded the efforts of NAM to standardize the project documentation, claiming it was very useful and a necessary change. NAM also created a projects database that serves to support IOU reporting to the commission, which created time efficiencies.

Several ESCOs believed that the $1 million cap for facility projects was too low. A facility can consist of multiple buildings, and the project-funding limit can be quickly expended without tending to all the possible cost-effective retrofits. This cap was established only for the first phase of the program (first program cycle), and will reportedly be increased for the 2009-2011 program cycle.

A single CDCR participating "facility" can consist of multiple buildings at one site or campus (e.g., residential facilities, garages, warehouses, workhouses). Therefore, any one CDCR facility could provide the opportunity for any number of energy-efficiency upgrade projects throughout multiple buildings.

The CDCR placed a $1M cap on facility projects. ESCOs reported that this cap prevented excluded retrofit opportunities from being part of the project package. Due to the size and complexity of each campus, this amount was a constraint given the size of potential projects.

One ESCO respondent suggested that it might be more cost effective to devote adequate funding for capturing all the energy savings opportunities at a few campuses rather than try to do a few things at many CDCR campuses. Contractors are already allocating resources to the facility, so this approach may be more cost effective. As the program currently stands, ESCOs would have to return to the facility to capture the additional energy savings not captured through the program.

Program managers and program partners recognize the limitations of the $1M cap. This cap was established only for the first cycle of the program and provided program managers and partners a means of evaluation for ESCO performance and facility requirements before moving into the next program cycle. For the 2009-2011 program cycle, the program design will reportedly include an increased value in this capped value.

6.4 CONCLUSIONS AND OPPORTUNITIES FOR IMPROVEMENTS

The program made considerable progress toward their energy savings especially provided the incredibly late start in completing progress. Although only a third or less of projected savings were realized, this savings represents a significant progress compared to the reported savings as late in the cycle as August 2008, where no progress was documented.

The program has a significant commitment for energy savings that PG&E did not realize. Additionally, there appears to be additional potential for significant savings from the CDCR program, as ESCOs continue to uncover savings opportunities in their review of the facilities.

The project management team on this program appears to be effective and have resulted in significant policy changes that will have long lasting effects beyond just the CDCR facilities. For example, the commitment of the management team for the CDCR program—including the IOU members, the CDCR project manager and the administrative contractor NAM—enabled the team to develop and apply a financing program that will also enable other state facilities to move ahead with energy efficiency opportunities.

Unique among the partnership programs, the CDCR program uses ESCOs to deliver services. The management team successfully secured a pool of ESCOs for implementation of projects with an effective oversight and quality control team in NAM. This ESCO model could be replicated for other state projects where there is a similar oversight mechanism.

The collaboration on this program appears to have been very strong and, given the program has overcome many of the barriers experienced during the 2006–2008 cycle, program managers are optimistically looking forward to the 2009–2011 program. However, interviews with facilities managers suggest that they would like utilities to continue to interact directly with facilities managers at the sites, rather than exclusively through the central office of CDCR. This may be a missed opportunity for the utility to build relationships with these important contacts that should be strengthened as they move forward.

Moving forward, additional opportunities for improvement exist.

- Move to less centralized control in the construction phase. While the centralized approach may have been necessary for setting up the program and overcoming the initial barriers, the second phase might benefit from a less centralized approach where ESCOs can work directly with facility managers. Once projects have been fleshed out, submitted, and approved, it would appear that a more decentralized model might be appropriate to enable the ESCOs to communicate and work directly with the facilities managers as projects proceed.
- Consider the funding cap and payback threshold in light of the needs of the facilities. The current level of funding, along with the five-year payback threshold, encourages ESCOs to design the projects by selecting the "low hanging fruit." However, once the first round of projects are completed and the less costly, high opportunity technologies are implemented, the program may need to reconsider the payback threshold.

7. STATEWIDE PROGRAM CONCLUSIONS AND RECOMMENDATIONS

The evaluation documented many successes of these statewide partnership programs. The positive relationships among the utility, program partners, and participating facilities received special attention for all programs.

Additionally, one significant area for commendations for the programs was their ability to react to programmatic issues and reconcile those issues within the program cycle. All programs experienced issues, whether they were marketing difficulties, difficulties with contractors, or the inability to effectively serve the target market. All programs instituted changes within the program cycle to react to these issues. It is the hope that, within the 2009-2011 program cycle, these changes will provide the programs a solid foothold upon which to base program activities.

It must be recognized, however, that the partnerships will likely experience additional difficulties moving into the next program cycle, one important factor being the economic conditions at a national and statewide level. The state is providing additional funding mechanisms, such as financing options as that offered by CDCR, to minimize that financial barrier. There is the risk that facilities will continue to focus on easily implemented projects that have a higher return on investment, which will minimize the partnerships' opportunities for comprehensive energy efficiency within those facilities. However, the programs will undoubtedly reap the benefits of the efforts expended over the previous program cycle within the next program period.

The following overarching issues were identified by PG&E as of concern at the project initiation meeting. Our conclusions regarding these issues are presented below as based on the research conducted in the process evaluation.

7.1 CONCLUSIONS

7.1.1 Inability to Achieve Goals

The statewide programs, as a consolidated group, did not reach their kWh or kW stated goals. However, they did exceed their therms goals. This progress was a result of a large project realized in the UC/CSU Partnership Program.

The utility realized a slow start up, the reasons for which varied by program. PG&E expressed concern that the partnerships' slow start up has resulted in their inability to achieve goals for 2008. The concern is that an examination of the numbers alone does not reflect the reasons behind the lack of achievement.

This issue is not unique to PG&E, as all of the IOUs experienced significant delays in finalizing contractual relationships with partners, some more so than others. Virtually all stakeholders—the CPUC, the IOUs and the partner entities—appeared to have underestimated the amount of time required for ramping up programs to the point where they could actually start delivering services and generating energy savings. This is particularly true of the statewide programs because of a range of reasons, the primary ones being:

- Administrative needs of these multiple-partner partnerships were at first underestimated, and subsequently some programs reverted to hiring an outside or third party administrator, which took time

- Development of the data processing needs of the partnerships both at the individual IOUs and with the lead utility, particularly in regard to invoicing and reporting, took time to develop
- The various relationships inherent in the statewide partner organizations required significantly more time than anticipated to get key stakeholders on board with the programs, to define their various roles, and to educate them about opportunities and programs.
- It has taken considerably more time and arranging to get actual projects started and completed than was anticipated. From identifying the opportunity, to development of a scope of work, to securing the team to do the work, to completing paperwork and establishing financing for project costs, to installation, inspection and payment.

Additionally, unrealistic program goals may have played a part in the utility's inability to reach their goals. A case in point is CCC and CDCR. The goals assumed a higher level of progress because they were designed based on the successful UC/CSU. However, each unique target population faces its own unique challenges, and the goals need to take into consideration the time it will take to realize and overcome these challenges – particularly for new programs.

7.1.2 Need for Buy-in from Various Actors

There was essentially no infrastructure in place for the statewide programs when they began. Policy decisions preceded the buy in from the institutions such that there was first a marketing job to do to get them on board (i.e., convince higher education in California to embrace this concept.)

The statewide programs generally share a tiered decision making structure, such that there is a centralized lead office at the state level, below which are various tiers of individuals responsible for certain geographies, campuses and facilities. In some cases, the champion resides at the state office, in others there are individual champions. Overlay the IOU service territories and more actors come into play (e.g., account managers for the utilities). Each of these individuals have to be educated, coordinated, marketed and convinced to act before an actual project can take place. At the same time, many of these individuals have existing full time responsibilities.

Some programs addressed these needs through highly successful statewide conferences and workshops (e.g. the university and college programs); while others pursued different more individualized approaches, (Bakersfield-Kern visits to individual municipalities). Even so, decision-makers require time to process the information, no matter how effectively and efficiently it is delivered.

7.1.3 Capacity Building Benefits

There is considerable capacity being built from this program cycle that will come to fruition in the next cycle (2009-2011) in spite of the likelihood that PG&E may not be given credit for such savings in this cycle. CDCR, for example, had four projects that were not completed in the 2006-2008 program cycle that will be completed in the bridge funding period of 2009.

Of necessity, the programs were focused on completing projects before year-end; however, additional energy savings can be anticipated to result from the activities of the 2006-2008 cycle that will need to be addressed and credited to the programs. A secondary concern is

that the higher than anticipated start-up costs and longer timelines are not favorable to calculation of a final Total Resource Cost test result, yet it is unclear how this will affect consideration of portfolio performance.

There is also significant technical education and training taking place in the statewide programs; BOC has trained hundreds of individuals which, if requirements are met, led to certification. This component, again, is a significant up front cost that will not show savings for a long time. However, it is clear that capacity is indeed being built through these programs that will show benefits in the long run, but probably not within this program cycle (i.e., in time to get the energy savings credit).

7.1.4 Use of Contractors

PG&E raised an issue regarding concerns that had been expressed by some local governments and other groups regarding the allocation of funds to third party providers – private firms hired to serve as administrators or implementation contractors, such as Staples Marketing or Newcomb Anderson McCormick. Local governments are interested in hiring their own staff, which means that these institutions want to reserve PGC funds for themselves, and don't want outside implementation and administrator firms (even evaluators) doing work on the programs with ratepayer money. PG&E indicated that some local activists were pushing hard on this issue, noting that if the programs require outside assistance, they at least want more local firms involved to build local capacity (rather than large statewide firms), so that PGC funding at least stays as local as possible.

This process evaluation did not identify any direct information to support these specific concerns one way or another. Interviews with stakeholders were focused on the issues associated with individual programs. However, a couple of observations can be made based on the findings that provide an indirect commentary on this issue. Because of their size and geographic reach, the statewide programs identified the need for outside assistance in the areas of engineering expertise and program administration, since no one member of the partnerships had the capacity in-house to coordinate these programs. In terms of Bakersfield-Kern, there is more local government capacity building taking place and the plan for the 2009-2011 cycle is to transfer more administrative responsibility to one of the local government partners, specifically KCOG.

7.1.5 Role of the Program Champion

A concern was expressed by PG&E that, without a champion at CSU or CDCR (for example), they did not know whether there would be any activity. Much of the progress seems to depend on one person making things happen in these programs, and that puts the resources at considerable risk under this model.

The process evaluation identified a couple of findings regarding this issue. First, while a program champion is important to success, particularly when a program is starting up, it is important to get others involved in order to achieve established goals. Without the buy-in from decision makers down the line, a champion alone cannot get projects completed. Second, it is important to identify a succession plan or other team to take up program operations when a champion leaves so that not all depends upon the charisma and energy of one person.

As a side point, reorganizations that took place at PG&E during the 2006-2008 cycle have left limited institutional knowledge at PG&E about the programs. Some felt this contributed to the

significant delays, although evaluation activities did not find that these delays were the root cause of the savings not being realized through the programs. While staffing changes have affected program performance (though only temporarily) at both the IOU and with partners, such changes are reasonable to expect and should be planned for through strong documentation of procedures (e.g., program manuals) and cross training of staff.

7.1.6 Fully Capturing Program Impact, Including Indirect Impacts

Are the programs adequately measuring or recording enough information on direct and indirect benefits to be able to show what these programs have done? Indications are that PG&E has adequate processes set up to capture the resource impacts of these programs, but inadequate processes for capturing indirect impacts from non-resource activities. While it was not fully anticipated by the IOUs that there would be a need to capture non-resource indirect impacts, it behooves the utilities to do a better job of recording how the money is being spent on non-resource activities (e.g., itemizing events, event topics, target audiences, etc.). Additionally, it would benefit the utility to capture participant information that benefited from non-resource activities. Doing so will enable the programs to better evaluate these activities and potentially provide the program additional credit for influencing behaviors or purchases that produce further savings not captured through the resource component.

7.1.7 Long Term Benefit of Financing

Financing programs such as the state Department of General Services and its Energy $mart financing program will provide funding opportunities for state buildings moving forward, although the current financial and economic crisis may limit the uptake of financing programs such as this. The CDCR, UC/CSU and CCC are all served by DGS. There are over 22,000 state-owned buildings and structures covered by DGS Real Estate Services Division (including the CPUC buildings which reportedly do not have CFLs installed yet). All stakeholders acknowledged the important role that PG&E and the other utilities played in working with and putting pressure on state agencies to resolve the financing procedures. These important steps have the capability of having long lasting benefits.

7.1.8 Coordination with Other Programs and Funds

There are outside influences that exist that need to be taken into account when considering energy efficiency activities – e.g., UC/CSU and CCC already have Campus Sustainability policies, are subject to the Green Building initiative and are heavily involved in Green Campus activities of the Alliance to Save Energy. Additionally, additional funding sources may infiltrate programs and/or utility territories within the next program cycle, such as the stimulus funding.

While these outside initiatives provide additional funding and resources that can result in positive benefits, keeping records straight regarding which actions are associated with the individual initiatives is complex. The CPUC is charged with determining impacts from actions taken based on investments from the PGC, and it is important that the IOUs maintain clear records of that funding stream. This appears to be happening in regard to the resource activities of these programs, but is more challenging to maintain for the non-resource programs.

7.1.9 Lead Utility Model Impact on Program Tracking

Each of the Statewide programs has a lead utility (e.g., PG&E is the lead for CDCR and Bakersfield-Kern programs). There were complaints expressed by the other utilities regarding the effectiveness and timeliness of the database and invoicing processes for the statewide programs where PG&E is the lead utility. Some of these issues are inherent in this model (for example, one utility cannot maintain customer records of another utility), but the issues regarding timeliness of invoicing appeared particularly directed at PG&E. Regardless of whether such delays are caused by PG&E, or by the implementation contractors, they prevent the IOUs from recording savings in a timely manner and may cancel out the benefits of this coordinated contract approach.

Moving forward, one program in particular will be shifting the accounting and tracking responsibilities to eliminate some of this burden. Staples Marketing will administer and track components of the Bakersfield Kern program, relieving the lead utility from the need to process invoices. Implementation of this model will begin for the 2009-2011 program cycle.

7.2 RECOMMENDATIONS

Recognizing the success of the partnership programs on many levels, we offer the following recommendations for PG&E to consider for the 2009–2011 program cycle to take advantage of lessons learned and best practices from the 2006–2008 program cycle.

Consider reacting to the variance in sophistication and population among partnership programs by revising funding cycle's structure or established goals.

It takes many years to build strong partnerships. Programs may need different levels of support given their target population and length of existence. For example, new partnerships that are just getting off the ground may need special care and feeding and more resources to establish themselves. PG&E needs to be prepared to work with partnerships to support programs of varying sophistication.

Given this, we recommend that either the length of the funding cycles be reviewed *or* savings goals be established understanding the limitations of the funding cycle. Three-year funding cycles for local government and institutional partnerships are too short. This is not only a result from evaluations of these statewide programs. Other municipal program evaluations have found similar comments, as project planning periods have long life cycles. Five-year funding cycles were noted as an appropriate timeframe.

Ensure funding streams do not lapse.

The history of DSM is littered with good programs that have been destroyed because of lapses in funding. Partnership program offerings are particularly sensitive to such lapses.

These programs are planned to continue into the next program cycle. Currently, there is bridge funding that will mitigate the threat of the funding lapsing. It is incumbent on the IOUs and the CPUC to continue to provide bridge funding to prevent lapses.

Review the need for resources by program, taking into consideration the individual needs of the programs.

A recurring theme through all of the programs is the need for more resources. Allocations are primarily based on the benefit cost ratios for the direct delivery of energy efficient measures at the present time. We recognize that the CPUC and the IOUs have a fiduciary responsibility to optimize the energy-savings benefits across programs and that funding sources are not endless.

Programs where the partners or target populations themselves are resource constrained may be a target for additional level of funding. One example is CCC where the utility already reacted to the need to be of more assistance than planned due to the limited availability of facility managers.

Along that line, newer programs also may have greater needs than established programs. These emerging partnerships may especially need more resources to establish themselves. Along with additional funding, local government and institutional partners must recognize that while additional resources might allow them to gather substantial additional savings, the benefit cost ratio for those savings may not be optimal in comparison to other programs.

Provide ongoing support for technical assistance.

A consistent finding across the partnership programs is the heavy workloads of the staff in partnerships including the local governments, organization and utilities. Mechanisms for providing more staff resources need to be investigated both within PG&E as well as within the local government partners.

Some partners, being time and staff constrained, believed their lack of technical expertise was a barrier to moving forward. Partners noted that having outside administrative and technical support was important to being most effective. Other large projects can distract staff and detract from the ability to engage with their partnership (e.g., a large influx of construction funding for campuses and schools). This issue was noted most prevalently within the UC/CSU and CCC partnership programs.

Within that context, we recommend that the IOUs create a pool of technical talent that local government and institutional partnerships can draw upon to support their programs. Local government programs could use a project management model in which the local government partner identifies and then appropriates that needed skills and capabilities from the pool.

Communicate regularly and provide consistent and timely feedback.

Effective communication and interaction are keys to the success of the partnerships. The profession, social, and networking abilities of the partnership liaisons are critical to the interactions of the partnerships. Partners' interactions with the utilities and other partner organizations were mostly positive. Where the interactions were good, the role of the utility and other organizations tended to be viewed as positive. Where the interactions were minimal, there was little perceived value to partnership involvement or the partner role tended to be viewed as negative or adversarial.

An emergent theme across all of the partnership programs was the need for consistent, frequent, and timely feedback and communication. Partners were particularly interested in knowing how they were doing and what others were doing. However, improved feedback requires better tracking systems as identified below.

First, we recommend periodic teleconferences and perhaps an annual gathering be held in order for partnerships to exchange information (if this is not being done already). As the new cycle continues to ramp up, and even as programs are progressing smoothly, regular communication should be maintained.

In addition, feedback needs streamlining so that each utility can have immediate feedback about activities and the commitments by customers. The logistics to integrating participant data can be challenging, but having a central source of information available to all participating utilities would facilitate this feedback process (per recommendation below).

Develop a tracking system that is usable and accessible between utilities for multi-utility programs and between partners and utilities.

The lack or difficulty of data tracking was an opportunity for improvement raised, particularly for the Bakersfield-Kern Partnership (although rectified within the program cycle). Maintaining a thorough and accurate tracking system is a need that is relevant for any program. Such a tracking system would allow the programs to report progress more accurately and timely. Additionally, it would provide additional support to attempt to assess impacts related to non-resource activities. Collecting data to support the review of indirect impacts resulting from non-resource activities is not done consistently across partnerships and may support the ability to evaluate these indirect impacts.

There are significant limitations to developing universal tracking systems. Financing and IT requirements is a primary barrier to these types of projects. Additional barriers include the different needs and programmatic components for each program. However, given the importance of a tracking system, if at all feasible, the PG&E and the local government and institutional partners should consider developing universal tracking systems for the partnership programs. The tracking system should have the capability of capturing a variety of program-specific data. These tracking systems, at minimum, need to be able to track:

- Non-resource information (e.g., workshop/event name, items received per participation, outreach activities, etc.)
- Resource information (e.g., measures received, method for distribution such as direct install or direct delivery, equipment replaced, savings assumptions)
- Audit results and recommendations
- Referrals to PG&E's core programs generated from partnership activities
- Data to support both program and evaluation needs, including contact information, baseline equipment, savings data, etc.
- Utility/utilities related to the participant.

The systems need to be flexible with simple interfaces that will allow field use with participants at training and events.

APPENDIX A: TELEPHONE SURVEY INSTRUMENTS

A.1 PARTNER INTERVIEW PROTOCOL

Roles and Responsibilities.

1. What is your role in the _____Partnership Program? How long have you held this position? If less than one year, who is your predecessor?

2. Which **utility (IOU)** sponsors do you interact with? Which is the lead utility for this partnership? What is your level of interaction with the sponsoring utilities?

3. What **implementation contractors** do you work with? Are they under contract to your organization or the IOU?

4. What responsibilities does your organization have in return for the funding provided? (Reporting? Delivering savings?)

5. Whose responsibility is it to:
   a) collect names and contact info on who is receiving services
   b) document actions taken, measures installed
   c) calculate energy savings

6. What resources does the program use and are they adequate?
   a) Budgets
   b) Measures
   c) Tools for analysis/audit software
   d) Contractors/vendors

7. Is the program or activity identified as a partnership with the IOU in any way? How prominent would you say the utility is in your marketing of the program or activity? Very, somewhat not much, etc. What is the reason for this strategy? (intentional downplaying of IOU involvement, unintentional, etc.)

8. Are roles and responsibilities among the key parties clear and effective? Why/why not?

9. Whose (or what organization's) role is the most essential to program success?

Program Goals.

10. What are the objectives of the _____Partnership Program **for your organization**?

11. Did your organization initiate the partnership application? If not, what organization initiated the program?

12. To what extent did your organization already provide EE services prior to participating in the 2006–2008 partnership program:
    a) To a large extent—several years of experience providing EE services to constituents
    b) To some extent—recent or small amount of EE services to constituents
    c) None—no prior experience or virtually none in providing EE services to constituents

13. Why did your organization elect to pursue a partnership with the IOU(s) through this vehicle?

14. Would you be providing these same services to the same degree without the partnership program?

15. I'd like to understand what the respective organizations bring to the partnership. On a scale of 1 to 10, where 10 means that you run the program with minimal utility involvement and 1 means the utility runs the program with minimal involvement from your organization, where would you place this partnership? Why is that?

16. What metrics and/or goals are established by your organization to determine success? Do you have individual performance goals associated with the _____Partnership Program? What are they?

17. What barriers exist that your partnership is trying to overcome?

18. Some programs are considered RESOURCE Programs. What does this mean? (Do they consider it their responsibility to deliver energy savings in return for the funding provided?)

19. In what ways is your organization/type of organization better able to influence energy-efficiency actions among the target markets than the IOUs? (will be compared against survey results)

Program Delivery

20. Let's envision a flow chart of this Partnership Program (process mapping activity). Tell me about:
    a) intake—ways in which a participant finds out about the services offered (includes marketing and outreach)
    b) services delivered
    c) data recorded and put into a database?
    d) decision-points in regard to what projects proceed? Are these points of control exercised by the IOU sponsors versus the implementation contractor?
    e) project completion—when is a project considered complete an recorded as such?

21. What do you feel are the weakest points of this process flow? Why is that?

22. How effective are the outreach and marketing activities associated with this partnership?

23. How is your program branded? By this I mean … Is there a NAME or LOGO that is associated with activities promoted by the program that customers would recognize?

24. From the **customer's perspective**, do you feel this process works well? What do you think they feel is the weakest point in the process from the customer's perspective?

25. What hard-to-serve markets are being targeted/reached/not being reached?

26. What level of action is being taken (measures installed on time)? Are you satisfied with the level of action being taken? What barriers are preventing more actions from being taken?

27. Which strategies have been most effective with the following groups (if targeted):
    a) Low income residents
    b) Local government agencies (retrofitting LG buildings)
    c) Small business
    d) Non-English language groups
    e) General residential
    f) Elderly
    g) Other hard to reach groups?

28. How do you feel the program delivery process could be improved?

Program Administration

29. Are administrative processes between your organization and *[the IOU sponsor(s)—insert the appropriate utilities here, e.g. SDG&E, SCG, or all four for the statewide programs]* adequate, excessive or inadequate?

30. Is information easily and readily available for you to perform your duties under the program? Why / why not?

31. What are the formal and informal communication procedures between your organization and the IOU sponsor(s)? Do you feel they are adequate? What could be improved?

32. How clear and useful are the systems in place for reporting and budgeting purposes?

33. Partnerships aim to leverage unique qualities of local government for delivering energy-efficiency services. What does your organization bring to the partnership that is unique and could not be delivered by an IOU?

34. What do you think of the effectiveness of this approach of using local governments to implement EE programs? In what ways does it make sense, and in what ways not?

Program Implementation and Customer Response

35. Earlier we talked about participation levels. Are your levels of activity in the program consistent with where you expected to be in relation to goals or plans? How about in terms of numbers of activities completed? (no. of trainings, no. of people trained?) How about in terms of numbers of customers taking EE actions?

36. Beyond the measures and services provided under this partnership, what specific **other IOU programs** does this program promote or directly recruit customers for, if any? Do you feel the program coordinates adequately with other programs available to the customers? Do you track customers' participation in these other programs?

37. What do you think about the potential for this partnership program to achieve its targets for the 2006-2008 cycle? Why/why not?

38. What target market groups are you able to reach that others could not? What groups are still underserved?

39. How do you obtain feedback about this program from participants/customers? What formal and informal processes are in place to get feedback?

40. What feedback, if any, have your received from participants/customers?

41. What stakeholders are critical to the success of this program?

42. What follow up activities or QC procedures, if any, are performed to check on installed measures or contractors' work?

Program Issues

43. What are your top 3 issues of concern regarding this program? What ideas can you suggest for resolving these issues?

44. What, if anything, might affect future activities?

45. Do you feel the IOU(s) devotes adequate resources to provide good services under the partnership? What could they do better?

46. What needs to be done to increase program success in terms of achievement of goals? What of these actions are within your control? Some other group's control? (If the latter, whose?)

47. Will you reapply? With what changes? Any new initiatives?

Evaluation Data

48. We will be surveying _____as part of our evaluation of this partnership. What do you feel are the key issues we should address when talking with them? Ask for each.

Any other questions or issues you would like to raise regarding the partnership program as part of this process evaluation?

A.2 FACILITY MANAGERS SURVEY

Interviewer: _____ Date: _____

Interviewee: _____

Campus: _____

Program Affiliation: _____

My name is _____ from PA Consulting Group. Our company is under contract with the California utilities to evaluation their Partnership Programs. I am calling to speak to you about your city/county/agency's involvement in the **[name of] Partnership**. I understand you are the key individual in your organization who has been involved with the program. Is that correct? I'd like to talk with you about a few topics related to this program and your agency's involvement. Is this a good time? If not, can you suggest a more convenient time? _____. Your input to this study is very important to our clients, and your answers will be held in strict confidence. You responses will not be shared with either the partner organization or the utilities but will rather be summarized in a report along with the responses of other facility managers.

LAST RESORT: If you prefer I can email you the questions and ask that you write in your responses.

My questions relate to the [name of] Partnership Program

Participation:

- Are you familiar with this program? Y / N ?
- If yes, what services/aspects of this partnership program have you used and which ones have you found most useful?
- If participating, what is your primary motivation? What are your expectations for the program?
- If not familiar with the program, do you use outside services/contractors to assist you in your facilities management? Do you have unmet needs (capital constraints, training/education, difficulty reducing energy costs)?
- If familiar but not participating, why not? What are the barriers to engagement?

Program Goals:

- If participating, does the program as currently structured serve your biggest needs? What needs are *not* being met?
- How could the program better serve you? What existing barriers do you see to the program achieving its energy-savings goals? What are some ways to overcome those barriers?

Program Delivery:

- Have the outreach and support materials met your needs and been easy to use?
- Describe how you interact with program staff (Partnership organization/utility).
- How well do you think the program delivery process works? Has the program encouraged actual changes in behavior? How do you know?
- What specific measures or actions result in energy savings and how are those savings tracked?
- How could the delivery process be improved?
- Is information management adequate (i.e. do you have access to the information and knowledge transfer/training that you need)?
- On scale of 1 to 10 where 5 is a true partnership where each party brings resources to the table, 1 means you have no capacity and need the utility to do it all, and 10 means you need the funding but want to or can do most of the work yourself , where does this partnership fall?

Implementation and Response:

- Internal capacity building—what was pre-engagement capability vs. your current capabilities? Did the partnership improve your organization's capabilities? If so, how?
- Do you receive any funding through the partnership? On what are these funds spent? (general categories and percentages)
    - Staff/labor
    - Education/training
    - Measures (retrofits, retro-commissioning, monitoring-based commissioning, new construction)
    - Other (specify _____)
- How is the communication between you and the utility? You and the partnership organization? Do you have recommendations on how to improve/optimize it?

Utility Involvement

- How much do you feel the utilities presence in the partnership activities versus the presence of the [NGO]?
- How did you feel about SCE/SDGE/PGE and The Gas Co before your experience with this partnership? How do you feel about them now?
- How well do you feel the utility is doing its job in the partnership? Any problems? How about the [partnership organization]?
- Have your expectations for this partnership been met? How and how not? What one thing would you change?
- How likely would you be in the future to engage the utility directly to pursue these types of services? Or do you feel that the existence of the facilitator is important. If so, why?

Metrics

- How do you measure success with this Partnership program? Are these metrics clearly articulated to the customers (or to you, as a customer)?
- How would you increase participation among the CCC and UC/CSU
- Do the program incentives address your (the facility manager's) needs effectively?
- What energy or demand reduction benefits have you seen as a result of this program? (direct attribution—% of savings)
- How do you know? Are these benefits tracked? How so?

- What % of these demand reductions would have been implemented in the absence of this partnership?

Conclusion:

- What is working well (top 3)?
- What is needs improvement (top 3 concerns)?

A.3 COLLEGE/UNIVERSITY FACILITY MANAGERS SURVEY

Interviewer: _____ Date: _____

Interviewee: _____

Campus: _____

Program Affiliation: _____

My name is _____ from PA Consulting Group. Our company is under contract with the California utilities to evaluation their Partnership Programs with the UC/CSU and Community College systems. I am calling to speak to you about your campus' involvement in the **[name of] Partnership**. I understand you are the key individual on this campus who has been involved with the program. Is that correct? I'd like to talk with you about a few topics related to this program and your campus' involvement. Is this a good time? If not, can you suggest a more convenient time? _____. Your input to this study is very important to our clients, and your answers will be held in strict confidence. You responses will not be shared with either the UC/CSU/CCC main offices or the utilities but will rather be summarized in a report along with the responses of other facility managers.

LAST RESORT: If you prefer I can email you the questions and ask that you write in your responses.

My questions relate to the [name of] Partnership Program

Participation:

- Are you familiar with this program? Y / N ?
- If yes, what services/aspects of this partnership program have you used and which ones have you found most useful?
- If participating, what is your primary motivation? What are your expectations for the program?
- If not familiar with the program, do you use outside services/contractors to assist you in your facilities management? Do you have unmet needs (capital constraints, training/education, difficulty reducing energy costs)?
- If familiar but not participating, why not? What are the barriers to engagement?

Program Goals:

- If participating, does the program as currently structured serve your biggest needs? What needs are *not* being met?
- How could the program better serve you? What existing barriers do you see to the program achieving its energy-savings goals? What are some ways to overcome those barriers?

Program Delivery:

- Have the outreach and support materials met your needs and been easy to use?
- Describe how you interact with program staff (UC/CSU/CCC head offices, NAM, utility).
- How well do you think the program delivery process works? Has the program encouraged actual changes in behavior on your campus? How do you know? *Probe to see what changes, if any, have taken place in purchasing and approval processes.*
- What specific measures or actions result in energy savings and how are those savings tracked?
- How could the delivery process be improved?
- Is information management adequate (i.e. do you have access to the information and knowledge transfer/training that you need)?
- On scale of 1 to 10 where 5 is a true partnership where each party brings resources to the table, 1 means you have no capacity and need the utility to do it all, and 10 means you need the funding but want to or can do most of the work yourself , where does this partnership fall?

Implementation and Response:

- Internal capacity building—what was pre-engagement capability vs. your current capabilities? Has the partnership improved your campus' capabilities? If so, how?
- Have you received any funding through the partnership? On what are these funds spent? (general categories and percentages)
    - Staff/labor
    - Education/training
    - Measures (retrofits, retro-commissioning, monitoring-based commissioning, new construction)
    - Other (specify _____)
- How is the communication between you and the utility? You and the [Chancellor's Office/Office o the President]? Do you have recommendations on how to improve/optimize it?

Utility Involvement:

- How much do you feel the utilities' presence in the partnership activities?
- How did you feel about SCE/SDGE/PGE and The Gas Co before your experience with this partnership? How do you feel about them now?
- How well do you feel the utility is doing its job in the partnership? Any problems?
- Have your expectations for this partnership been met? How and how not? What would you change?
- How likely would you be in the future to engage the utility directly to pursue these types of services?

Metrics

- What metrics would you use to measure this program's success? Have these metrics been defined for you, and if so, how clearly have then been articulated?
- What do you think needs to be done to increase UC/CSU/CCC campus participation in the program?
- Do the program incentives address your (the facility manager's) needs effectively?
- What energy or demand reduction benefits have you seen as a result of this program? (direct attribution—% of savings)

- How do you know? Are these benefits tracked? How so?
- What % of these demand reductions would have been implemented in the absence of this partnership?

Conclusion:

- What is working well (top 3)?
- What is needs improvement (top 3 concerns)?

A.4 ESCO AND LIGHTING AND CONTRACTOR INTERVIEW PROTOCOL

CDCR Government Partnership
Process Evaluation
ESCO and Lighting contractor Interview protocol

Introduction

Note: Because senior staff will be conducting interviews, the Energy Service Company and lighting contractor interviews will be semi-structured. Therefore the following interview protocol is only a guide to ensure certain topics are covered, but evaluators will follow the flow of the interview and modify questions as needed to fit the interviewee's circumstance.

Notes to Interviewer: As of 1/25/08, no projects have received final financing to go forward. So none of the actual retrofit work has begun. But funding approval is expected soon and may have occurred by the time this interview is conducted. The projects are tracked in the accompanying spreadsheet, and the status of each as of the end of 2007 is summarized in "Project Summary" Column N.

NAME: _____

COMPANY:_____

TITLE: _____

PHONE:_____

INTERVIEWER:_____

DATE COMPLETED: _____**LENGTH:** _____

Type of company [From Sample Information]

1. Energy Service Company
2. Lighting Contractor
3. Consultant

My name is _____, with PA Consulting Group. The California Investor Owned Utilities have hired us to evaluate the California Department of Corrections and Rehabilitation (CDCR) Partnership Program. I would like to ask you some questions about your experience with the program. The information you provide will assist us in identifying ways for the program to be more effective. This interview should take approximately 30 minutes to an hour of your time, depending on your concerns. Can we take some time now to do the interview? (If no, when would be a convenient time?)

Firmographics—ALL

F1. To get us started, could you briefly tell me a little bit about your business (or position)? What types of services do you offer? Probe for number of projects completed in typical year.

F1A. What percent of your projects/equipment sold are in California? What percent qualified for incentives from electric and gas utilities?

F2. What parts of California do you primarily work in? By IOU service territory: SDG&E, SCG, SCE or PG&E?

F3. How many employees (full-time equivalents) does your company employ?

F4. Are you a subsidiary or branch of a bigger company? (Other options: franchise, dealer, manufacturer rep).

Program Involvement—ALL

P1. Could you describe for me your participation the CDCR Government Partnership Program?

P2. What other Utility sponsored incentive programs in California have you participated in? How long have you participated in them?

P3. Why did you decide to participate/get involved in the CDCR Partnership program? *(Do not prompt)*

Now I would like to discuss the various stages of qualification, project development and proposal, project review (due diligence), and approval

P4. Did you feel the requirements of the original request for qualifications from CDCR were reasonable? Why/why not? How did they compare to those for other programs? What if anything would you recommend changing?

P5 . Were you satisfied with your facility (i.e. correctional facility that you were given to audit and identify project) assignment for which to develop a project?

P6. Do you think that the criteria that the program set for qualifying projects and measures were reasonable? Are they more or less stringent than what you have experienced for other programs? How do you think it should be changed in the future?

P7. Was the CDCR and utility staff supportive and helpful in assisting your firm in performing the audits and providing information needed to develop the projects?

P8. Was the technical review process (aka due diligence) reasonable in your view in terms of time, information, and other requirements? (Probe). What, if anything would you recommend to change it, recognizing its need for regulatory compliance.

P9. Do you feel there are adequate program communications? How do you like to receive communications about the program?

P10. How would you describe your interactions with program staff? (minimal, helpful, very involved, probe to characterize)?

P11. Do you expect that your firm will submit projects for approval in the future (next year) under the CDCR program? Why?

P12. Are there other types of energy-efficiency programs in California that you participate in /are aware of?

P12a. If yes, how would you compare the administrative and approval requirements of the CDCR Program with them? Do you think there are lessons learned for the CDCR Partnership from these other programs? Probe.

P13. What additional services would you like to see the program provide customers?

P14. What can be done to increase the number of energy-efficiency project completed through the program?

Administrative Requirements

E1. On a scale of 1 to 5 where 1 is 'not at all difficult' and 5 is 'very difficult', how would you rate the program's administrative requirements (e.g., application requirements and rebate processing) for you? Why do you give this ranking?

E2. What is working well about from your point of view? How would you like to see the process improved?

IOU differentiation

This program is part of a partnership between the CDCR and all four investor owned utilities in California. SDG&E, SCG, SCE and PG&E.

U1. Which of the four utilities do you interact with? How do those interactions differ?

U2. In which of their services territories are you operating projects? Do you have a specific geographic restriction to only be working within some service territories, or can you operate in all four?

U3. Please identify any issues you have regarding the program activities with each utility that you have experience with. What is working best about that utility's involvement and what needs work?

A. San Diego Gas and Electric

B. Southern Cal Gas

C. Southern California Edison

D. PG&E

U4. What gas-savings opportunities are identified and being pursued? Are there enough opportunities to meet gas energy-savings targets?

U5. What issues if any are associated with the electric savings opportunities? Any problem meeting electric savings targets?

U6. How important do you feel the utility's involvement is in the program partnership? Why is that?

U7. These partnership programs were set up to tap into skills and resources of both parties, in this case the CDCR as one partner and the utilities as the other combined partners. On scale of 1 to 10 where 5 is a true partnership where each party brings resources to the table, 1 means the outside partner, (in this case CDCR), has no capacity and needs the utility to be heavily engaged, and 10 means CDCR just needs the funding but want to or can do most of the work itself, where does this partnership fall?

Conclusion

C1. What do you think is working best in the CDCR Partnership Program?

C2. What do you think is most in need of improvement?

C3. Is there anything else that we haven't discussed that you would like the evaluation to note?

Thank you for your time. This completes our interview.

PG&E Statewide Partnership Program Evaluation
Program Update Interview Guide

5. What is your role with the PG&E Statewide Partnership programs?
6. How long have you been in this role? She oversees the process from PG&E. She makes sure the monitoring of budget. Allocation of balance.
7. What level of familiarity do you have with the partnership programs? Detailed? Overarching? Policy? There are a lot of variance in level of involvement. Which one has an issue at the time with how in-depth they get. They sit down with the partners, some of them more than others. It depends.

Program Performance Analysis

A review of the EEGA data shows the following final numbers from the 2006-2008 cycle related to the four Statewide programs. (Source: December 2008 monthly report posted March 2009, PGE[1].MR.200812.4.xls). Questions regarding these numbers:

8. Are the numbers recorded on EEGA accurate? Do they accurately represent program progress and what the programs did?
9. What activities or projects aren't these numbers capturing?
10. Bakersfield Kern was fairly well on target for most of its goals other than kWh goals. What types of projects made up a bulk of the savings (direct install, municipal projects, etc.). Why was that the case?
11. Why did CCC end the cycle behind in their goals? (Probe for whether it being a new program impacted its ability to achieve goals.)
12. Why did CDCR end the cycle behind in the goals? (Probe for establishment in financing mechanism and project assessment timeline.)
13. UC/CSU was significantly ahead of its therms goals and expenditures, but somewhat behind in kWh and kW goals. Did certain types of projects drive the therms performance? What else drove this difference between kWh/kW and therms savings performance?

Table 1: Summary of Percent Expended and Saved by Program (2006 – 2008)

Program	% expenditures	% kW goals	% kWh goals	% therms goals
Bakersfield Kern	93%	85%	63%	91%
CCC	47%	31%	24%	52%
CDCR	49%	26%	39%	9%
UC/CSU	121%	30%	70%	198%

Table 2: Summary of Expenditures (2006 – 2008)

Program	Adopted budget	Actual Expenditures	% Expenditures
Bakersfield Kern	$6,695,765	$6,239,500	93%
CCC	$11,814,880	$5,566,875	47%
CDCR	$7,680,000	$3,785,554	49%
UC/CSU	$16,476,217	$19,854,015	121%

Table 3: Summary of Demand Reduction by Program (2006 – 2008)

Program	Projected kW	Installed kW	% installed kW
Bakersfield Kern	3,887	3,307	85%
CCC	6,712	2,083	31%
CDCR	5,514	1,431	26%
UC/CSU	12,603	3,811	30%

Table 4. Summary of kWh Savings by Program (2006 – 2008)

Program	Projected kWh	Installed kWh	% installed kWh
Bakersfield Kern	24,121,724	15,313,918	63%
CCC	30,704,676	7,494,696	24%
CDCR	25,416,192	9,946,072	39%
UC/CSU	43,228,533	30,133,727	70%

Table 5. Summary of Therms Savings by Program (2006 – 2008)

Program	Projected therms	Installed therms	% installed therms
Bakersfield Kern	80,854	73,757	91%
CCC	988,985	512,099	52%
CDCR	448,000	41,181	9%
UC/CSU	1,490,652	2,952,046	198%

Bakersfield-specific questions

14. What are some of the take-aways from the 2006-2008 statewide partnership programs? How is this affecting the 2009 – 2011 plans? (Try to get information at a program level as well as portfolio level).

15. What partnership / contracting changes will be taking place for the 2009 – 2011 program cycle? Why was there a shift in contracting?

16. [IFNOT DISCUSSED ABOVE] When we did the evaluation we found a significant portion of savings came from the small business/residential audits and direct install. Was that the case in the end?

17. We also found that it was difficult to serve municipal facilities. Did this prove to still be true at the end of the program cycle? At what stage was it difficult to get to them…getting in the door, completing the audit process, moving them from audit to project, etc.?

18. What did you do, throughout the program, to overcome the barriers to serving municipal facilities? Will you be doing anything different in the 2009 – 2011 program cycle?

19. Why did you institute direct delivery? How effective was this delivery mechanism? What percent of your retrofit projects ended up being direct delivery? Will you be including it as an offering in the next program cycle?

20. How active was the homebuyer component of the program? How many household ended up receiving services through homebuyers? Do you believe it was effective? What could have made it more effective? Will it continue into the next program cycle?

21. Other evaluation found difficulty for gas-specific direct installations. Did Bakersfield Kern experience this difficulty as well?

22. Is education integrated into the audit process (distinguish between direct install and municipal projects)? How? Will this change in the next program cycle?

23. Explain the PG&E database tracking system. Do you feel the system is adequate for tracking marketing, outreach, and other program-specific activities?

24. Are invoice payments still an issue?

25. How will the program raise the awareness and importance level of energy efficiency? For example, the city only slating $200,000 toward energy efficiency versus $2M for graffiti abatement. Is greater education a potential solution?

26. Does a distinction still exist between the City and County toward energy efficiency? How to get over that barrier?

APPENDIX B: SURVEY INSTRUMENTS

B.1 RESIDENTIAL PARTICIPANT SURVEY

Partnership Program Participant Survey
Process Evaluation
Residential Survey

Hello, my name is [interviewer name], and I'm calling on behalf of **UTILITY OR PROGRAM.** May I speak with [named respondent]?

1 Yes
2 No *[attempt to convert; if R not available, ask for an adult who makes decisions on how household uses energy]*

I'm with PA Consulting Group, an independent research firm. We have been hired to evaluate services available to customers of **UTILITY OR PROGRAM**. I'm not selling anything; I'd just like to ask your opinion about these types of services and whether you've taken advantage of them. I'd like to assure you that your responses will be kept confidential and your name will not be revealed to anyone.

(**Why are you conducting this study**: Studies like this help the utility and its partners better understand customers' awareness of and interest in energy programs and services.

(**Timing**: This survey should take less than 15 minutes of your time. Is this a good time for us to speak with you? *IF NOT, SET UP CALL BACK APPOINTMENT OR OFFER TO LET THEM CALL US BACK AT 1-800-454-5070*)

(**Sales concern**: I am not selling anything; we would simply like to learn about your awareness of services that could save energy in your home, and your opinions about these services. Your responses will be kept confidential. If you would like to talk with someone about this study, feel free to call **[Program contact]**

(NOTE: For all questions, "don't know" and "refused" will be coded if offered as a response.)

S1. First, do you own or rent your home?

1 Own
2 Rent

S2. In which type of building do you live?

1 Single family home
2 Multi-family dwelling (2-4 units)
3 Apartment buildings (5 or more)
4 Other (specify)

S3. Per our records, your zip code is [READ ZIP CODE]. Is this correct?

1 Yes
2 No —→ Could you please tell me the correct zip code?

S4. From what utility do you buy your electricity?

1 Southern California Edison (SCE)
2 Pacific Gas & Electric (PG&E)
3 Los Angeles Department of Water and Power (LADWP)
4 Sacramento Municipal Utility District (SMUD)
5 Other (record)
D Don't know

S5. From what utility do you buy natural gas?

1 Southern California Gas (SCG)
2 Pacific Gas & Electric (PG&E)
3 Other (record)
D Don't know

Attitudes Toward and Use of Energy-Efficiency Services

Thank you. I now have a few questions related to your home and energy use.

U1A. Would you say that your home is very energy efficient, somewhat energy efficient or not very energy efficient?

1 Very energy efficient [SKIP TO U2]
2 Somewhat energy efficient [SKIP TO U2]
3 Not very energy efficient
D Don't know

U1B. Why don't you think your home is very energy efficient [DO NOT READ; INDICATE ALL THAT APPLY]

1 Home is old
2 Home is drafty / does not feel tight
3 Have not done anything to make the home energy efficient
4 Have old, inefficient appliances
5 Household behaviors (i.e., leave lights on)
6 Other (record)
7 Don't know

U2. On a scale of 1 to 5, with 1 being not at all important and 5 being very important, how important is lowering the cost of your energy bills to you?

1 Not at all important
2
3
4
5 Very important
D Don't know

U3. How much, on average, are your monthly electric bills?

U4. On a scale from 1 to 5 where 1 is not at all active and 5 is very active, how active would you say your local government is in promoting energy-efficiency messages and helping you to save energy with specific programs?

1 Not at all active
2
3
4
5 Very active
D Don't know

U5. Are you aware of any school -based programs that promote energy efficiency?

1 Yes
2 No [SKIP TO NEXT SECTION]
D Don't know [SKIP TO NEXT SECTION]

U6 Do you have school aged children that participate in these programs?

1 Yes
2 No [SKIP TO NEXT SECTION]
D Don't know [SKIP TO NEXT SECTION]

U7 What is the name of the program? [RECORD RESPONSE]

Education/Workshop Program Module

ASK FOR NON-RESOURCE EDUCATION PROGRAMS THAT PROVIDE EDUCATION AND TRAINING OR RESOURCE PROGRAMS THAT OFFER EDUCATION AND TRAINING. OTHERWISE, SKIP TO NEXT SECTION.

SE1. Our records indicate you attended a workshop] in [DATE], where they provided information related to ways to save energy in your home. This may have occurred at a location such as [Provide description based on program]. Do you recall attending a session like this?

1 Yes
2 No [SKIP TO NEXT SECTION]
D DK

SE2. Who sponsored the session? [DO NOT READ; RECORD ALL THAT APPLY]

1 Southern California Gas
2 Southern California Edison
3 Ventura County Energy Resource Center/Regional Energy Alliance
4 South Bay / South Bay Energy Savings Center
5 Local Government Energy Action Resources (LGEAR) , Mammoth Lakes / Ridgecrest
7 Energy Coalition
8 County / City of Santa Barbara, Goleta and Carpenteria
9 Other [RECORD]

SE3 Why did you attend this activity or workshop? [DO NOT READ; RECORD ALL THAT APPLY]

1 Wanted to learn about ways to save water/energy in my home
2 Wanted to learn about ways to save money on utility bills
3 Heard about it from others
4 Saw it and stopped by
5 Want to protect the environment
6 It's the right thing to do
7 Want to help out the utility
8 It was sponsored/recommended by local government organization
9 Other [RECORD]
10 Don't know

SE4. How useful was the event in helping you understand ways to save energy in your home: Not at all useful, somewhat useful, or very useful?

1 Not at all useful
2 Somewhat useful
3 Very useful

SE5. Did the event provide you with specific things you can do in your home to save energy?

1 Yes
2 No [SKIP TO SE7]
D Don't know [SKIP TO SE7]

SE6. **Since attending** the workshop, what energy-saving actions have you taken in your home? [RECORD ALL THAT APPLY]

1 Nothing
2 Lowered water heater temperature
3 Use programmable thermostat or adjust temperature when not at home
4 Installed CFLs
5 Purchased energy efficient appliances
6 Other [RECORD]

SE7. As part of this event, did you receive any brochures or written information to take home with you?

1 Yes
2 No [SKIP TO SE9]
D Don't know [SKIP TO SE9]

SE8. How useful did you find this information in helping you understand ways to save energy in your home? Not at all useful, somewhat useful, or very useful.

1 Not at all useful
2 Somewhat useful
3 Very useful

SE9. Did you receive any other take-aways as part of the event, such as CFLs? [INTERVIEWER, IF NECESSARY: "TAKE-AWAYS ARE ITEMS THE WORKSHOPS MAY HAVE GIVEN AWAY FOR YOU TO USE IN YOUR HOME TO SAVE ENERGY]

1 Yes
2 No [SKIP TO SE13]
3 Don't know [SKIP TO SE13]

SE10. What did you receive? [DO NOT READ; INDICATE ALL THAT APPLY]

1 A kit or box of energy-efficiency tips/equipment
2 CFLs
3 Water aerators
4 Pipe wraps
5 Other [RECORD]

SE11. Did you use or install this/any of these items?

1 Yes
2 No [SKIP TO SE13]
3 Don't know [SKIP TO SE13]

SE12. What did you use or install?

1 CFLs
2 Water aerators
3 Pipe wraps
4 Low-flow showerheads
5 Other [RECORD]

SE13. What information or activity from this event did you feel was the most useful for you? [RECORD RESPONSE]

SE14. What benefits, if any, have you or your household received from participating in this program? [DO NOT READ; INDICATE ALL THAT APPLY]

1 Learned how to change energy using behaviors / learned how to save energy
2 Able to share what I learned with others
3 Installed more measures on my own
4 Saved energy
5 Saved money on energy bills
6 Make home more comfortable
7 Affect climate change / environmental benefits
8 Other (specify_____)
9 No benefits
10 Don't know

SE15. How satisfied are you with the workshop you attended? Please rate your satisfaction on a scale from 1 to 5, where 1 is not at all satisfied and 5 is more satisfied.

1 Not at all satisfied
2
3
4
5 Very satisfied
D Don't Know

SE16. [IF RATE 3 OR LESS] How could you have been more satisfied with the workshop? [RECORD RESPONSE]

Direct Install Module

ASK OF PARTICIPANTS THAT RECEIVED ENERGY EFFICIENT MEASURES VIA DIRECT INSTALL, EXCLUDING CFLS (E.G., INTERIOR HARDWIRE LIGHTING, APPLIANCES, ETC.)

Ask of each measure direct installed.

DI1. Our records indicate someone from [PROGRAM NAME/ORGANIZATION] came into your home and installed [MEASURE] in [MONTH/YEAR]. Is this correct?

1 Yes
2 No
D DK

DI2. [IF NO] What is incorrect? [Probe if necessary with below categories]

1 Do not recall someone coming to home [SKIP TO NEXT SECTION]
2 Measures listed are incorrect →
ASK AND RECORD: WHAT ARE THE CORRECT MEASURES?
3 Date is incorrect
4 Other [RECORD] [SKIP TO NEXT SECTION IF NECESSARY]

DI3. How did you hear about the program? [DO NOT READ; RECORD ALL THAT APPLY]

1 Another program (which program?)
2 Local government partnership activities
3 Water utility bill stuffing
4 Electric / gas utility bill stuffing
5 Water utility mailing
6 Electric / gas utility mailing
7 Community Sweeps
8 Community displays
9 Energy fairs
10 Friends/neighbors/relatives
11 Newspaper article
12 Other [RECORD]

DI4. How long was the representative at your home to install the [MEASURE]? _____ hours

DI5. What information did you receive from the representative as part of the visit?

1 None
2 How to take care of or use the measure
3 How to save energy in my home (general brochures and discussions)
4 Measures/appliances I should install to save energy in home
5 Ways to improve the draftiness/tightness of home
6 Other [RECORD RESPONSE]
D Don't know

DI6. **[IF RECEIVED INFORMATION]** How useful was the information you received from the visit? Please rate on a scale from 1 to 5, where 1 is not at all useful and 5 is very useful.

1 Not at all useful
2
3
4
5 Very useful
D Don't Know

DI7. [IF DI6<4] How could information have been more useful for you? [RECORD RESPONSE]

DI8. Had you planned to install [MEASURE] before the program?

1 Yes
2 No
D Don't know

DI9. Without the program, would you have installed [MEASURE] at the time you did?

1 Yes
2 No
D Don't know

DI10. Is the measure still installed in your home?

1 Yes
2 No
D Don't know

DI11. [IF NO] Why isn't the measure still installed? [RECORD RESPONSE]

DI12. How satisfied are you with this program? Please rate your satisfaction on a scale from 1 to 5, where 1 is not at all satisfied and 5 is more satisfied.

1 Not at all satisfied
2
3
4
5 Very satisfied
D Don't Know

DI13. [IF RATE 3 OR LESS] How could you have been more satisfied with the program? [RECORD RESPONSE]

DI14. What benefits, if any, have you or your household received from participating in this program? [DO NOT READ; INDICATE ALL THAT APPLY]

1 Learned how to change energy using behaviors / learned how to save energy
2 Received energy efficient measures
3 Saved energy
4 Saved water
5 Saved money on energy/water bills
6 Able to share what I learned with others
7 Other (specify)
8 No benefits
9 Don't know

CFLs Rebate/Buy-down/Direct Install/Give-Away Module

ASK OF PARTICIPANTS WHO REDEEMED BULBS VIA CFL PROMOTION OR AS PART OF A DIRECT INSTALL PROGRAM GIVE-AWAY

C1A. [IF RECEIVED BULBS VIA REBATE] Our records indicate you participated in a program where you redeemed a rebate for CFL bulbs for the value of $X. Is this correct?

1 Yes
2 No [INTERVIEWER: PROBE "Is it the value you disagree with, or do you now recall participating?". IF STILL NO, SKIP TO M1]

C1B. [IF RECEIVED BULBS VIA DIRECT INSTALL] Our records indicate you participated in a program where [ADMINISTERING AGENCY] came to your home and installed [X CFL bulbs] Is this correct?

1 Yes
2 No [SKIP TO NEXT SECTION]

C1C. [IF RECEIVED BULBS VIA GIVE-AWAY] Our records indicate you received [X CFL bulbs] as part of participating in [AUDIT/WORKSHOP NAME]. Is this correct?

1 Yes
2 No [SKIP TO NEXT SECTION]

C2. How did you hear about the [PROGRAM NAME] program?

1 Another program (which program?)
2 Local government partnership activities
3 Water utility bill stuffing
4 Electric / gas utility bill stuffing
5 Water utility mailing
6 Electric / gas utility mailing
7 Community Sweeps
8 Community displays
9 Energy fairs
10 Friends/neighbors/relatives
11 Newspaper article
12 Other [RECORD]

C3. In total, how many CFLs did you receive through this program? _____

C4. Of these, how many are currently installed in your home? _____

C5. [IF C4<C3] What happened to the [C3-C4] bulbs that aren't installed? [RECORD RESPONSE]

C6. If the program were not available, what would you have done when your light bulbs had burned out? Would you have…

1 Purchased an incandescent bulb to replace it
2 Purchase a CFL to replace it/them
3 Not have replaced it/them at all
4 Something else? [RECORD]

C7. What benefits, if any, have you or your household received from participating in this program? [DO NOT READ; INDICATE ALL THAT APPLY]

1 Avoided purchasing new bulbs
2 Was able to receive CFLs
3 Learned about the benefits of CFLs over incandescent bulbs
4 Saved energy
5 Saved money on energy bills
6 Environmental benefits
7 Helped the utilities or community
8 Other (specify)
9 No benefits
10 Don't know

C8. How satisfied are you with this program? Please rate your satisfaction on a scale from 1 to 5, where 1 is not at all satisfied and 5 is more satisfied.

1 Not at all satisfied
2
3
4
5 Very satisfied
D Don't Know

C9. [IF RATE 3 OR LESS] How could you have been more satisfied with the program? [RECORD RESPONSE]

In-home Energy Analysis Module

ASK OF PARTICIPANTS WHO RECEIVED AN IN-HOME ENERGY ANALYSIS INCLUDING TUNE UP PARTICIPANTS

EA1. Our records indicate that [AGENCY/PARTNERSHIP] came to your home to review how your home uses energy and provide suggestions to save energy in your home. Is this correct?

1 Yes
2 No [SKIP TO NEXT SECTION]

EA2. How did you hear about the [PROGRAM NAME] program?

1 Another program (which program?)
2 Local government partnership activities
3 Water utility bill stuffing
4 Electric / gas utility bill stuffing
5 Water utility mailing
6 Electric / gas utility mailing
7 Community Sweeps
8 Community displays
9 Energy fairs
10 Friends/neighbors/relatives
11 Newspaper article
12 Other [RECORD]

EA3. How long did a representative spend at your home? _____ hours

EA4. What information did you get as part of the visit?

1 How to save energy in my home (general brochures and discussions)
2 Measures/appliances I should install to save energy in home
3 Ways to improve the draftiness/tightness of home
4 Other [RECORD RESPONSE]
D Don't know

EA5. How useful was the information you received from the visit? Please rate on a scale from1 to 5, where 1 is not at all useful and 5 is very useful.

1 Not at all useful
2
3
4
5 Very useful
D Don't Know

EA6. [IF EA5<4] How could information have been more useful for you? [RECORD RESPONSE]

EA7. [IF EA4<>2] Did the program make suggestions on appliances or measures you should install in your home to make it more energy efficient?

1 Yes
2 No [SKIP TO EA13]
D Don't know [SKIP TO EA13]

EA8. What suggestions did the contractor make? [SELECT ALL THAT APPLY]

1 Install an energy efficient washer
2 Install an energy efficient dishwasher
3 Replace or remove secondary refrigerator
4 Replace heating system
5 Replace cooling system
6 Install CFLs
7 Add/improve insulation
8 Other (specify)

EA9. Will you act on [any of these suggestions/this suggestion]?

1 Yes
2 No [SKIP TO EA12]
D Don't know [SKIP TO EA13]

EA10. [IF MORE THAN ONE] Which ones? [RECORD RESPONSE]

EA11. Are there any suggestions the contractor made that you decided not to do?

1 Yes
2 No [SKIP TO EA13]
D Don't know [SKIP TO EA13]

EA12. Why did you decide not to follow through with those suggestions? [RECORD RESPONSE]

EA13. What benefits, if any, have you or your household received from participating in this program? [DO NOT READ; INDICATE ALL THAT APPLY]

1 Learned how to change energy using behaviors / learned how to save energy
2 Able to share what I learned with others
3 Installed more measures on my own
4 Saved energy
5 Saved money on energy bills
6 Other (specify_____)
7 No benefits
8 Don't know

EA14. How satisfied are you with this program? Please rate your satisfaction on a scale from 1 to 5, where 1 is not at all satisfied and 5 is more satisfied.

1 Not at all satisfied
2
3
4
5 Very satisfied
D Don't Know

EA15. [IF RATE 3 OR LESS] How could you have been more satisfied with the program? [RECORD RESPONSE]

Other Program Awareness and Interest

M1. As part of your participation in [this program/these programs], did you receive materials or application forms for other utility programs?

1 Yes
2 No
D DK

M2. [IF YES ABOVE] Did you sign up for other utility programs?

1 Yes
2 No
D DK

M3. [IF YES ABOVE] Which programs? [RECORD PROGRAM(S)]

M4. Do you know of other organizations in your area where you could receive these types of services?

1 Yes [What organization?]
2 No

Energy-Efficiency Actions Taken

EE1. I'm going to read a list of things you can do to make your home more energy efficient. Please say "yes" or "no" to indicate whether you have made any of these efficiency improvements to your home since January 2006.

1 Yes
2 No
D Don't know

In the last two years, have you . . .

a. Had an energy audit conducted of your home, where a professional walks through your home and identifies ways that you can improve the energy efficiency of your home or appliances?

b. Had a hot water blanket or pipe wrap installed?

c. Installed water conservation products such as a low flow showerhead or faucet flow restrictors?

d. Installed compact fluorescent or other energy efficient lighting [IF RECEIVED LIGHTING: beside what you received through the program]?

e. Purchased an ENERGY STAR labeled appliance for your home [IF RECEIVED REBATE FOR APPLIANCE: other than the [appliance/appliances] you purchased]? (**IF YES**, Which ones?_____)

f. Purchased an ENERGY STAR labeled thermostat for your home?

g. Had the efficiency of your heating, cooling or water heating equipment checked?

h. Installed a high-efficiency furnace, heat pump, water heater or air conditioner? (**IF YES**, What type of equipment did you install_____?)

i. Added insulation to the walls, ceilings or crawlspaces?

j. Installed new energy efficient windows or doors?

k. Made other improvements to increase the energy efficiency of your home? (**IF YES**, What have you done? _____)

IF SAID NO OR DON'T KNOW TO ALL, SKIP TO EE5

EE2. [IF SAID MADE AT LEAST 1 IMPROVEMENT ABOVE] Why did you make these improvements? [DO NOT READ; RECORD ALL THAT APPLY]

1 To save energy / water
2 To save money on my utility / water bill
3 Environmental benefits
4 Information received from workshop or program
5 It is the right thing to do
6 Make home more comfortable
7 Everyone else is doing it
8 Other
9 Don't know

EE2A. [If any EE1=1 AND PARTICIPANT] For the energy-efficiency improvement(s) you said you made in the past two years, did you do this based on your participation in the [program]?

1 Yes → Which program?
2 No [SKIP TO NEXT SECTION]
D Don't Know [SKIP TO NEXT SECTION]

EE2B. [If any EE1=1 AND NONPARTICIPANT SAMPLE] For the energy-efficiency improvement(s) you said you made in the past two years, did you do this based on your participation in a community or utility-sponsored program?

1 Yes → Which program? [RECORD]
2 No [SKIP TO NEXT SECTION]
D Don't Know [SKIP TO NEXT SECTION]

IF NON-PARTICIPANT, SKIP TO NP1

EE3. [If EE2A=1] How influential was the [program] in your decision to take that action? Please rate on a scale of 1 to 5, where 1 is not at all influential and 5 is very influential.

1 Not at all influential
2
3
4
5 Very influential
D Don't Know

EE4. [If EE3=1] Would you have taken this action without participating in the [LIST NAMES OF PROGRAMS NOTED IN EE2A]

1 Yes
2 No
D Don't know

EE5. [ASK IF ALL EE1=NO] What are some of the reasons you have NOT made energy-efficiency improvements to your home?
[DO NOT READ; INDICATE ALL THAT APPLY]

1 No reason given
2 Home is new
3 Can't afford/too costly
4 Cost/benefit trade-off is too low
5 Don't know what to do
6 Plan to move soon
7 Too difficult to do by myself
8 Don't have the time
9 Home is already energy efficient/I'm already doing everything I can
10 Just haven't got around to it yet
11 Don't know a reliable contractor
12 I don't care
13 Other (Specify)
14 Don't know

General Partnership Questions

IF DID NOT PARTICIPATE IN ANY PARTNERSHIP PROGRAM, SKIP TO NEXT SECTION.

GP1. On a scale from 1 to 5, where 1 is not at all satisfied and 5 is very satisfied, what would you rate your overall satisfaction with your involvement in the [PROGRAM NAME/WORKSHOP]?

1 Not at all satisfied
2
3
4
5 Very satisfied
D Don't Know

GP2. Who sponsored this program? [UNPROMPTED, THEN PROMPTED. NOTE SPECIFIC NAME IF OFFERED]

1 Electric utility
2 Gas utility
3 Water utility
4 Environmental or non-profit group
5 City or county government
6 Other_____
D Don't know

GP3. What was most positive about your experience with this program? [RECORD RESPONSE]

GP4. What was the least effective part of your experience with this program? [RECORD RESPONSE]

GP5. Do you feel you are more satisfied, less satisfied, or have the same level of satisfaction with [LOCAL GOVERNMENT PARTNER] as a result of participating in the program?

1 More satisfied
2 Less satisfied
3 Same satisfaction
D Don't know

GP6. Do you feel you are more satisfied, less satisfied, or have the same level of satisfaction with [UTILITY] as a result of participating in the program?

1 More satisfied
2 Less satisfied
3 Same satisfaction
D Don't know

GP7. Were you more likely, less likely, or just as likely to participate in the program because of the involvement of [local government partner]?

1 More likely (Why do you say that?)
2 Less likely (Why do you say that?)
3 Have no effect

Final Perception

ALL RESPONDENTS TO ANSWER
EVALUATOR/SENIOR INTERVIEWER NOTES: CAREFULLY HOW HOUSEHOLDS ARE ABLE TO RESPOND TO THESE QUESTIONS, AND THE USEFULNESS OF THE QUESTIONS.

PD1. There are various organizations that provide information and services to help you save energy or water, such as local governments, nonprofit groups, and utility companies. From what types of organizations would you prefer to receive this type of information…. [READ CHOICES. INDICATE ALL THAT APPLY]

1 Local government
2 Nonprofit organization
3 Electric/gas utility
4 Water utility
5 Other organization → Which organization (RECORD)
6 Does not matter
D Don't know

PD2. Why is that? [RECORD RESPONSE]

PD3A. Do you feel these organizations differ in their ability to provide you with services to help you save energy or water?

1 Yes
2 No [IF PART SKIP TO PD4, IF NONPART SKIP TO D1]
D Don't know [IF PART SKIP TO PD4, IF NONPART SKIP TO D1]

PD3B How do you think they differ? [RECORD RESPONSE]

IF NONPART SKIP TO D1

PD4. Finally, what do you believe is the source of funding for this program? [DO NOT READ; INDICATE ALL THAT APPLY]

1 The [PARTNER NAME]
2 My local government
3 My electric or gas utility
4 My gas utility
5 My water utility
6 Ratepayers
7 Taxes
8 The State of California
9 The federal government
10 Other [RECORD]
D Don't know

Demographics

I JUST HAVE A COUPLE MORE QUESTIONS ABOUT YOUR HOUSEHOLD.

D1 [IF OWN] In what year was your home built?

1 2000 or later
2 1990 to 1999
3 1985 to 1989
4 1980 to 1984
5 1970 to 1979
6 1960 to 1969
7 1950 to 1959
8 1940 to 1949
9 1939 or earlier
D Don't know

D2 What condition do you feel your home is in? Excellent condition, good condition, fair condition, poor condition, or terrible condition?

1 Excellent
2 Good
3 Fair
4 Poor
5 Terrible
D Don't know

D3 [IF POOR OR TERRIBLE] Why do you feel your home is in [terrible/poor] condition? [DO NOT READ; INDICATE ALL THAT APPLY]

1 Home is drafty/uncomfortable
2 In need of many repairs (roof, siding, etc)
3 Structure is bad
4 Home is just old
5 Other [SPECIFY]

D4 Including yourself, how many people are currently living in your household?

____PEOPLE

D5 Do you have any….

A. IF D4=1, SKIP Children under 6 living with you?	1 Yes 2 No D DK R Refused
B. Adults over 60 in your household?	1 Yes 2 No D DK R Refused
C. Disabled individuals in your household?	1 Yes 2 No D DK R Refused

D6. Are you currently…?

1 Married
2 Widowed
3 Divorced
4 Separated
5 Never married
R Refused

D7 Are you Spanish, Hispanic, or Latino?

1 Yes
2 No
D Don't know
R Refused

D8 What is your racial classification? Is it…

1 American Indian
2 Alaskan Native
3 Asian or Pacific Islander
4 African American or Black
5 White
6 Other (Specify)
D Don't know
R Refused

D9 I am going to read to you some income ranges. Please estimate your total gross annual household income, before taxes, for this year. Include all sources of income for including all earned wages in the household, all salary, financial assets, pensions, public assistance, or any other service. Will your total annual household income in 2007 be…

[IF NECESSARY, READ: We know that most people consider their income to be very private information. Your income and name will not be disclosed to anyone, for any purpose.]

1 Less than $15,000
2 $15,000–29,999
3 $30,000–39,999
4 $40,000–49,999
5 $50,000–59,999
6 $60,000–69,999
7 $70,000–79,999
8 $80,000–89,999
9 $90,000–99,999
10 $100,000–109,999
11 $110,000–149,999
12 $150,000–200,000
13 Greater than $200,000
14 Don't know
15 Refused

End THANK YOU FOR YOUR TIME.

B.2 RESIDENTIAL NONPARTICIPANT SURVEY

PG&E Bakersfield Kern Energy Watch Partnership Process Evaluation
Residential Non-participant Survey

Hello, my name is [interviewer name], and I'm calling on behalf of the PG&E Bakersfield Kern Energy Watch Partnership and your local utility. May I speak with [named respondent]?

1 Yes
2 No *[attempt to convert; if R not available, ask for an adult who makes decisions on how household uses energy]*

I'm with PA Consulting Group, an independent research firm. We have been hired to evaluate services available to local utility customers. I'm not selling anything; I'd just like to ask your opinion about these types of services and whether you've taken advantage of them. I'd like to assure you that your responses will be kept confidential and your name will not be revealed to anyone.

(**Why are you conducting this study**: Studies like this help the utility and its partners better understand customers' awareness of and interest in energy programs and services.

(**Timing**: This survey should take less than 15 minutes of your time. Is this a good time for us to speak with you? *IF NOT, SET UP CALL BACK APPOINTMENT OR OFFER TO LET THEM CALL US BACK AT 1-800-454-5070*)

(**Sales concern**: I am not selling anything; we would simply like to learn about your awareness of services that could save energy in your home, and your opinions about these services. Your responses will be kept confidential. If you would like to talk with someone about this study, feel free to call **[Program contact]**

(NOTE: For all questions, "don't know" and "refused" will be coded if offered as a response.)

S1. First, do you own or rent your home?

1 Own
2 Rent

S2. In which type of building do you live?

1 Single family home
2 Multi-family dwelling (2-4 units)
3 Apartment buildings (5 or more)
4 Other (specify)

S3. Per our records, your zip code is [READ ZIP CODE]. Is this correct?

1 Yes
2 No --→ Could you please tell me the correct zip code?

Attitudes Toward and Use of Energy-Efficiency Services

Thank you. I now have a few questions related to your home and energy use.

U1A. Would you say that your home is very energy efficient, somewhat energy efficient or not very energy efficient?

1 Very energy efficient [SKIP TO U2]
2 Somewhat energy efficient [SKIP TO U2]
3 Not very energy efficient
D Don't know

U1B. Why don't you think your home is very energy efficient [DO NOT READ; INDICATE ALL THAT APPLY]

1 Home is old
2 Home is drafty / does not feel tight
3 Have not done anything to make the home energy efficient
4 Have old, inefficient appliances
5 Household behaviors (i.e., leave lights on)
6 Other (record)
7 Don't know

U2. On a scale of 1 to 5, with 1 being not at all important and 5 being very important, how important is lowering the cost of your energy bills to you?

1 Not at all important
2
3
4
5 Very important
D Don't know

U3. How much, on average, are your monthly electric bills? **U_3_amt**_____

U4. On a scale from 1 to 5 where 1 is not at all active and 5 is very active, how active would you say your local government is in promoting energy efficiency messages and helping you to save energy with specific programs?

1 Not at all active
2
3
4
5 Very active
D Don't know

U5. Are you aware of any school -based programs that promote energy efficiency?

1 Yes
2 No [SKIP TO NEXT SECTION]
D Don't know [SKIP TO NEXT SECTION]

U6 Do you have school aged children that participate in these programs?

1 Yes
2 No [SKIP TO NEXT SECTION]
D Don't know [SKIP TO NEXT SECTION]

U7 What is the name of the program? [RECORD RESPONSE]

Energy-Efficiency Actions Taken

EE1. I'm going to read a list of things you can do to make your home more energy efficient. Please say "yes" or "no" to indicate whether you have made any of these efficiency improvements to your home since January 2006.

1 Yes
2 No
D Don't know

In the last two years, have you . . .

In the last two years, have you . . .

a. Had an energy audit conducted of your home, where a professional walks through your home and identifies ways that you can improve the energy efficiency of your home or appliances?

b. Had a hot water blanket or pipe wrap installed?

c. Installed water conservation products such as a low flow showerhead or faucet flow restrictors?

d. Installed compact fluorescent or other energy efficient lighting?

e. Purchased an ENERGY STAR labeled appliance for your home? (**IF YES**, Which ones?_____)

f. Purchased an ENERGY STAR labeled thermostat for your home?

g. Had the efficiency of your heating, cooling or water heating equipment checked?

h. Installed a high efficiency furnace, heat pump, water heater or air conditioner? (**EE1_heq. IF YES**, What type of equipment did you install_____?)

i. Added insulation to the walls, ceilings or crawlspaces?

j. Installed new energy efficient windows or doors?

k. Made other improvements to increase the energy efficiency of your home? (**EE1_ko. IF YES**, What have you done? _____)

IF SAID NO OR DON'T KNOW TO ALL, SKIP TO EE5

EE2. [IF SAID MADE AT LEAST 1 IMPROVEMENT ABOVE] Why did you make these improvements? [DO NOT READ; RECORD ALL THAT APPLY]

1 To save energy / water
2 To save money on my utility / water bill
3 Environmental benefits
4 Information received from workshop or program
5 It is the right thing to do
6 Make home more comfortable
7 Everyone else is doing it
8 Other
9 Don't know

EE2B. [IF SAID MADE AT LEAST 1 IMPROVEMENT ABOVE] For the energy efficiency improvement(s) you said you made in the past two years, did you do this based on your participation in a community or utility-sponsored program?

1 Yes → Which program? [RECORD]
2 No
D Don't Know

EE5. [ASK IF ALL EE1=NO] What are some of the reasons you have NOT made energy efficiency improvements to your home?
[DO NOT READ; INDICATE ALL THAT APPLY]

1 No reason given
2 Home is new
3 Can't afford/too costly
4 Cost/benefit trade-off is too low
5 Don't know what to do
6 Plan to move soon
7 Too difficult to do by myself
8 Don't have the time
9 Home is already energy efficient/I'm already doing everything I can
10 Just haven't got around to it yet
11 Don't know a reliable contractor
12 I don't care
13 Other (please specify: _____)
14 Don't know

PROGRAM QUESTIONS

NP1. I'd like to ask you a few questions about the PG&E Bakersfield Kern Energy Watch Partnership. "This program will come to your home and install, free of charge, energy efficient lighting equipment, such as compact fluorescent light bulbs." Before today, have you heard of this program?

1 Yes
2 No [SKIP TO NP3]
D Don't know [SKIP TO NP3]

L2. How did you hear about the PG&E Bakersfield Kern Energy Watch Partnership program?

1 Another program (which program?)
2 Local government partnership activities
3 Water utility bill stuffing
4 Electric / gas utility bill stuffing
5 Water utility mailing
6 Electric / gas utility mailing
7 Community Sweeps
8 Community displays
9 Energy fairs
10 Word of mouth
11 Newspaper article
12 Other [RECORD]

NP2 Have you participated in this program?

1 Yes
2 No [SKIP TO NP3]
D Don't know [SKIP TO NP3]

NP2a What did you do as part of your participation in the program?

[RECORD]

NP2b When did you participate in the program?

[RECORD] [SKIP TO NP6]

NP3 Please tell me if you feel you would be very interested, somewhat interested, or not at all interested in receiving services through a program such as the PG&E Bakersfield Kern Energy Watch Partnership

1 Very interested
2 Somewhat interested
3 Not at all interested
D Don't know

NP4. [IF REPLIED NOT AT ALL INTERESTED IN NP3] Why wouldn't you be interested in receiving these services? [DO NOT READ; INDICATE ALL THAT APPLY]

1 No reason
2 Home is new
3 Do not need equipment (washers/CFLs)
4 Can't afford/too costly
5 Don't know what to do
6 Plan to move soon
7 Too difficult to do by myself
8 Don't have the time
9 Home is already energy efficient/I'm already doing everything I can
10 Don't know a reliable contractor
11 I don't care
12 Energy use is not a priority for my household
13 Other (please specify: _____)
14 Don't know

NP5. [ASK IF SAID AWARE OF PROGRAM, BUT DID NOT PARTICIPATE] You said you heard of the program, but have not participated. Why haven't you participated in the program? [DO NOT READ; INDICATE ALL THAT APPLY]

1 Do not need services provided by the program
2 Have not gotten around to participating
3 Do not know how to participate
4 Do not want to participate
5 Do not need equipment (washers/CFLs)
6 Other [RECORD]
D Don't know

NP6. Do you know of other organizations in your area where you could receive these types of services?

1 Yes [What organization:_____]
2 No

FINAL PERCEPTION

EVALUATOR/SENIOR INTERVIEWER NOTES: CAREFULLY HOW HOUSEHOLDS ARE ABLE TO RESPOND TO THESE QUESTIONS, AND THE USEFULNESS OF THE QUESTIONS.

PD1. There are various organizations that provide information and services to help you save energy or water, such as local governments, nonprofit groups, and utility companies. From what types of organizations would you prefer to receive this type of information…. [READ CHOICES. INDICATE ALL THAT APPLY]

1 Local government
2 Nonprofit organization
3 Electric/gas utility
4 Water utility
5 Other organization → Which organization (RECORD)
6 Does not matter
D Don't know

PD2. Why would you prefer this organization / these organizations? [RECORD RESPONSE]

PD3A. Do you feel these organizations differ in their ability to provide you with services to help you save energy or water?

1 Yes
2 No SKIP TO D1
D Don't know SKIP TO D1

PD3B How do you think they differ? [RECORD RESPONSE]

Demographics

I JUST HAVE A COUPLE MORE QUESTIONS ABOUT YOUR HOUSEHOLD.

D1 [IF OWN] In what year was your home built?

1 2000 or later
2 1990 to 1999
3 1985 to 1989
4 1980 to 1984
5 1970 to 1979
6 1960 to 1969
7 1950 to 1959
8 1940 to 1949
9 1939 or earlier
D Don't know

D2 What condition do you feel your home is in? Excellent condition, good condition, fair condition, poor condition, or terrible condition?

1 Excellent
2 Good
3 Fair
4 Poor
5 Terrible
D Don't know

D3 [IF POOR OR TERRIBLE] Why do you feel your home is in [terrible/poor] condition? [DO NOT READ; INDICATE ALL THAT APPLY]

1 Home is drafty/uncomfortable
2 In need of many repairs (roof, siding, etc)
3 Structure is bad
4 Home is just old
5 Other [SPECIFY]

D4 Including yourself, how many people are currently living in your household?

____PEOPLE

D5 Do you have any….

A. IF D4=1, SKIP Children under 6 living with you?	1 Yes 2 No D DK R Refused
B. Adults over 60 in your household?	1 Yes 2 No D DK R Refused
C. Disabled individuals in your household?	1 Yes 2 No D DK R Refused

D6. Are you currently…?

1 Married
2 Widowed
3 Divorced
4 Separated
5 Never married
R Refused

D7 Are you Spanish, Hispanic, or Latino?

1 Yes
2 No
D Don't know
R Refused

D8 What is your racial classification? Is it…

1 American Indian
2 Alaskan Native
3 Asian or Pacific Islander
4 African American or Black
6 White
6 Other (Please specify):_____
D Don't know
R Refused

D9 I am going to read to you some income ranges. Please estimate your total gross annual household income, before taxes, for this year. Include all sources of income for including all earned wages in the household, all salary, financial assets, pensions, public assistance, or any other service. Will your total annual household income in 2007 be…

[IF NECESSARY, READ: We know that most people consider their income to be very private information. Your income and name will not be disclosed to anyone, for any purpose.]

1 Less than $15,000
2 $15,000-29,999
3 $30,000-39,999
4 $40,000-49,999
5 $50,000-59,999
6 $60,000-69,999
7 $70,000-79,999
8 $80,000-89,999
9 $90,000 – 99,999
10 $100,000 – 109,999
11 $110,000 – 149,999
12 $150,000 - $200,000
13 Greater than $200,000
14 Don't know
15 Refused

ANY_COM Those are all the questions I have for you. Do you have any additional comments you would like to like me to note?

1 Yes **COM.** [RECORD]
2 No

End THANK YOU FOR YOUR TIME.

B.3 COMMERCIAL PARTICIPANT SURVEY

Partnership Program Participant Survey
Process Evaluation
SCE/SCG/PG&E
Commercial Survey

Hello, my name is [interviewer name], and I'm calling on behalf of SPONSOR and your local utility**.** May I speak with [named respondent]?

1 Yes
2 No *[attempt to reach contact or someone else who may have attended, else terminate]*

I'm with PA Consulting Group, an independent research firm. We are conducting a study about some of the services available in California to commercial customers. I'd just like to ask about these types of services and [IF NONPARTICIPANT: whether you've taken advantage of them IF PARTICIPANT: your experiences with the programs that offer these services]. Your responses will be kept confidential and your name will not be revealed to anyone.

(**Why are you conducting this study**: Studies like this help the utility and its partners better understand customers' awareness of and interest in energy programs and services.

(**Timing**: This survey should take less than 15 minutes of your time. Is this a good time for us to speak with you? *IF NOT, SET UP CALL BACK APPOINTMENT OR OFFER TO LET THEM CALL US BACK AT 1-800-454-5070*)

(**Sales concern**: I am not selling anything; we would simply like to learn about your awareness of services that could save energy in your business, and your opinions about these services. Your responses will be kept confidential.

(NOTE: For all questions, "don't know" and "refused" will be coded if offered as a response.)

DK=DON'T KNOW
R=REFUSED

S1. First, could you tell me if you help specify, recommend, or approve equipment purchases for your facilities?

1 Yes
2 No [IF NONPARTICIPANT: get other respondent contact info; thank and terminate]

S2. What is your organization's primary building activity? Is it… (READ)

1 Education
2 Food sales
3 Food service
4 Health care
5 Lodging
6 Retail
7 Office
8 Public use building
9 Something else?

S3. What is your title? (DON'T READ)

1 Owner/operator
2 President
3 Manager
4 Purchasing agent
5 Other (RECORD)

Participation Confirmation

IF SAMPLE SHOWS ATTENDED WORKSHOPS OR TRAININGS

P1 According to our records, you attended a workshop training through [PROGRAM]. Workshops or trainings you attended include: [FILL WITH WORKSHOP NAME]. Is this correct?

1 Yes [SKIP P2]
2 No

P2 Did you attend any workshops offered by [program]?

1 Yes What workshops did you attend? [Record and continue]
2 No [Thank for time and terminate]

IF CONFIRMS PARTICIPATION, WORKSHOP =1

IF SAMPLE SHOWS RECEIVED EQUIPMENT—DIRECT INSTALL

P3 According to our records, you received [MEASURE DESCRIPTIONS] through a program offered by the [PARTNERSHIP]. Is this correct?

1 Yes [SKIP P4]
2 No

P4 Is there someone else who would know about your organization's participation in the program?

1 Yes—Continue (ENTER CONTACT INFO and TRANSFER)
2 Yes—Not available (ENTER CONTACT INFO and EXIT)
3 No [Thank for time and terminate]

IF SAMPLE SHOWS RECEIVED REBATES

P5 According to our records, you received rebates for the following equipment: [DESCRIPTION OF EQUIPMENT]. These rebates were provided by a program offered by [PARTNERSHIP]. Do you remember participating in the program?

1 Yes [SKIP P6]
2 No

P6 Is there someone else who would know about your organization's participation in the program?

1 Yes—Continue (ENTER CONTACT INFO and TRANSFER)
2 Yes—Not available (ENTER CONTACT INFO and EXIT)
3 No [Thank for time and terminate]

IF CONFIRMS PARTICIPATION, INCENT=1

IF SAMPLE SHOWS RECEIVED TECHNICAL ASSISTANCE—AUDITS

P7 According to our records show someone came in and performed an audit or provided technical assistance for your building. These services were provided by a program through [PARTNERSHIP].

Do you recall receiving the audit?

1 Yes [SKIP P8]
2 No

P8 Is there someone else who would know about your organization's participation in the program?

1 Yes—Continue (ENTER CONTACT INFO and TRANSFER)
2 Yes—Not available (ENTER CONTACT INFO and EXIT)
3 No [Thank for time and terminate]

IF CONFIRMS PARTICIPATION, AUDIT=1

NONPARTICIPANT SAMPLE

P9. I would like to confirm that your business is located in [READ NAME OF CITY]. Is this correct?

1 Yes [SKIP TO NP1]
2 No [GET NAME OF CITY]

Commercial Workshops/Training/Education Module

W1 How did you first hear about the workshops offered through [PARTNER]? [DO NOT READ; INDICATE ALL THAT APPLY]

1 Flyers from utility
2 Flyers from [PARTNER]
3 Flyers from somewhere else (Probe on who)
4 Manufacturer/distributor
5 Tradeshow
6 Website (Which website?)
7 SCE/SCG/PG&E
8 [PARTNER] employee
9 Calendar of events
10 Other Utility (which utility)
11 Other (specify))

W2. Who sponsored the session? [DO NOT READ; RECORD ALL THAT APPLY]

1 Southern California Gas
2 Southern California Edison
3 Ventura County Energy Resource Center/Regional Energy Alliance
4 South Bay / South Bay Energy Savings Center
5 Local Government Energy Action Resources (LGEAR), Mammoth Lakes / Ridgecrest
7 Energy Coalition
8 County / City of Santa Barbara, Goleta and Carpenteria
9 Other [RECORD]
10 Don't Know

W3 Why did your organization participate in the workshop(s)? [DO NOT READ; INDICATE ALL THAT APPLY]

1 To learn about ways to save energy in our business
2 To learn about ways to save money
3 To learn how to install energy-efficiency measures
4 To learn about new energy-efficiency technologies on the market
5 To learn about ways to be more environmentally friendly (Saving the planet)
6 To understand 'green' building issues and practices
7 Other (specify)
8 Don't Know

W4 Has your organization used any of the information from the workshops to make changes in your facility?

1 Yes
2 No [SKIP TO W7]
D DK [SKIP TO W7]

W5 What specifically have you done in your organization as a result of what you learned in this event? [DO NOT READ; RECORD ALL THAT APPLY]

1 Replaced less efficient lighting with more efficient lighting
2 Reviewed energy use in business
3 Reviewed water use in business
4 Purchased or Installed more energy efficient equipment
5 Purchased or installed more water efficient equipment
6 Changed behavior to be more efficient (turning off lights, turning down A/C or heat)
7 Tuning up HVAC
8 Other (specify)
9 Nothing

W6 [IF W5<9] On a scale of 1 to 10, with 1 being not at all influential and 10 being extremely influential, how influential was the information you received in the workshop in your decision to do that/these things?

W7 Do you plan to use any (IF DID SOMETHING ALREADY: other) concepts and technologies you learned about from the workshop(s)?

1 Yes
2 No [SKIP TO W9]
D DK [SKIP TO W9]

W8 What do you plan to do? [RECORD RESPONSE]

W9. How useful was the event in helping you understand ways to save energy: Not at all useful, somewhat useful, or very useful?

1 Not at all useful
2 Somewhat useful
3 Very useful

W10. Do you think the information you received will help your organization save energy?

1 Yes
2 No
D Don't know

W11. As part of this event, did you receive any brochures or literature to take with you?

1 Yes
2 No [SKIP TO W13]
D Don't know [SKIP TO W13]

W12. How useful did you find the literature in helping you understand ways to save energy in your organization? Not at all useful, somewhat useful, or very useful.

1 Not at all useful
2 Somewhat useful
3 Very useful

W13 Have you participated in any other utility energy-efficiency programs as a direct result of your interactions with [PROGRAM]?

1 Yes (which utility and program)
2 No
D DK

W14. Do you feel your organization has benefited from participating in the program?

1 Yes
2 No [SKIP TO ER1]
D DK [SKIP TO ER1]

W15. How has your organization benefited from participating in this program? [DO NOT READ; INDICATE ALL THAT APPLY]

1 Learned how to change energy using behaviors / learned how to save energy
2 Able to share what I learned with others
3 Installed more measures on my own
4 Saved energy
5 Saved money on energy bills
6 Other (specify)
7 No benefits
8 Don't know

Equipment Rebates Module (Other Than Lighting)

ASK OF PARTICIPANTS THAT RECEIVED REBATES TOWARD ENERGY-EFFICIENT EQUIPMENT. ASK FOR EACH MEASURE CATEGORY RECEIVED (E.G., HVAC, LIGHTING, ETC).

ER1. Our records indicate you purchased a [MEASURE] and redeemed a rebate for [$X] for in [YEAR]. Is this correct?

1 Yes
2 No
D DK

ER2. [IF NO] What is incorrect? [Probe if necessary with below categories]

1 Purchased equipment but did not receive a rebate
2 Did not purchase any new equipment through the program
3 Purchased different type of equipment (What equipment)
4 Timing is incorrect
5 Other [RECORD]

IF ER2=1 OR ER2=2, SKIP TO NEXT SECTION

ER3. How did you hear about the program? [DO NOT READ; RECORD ALL THAT APPLY]

1 Another program (which program?)
2 Local government partnership activities
3 Water utility bill stuffing
4 Electric / gas utility bill stuffing
5 Water utility mailing
6 Electric / gas utility mailing
7 Community Sweeps
8 Community displays
9 Energy fairs
10 Friends/neighbors/relatives
11 Newspaper article
12 Other [RECORD]

ER4. How convenient was it for you to redeem the rebate? Please rate on a scale from 1 to 5, where 1 is not at all convenient and 5 is very convenient.

1 Not at all convenient
2
3
4
5 Very convenient
D Don't Know

ER4a. [IF ER4<=3] Why wasn't it convenient for you to redeem the rebate? [RECORD RESPONSE]

ER5. Had you planned to purchase a new [MEASURE] before you heard about the program?

1 Yes
2 No
D Don't know

ER6. How important was the program in your decision to purchase a high efficiency [MEASURE] rather than a less efficient [MEASURE]? Please rate on a scale of 1 to 5, where 1 is not at all important and 5 is very important.

1 Not at all important
2
3
4
5 Very important
D Don't Know

ER7. Without the rebate offer, would you have purchased a high-efficiency [MEASURE] at the time you did?

1 Yes
2 No
D Don't know

ER8. [IF NO] Would you have purchased a lower efficiency [MEASURE], a different high-efficiency [MEASURE], the same [MEASURE] at a later time, or not made a purchase at all?

1 Lower efficiency [APPLIANCE]
2 Different high-efficiency [APPLIANCE]
3 Same [APPLIANCE] at a later time
4 Would not have made any purchase
D Don't know

ER9. How has your organization benefited from participating in this program? [DO NOT READ; INDICATE ALL THAT APPLY]

1 Saved water
2 Saved energy
3 Reduced water bill
4 Reduced energy bill
5 Have a better appliance
6 Was able to purchase appliance that could not purchase before
7 Environmental benefits
8 Help the utilities or community
9 Other (specify)
10 No benefits
11 Don't know

Direct Install Module (Other Than Lighting)

ASK OF PARTICIPANTS THAT RECEIVED ENERGY EFFICIENT MEASURES VIA DIRECT INSTALL, EXCLUDING CFLS (E.G., INTERIOR HARDWIRE LIGHTING, ETC.)

ASK OF EACH MEASURE DIRECT INSTALLED.

DI3. How did you hear about the program? [DO NOT READ; RECORD ALL THAT APPLY]

1 Another program (which program?)
2 Local government partnership activities
3 Water utility bill stuffing
4 Electric / gas utility bill stuffing
5 Water utility mailing
6 Electric / gas utility mailing
7 Community Sweeps
8 Community displays
9 Energy fairs
10 Word of mouth
11 Newspaper article
12 Technical assessment / audit
13 Other [RECORD]

DI1. I just want to confirm someone from [PROGRAM NAME/ORGANIZATION] came into your organization and installed [MEASURE] in [MONTH/YEAR]. Is this correct?

1 Yes
2 No
D DK

DI2. [IF NO] What is incorrect? [Probe if necessary with below categories]

1 Do not recall someone coming to organization [SKIP TO NEXT SECTION]
2 Measures listed are incorrect →
ASK AND RECORD: WHAT ARE THE CORRECT MEASURES?
3 Date is incorrect
4 Other [RECORD] [SKIP TO NEXT SECTION IF NECESSARY]

DI4. Without the program, would your organization have installed new [MEASURE] at the time you did?

1 Yes
2 No [SKIP TO DI6]
D Don't know

DI5. Would the [MEASURE] have been lower efficiency, the same efficiency, or higher efficiency than what was installed through the program?

1 Lower efficiency
2 Same efficiency
3 Higher efficiency
D Don't know

DI6. Is the measure still installed?

1 Yes
2 No
D Don't know

DI7. [IF NO] Why isn't the measure still installed? [RECORD RESPONSE]

DI8. How have you or your business benefited from participating in this program? [DO NOT READ; INDICATE ALL THAT APPLY]

1 Learned how to change energy using behaviors / learned how to save energy
2 Received energy efficient measures
3 Saved energy
4 Saved water
5 Saved money on energy/water bills
6 Able to share what I learned with others
7 Other (specify_____)
8 No benefits
9 Don't know

Lighting Rebate/Direct Install Module

L1A. [IF RECEIVED BULBS VIA REBATE] Our records indicate you participated in a program where you redeemed a rebate for [LIGHTING DESCRIPTION] for the value of $X. Is this correct?

1 Yes
2 No [SKIP TO NEXT SECTION]

L1B. [IF RECEIVED BULBS VIA DIRECT INSTALL] Our records indicate you participated in a program where a rep from [ADMINISTERING AGENCY] came to your organization and installed lighting measures which will include: T8 ballasts, Compact fluorescent bulbs, or Indoor light fixtures. Is this correct?

1 Yes
2 No [SKIP TO NEXT SECTION]

L2. How did you hear about the [PROGRAM NAME] program?

1 Another program (which program?)
2 Local government partnership activities
3 Water utility bill stuffing
4 Electric / gas utility bill stuffing
5 Water utility mailing
6 Electric / gas utility mailing
7 Community Sweeps
8 Community displays
9 Energy fairs
10 Word of mouth
11 Newspaper article
12 Other [RECORD]

L3. Why did you participate in the program? [DO NOT READ, INDICATE ALL THAT APPLY]

1 Needed new bulbs
2 To save energy/have more efficient lighting
3 To save money
4 To help the environment/prevent global warming
5 To get better lighting/lighting advice
6 Needed to dispose of old bulbs
7 Other (specify)

L4. In total, how many efficient bulbs and fixtures did you receive through this program?

L5. Of these, how many are currently installed?

L6. [IF L5<L4] What happened to the [L4-L5] bulbs that aren't installed? [RECORD RESPONSE]

L7. In general, how satisfied are you with the quality of the lighting from these bulbs? Please tell me on a 1 to 5 scale, where 1 is not at all satisfied, 3 is moderately satisfied, and 5 is very satisfied.

1 Not at all satisfied
2
3
4
5 Very satisfied
D Don't Know

L8. [IF L6>1 AND L7<3] Was your dissatisfaction with the lighting quality a reason why some of the bulbs are not installed?

1 Yes
2 No
D Don't know

L9. If the program were not available, what would you have replaced these light bulbs with when they burned out? Would you have…

1 Replaced the bulbs with ones that were similar to what you had
2 Replaced the bulbs with more efficient light bulbs
3 Not have replaced the bulbs at all
4 Something else? [RECORD]

L10. Since the program, has your company purchased other lighting for your building outside of the program?

1 Yes
2 No [SKIP TO L13]
D Don't know [SKIP TO L13]

L11. Was the lighting you purchased more efficient, the same efficiency, or less efficient than the lighting you would have purchased before this program?

1 More efficient
2 Same efficiency
3 Less efficient
4 Other [RECORD]
D Don't know

L12. How influential was your experience with the program in your decision to purchase lighting that was high-efficiency? Very influential, somewhat influential, or not at all influential?

1 Very influential
2 Somewhat influential
3 Not at all influential
D Don't know

L13. How has your organization benefited from participating in this program? [DO NOT READ; INDICATE ALL THAT APPLY]

1 Received new lighting
2 Learned how to change energy using behaviors / learned how to save energy
3 Directed us to other programs
4 Saved energy
5 Saved money on energy bills
6 Other (specify)
7 No benefits
8 Don't know

Energy Audit/Technical Assistance

ASK OF PARTICIPANTS WHO RECEIVED AN ENERGY AUDIT OR TECHNICAL ASSISTANCE, INCLUDING TUNE-UP PARTICIPANTS

EA1. Our records indicate that [AGENCY/PARTNERSHIP] came to your organization to CONDUCT AN ENERGY AUDIT and provide suggestions to save energy. Is this correct?

[Press 1 to continue]

EA2. How did you hear about the [PROGRAM NAME] program?

1 Another program (which program?)
2 Local government partnership activities
3 Water utility bill stuffing
4 Electric / gas utility bill stuffing
5 Water utility mailing
6 Electric / gas utility mailing
7 Community Sweeps
8 Community displays
9 Energy fairs
10 Friends/neighbors/relatives
11 Newspaper article
12 Other [RECORD]

EA3. What information or service did you get as part of the visit? [DO NOT READ; INDICATE ALL THAT APPLY]

1 How to save energy in building (general brochures and discussions)
2 Measures company should install to save energy
3 Contractors to use to design an efficiency project
4 Demand response program options
5 Referrals to other programs / rebates (Which programs did you receive referrals to?)
6 Installation of measures (What measures?)
7 Other [RECORD RESPONSE]
D Don't know

EA4. How useful was the information you received from the visit? Please rate on a scale from1 to 5, where 1 is not at all useful and 5 is very useful.

1 Not at all useful
2
3
4
5 Very useful
D Don't Know

EA5. [IF EA4<4] How could information have been more useful for you? [RECORD RESPONSE]

EA6. Did the program make suggestions on equipment you should install?

1 Yes
2 No [SKIP TO EA12]
D Don't know [SKIP TO EA12]

EA7. What suggestions did the contractor make?

1 Install efficient lighting
2 Install / retrofit HVAC
3 Remove inefficient equipment (What equipment?)
4 Other (specify)

EA8. Will you act on [any of these suggestions/this suggestion]?

1 Yes
2 No [SKIP TO EA11]
D Don't know [SKIP TO EA11]

EA9. [IF MORE THAN ONE] Which ones? [RECORD RESPONSE]

EA10. Are there any suggestions the contractor made that your organization will not do?

1 Yes
2 No [SKIP TO EA12]
D Don't know [SKIP TO EA12]

EA11. Why won't you follow through with those suggestions? [RECORD RESPONSE]

EA12. How has your organization benefited from participating in this program? [DO NOT READ; INDICATE ALL THAT APPLY]

1 Learned where building needed improvements
2 Directed organizations to other programs / resources (**What programs/resources?**)
3 Direct installed measures
4 Saved energy
5 Saved money on energy bills
6 Other (specify)
7 No benefits
8 Don't know

Other Program Awareness

M1. As part of your participation in [this program/these programs], did you receive materials or application forms for other utility programs?

1 Yes
2 No
D DK

M2. [IF YES ABOVE] Did you sign up for other utility programs?

1 Yes
2 No
D DK

M3. [IF YES ABOVE] Which programs? [RECORD PROGRAM(S)]

M4. Do you know of other organizations in your area where you could receive these types of services?

1 Yes [What organization:_____]
2 No

General Partnership Questions

IF NONPARTICIPANT, SKIP TO NEXT SECTION.

GP1. On a scale from 1 to 5, where 1 is not at all satisfied and 5 is very satisfied, what would you rate your overall satisfaction with your involvement in the [PROGRAM NAME/WORKSHOP]?

1 Not at all satisfied
2
3
4
5 Very satisfied
D Don't Know

GP1a. How could you have been more satisfied with the program? [RECORD RESPONSE]

GP2. Who sponsored this program? [READ IF NECESSARY. INDICATE ALL THAT APPLY] [NOTE SPECIFIC NAME IF OFFERED]

1 Electric utility
2 Gas utility
3 Water utility
4 Environmental or non-profit group
5 City or county government
6 Other_____
D Don't know

GP3. What was most positive about your experience with this program? [RECORD RESPONSE]

GP4. What was the least effective part of your experience with this program? [RECORD RESPONSE]

GP5. Do you feel you are more satisfied, less satisfied, or have the same level of satisfaction with [LOCAL GOVERNMENT PARTNER] as a result of participating in the program?

1 More satisfied
2 Less satisfied
3 Same satisfaction
D Don't know

GP6. Do you feel you are more satisfied, less satisfied, or have the same level of satisfaction with [UTILITY] as a result of participating in the program?

1 More satisfied
2 Less satisfied
3 Same satisfaction
D Don't know

GP7. Were you more likely, less likely, or just as likely to participate in the program because of the involvement of [local government partner]?

1 More likely (Why do you say that?)
2 Less likely (Why do you say that?)
4 Have no effect

Partnership Perception Questions

PD1. There are various organizations that provide information and services to help you save energy or water, such as local governments, nonprofit groups, and utility companies. From what types of organizations would you prefer to receive this type of information…. [READ; INDICATE ALL THAT APPLY]

1 Local government
2 Nonprofit organization
3 Electric/gas utility
4 Water utility
5 Other organization → Which organization (RECORD)
6 Does not matter
D Don't know

PD2. Why is that? [RECORD RESPONSE]

PD3A. Do you feel these organizations differ in their ability to provide you with services to help you save energy or water?

1 Yes
2 No [IF PART SKIP TO PD4, IF NONPART SKIP TO O1]
D Don't know [IF PART SKIP TO PD4, IF NONPART SKIP TO O1]

PD3B How do you think they differ? [RECORD RESPONSE]

PD4. What do you believe is the source of funding for this program? [DO NOT READ; INDICATE ALL THAT APPLY]

1 The [PARTNER NAME]
2 My local government
3 My electric utility
4 My gas utility
5 My water utility
6 Ratepayers
7 Taxes
8 The State of California
9 The federal government
10 Other [RECORD]
D Don't know

Organizational Questions

My last questions for you are about your organization.

O1 How many locations does your organization have?

O2 [IF ABOVE >1] Are decisions to purchase and install equipment made . . . [READ LIST]

1 At the corporate level?
2 At the regional level?
3 At the local level?
4 At the location level?
5 Other (specify)

[IF S1<>1, SKIP TO END]

O4 What factors into the decision about the level of energy efficiency when purchasing new equipment or during a remodel or new construction? (DO NOT READ; INDICATE ALL THAT APPLY)

1 Rebates available
2 Recommendation of experts
3 Manufacturer warranties
4 Energy savings
5 Being perceived as green company
6 Standard specifications for business
7 Required for business in other regions
8 Efficiency level of equipment available from manufacturers
9 Past experience with equipment brand
10 Building codes
11 Other (specify)

O5 I would like to understand how the following factors fit into your decision to purchase new energy using equipment. For each please rate on a 1 to 10 scale where 1 is not at all important and 10 is very important. How important is… [READ EACH; ROTATE LIST]

a. The amount of energy the equipment can save
b. The price of the equipment, including installation costs
c. The payback period
d. Company culture or policies
e. Its impact on the environment
f. How well the equipment performs/does the job
g. The recommendation of the distributor
h. The recommendation of others in the same business

Thank you for your time. Do you have any final comments or questions?

B.4 COMMERCIAL NONPARTICIPANT SURVEY

Partnership Program Nonparticipant Survey
Process Evaluation
PG&E Bakersfield Kern Energy Watch Partnership
Commercial Survey

Hello, my name is [interviewer name], and I'm calling on behalf of the PG&E Bakersfield Kern Energy Watch Partnership and your local utility**.**
[IF RESPONDENT NAME GIVEN] May I speak with [named respondent]?

[IF COMPANY NAME ONLY OR IF NAMED RESPONDENT NOT AVAILABLE] May I speak with someone who helps specify, recommend, or approve equipment purchases?

1 Yes [NAMED RESPONDENT] [SKIP TO Intro1]
2 Yes [NOT NAMED RESPONDENT]
3 No [terminate] [SKIP TO DISPOSE]

NCNAME
New respondents name? [RECORD]

NCPHONE
New respondents phone number? [RECORD]

Intro1
I'm with PA Consulting Group, an independent research firm. We are conducting a study about some of the services available in California to commercial customers. I'd just like to ask about these types of services and whether you've taken advantage of them. Your responses will be kept confidential and your name will not be revealed to anyone.

Intro 2
(**Why are you conducting this study**: Studies like this help the utility and its partners better understand customers' awareness of and interest in energy programs and services.

(**Timing**: This survey should take less than 10 minutes of your time. Is this a good time for us to speak with you? *IF NOT, SET UP CALL BACK APPOINTMENT OR OFFER TO LET THEM CALL US BACK AT 1-800-454-5070*)

(**Sales concern**: I am not selling anything; we would simply like to learn about your awareness of services that could save energy in your business, and your opinions about these services. Your responses will be kept confidential.

(NOTE: For all questions, "don't know" and "refused" will be coded if offered as a response.)

DK = DON'T KNOW
R = REFUSED

S1. First, could you tell me if you help specify, recommend, or approve equipment purchases for your facilities?

1 Yes [SKIP TO S2]
2 No

S1a. May I speak with someone who does?

1 Yes [RECORD OTHER CONTACT INFO] [SKIP TO NCNAME]
2 No [terminate]

S2. What is your organization's primary building activity? Is it . . .
(READ)

1 Education
2 Food sales
3 Food service
4 Health care
5 Lodging
6 Retail
7 Office
8 Public use building
9 Something else?

S3. What is your title?
(DON'T READ)

1 Owner/operator
2 President
3 Manager
4 Purchasing agent
5 Other (RECORD)

Business Location Confirmation

P9. I would like to confirm that your business is located in [READ NAME OF CITY]. Is this correct?

1 Yes
2 No [GET NAME OF CITY]

NONPARTICIPANT PROGRAM QUESTIONS

NP1. I'd like to ask you a few questions about the PG&E Bakersfield Kern Energy Watch Partnership *This program will come to your business and install, free of charge, energy efficient lighting equipment, such as compact fluorescent light bulbs, T5 lamps, and occupancy sensors. This program also provide education opportunities through workshops to small business customers.* Before today, have you heard of this program?

1 Yes
2 No [SKIP TO NP3]
D Don't know [SKIP TO NP3]

L2. How did you hear about the PG&E Bakersfield Kern Energy Watch Partnership program?

[RECORD RESPONSE]

NP2 Have you participated in this program?

1 Yes
2 No [SKIP TO NP3]
D Don't know [SKIP TO NP3]

NP2a When did you participate?

[RECORD RESPONSE]

NP2b What did you do as part of your participation in the program?

[RECORD RESPONSE]
[SKIP TO NP6]

NP3 Please tell me if you feel you would be very interested, somewhat interested, or not at all interested in receiving services through a program such as the PG&E Bakersfield Kern Energy Watch Partnership

1 Very interested
2 Somewhat interested
3 Not at all interested
D Don't know

NP4. [IF REPLIED NOT AT ALL INTERESTED IN NP3] Why wouldn't you be interested in receiving these services? [DO NOT READ; INDICATE ALL THAT APPLY]

1 No reason
2 Building is new
3 Do not need equipment (HVAC/CFLs)
4 Too costly/payback isn't there
5 Don't know what to do
6 Already participated in programs to make building efficient
7 Don't know a reliable contractor
8 I don't care
9 Energy use is not a priority for organization
10 Other (please specify: _____)
11 Don't know

NP5. [ASK IF SAID AWARE OF PROGRAM, BUT DID NOT PARTICIPATE] You said you heard of the program, but have not participated. Why haven't you participated in the program? [DO NOT READ; INDICATE ALL THAT APPLY]

1 Do not need services provided by the program
2 Have not gotten around to participating
3 Do not know how to participate
4 Do not want to participate
5 Do not need equipment (HVAC/CFLs)
6 Other [RECORD]
D Don't know

NP6. Do you know of other organizations in your area where you could receive these types of services?

1 Yes [What organization:_____]
2 No

PARTNERSHIP PERCEPTION QUESTIONS

PD1. There are various organizations that provide information and services to help you save energy or water, such as local governments, nonprofit groups, and utility companies. From what types of organizations would you prefer to receive this type of information…. [READ; INDICATE ALL THAT APPLY]

1 Local government
2 Nonprofit organization
3 Electric/gas utility
4 Water utility
5 Other organization → Which organization (RECORD)
6 Does not matter
D Don't know

PD2. Why is that? [RECORD RESPONSE]

PD3A. Do you feel these organizations differ in their ability to provide you with services to help you save energy or water?

1 Yes
2 No [SKIP TO O1]
D Don't know [SKIP TO O1]

PD3B How do you think they differ? [RECORD RESPONSE]

ORGANIZATIONAL QUESTIONS

My last questions for you are about your organization.

O1 How many locations does your organization have? ____

O2 [IF ABOVE >1] Are decisions to purchase and install equipment made . . . [READ LIST]

1 At the corporate level?
2 At the regional level?
3 At the local level?
4 At the location level?
5 Other (specify: _____)

O4 What factors into the decision about the level of energy efficiency when purchasing new equipment or during a remodel or new construction? (DO NOT READ; INDICATE ALL THAT APPLY)

1 Rebates available
2 Recommendation of experts
3 Manufacturer warranties
4 Energy savings
5 Being perceived as green company
6 Standard specifications for business
7 Required for business in other regions
8 Efficiency level of equipment available from manufacturers
9 Past experience with equipment brand
10 Building codes
11 Cost of equipment/installation
12 Financial savings
13 Other (specify) _____

O5 I would like to understand how the following factors fit into your decision to purchase new energy using equipment. For each please rate on a 1 to 10 scale where 1 is not at all important and 10 is very important. How important is… [READ EACH; ROTATE LIST]

a. The amount of energy the equipment can save
b. The price of the equipment, including installation costs
c. The pay-back period
d. Company culture or policies
e. Its impact on the environment
f. How well the equipment performs/does the job
g. The recommendation of the distributor
h. The recommendation of others in the same business

Thank you for your time. Do you have any final comments or questions?