

# Effectiveness of a Community-Wide Outreach Program in Achieving Energy and Demand Reduction Goals: Evaluation of the San Francisco Peak Energy Partnership (SFPEP)

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## ABSTRACT

This paper presents the results of an evaluation of the partnership between Pacific Gas & Electric (PG&E) and the City of San Francisco to reduce demand on the transmission-constrained San Francisco peninsula. The San Francisco Peak Energy Program (SFPEP) was designed to reduce both summer and winter peaks. SFPEP consisted of a portfolio of program elements that aimed to serve *hard-to-reach* market segments – including ethnic customers and small businesses, and residential households in specific neighborhoods – while reaching aggressive efficiency goals in a little over a year. Program delivery was shared between the San Francisco Office of Environment (SFE), which coordinated outreach and marketing with community organizations, and PG&E, which handled program rebates, site inspections, marketing materials, and application processing.

The evaluation of the program included impact analysis (not covered in this paper) and a *review of the partnership effectiveness of planning and program delivery*. Participant surveys, on-site verifications, and in-depth interviews were employed to assess the following elements: Cash Rebates for Small Business program element's effectiveness in increasing participation among small business owners; Single Family Direct Installation program increase of measure penetration by working closely with neighborhood associations in Chinatown and Hunter's Point; and the Multi-Family program element's partnership with HUD to increase participation in this sector.

Evaluation findings indicate that PG&E saw SFPEP as a cost-effective, outreach-augmented extension of PG&E/statewide programs, while SFE saw SFPEP as a creative, ground-up entity designed specifically for the City's needs. The CPUC policy drove a "shotgun wedding" and its regulatory due process brought additional objectives to the effort, creating some tension among various stakeholders. Overall, the City benefited from the partnership, as many new constituents became engaged in EE efforts, and significant demand reductions were achieved, contributing to the ability of PG&E to close aging power facilities located in the City.

Overarching *program recommendations* include:

- ***Allow more time.*** There was not sufficient time for this *new* partnership to meet its ambitious targets, given the time required for initial program planning and approval.
- ***Separate social goals from program impact goals*** by providing separate funding for training and community development efforts.
- ***Better coordinate*** measure incentive levels and eligibility with statewide programs to avoid customer confusion.

## Introduction

This paper highlights the findings and recommendations from an evaluation of a city-utility partnership in California. The San Francisco Peak Energy Program (PEP) grew out of the need to reduce electricity peak energy resources required within the City and County of San Francisco (CCSF), as reflected in the electricity resource plan (ERP) prepared for the CCSF/SFE. The required emissions control upgrade at the Potrero plant and shutdown schedule for both the Potrero and Hunter's Point plants, as well as transmission constraints to and within the peninsula, motivated SFE to seek program funds specifically to reduce peak loads in the city, and SFE partnered with PG&E to offer a program to meet load reduction targets. The program had near-term goals due to the planned timing of the shutdown of Potrero for emissions control upgrades.

Both summer and winter peak energy resources are needed in San Francisco, due to the unique nature of loads within the city that cause winter peaks of similar magnitude to summer peaks. Thus, PEP had additional economic justification beyond statewide programs that have a summer peak focus. Yet PEP was developed and operated in the broader context of California's statewide programs run by the investor-owned utilities and local programs run by local governments and other entities. There is an implicit challenge to understand both the PEP-specific program issues and the broader programmatic environment that affects San Francisco citizens and businesses.

The San Francisco Peak Energy Project was formally rolled out in December 2003 at City Hall by the Mayor of San Francisco and the CEO of PG&E. The program evolved when PG&E and SFE initiated discussions in 2002 to develop a partnership program. The two organizations together presented to the CPUC a proposal for the San Francisco Energy Efficiency Pilot Program. This resulted in an April 2003 CPUC approval of the concept for San Francisco, and the development of implementation plans by PG&E and SFE in the spring of 2003. These plans were submitted as the San Francisco Peak Energy Program (SFPEP) in June 2003. The implementation plan was approved in October, and updated energy savings targets were filed by PG&E in November (PG&E 2004).

The primary goal of the program is to achieve a minimum of a 16 MW (gross) load reduction coincident with the city's summer daytime peak and to achieve similar reductions in winter evening peaks by 2005. Demand-side resource potential was analyzed in the Electricity Resource Plan (ERP) conducted by the City of San Francisco (SFPUC 2002). The ERP indicated that a demand-side management program was key to ensuring adequate capacity reserves in the city by limiting projected load growth. The program has projected savings of 21.3 MW *gross* peak reduction in the summer and 16.1 MW during the winter peak.<sup>1</sup>

During the fall of 2004, a decision was reached to extend the program past the scheduled December 31 deadline. An extension was granted through February 2005, and a significant push was made to get eligible measures installed between December and February. This push was accompanied by the doubling of incentives for some efficiency measures. This resulted in a particularly high uptake in the installation of refrigeration measures as part of the Cash Rebates

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<sup>1</sup> PG&E's program tracking data (ex-ante) through 2/28/05 indicated 56% of the summer demand reduction goal was achieved. These numbers were adjusted during the impact evaluation that was conducted in parallel with this partnership study, and show that estimated demand savings were exceeded during the winter, and nearly achieved during the summer (see Table 4).

for Business program element. For the purposes of this evaluation, the program was closed February 28, 2005.<sup>2</sup>

The *objectives* of the measurement and evaluation study were to:

- Develop adjusted, reliable ex-post estimates of summer and winter peak energy savings.
- Assess the overall effectiveness of the SFE/PG&E partnership with respect to the statewide program approach and make recommendations for improving partnership effectiveness.
- Determine the implementation effectiveness of the five major program elements, and make recommendations on adaptations to achieve stated goals.

The evaluation team accomplished these objectives through: 1) an *impact evaluation* that verified measure installations, metered key measures to develop end-use load shapes, and recalculated peak demand and energy savings estimates for each program element; and 2) a *process evaluation* that reviewed program information and databases maintained by SFE and PG&E, conducted in-depth interviews with key stakeholders, and surveyed a representative sample of participating customers.

## Methodology

The process evaluation approach had two basic paths, a partnership path and a participant path. These efforts were supplemented by a review of program tracking data, marketing materials, and other information generated by the program, and also a review of related statewide program evaluations and partnership success literature.

The partnership path utilized a series of in-depth personal interviews to assess the success of the partnership. These interviews were conducted with a cross-section of key program stakeholders, either in person or by telephone. The partnership assessment was organized according to program process functions. This was done to provide a logical, comprehensive view of the program's various aspects during its life cycle. Using a functional assessment framework also helped focus discussion on program issues and provided a context in which interviewees could discuss the problems and successes of the program more objectively than probing for issues in an ad hoc manner that could miss some important nuances. The partnership interviews helped inform the subsequent design of the participant surveys.

The participant path utilized a series of telephone surveys of business, single-family and multi-family customers<sup>3</sup> to assess customers' opinions about their experiences and satisfaction with the various program elements and respective program processes. In addition, a special survey of Torchiere Exchange event participants was conducted with the assistance of the Charity Cultural Services Center. Specifically, the surveys focused on following segments:

- Single-family residents participating in the Single Family Direct Install element. This program included contractor installation of both hard-wired and screw-in CFLs, as well as programmable thermostats. Specific neighborhoods were targeted for participation.

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<sup>3</sup> It is the understanding of the evaluation team that 'bridge' funding was extended by PG&E through 2005 to support SFE's efforts to continue energy conservation and demand reduction efforts in the City that rely on the infrastructure and staffing developed for SFPEP.

<sup>4</sup> Multi-family included property managers/owners.

- Single- and multi-family residents participating in the Torchiere Exchange. Community outreach events were utilized to encourage residents to swap their old halogen torchieres for efficient replacements. Response rates varied significantly depending on cultural preference for this type of lighting.
- Multi-family residents and property owners or managers participating in the Multi-Family Rebate element. This effort rebated contractors for installation of hardwired CFLs and programmable thermostats, primarily at HUD facilities in the City.
- Customers participating in the Cash Rebates for Business Customers (CRB), Commercial Turnkey Services (CTS) for Small Businesses, and Standard Performance Contracting (SPC) program elements. CRB allowed for a broad range of measures to be rebated, and some measures included rebate ‘kickers’ above what statewide programs were providing. In the end, the majority of the savings came from lighting and refrigeration measures. CTS audit services provided an initial point of contact for small business owners, some of whom participated in the CRB program after receiving an audit. SPC efforts were targeted primarily at larger facilities, and much of the savings in this program element came from HVAC measure installation.

The participant surveys were complicated by the need to overlap a subset of the participant telephone surveys with participants who also received on-site measure verification visits.<sup>4</sup> The purpose of overlapping samples between the surveys and on-site visits was to assess the accuracy of participants’ self reports concerning the use of the equipment installed in the program.

Program non-participants were explicitly NOT included in this evaluation, as there were no attribution or net-to-gross issues specified in the project scope that would require a non-participant assessment, additional resources to explore the matter were not available, and another project was slated to have a battery of free rider questions that might suffice.

## **Issues and Associated Research Methods**

The issues listed in Table 1 and Table 2 were proposed to guide the data collection design. Ongoing review of other related program evaluations and feedback from the stakeholder interviews suggested further modification and re-prioritization of these issues, so the final issues incorporated into the partnership interviews and participant surveys evolved with that feedback.

Overarching and other issues that were identified in the project initiation and other project meetings included the following:

- Understand the institutional relationships and use of market actors’ strengths to achieve program goals.
- Strive to understand ALL effects of programs in San Francisco, including market forces and interaction with statewide and other locally run programs.
- Understand the use and effectiveness of city/utility marketing channels and resources (both inter-organizational and intra-organizational) relative to initial expectations and assumptions about such usage. In retrospect, were those expectations/assumptions fair

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<sup>5</sup> The overlapping subsets were for the Standard Performance Contracting, Cash Rebates for Small Business, Multi-Family Rebates (tenants), and Torchiere Exchange elements.

and did they contribute to program success – if so, where? If not, what changes could be recommended?

- How did Commercial Turnkey Service affect the use of other SFPEP elements and programs?

**Table 1. Partnership Research Issues**

<b>Partnership Research Issues</b>	<b>Research Instrument</b>	<b>Other Data Sources</b>
SFE/PG&E Partnership effectiveness: key expectations, clarity and understanding of respective roles and responsibilities, communications and various functional performance relative to partnership agreement	Program manager and stakeholder interviews	Partnership agreement, process flow charts, and documents
SFE/PG&E/Community Organization Partnership effectiveness: key expectations, understanding of roles and responsibilities, perceived performance per formal or informal agreements	Program manager and stakeholder interviews	Partnership agreement, process flow charts, and documents
SFE/PG&E/Contractor Partnership effectiveness: expectations, roles and responsibilities, performance per program service contract	Program manager and stakeholder interviews	Program service agreement, process flow charts, and documents
Efficiency of the partnership implementation: combined costs to SF and PG&E to get impacts, by 5 key program elements and overall. This may include consideration of issues such as getting a sense of what costs could be pared or eliminated if the program were done again with 20/20 hindsight, i.e., 2 <sup>nd</sup> time around costs could be lower due to lessons learned, trust of other parties that reduces redundancy in oversight and management, etc.	Program manager and stakeholder interviews	Program cost records Impact findings
Lessons learned Aspects improved by partnership Aspects burdened by partnership	Program manager and stakeholder interviews	Related statewide program evaluations
Recommendations for changes to partnership arrangement in future How and under what circumstances to use partnerships to best advantage	Program manager and stakeholder interviews	
Summarize how SFPEP services, eligibility, or rebates differ from statewide programs, to assess how critical differences have helped or hindered either PEP or statewide programs Obtain PG&E, SFE, and stakeholder views on merits of these changes in SF	Program manager and stakeholder interviews	Review of program materials

**Table 2. Program Element Issues**

Issues Related to Program Element Implementation Effectiveness	Research Method/ Instrument	Other Data Sources
Did the element reach its efficiency goals and “Hard-to-reach” market segment targets [ a) ethnic customers and businesses, b) leased space, c) low-income households, d) geographic concentrations]	Program manager and stakeholder interviews	Quarterly reports Program records
Customer satisfaction with services and products received and experience (program design, technical assistance, paperwork/application process, payment process, complaints, inspections, and bill savings)	Participant surveys	
Reasons for participation (e.g., saving money, energy, environment, due to PG&E or city roles)	Participant surveys	Other evaluations review
Barriers to participation: economic, cultural, physical, etc. and ways to overcome noted barriers.	Participant surveys Program manager and stakeholder interviews	Other evaluations review
Effectiveness of marketing. Address the following by program element. What marketing and communication materials did customers experience? How did they hear/see these? How useful were they? Which were most effective/most persuasive? Who delivered the effective methods? Address types of media or contact, frequency applied, frequency observed, degree noticed, impact	Participant surveys Program manager and stakeholder interviews	Review of program materials and marketing program records
Effectiveness of program delivery: Timely execution of processes, including service delivery and incentive payments, thoroughness of information and interaction with customers, convenience to customers, sufficient follow-up support, timeliness, etc.	Participant surveys Program manager and stakeholder interviews	Review of implementation activities and records
Recommendations for changes to program design or implementation steps	Participant surveys Program manager and stakeholder interviews	

**In-Depth Interview Procedures**

The in-depth interviews proceeded on the basis of a list of prospective interviewees and a set of interview guides tailored to the various perspectives of the interviewees. The initial sample plan for the partnership path was developed by identifying key program staff and associated informal partners in the community. The evaluation team compiled a list of 25 potential individuals. Of these, 19 were eventually interviewed. The ideal respondents were those who could provide articulate and insightful feedback to the program’s various functional aspects and underlying policy and cultural influences.

The final set of interviewees fell into four groups: Core Program Managers & Staff (two rounds), Community Organizations, and Contractors. The interviewees included:

- PG&E staff (6 program managers)
- CCSF Dept of Environment Staff (4 program staff including CTS staff)
- PG&E Delivery Contractors (2 people - American Synergy, EMCOR)

- Community Outreach Partners (8 people):
  - Charity Cultural Services Center
  - CCSF Dept of Building Inspection
  - SF PUC - Water
  - Business Associations (Pier 39, BOMA)
  - Community Organizations (One Stop, Bayview Network for Elders)
  - Community Meeting Facilitator

The issues outlined in the tables above drove development of the interview guides. The outlines were supplemented with additional issues during the early weeks of the project and interview guide development followed. The guides were tuned to the perspectives of SFE, PG&E, various community organizations and other CCSF departments, and program implementation contractors. In all, *four interview guides were developed*:

- *PG&E/SFE Round One* guide administered to senior program staff at PG&E and SFE;
- *PG&E/SFE Round Two* guide administered to PG&E and SFE program delivery staff;
- Community organization/other city agency guide administered to community/business organizations and individuals, and other involved CCSF departments; and
- Implementation contractor guide administered to contractors providing installation and audit services to the program

The interview guides purposely were not developed as rote questionnaires. Many questions could have been asked, potentially, because of the varied perspectives of the people being interviewed. Thus, a comprehensive approach was chosen that focused primarily on program functions. The functions included planning, marketing and outreach, administration and information management, overall management and communications, and other program functions. The guides were lengthy and somewhat complex in order to be flexible to each interview situation. An example of the line of questioning included in the program staff guide is “What criteria governed the selection of products and services offered in the partnership? Did they result in logical selections, in hindsight, and were there other criteria that should have been applied (or different specification of those used)?” Conducting the interviews, therefore, relied heavily on the interviewers’ professional skills to adapt the guides to the particular interview situation. Some interviews were done in person, others by telephone. Following the interview, the discussion was transcribed or summarized into chronological notes that captured the content and “flavor” of each interview.

## Telephone Surveys

The sample plan for the participant telephone surveys initially was developed on the basis of desired sampling confidence intervals and precision of 90/10%, respectively.<sup>5</sup> Based on a number of factors, the sample sizes originally proposed were modified after more detailed review of program participant data. Table 3 provides a summary of the planned, revised, and actual sample disposition.

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<sup>5</sup> Precision estimates are based on questions with a binomial distribution (yes/no). Multiple choice questions have a lower precision.

**Table 3. Participant Survey Samples: Research Plan, Revised Plan, and Final Completed Sample**

Program Element	Research Plan			Revised Plan [3]		Actual Completed Surveys	
	Participant Population*	Participant Surveys	Statistical Precision (@ 90% Conf.)	Participant Surveys	Statistical Precision (@ 90% Conf.)	Participant Surveys	Statistical Precision (@ 90% Conf.)
Single-Family							
Total	995	214	± 5%	108	± 8%	168	± 5%
Moderate income (97%)	926	208	± 5%	105	± 8%	168	± 5%
Non-moderate income (3%)	29	6	±30%	3	± 50%	0	na
Multi-Family							
Apartment Tenants	4491	255	± 5%	118	± 8%	118	± 8%
Property Managers	37	20	± 15%	10	± 20%	10	± 20%
Business Segment							
Total	961	211	± 5%	211	± 5%	211	± 5%
Offices (30%)	293	64	± 9%	63	± 9%	33	± 15%
Retail (25%)	242	53	± 10%	53	± 10%	46	± 11%
Hotel/Restaurants (16%)	151	33	± 13%	33	± 13%	42	± 11%
Grocery (11%)	110	24	± 15%	24	± 15%	13	± 22%
All Others (17%)	165	36	± 12%	36	± 12%	77	± 7%
Cash Rebates [1]	732	153	± 6%	153	± 6%	163	± 6%
CTS (w/ field survey)	198 [2]	42	± 11%	42	± 11%	40	± 12%
SPC	31	16	± 15%	16	± 15%	8	± 25%

[1] Five customers from SPC and apparently two customers from CTS also participated in Cash Rebates.

[2] Eliminating customers with similar names (representing different buildings which may or may not be at the same location) reduces the size to 176 customers.

[3] Per trade-off of final survey length and available budget; see project change memorandum dated May 9, 2005.

Survey questions were tailored to the specifics of each program element and focused on participant recollection of measures installed and their usage patterns, marketing effectiveness satisfaction with the program delivery, and spillover effects.

## Findings

The assessment of *program impacts* was focused on the four main program elements that tracked energy savings (Cash Rebates for Business, Standard Performance Contracting, Single Family Direct Install, and Multi Family Rebate). On-site data collection and engineering analyses were conducted. The results of these analyses were then compared with the PG&E measure savings workpapers and secondary sources before final adjustments to ex-post savings by program element were derived. A summary of the program planned, recorded, and ex-post estimated gross demand reductions are contained in the table below, and details of the impact evaluation are contained in a companion paper prepared for this conference.



**Table 4. Comparison of Program Goals, Ex-Ante, and Ex-Post Savings Values**

<b>Program Element</b>	<b>GROSS MW (goals)</b>	<b>GROSS MW (ex-ante)</b>	<b>Summer GROSS MW (ex-post)</b>	<b>Winter GROSS MW (ex-post)</b>	<b>GROSS MWh (ex-ante)</b>	<b>GROSS MWh (ex-post)</b>
<b>Cash Rebates for Business</b>	18.65	7.17	6.60	6.60	39,814	38,025
<b>SPC</b>	2.10	4.26	4.26	4.73	31,336	31,336
<b>Single Family</b>	0.15	0.26	0.29	0.54	2,012	2,277
<b>Multi-Family</b>	0.40	0.24	0.24	0.24	1,832	1,832
<b>TOTAL</b>	<b>21.32</b>	<b>11.93</b>	<b>11.40</b>	<b>12.11</b>	<b>74,994</b>	<b>73,470</b>

Ex-ante savings values are based on PG&E program records and are cumulative through February 2005, based on recorded measures installed and the workpaper-derived values for measure savings. Both the ex-ante savings estimates and the ex-post savings numbers (based on impact evaluation) indicate the program did not meet its demand reduction or energy savings goals through the timeframe originally set for the program, but that winter demand reductions exceeded summer reductions. Key measures contributing to this effect were variable frequency drives on HVAC equipment installed in the SPC program element, and the torchieres exchanged and recorded as part of the Single Family program effort.

### **Key Partnership Findings**

While the partnership did not achieve its ambitious MW reduction targets in the relatively short period available, the partnership does show promise as a means to meet longer term energy and demand reduction goals. Key partnership findings include:

- The relatively short program duration (18 months) of the partnership was not long enough to develop and effectively utilize relationships and marketing channels to achieve ambitious energy savings goals. Perhaps the goals were too ambitious for some program elements.
- The planning and regulatory process took nearly a year before final approval. This may be required for a new partnership of this magnitude, but is too long for a short duration program. The regulatory process also imposed incentive caps, measure requirements, and community development objectives that may have hindered the partnership from achieving energy and demand targets.
- Hard-to-reach markets were served through the program: ethnic, low-income, and important geographic and small business markets all were served. Multi-lingual versions of selected marketing flyers were very helpful in recruiting participants of differing ethnic backgrounds.
- Community outreach was improved by the partnership, particularly in residential and small business segments that utilized SFE's relationship strengths for such efforts as the torchiere exchanges and CTS. This success did not extend to all constituents in the city.

- There was a sense on the part of SFE that PG&E wanted to avoid significant alterations to the statewide programs PG&E already had in operation, and whether true or not that impression limited the development of SFPEP program features.
- Marketing effectiveness was improved by the partnership, and had the program continued over a longer period that effectiveness probably would have further grown.
- Better coordination between SFPEP and statewide programs is needed to avoid customer confusion regarding applicable incentives and participant tracking concerns.

Key program element specific findings:

- Energy efficiency measures not available in statewide programs saw market penetration in the Business sector, especially refrigeration measures –subsequent statewide program developments created some confusion when they offered the same measure incentives.
- In the Multi-family program, difficulty in replacing hard-wired, modular-ballasted CFL lamps on burnout is a concern of program participants.
- Commercial Turnkey Services energy audit and follow-up services provided by SFE staff to small businesses filled a gap in PG&E’s business program portfolio and provided a credible, neutral perspective on measures recommended by contractors.

## Recommendations

The following recommendations were developed through the *process evaluation*, and are intended to help future partnership efforts identify and understand potential strengths, weaknesses, opportunities, and threats they may face, and to take appropriate actions to build on strengths and mitigate problems.

- Develop *contingency plans* and define an efficient process for deciding when to implement them. If planned program achievements lag in specific markets, have alternative approaches outlined and ready to go, and/or shift funding to program areas that demonstrate opportunity.
- Assemble and support dedicated individuals in each organization for the duration of the program. Staff the program with people who are willing, able, and have been successful in the past in taking on the multitude of barriers and constraints inherent in a large-scale program effort. Also, be selective about who to recruit as informal partners in the community to promote the program. Look for those who are experienced at delivering similar messages and activities, and who are excited about energy efficiency. Then maintain staff continuity as much as possible throughout the program. Staff turnover means having to train the new people and rebuild the individual trust that is central to relationships with market actors.
- Focus over time on a few *channels* and offerings that produce the most “bang for the buck.” While reliance on a limited number of marketing and outreach channels and program offerings can be risky, the successfully adaptive program will plan to try a variety of channels and offerings that have potential for success, but be ready to cull poor performing channels to focus program resources as cost- and time-effectively as possible.
- Clearly define *data collection* and reporting requirements to support program tracking and evaluation for all contractors and partners. For example, tenant names and measure

counts were not recorded for the Multi-family program element. There is also a need to coordinate spreadsheet based tracking systems maintained by SFE with MDSS based program tracking at PG&E. Records between the two systems did not always agree.

Impact evaluation activities yielded several additional process-related recommendations that may enhance program success. These recommendations are intended to both improve the operational efficiency of the program and enhance the ability of the program to reduce peak demand and include:

- More detailed study of *occupancy sensors* by space type is recommended, as this measure has significant peak reduction potential – particularly for parking garage applications.
- Additional measures with high winter peak reduction should be considered. Data logger results indicate that winter peak and summer peak are virtually the same for most measures logged in business sectors. But, it is likely that the widespread use of *electric heating* contributes to the winter peak in San Francisco.
- Given recent volatility in natural gas markets, PG&E may want to consider a review of therm savings for program elements that produce gas savings.
- More complete program records should be kept by direct install field contractors for Single Family and Multi-family program elements to support future evaluations. Developing a comprehensive Integrated Data Collection plan will improve tracking accuracy and save money in the long run.

## Summary

The SFPEP partnership was driven initially by summer and winter peak energy resource needs. PG&E and SFE had different partnership role expectations based on past relationships and programmatic perspectives. PG&E saw SFPEP as a cost-effective, outreach-augmented extension of PG&E/statewide programs. SFE saw SFPEP as a creative, ground-up entity designed specifically for the City's needs. The CPUC policy drove a "shotgun wedding" and its regulatory due process brought additional objectives. The differing perspectives and added objectives created tension among various stakeholders. Nonetheless, program staff at both PG&E and SFE tried hard to focus on the common good of the program and satisfy the multiple objectives. Overall the City benefited from the partnership, as many new constituents became engaged in energy efficiency efforts. Specific segments of the community were particularly well served through partnerships with HUD, Charity Cultural Services, and neighborhood business associations. Significant energy and demand savings were achieved, contributing to the ability of PG&E to close the aging power facilities located in the City.

The program's strategic and implementation planning became involved in lengthy regulatory and institutional/corporate reviews. The review process caused significant delays to the program launch. The review processes over time also involved program changes to address coordination gaps with statewide programs and associated operational consequences.

Overarching *program recommendations* include:

- ***Allow more time*** – partnerships require time to develop. There was not sufficient time for a new partnership to meet ambitious targets, particularly given the time required for initial program planning and approval. While the commitment of key individuals can

overcome many obstacles, policy, cultural, and process constraints take time to overcome.

- ***Separate social goals from program impact goals*** by providing separate funding for training and community development efforts.
- ***Better coordinate*** measure incentive levels and eligibility ***with statewide programs***. While a relatively small percentage of program participants were aware of the statewide program, there was confusion about eligibility among some customers.

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