

**2002 STATEWIDE  
EXPRESS EFFICIENCY PROGRAM  
MEASUREMENT AND EVALUATION STUDY**

**FINAL**

*STUDY ID# PGE-SW-067*



***Pacific Gas and  
Electric Company™***

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**2002 STATEWIDE  
EXPRESS EFFICIENCY PROGRAM  
MEASUREMENT AND EVALUATION STUDY**

*March 1, 2004*

**Prepared for California's Investor-Owned Utilities:**

**Pacific Gas and Electric Company  
San Diego Gas and Electric Company  
Southern California Edison Company  
Southern California Gas Company**

2002 STATEWIDE EXPRESS EFFICIENCY PROGRAM  
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***PG&E Study ID number: PGE-SW-067***

***January 28, 2004***

Measurement and Evaluation  
Customer Energy Efficiency Policy & Evaluation Section  
Pacific Gas and Electric Company  
San Francisco, California

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As part of its Customer Energy Efficiency Programs, Pacific Gas and Electric Company (PG&E) has engaged consultants to conduct a series of studies designed to increase the certainty of and confidence in the energy savings delivered by the programs. This report describes one of those studies. It represents the findings and views of the consultant employed to conduct the study and not of PG&E itself.

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***2002 STATEWIDE EXPRESS EFFICIENCY PROGRAM  
MEASUREMENT AND EVALUATION STUDY***

***FINAL***

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*January 28, 2004*

# STATEWIDE EXPRESS EFFICIENCY PROGRAM EVALUATION

## TABLE OF CONTENTS

Section		Page
ES	EXECUTIVE SUMMARY	ES-1
1	INTRODUCTION	
	1.1 Study Objectives	1-1
	1.2 Approach	1-2
	1.3 Report Outline	1-5
2	PARTICIPATION ASSESSMENT	
	2.1 2002 Express Efficiency Program Description	2-1
	2.2 Program Performance Targets and Accomplishments	2-3
	2.3 Historical Participation Trends	2-4
	2.4 Effects of Aggregation Eligibility Rule	2-10
	2.5 Verification Results	2-14
	2.6 Recommendations for Measure Savings Updates	2-17
3	PROCESS ASSESSMENT	
	3.1 Statewide Coordination	3-1
	3.2 Program Marketing	3-3
	3.3 Sources of Energy Efficiency Information	3-9
	3.4 Participation Drivers	3-11
	3.5 Participant Satisfaction	3-13
4	VENDOR ASSESSMENT	
	4.1 IOU Outreach to Vendors	4-1
	4.2 Customer Survey Findings	4-2
	4.3 Lighting Vendor Interview Results	4-4

5	HARD-TO-REACH CUSTOMER ASSESSMENT	
5.1	Hard-to-Reach Customer Participation	5-1
5.2	HTR Program Awareness	5-10
5.3	Tenants and Energy Efficiency	5-14
5.4	Community Marketing to Hard-to-Reach Populations	5-18
5.5	Effectiveness of Outreach to HTR Populations	5-22
6	BENCHMARKING PROGRAM SUCCESS	
6.1	Methodology	6-1
6.2	Longitudinal Analysis Findings	6-2
6.3	Program Effects	6-8
7	SUMMARY OF FINDINGS AND RECOMMENDATIONS	

## **APPENDICES**

APPENDIX 1: PROGRAM STAFF INTERVIEWS

APPENDIX 2: PARTICIPATION ASSESSMENT DATA TABLES

APPENDIX 3: PROCESS ASSESSMENT DATA TABLES

APPENDIX 4: VENDOR ASSESSMENT DATA TABLES

APPENDIX 5: HARD TO REACH ASSESSMENT DATA TABLES

APPENDIX 6: BENCHMARKING DATA TABLES

APPENDIX 7: CUSTOMER FIRMOGRAPHICS

APPENDIX 8: SURVEY INSTRUMENTS

## **EXECUTIVE SUMMARY**

This executive summary highlights the findings and recommendations from the 2002 Statewide Express Efficiency Program Measurement and Evaluation Study. Express Efficiency is a business prescriptive retrofit program customers with peak demand less than 500kW, funded by the California Public Goods Charge (PGC) and administered under the auspices of the California Public Utilities Commission (CPUC). Express Efficiency has been designed to be run on a consistent, statewide basis by the four investor owned utilities (IOUs): Pacific Gas and Electric (PG&E), San Diego Gas and Electric (SDG&E), Southern California Edison (SCE) and Southern California Gas (SCG). The Express Efficiency program offers financial incentives (rebates) to qualifying customers for installing selected energy-efficient technologies.

Despite a downturn in the economic climate and changes to the Express Efficiency program in 2002, the statewide program met its kWh target, came close to meeting its kW target, and exceeded its therm goal. This evaluation examines the Program Year 2002 (PY02) experience, including evaluating the effects of recent program changes (a new eligibility requirement that precluded customers from participating if their *aggregate* demand exceeded 500 kW, late program rollout, and statewide program coordination). The study, prepared by an independent third party evaluation contractor, Quantum Consulting, provides evaluation findings, recommendations and program guidance, and establishes baseline information for the nonresidential population.

The 2002 Express Efficiency evaluation addresses several objectives: (1) assessing participation over time, (2) assessing the program process (including program delivery, marketing and customer satisfaction), and (3) benchmarking program success (longitudinal and across programs). Assessing participation of the hard-to-reach customer classes is a cross-cutting objective of this evaluation.

To meet these objectives a variety of primary and secondary data sources were utilized. Telephone interviews were conducted in July 2003 with customers who purchased a rebated item (participants) and customers who did not. Interviews were also conducted with lighting vendors, community based organizations, and utility and program staff to support the evaluation objectives. Secondary data sources used included a three-year history of program tracking data, CIS (Customer Information System) billing data from each of the four IOUs, CPUC quarterly program reports submitted by the IOUs, and previously collected participant and general population survey data conducted in 1999 and 2001.

Below are the key findings and recommendations that were a result of this study.

### **PROGRAM PARTICIPATION AND AWARENESS**

**Participation.** The Express Efficiency program offered prescriptive rebates to <500kW nonresidential customers. Statewide, the program met most of its goals, producing energy savings of 305GWh, 50 MW, and 4.1 Mtherms, as shown in Exhibit ES-1.



*Exhibit ES-1*  
**2002 Statewide Express Efficiency**  
**Energy Savings Targets and Accomplishments**

Utility	CPUC Target	Result	% Target Reached
<b>Statewide</b>			
Energy Savings, kWh	267,154,003	305,358,637	114%
Demand Reduction, kW	52,258	49,668	95%
Therms Reduction	3,993,959	4,105,257	103%

Furthermore, the IOUs met all but one of their HTR goals, with HTR customers comprising about two thirds of all participant applications. The 2002 Express program was dominated by a single CFL measure: 14-26 watt screw-in modular ballasts. This measure accounted for over three quarters of the program's energy savings, along with 39% of the rebates paid.

Over the past three program years, changes in program eligibility and incentive structures have affected program accomplishments.

- **PY2000.** There was a strong focus on serving the very small customers, and a vendor bonus was offered to incent vendors. As a result, the average rebate per kWh saved was nearly 50% higher compared to 2001. In 2000, retail, restaurant and small grocery establishments participated at all time high rates.
- **PY2001.** Large customers were allowed to participate in the program in 2001, at the height of the energy crisis. As a result average job size increased dramatically: compared to 2000 the average rebate was nearly three times as large, and the average energy savings was four times as large. With the larger customers participating, the mix of rebated measures was also more diversified, with CFLs hitting a three-year low, and T-8s and HVAC hitting a three-year high. Furthermore, more office buildings and institutional customers participated.
- **PY2002.** Large customers and large chain accounts were ineligible, and the program focused on CFLs, resulting in a smaller job size and lower rebate per kWh saved. With the focus on CFL installations in smaller businesses, community and personal service organizations participated at relatively high rates.

Although the 2002 program appears to be much more cost-effective than 2000 and 2001 from a rebate per kWh saved perspective, the program is also likely to have many lost opportunities with other measures. It is probably likely that many potential T-8 retrofits and other measures were being ignored by contractors marketing the program in order to get an easy CFL sale. Also larger job sizes, like that seen in 2001, help improve program cost-effectiveness, as fixed costs associated with application, rebate incentive and inspection processing are reduced (larger jobs requires fewer applications to meet energy savings targets).

A new eligibility requirement (referred to as the aggregation rule), which excluded accounts that aggregated over 500 kW, affected about 19% of the under 500 kW accounts and about 44% of annual consumption, and is a likely reason why the program's kWh energy savings target

was not achieved for some IOUs. The rule also adversely affected cost-effectiveness and equity. Because the aggregation rule affected customers that typically provide more impact per participant, the number of participants needed to meet program goals increased. As a result, program costs associated with application and incentive check processing, and site inspections (not to mention marketing) all increased significantly. In addition, this aggregation rule has likely created an inequity among the customers affected, causing 23% of the total nonresidential market (in terms of annual kWh consumption) to be displaced with no clear energy efficiency program option.

**Awareness.** Unaided program awareness was quite low (5%); aided awareness was somewhat higher (20%), suggesting the program is not top of mind for customers.<sup>1</sup> Program awareness has increased over time, however, from 1% in 2001 to 5% in 2003.

Although mass-market campaigns are responsible for the majority of program awareness, vendors are the most effective delivery mechanism for the program. While only 12% of the general population was made aware of the program through a vendor, 36% of the participants were first made aware of the program through a vendor.

### ***Recommendations***

A program that is attempting to balance equity considerations, diversity in its measure mix, and maintain cost effectiveness can learn from the diversity in design and corresponding accomplishments that occurred in the past three program years. By properly incenting vendors to market to small customers and diversify the measures installed (e.g., higher incentives to very small customers, higher incentives for non-CFL measures, or higher incentives for applications with multiple measures); and by allowing larger customers into the program, but limiting their participation; it may be possible to cost-effectively meet all of these program objectives.

ALJ Malcolm adopted the utilities' proposal for the 2003 Express Efficiency program, to rescind the 500 kW aggregation rule in her March 3, 2003 Interim Ruling. We recommend that the CPUC continue this policy and not have an aggregation rule that limits customer eligibility in the future.

### ***HARD-TO-REACH CUSTOMER FINDINGS***

In 2002, it was found that the program did well overall in serving the HTR segments, in particular with respect to the number of applications submitted by HTR customers. Combined, very small and rural customers submitted 62% of the applications for 44% of the rebate dollars, compared to an estimated 52% of the nonresidential PGC paid by these two segments.

However, self-reported rates of participation among the general population were significantly lower among HTR customers. Three percent of all respondents reported that they participated in Express, whereas only 1% of very small customers participated. Tenants were far less likely

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<sup>1</sup> "Unaided awareness" refers to customers who are not prompted with a program description, whereas "aided awareness" means a respondent was familiar with the program after hearing a brief description of it.

(1%) to participate than building owners (5%). There was little difference in the participation rates of rural and urban customers.

Program awareness rates among HTR segments, however, did not vary as widely as participation rates – about 20% are aware of Express Efficiency. Small customers, however, were less likely (15%) to be aware of the program than their large counterparts (27%). In general, HTR customers were made well aware of the program, and it is likely that other barriers kept these customers from participating more.

As discussed above, vendors are an extremely effective means of program awareness, even more so for HTR customers. Overall, the population of HTR customers are very likely to become aware of the program through mass market media campaigns (of those aware, 76% learned of the program through bill inserts, utility brochure mailings, and television, radio and newspaper ads), and very unlikely to become aware of the program through vendors (<1%). However, vendors continue to be an effective means for delivering the program, as HTR participants were well informed about the program through vendors (37%), much more so than through mass media campaigns (20%).

Although they are an effective means for delivering the program, lighting vendors see small commercial customers as more costly to reach and less profitable than large customers. Lighting vendors feel rebate levels need to be higher to justify the fixed costs associated with marketing to these smaller customers.

Community based organizations (CBOs) have been looked at as a potential means for cost-effectively delivering the program to HTR customers. SCE was most successful in developing relationships with CBOs and getting customers to participate through coordinated marketing events. These events were most effective in getting customers to participate when customers were able to sign up for the program on the spot. The one-stop shopping approach brought together all key market actors – customer, utility, and contractor –to complete the transaction. The attendance of previous participants, who vouched for the program from personal experience, also helped boost credibility.

Southern California Edison's partnerships with CBOs are beginning to impact customers.

- CBOs are a growing source of program awareness for SCE customers.
- More SCE customers attend community meetings than other IOUs.
- SCE representatives are more likely to attend community meetings than other IOUs.
- However, population-level exposure to community meetings is still fairly low; only 6% of the population attended a meeting where rebates were discussed.

### ***Recommendations***

When setting goals for HTR accomplishments the following should be considered:

- If the objective is to spend the PGC dollars equitably, measuring accomplishments in terms of rebates may be more appropriate than applications. However, if the objective is to simply reach the HTR segments, applications is appropriate.

- Serving the HTR segments are more costly, especially very small customers. Therefore, to remain equitable, it is not necessary for rebate dollars to be equally distributed among all HTR segments, as they may be receiving a larger share of program administrative and marketing benefit.
- Some HTR segments are better served by different program intervention strategies. Therefore, goals should be set differently (e.g., lower) for individual HTR segments (e.g., for segments with specific barriers that a program intervention strategy is not designed to overcome), and set appropriately. An example is the tenant HTR segment, for which there are a number of barriers that Express may not be able to fully overcome in the present program design.
- Similarly, some HTR segments are easier to serve than others. If an aggregate HTR goal is set, as opposed to individual HTR segment goals, then some HTR segments may be over-served to reach the aggregate goal.
- In 2002-2003, many local third-party CPUC programs were funded that targeted the HTR segments and offered identical measures as Express. It is likely that in 2004-05, this will also be the case. Therefore, it may be that Express should be targeted more at the non-HTR segments, which the Express program is likely to be capable of serving more cost-effectively. Without considering the benefits received by these third-party programs, it is very likely that many HTR segments are being over-served relative to their PGC contribution.
- IOU-CBO partnerships should be explored, as they are an attractive delivery mechanism because they offer marketing leverage and a way to reach HTR populations, such as small businesses in ethnic communities. SCE has enjoyed some success penetrating HTR markets. IOU-CBO coordinated events should attempt to get customers to sign up on the spot by having contractors present, the product displayed, and past participants present to vouch for the program

## **PROCESS FINDINGS**

**Vendors are Influential.** In sum, contractors are important players in the Express market. Most customers use a contractor. One third of participants find out about the program from a contractor, more than any other source. Next to rising energy bills, contractors were the most influential factor on participants' decision to participate in the program. Nine of 10 participants also felt the vendor's input was quite important in deciding which equipment to install. Finally, nearly every participant was satisfied with their contractor.

However, three in four participants were working with a vendor that was new to them, and the general population had concerns over credibility with vendors that approach customers unsolicited. Customers felt that if a vendor were referred by a utility, that they would be a credible source of energy efficiency information, significantly more so than a vendor that approached them unsolicited. Nearly half of participants that used a vendor believed a list of qualified contractors from their utility would be very important in selecting a contractor.

**Participants are Very Satisfied.** On the whole, participants appear to be quite satisfied with the program. Less than 5% of customers were dissatisfied with their contractor, the equipment

performance, the application process, or their overall program experience. Contractors and equipment received the highest satisfaction rating, while satisfaction with bill savings lagged slightly (only 8% dissatisfied). Only 13% were dissatisfied with the program for any reason. Although no component of the program was highlighted, dissatisfaction chiefly arose from equipment problems, lower than expected bill savings, too much paperwork, problems with contractors and slower than expected rebate processing.

**Online Applications are Gaining Popularity.** Online applications gained popularity among program participants. Nearly half of participants with Internet access were aware that rebate applications were available online. 20% of participants reported that they downloaded an application and one in four customers said they would download an application.

### ***Recommendations***

**Provide Vendor Referrals.** Perhaps the most effective and influential delivery mechanism for the program is vendors marketing the program directly to potential participants. One of the biggest barriers vendors face is credibility, as the vast majority of vendors are approaching customers with whom they do not have existing relationships. Although mass-market program awareness campaigns help vendors overcome this barrier, by making customers aware of the program prior to their interaction with the vendors, having the IOU provide a referral for the vendor may significantly increase the vendor's credibility with the customer.

### ***VENDOR FINDINGS***

Relative to 2001, vendor participation has declined. Two-thirds did more business through Express in 2001 than in 2002 due to lower rebates, size restrictions, and third party programs. Express Efficiency competes for vendors with third party programs. Some vendors went rebate hunting across California, mentioning better rebates offered by PGC funded local third party programs.

Most vendors prefer consistently higher rebates instead of periodic sales. During sale periods, when rebates are increased significantly, vendors cannot accommodate customer demand, utilities are less responsive (delays with reservations, communications not always timely) and rebates turnaround is slower. Vendors also prefer higher base rebate levels over vendor bonuses.

In general, vendors were satisfied with most components of the program process.

- By and large, vendors appreciated the reservation system because it gave them a "sense of security that we're going to get paid."
- Vendors liked the program being consistent statewide.
- Vendors felt the application process was straightforward, and generally filled out the application on behalf of their customers.
- However, determining whether customers qualify for the program is a hassle.

- Furthermore, a quarter of all vendors were not at all satisfied with the time taken to process rebate checks.

### ***Recommendations***

**Get the base rebate level right.** As one vendor noted, sales are necessary when “base rebate levels are not enough. At a base rebate level, you’re just picking up people that’ll already do retrofit projects – a lot of free ridership.” A study was recently conducted with the objective of determining optimal rebate levels for the Express program, which the CPUC should consider implementing. Furthermore, implement consistent rebate levels instead of periodic sales in order to

- Accommodate customer lead time and schedules
- Improve utility responsiveness
- Reduce rebate turnaround time
- Simplify vendor marketing and business planning

**Strengthen linkage between audits and Express Efficiency.** Customers indicated that printed materials from utilities or audit recommendations are preferable to any other source of energy efficiency information, yet very few customers learn about Express through an audit. Also, consider giving access of audit results to vendors, with customer approval. Two-thirds of the vendors surveyed felt this would be valuable. Audits can be used as marketing collateral, driving customers to the Express program, and increasing the credibility of vendor recommendations. In addition, audit reports could include an Express application.

### ***PROGRAM INFLUENCE***

Participants pointed to rising energy bills as the most influential factor in their decisions to purchase rebated equipment, followed by vendors. Audits and community events were relatively unimportant in participant decision-making. However, SCE customers who attended community events found them more influential than the other utilities, suggesting SCE’s community marketing strategy has found favor among its customers. HTR customers tended to be more influenced by utility representatives, audits and CBOs, while Express rebates, rising energy bills and contractors did not have as much influence relative to the population.

The program was found to have influenced customers to purchase energy efficient equipment both inside and outside the program, as well as influence participants’ intentions on future purchases. The majority of customers claim they would not have purchased the same equipment at the same time had the program not existed. Participants were far more likely to replace equipment that was completely operational than nonparticipants. One in three participants said they bought more energy efficient equipment outside of the program as a result of the program. Participants also consider themselves slightly more likely to consider buying energy-efficient products in the future than the general population.

## **REGULATORY ISSUES**

### ***Delays in Program Rollout Hurt Vendor Participation***

Uncertainty surrounding funding for the 2002 program ended momentum generated by the 2001 program and resulted in a very slow start for the 2002 program. The late launch, coupled with initially low rebate levels and vendor' tendency to delay participation until sales promotions were offered, resulted in little participation during the first three quarters of the calendar year.

Three-quarters of vendors felt that delays in starting the program negatively affected their business. Delays compress their business by creating a short window for doing rebated jobs. Vendors lose customers, cannot retain staff and are unable to plan for their business as a result of delayed program rollout.

### ***Statewide Coordination***

The IOUs have successfully coordinated the program (product specifications, sales promotions, rebate applications, program materials). Statewide vendors really like standardized rebates and applications, which makes their advertising and marketing easier. Although the IOU program managers have been positive overall about statewide coordination, it has at times proved difficult to establish consistent product eligibility standards and rebate levels that were appropriate across the state. Express program managers believe that the program needs flexibility with respect to setting rebate levels to address local conditions of the respective IOUs.

### ***Recommendations***

As much as possible, the program should avoid interruptions between program years, and/or delays in starting a new program cycle. Ideally, the program should be run with at least a two year funding cycle.

The program should continue to be run consistently statewide, but allow for some flexibility in rebate pricing and budget allocation.

## **RECOMMENDATIONS FOR FUTURE RESEARCH**

As a result of conducting a thorough review of the IOU work papers that provide the detailed documentation supporting the Express Efficiency measure savings estimates, five key evaluation projects are recommended.

**Lighting Impact Load Shape Measurement.** We recommend an in-depth assessment of compact fluorescent impacts, which currently comprise three quarters of the program's kWh savings. This study should include time-of-use (TOU) lighting logger metering to measure retrofit hours of operation, coincident peak hour diversity factors and other load shape findings. To ensure that T8 estimates reflect the current program HTR mix (rather than, for example, the medium and large customer mix of the early and mid-1990's), we recommend that metering studies from this era be unarchived, segmented, and re-weighted to reflect the current program mix, and used to develop impact load shape results for today's Express Efficiency program.

**Measure Life Study for CFLs.** CFLs are clearly the dominant measure in Express. Unfortunately, CFLs are a relatively new measure compared to the history of the Express program. Ninth year retention studies are now being conducted on the pre-98 programs, such as PG&E's Retrofit Express program, which are providing valuable input for the development of accurate measure life estimates. However, CFLs were not a common enough measure in the pre-98 programs (not to mention the technology has changed significantly), and are not currently being adequately studied. Therefore, we recommend that a measure life study be conducted to update the current equipment useful life estimates for CFLs.

**Net-to-Gross Study for Express.** The net-to-gross ratio used for Express is currently 0.96, which is primarily founded on free ridership and spillover estimates developed as part of the evaluation for the pre-98 programs. Both the target market and the measure mix for the current Express program have changed dramatically since the pre-98 programs. There is more emphasis on smaller and HTR customers, eligibility requirements have excluded large customers, and CFLs have become the dominant measure. Therefore, we recommend that a net-to-gross study be conducted to update the current value of 0.96.

**Statewide Retrofit Express Billing Analysis.** Following completion of the DEER Update Study, we recommend that a Statistically Adjusted Engineering (SAE) billing analysis study be conducted to examine the accuracy of those deemed savings estimates, and develop a set of SAE realization rates, representing the fraction of the deemed savings estimates realized in customer bills, to refine the measure savings estimates used for Express.

**Tracking System Verification Study.** We expect that the technical workpapers may be significantly revised to take advantage of the new DEER database. Therefore, a thorough verification study should be conducted to ensure that the workpapers are being revised correctly, and that the values are being properly propagated into the IOU tracking systems and CPUC reporting workbooks.



## 1. INTRODUCTION

This is the final report prepared for the 2002 Statewide Express Efficiency Program Measurement and Evaluation Study (hereafter referred to as “the study”). Express Efficiency is a business prescriptive retrofit program for customers with peak demand less than 500 kW, funded by California utility customers and administered under the auspices of the California Public Utilities Commission (CPUC).<sup>1</sup> Express Efficiency has been designed to be run on a consistent, statewide basis by the four investor owned utilities (IOUs): Pacific Gas and Electric (PG&E), San Diego Gas and Electric (SDG&E), Southern California Edison (SCE) and Southern California Gas (SCG). The Express Efficiency program offers financial incentives (rebates) to qualifying customers for installing selected energy-efficient technologies.

Despite a downturn in the economic climate and changes to the Express Efficiency program in 2002, the statewide program met its kWh target, came close to meeting its kW target, and exceeded its therm goal. This evaluation examines the Program Year 2002 (PY02) experience, including program changes (a new eligibility requirement that precluded customers from participating if their *aggregate* demand exceeded 500 kW, late program rollout, and statewide program coordination). The study, prepared by an independent third party evaluation contractor, Quantum Consulting (QC), establishes baseline information for the nonresidential population, evaluation findings and program guidance.

### 1.1 STUDY OBJECTIVES

The 2002 Express Efficiency evaluation addresses several objectives: (1) assess participation over time, (2) assess the program process (including program delivery, marketing and customer satisfaction), (3) benchmark program success (longitudinal and across programs), and (4) verify energy savings. Assessing participation of the hard-to-reach customer classes is a cross-cutting objective of this evaluation.

Previous studies emphasized the baseline characteristics of the market for nonresidential sector programs.<sup>2</sup> The 2002 study leverages these earlier studies to offer a longitudinal look at baseline characteristics, but focuses on assessing the program’s effectiveness at reaching and influencing the target market, drawing on participation data, customer surveys and vendor interviews.

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<sup>1</sup> Energy efficiency programs are funded from electric and gas public goods charge (PGC) funds, a charge applied to each customer's bill to support the provision of public goods. Public goods covered by California's PGC includes public purpose energy efficiency programs, low-income services, renewables, and energy-related research and development.

<sup>2</sup> 1999 State-Level Small/Medium nonresidential MA&E Study; 2001 Statewide Small/Medium Nonresidential Customer Needs and Wants Study.

This report focuses on three of the four overriding study objectives:

- **Participation Assessment.** Trends in Express participation are shown by each utility, technology, customer business type, and customer size. Participation trends are presented for program years 2000-2002. These historic trends are analyzed to determine the effects of the 500 kW aggregation eligibility requirement, a ruling that excluded chains from participating in the program. In keeping with the CPUC's emphasis on hard-to-reach (HTR) customer segments, we compare program participation among HTR segments (renters, rural, small and non-English speaking businesses) to their PGC contribution in order to determine if there have been inequities among these customer segments that have contributed to the PGC funds, but have not explicitly benefited from the PGC-funded energy efficiency programs. In addition, a review was performed on the per unit savings estimates associated with the primary measures offered under the program. Recommendations for measure savings updates are offered, focusing on the measures with greatest participation.
- **Verification Activities.** To verify energy and peak demand savings, each utility's inspection database was reviewed to verify that results were statistically reliable. A telephone survey was conducted to verify measure installation. In addition, on-site verification audits were conducted to verify equipment that was installed and rebated under the Express program.
- **Process Assessment.** A comprehensive process assessment employs customer survey data and interviews with program staff and lighting vendors to examine program awareness, marketing, statewide coordination, delivery channels (such as community-based organizations, utility representatives), factors that influenced participation, program effects (comparing knowledge and attitudes of participants and non-participants), and customer satisfaction.
  - A lighting vendor assessment presents customer opinions on contractors and results of interviews with lighting contractors, including feedback on sales, rebate levels, the reservation system, eligibility requirements, and ideas for program improvements.
  - A renter assessment uses customer survey data to better understand the barriers that renters face in participating in the program.
- **Program Benchmarking.** Benchmarking involves longitudinal and cross-program comparisons. We leverage previous nonresidential studies to examine baseline market information, participant information and conservation behavior over time. We compare key metrics, such as awareness and participation rates, attitudes and knowledge, of the 2002 nonresidential audit, large customer (SPC) and small customer (Express) programs.

## 1.2 APPROACH

Study results are based on primary research conducted with customers, key market actors, an analysis of participant tracking data and utility customer information databases.

## **Primary Data Collection**

**Customer Surveys.** Telephone interviews were conducted in July 2003 with 584 customers who purchased a rebated item (participants) and 741 customers who did not.<sup>3</sup>

- The **participant survey** was segmented by IOU service territory, customer size and key building type segments. For each segment, the participant sample frame was drawn proportional to participation across measures. Measures that had more significant participation received proportionally more sample. For the 584 participant surveys, 208 were allocated to PG&E, 194 to SCE, 110 to SDG&E and 72 to SCG.
- The **General Population Survey** was coordinated with the Nonresidential Audit Evaluation. The sample was segmented in a manner similar to the participant survey: by IOU, customer size and key building type segments. Because the Nonresidential Audit program targets accounts with demand greater than 500 kW that are not eligible for the Express program, 67 of the 808 completes were conducted on large customers, and are not used in this Express evaluation. As a general population survey, this nonparticipant sample includes some customers that may have participated in the Express program. A portion of the sample frame for this survey was drawn from 767 surveys, conducted in 2001 as part of the Small/Medium Nonresidential Customer Wants and Needs Study, in order to analyze changes in baseline behavior over time. The supplemental sample frame was developed using each IOU's CIS database. For the 741 general population surveys, 305 were allocated to PG&E, 291 to SCE/SCG, and 145 to SDG&E.<sup>4</sup> 218 of these surveys were callbacks from the 2001 Needs & Wants Study.<sup>5</sup>

Customer telephone survey results are segmented by "hard-to-reach" (HTR) customers, defined by the CPUC as those who do not have easy access to program information or generally do not participate in energy efficiency programs due to language, geographic, company size (less than 10 employees or <20kW) or tenant barriers. These HTR segments are defined as:

- Language: primary language spoken at business is other than English, and/or
- Geographic: businesses located in areas other than the San Francisco Bay Area, San Diego area, Los Angeles Basin or the City of Sacramento, and/or
- Size: Very small businesses using <20kw or less than 10 employees, and/or
- Tenant: customers who lease rather than own their facilities

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<sup>3</sup> The total survey sample is 600 participants and 808 general population customers. This total includes 16 large participants and 67 large customers in the general population that are removed from the segment totals because they are not considered eligible for the program, but we do at times report them separately because large customer data illustrate differences between large and small customers. The General Population Survey was also used in the 2002 Nonresidential Audit Evaluation, and large customers were included for that study.

<sup>4</sup> One sample represented both SCE and SCG because they serve much of the same territory.

<sup>5</sup> 2001 Statewide Small/Medium Nonresidential Customer Needs and Wants Study.

The program made concerted efforts to get participation by customers in these hard-to-reach market sectors. Therefore, the report segments HTR customers in order to assess how well the program served these customers.

**Verification Surveys.** Telephone surveys and onsite audits were conducted to verify measure installation:

- A **telephone survey** was conducted to verify that the IOU's customers installed the measures specified in their program tracking database. The survey asked a sample of 665 participants if they recalled receiving a rebate for the measures recorded in the IOU's tracking database.
- **On site audits** were also completed for a sample of 125 sites, covering 191 measure groups and 12,475 unique pieces of equipment. The equipment rebated through the Express Program was grouped into four measure categories (CFL, other lighting measures, HVAC, and refrigeration/other). 12,475 measures and 191 sites were audited.

**Lighting Vendor Interviews.** We focused on lighting vendors because over 90% of the program's kWh savings came from lighting measures (primarily compact fluorescents and T-8s). Our intent was to learn about participating lighting vendors' experience with the Express Efficiency program, not to conduct supply-side baseline research.<sup>6</sup> Forty-four lighting vendors that were aware of the program and have participated in either 2001 and/or 2002 were interviewed about their experience with the 2002 Express Efficiency program. These vendors were drawn from a statewide database of vendors that participated in the Express Efficiency program in 2002 and 2001. We categorized vendors based on their volume of participation in 2002, activity across the three IOU territories, and participation in 2001 relative to 2002. The opinions of these "ex-participants" – contractors that were active in the program in previous years, but whose participation dropped off in 2002 – were of particular interest in assessing how well the program is working for vendors.

**Interviews with Community-Based Organizations.** The CPUC called on IOUs to involve community-based organizations (CBOs) in the task of delivering the program to hard-to-reach business customers. IOU-CBO partnerships are an attractive delivery mechanism because they offer marketing leverage – using CBO resources to deliver the Express Efficiency program – as well as a way to reach underserved communities, particularly small businesses in ethnic communities. Southern California Edison has made special effort to reach out to CBOs through its Small Business Solutions Group. SCE has partnered with community-based associations, and ethnic, professional and business groups to deliver program information to customers, particularly HTR customers. Therefore, we interviewed seven CBOs in SCE territory and three SCE staff who understand how SCE interacts with CBOs and determined what CBO strategies have been particularly effective in reaching their members.

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<sup>6</sup> Previous research has characterized the commercial lighting market in California based on data from interviews with electrical contractor and distributors (1999 State-Level Small/Medium Nonresidential MA&E Study).

**Stakeholder Interviews.** A series of interviews were conducted with SCE, SCG, SDG&E and PG&E Express program staff in April and May 2003. These qualitative interviews were conducted to discuss program evaluation objectives, obtain program manager input to help refine objectives and research issues that shaped subsequent interviews with vendors, customers and CBOs, and to educate the evaluation team on program design, verification process, marketing activities, and vendor operations. Interview findings are reported in Appendix A and summarized in the Process Assessment (chapter 3).

### ***Secondary Data Sources***

**Participant Tracking Data.** Quantum Consulting obtained 2000, 2001 and 2002 Express tracking system records and assembled summary statistics on participation to date. Participation trends were compared over time. This analysis was used to identify gaps and unexpected trends in program participation.

**Customer Information System (CIS).** Customer statistics such as electricity consumption and business type were generated from the utilities' CIS databases. The CIS was used to segment customers by HTR status, such as size (based on usage) and rural/urban (based on zip code) and to identify customers that aggregated over 500kW.

**2001 Nonresidential Survey.** Our longitudinal analysis relies on a random sample of 767 nonresidential customers surveyed in July 2001 as part of the Small/Medium Nonresidential Customer Wants and Needs Study as well as the General Population Survey (fielded in July 2003)

**1999 State-Level Small/Medium Nonresidential MA&E Report.** This 1999 Express Study was used as part of the longitudinal analysis.

**IOU Quarterly Reports.** We reviewed quarterly reports for IOU impact/participation goals, progress towards goals, program budgets, 2002 expenditures, and marketing activities.

## **1.3 REPORT OUTLINE**

The report consists of seven chapters:

**Chapter 1 (Introduction)** states study objectives, summarizes research activities and data collection efforts.

**Chapter 2 (Participation Assessment)** summarizes 2002 program background, target customer assessments, rebated measures, program performance targets and accomplishments, historical participation trends, effects of the aggregation rule on the statewide Express market and participation, verification results and recommendations for measure savings updates. Appendix B contains data tables that support these chapter findings.

**Chapter 3 (Process Assessment)** presents the findings from customer surveys and program manager interviews on statewide coordination, program marketing (IOU marketing efforts, program awareness, sources of awareness, online marketing), sources of energy efficiency

information, participation drivers and participant satisfaction. Appendix C contains data tables that support these chapter findings.

**Chapter 4 (Vendor Assessment)** presents findings on IOU outreach to vendors, customer survey findings on contractors and lighting vendor interview results on the reasons for decline in vendor participation, why delays in program rollout hurt vendor participation, vendor opinions on rebates, IOU communications with vendors, IOU reservation system, challenges of qualifying customers, vendors' experience with the application process, business activities of statewide vendors, challenges of reaching small customers, impact of third party programs on lighting vendor participation and vendor suggestions for program enhancements. Appendix D contains data tables that support these chapter findings.

**Chapter 5 (Hard-to-Reach Customer Assessment)** addresses hard-to-reach customer participation (HTR benefit/contribution analysis, self-reported participation rates), HTR program awareness, tenants and energy efficiency and community marketing to HTR populations. Appendix E contains data tables that support these chapter findings.

**Chapter 6 (Benchmarking Program Success)** presents longitudinal analysis (program awareness, participation, equipment change and conservation persistence) and program effects (program influence on purchases, attitudes toward energy efficiency, knowledge of energy efficiency). Appendix F contains data tables that support these chapter findings.

**Chapter 7 (Conclusions)** reports key findings, integrating market actor and consumer findings, and that offers program guidance.

**Appendices.** In general, survey results are presented in the appendices. Appendix A, however, provides the results of the program manager interviews. Appendices B through F provide survey results that correspond to the findings presented in Chapters 2 through 6. Appendix G provides survey frequencies on the firmographic questions asked of the survey respondents. Finally, Appendix H provides the survey instruments for the general population, participant and lighting vendor surveys.

The chapters present high-level findings, reserving detailed data tables for appendices. We report respondent data for both the general population and participants across 24 segments. This high level of detail regarding consumer response to survey questions allows us to examine differences among the utilities and hard-to-reach customer segments (as defined by the CPUC). These detailed data tables are displayed in the appendices, where survey results are presented for:

- All customers.
- Hard-to-reach customers. Survey respondents and CIS data were used to classify each respondent into one or more of the HTR segments. The residential HTR definitions provided by the CPUC are:
  - Urban/rural. The IOUs define rural HTR customers by zip codes. For example, PG&E uses only geography to define HTR in their service territory, where zip codes outside the 9 Bay Area counties are considered HTR.

- English/other language. Primary languages other than English include respondents who indicated they spoke a non-English language at their business.
  - Tenant/building owner. This information comes from customer’s self-reported facility ownership.
  - Size. Customers are segmented by very small (0-20kw), small (20-100kW), medium (100-500kW) and large (>500kW). Large customers are moved from the segment totals because they are not considered eligible for the program, but we do at times report them separately because large customer data illustrate differences between large and small customers. Small customers are those with usage less than 100kW.
  - Any HTR: this segment includes respondents whose businesses is located in a rural area, speak a language other than English at the business, lease a facility, or use less than 20kW.
  - Non-HTR. This segment captures English-speaking, urban businesses that own their facilities and use more than 20kW.
- IOU: general population surveys are segmented by three utilities: PG&E, SCE/SCG and SDG&E. Participants are segmented by PG&E, SCE, SCG and SDG&E.
  - Business Type: survey responses are segmented by seven business types: office, retail, restaurant and grocery, institutional, industrial, miscellaneous commercial and agriculture.

## 2. PARTICIPATION ASSESSMENT

### 2.1 2002 EXPRESS EFFICIENCY PROGRAM DESCRIPTION

The 2002 Express Efficiency program focused on small and medium-sized business customers (with electricity demands <500 kW) for installing selected lighting, refrigeration, air conditioning, agricultural and gas technologies proven to increase energy efficiency. Rebates (paid directly to the customer or the participating vendor) were given for retrofit or replacement of existing inefficient equipment with qualifying new energy-efficient equipment.

#### *Target Customer Segments*

The CPUC encourages the utilities to connect with hard-to-reach (HTR) nonresidential customers – those customers who do not have easy access to program information or generally do not participate in energy efficiency programs due to a language, business size, geographic, or tenant barriers. The CPUC defines these HTR segments as:

- Language - Primary language spoken is other than English,
- Business Size – Very small (<20 kW in peak demand) and/or less than ten employees,
- Geographic - Businesses in areas other than the San Francisco Bay Area, San Diego area, Los Angeles Basin or City of Sacramento,
- Tenant - customers who lease rather than own their facilities.

In 2002, the CPUC excluded large chain accounts<sup>1</sup> with a new eligibility requirement and precluded customers from participating if their aggregate demand exceeded 500 kW. Small chains were eligible for the 2002 Express Efficiency program while large chains were excluded.

- **Large chain:** a chain whose total aggregated demand over all customer accounts is greater than 500 kW, or whose annual gas consumption is greater than 250,000 therms.
- **Small chain:** a chain whose total aggregated demand over all customer accounts is less than or equal to 500 kW, or whose annual gas consumption is less than or equal to 250,000 therms.

The effects of this rule on the eligible population are examined in Section 2-4.

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<sup>1</sup> Chain accounts are customers with two or more accounts that have the same billing address and same customer name but with more than one service address.



## Rebated Measures

Base and sale rebate amounts are reported in Exhibit 2-1. Some rebates were increased during summer and winter sale promotions. CFL rebates were doubled in the summer promotion, while T-8 incentives slightly increased.

### Exhibit 2-1 2002 Express Efficiency Energy Rebate Levels

Equipment Measures	2002 Express Efficiency Rebates		
	Standard Rebate	Summer Sale	Winter Sale
<b>Lighting</b>			
Occupancy sensor (wall-mounted)	\$8.25/sensor	\$16.50	\$18.00
Occupancy sensor (ceiling mounted)	\$22/sensor	\$44.00	\$50.00
Plug load sensor	\$15/sensor	\$20.00	\$20.00
Photocells	\$3.50/photocell	\$7.00	\$7.00
Tme'clock	\$9/time clock	\$18.00	\$18.00
<b>CFLs</b>			
5-13 watts	\$1.50/lamp	\$3.00	\$2.00
14-26 watts	\$3.50/lamp	\$7.00	\$4.00
27+ watts	\$4.25/lamp	\$8.50	\$6.00
<b>T-8 or T5 lamps with electronic ballasts</b>			
premium 2-foot lamp	\$2.30/lamp		\$3.00
premium 3-foot lamp	\$3.25/lamp		\$4.00
premium 4-foot lamp	\$4.25/lamp		\$5.00
Non-dimming ballasts	\$2.00	\$4.00	-
Dimming ballasts	\$10.00	\$20.00	-
<b>Permanent delamping</b>			
2-foot lamp	\$1/lamp		\$3.00
3-foot lamp	\$1/lamp		\$3.00
4-foot lamp	\$1.50/lamp		\$4.50
8-foot lamp	\$2.25/lamp		\$6.75
<b>HVAC</b>			
Package/Split AC 24-65 kBtu Tier I	\$40/ton	-	\$50.00
Package/Split AC 24-65 kBtu Tier II	\$50/ton	-	\$65.00
Package/Split AC 24-65 kBtu Tier III	\$70/ton	-	\$90.00
Package/Split AC 65-135 kBtu	\$75/ton	-	\$100.00
Setback Programmable Thermostats	\$12/unit	\$48.00	\$55.00
Reflective Window Film (Inland)	\$0.45/sq ft	\$0.90	\$0.90
Reflective Window Film (Desert)	\$0.45/sq ft	\$0.90	\$1.80
<b>LED</b>			
LED channel signage (red) indoor <2 ft	\$2.00	\$3.00	\$3.00
LED channel signage (red) indoor >2 ft	\$3.00	\$4.00	\$4.00
LED retrofit kits	\$4.50	\$9.00	\$9.00
LED exit signs	\$13.50	\$27.00	\$27.00
<b>Agricultural</b>			
Variable-Frequency Drives - Dairy Vacuum Pum	\$34.00/hp	\$68.00	\$120.00
Variable-Frequency Drives - Injection Molding M	\$34.00/hp	\$68.00	\$90.00
<b>Refrigeration</b>			
night covers for display cases	\$3/linear foot	\$6.00	\$7.00
infiltration barrier for walk-ins	\$1/sq ft	\$2.00	\$4.00
anti-sweat heat controller	\$14/linear foot	\$28.00	\$34.00
Main Door gaskets (walk-in)	\$2/linear foot	\$4.00	\$7.00
Auto-closer for Freezer	\$40/closer	\$80.00	\$90.00
Glass Cooler Door gaskets	\$2/linear ft	\$2.50	\$3.00
Vending Machine Controllers	\$30/controller	\$60.00	\$90.00
Evaporator fan Controllres	\$75/controller	\$100.00	\$120.00
<b>Motors</b>			
25 hp	\$115.00	\$230.00	-
30 hp	\$135.00	\$270.00	-
40 hp	\$160.00	\$320.00	-
50 hp	\$200.00	\$400.00	-
60 hp	\$235.00	\$470.00	-
75 hp	\$270.00	\$540.00	-
100 hp	\$360.00	\$720.00	-
125 hp	\$540.00	\$1,080.00	-
150 hp	\$630.00	\$1,260.00	-
200 hp	\$630.00	\$1,260.00	-

## 2.2 PROGRAM PERFORMANCE TARGETS AND ACCOMPLISHMENTS

For the 2002 program year, performance targets were set for the program in terms of energy and demand savings. Specifically, the statewide savings targets were 267,154,003 kWh, 52,258 kW, and 3,993,959 Therms. As shown in Exhibit 2-2<sup>2</sup>, statewide, the program exceeded its kWh and Therm targets, and came close to meeting its kW target.

*Exhibit 2-2  
Summary of 2002 Express Efficiency Energy  
Savings Targets and Accomplishments*

<b>Utility</b>	<b>CPUC Target</b>	<b>Result</b>	<b>% Target Reached</b>
<b>PG&amp;E</b>			
Energy Savings, kWh	155,382,003	135,248,136	87%
Demand Reduction, kW	29,288	20,587	70%
Therms Reduction	1,196,649	1,208,697	101%
<b>SCE</b>			
Energy Savings, kWh	64,303,000	123,431,174	192%
Demand Reduction, kW	13,930	19,950	143%
Therms Reduction	-	-	-
<b>SDG&amp;E</b>			
Energy Savings, kWh	47,452,000	46,674,406	98%
Demand Reduction, kW	9,040	9,131	101%
Therms Reduction	607,310	337,496	56%
<b>SCG</b>			
Energy Savings, kWh	17,000	4,921	29%
Demand Reduction, kW	-	-	-
Therms Reduction	2,190,000	2,559,064	117%
<b>Statewide</b>			
Energy Savings, kWh	267,154,003	305,358,637	114%
Demand Reduction, kW	52,258	49,668	95%
Therms Reduction	3,993,959	4,105,257	103%

All four utilities met or exceeded their HTR targets, with one exception, as shown in Exhibit 2-3. The HTR targets were defined in terms of having a percentage of the applications rebated be associated with different HTR segments. PG&E was very conservative in the way they calculated the percentage of applications that were rebated for the geographic HTR segment; PG&E looked only at the customers that were not already classified as being in the very small HTR size category. Therefore, they found that only 34% of the remaining 59% of the non-very small HTR customers were in the geographic HTR segment. Had they used the entire population of participants to calculate the percentage of applications that were in the

<sup>2</sup> Targets and accomplishments obtained from IOU Final Fourth Quarter Program Reports, filed with the CPUC in May 2003.

geographic segment, they would have met their CPUC target. This is explored further in Chapter 5.

*Exhibit 2-3  
Summary of 2002 Express Efficiency Hard-to-Reach  
Targets and Accomplishments*

Utility	HTR Segment	CPUC Target % of Applications	Result
PG&E	Business Size	41%	41%
	Geography	40%	34%
SCE	Size and Geography	47%	57%
SDG&E	Any	59%	66%
SCG	Any	42%	42%

### 2.3 HISTORICAL PARTICIPATION TRENDS

Participation summaries for the number of applications, total rebates paid, and total first year gross energy (kWh) savings by size, technology and business type for each utility and statewide are shown for PY2000, 2001 and 2002 in Appendix B (Participation Data Tables). Below we highlight some of the key trends in participation over this three-year period with respect to the types of measures installed, the size of the customers participating, and the types of businesses participating.

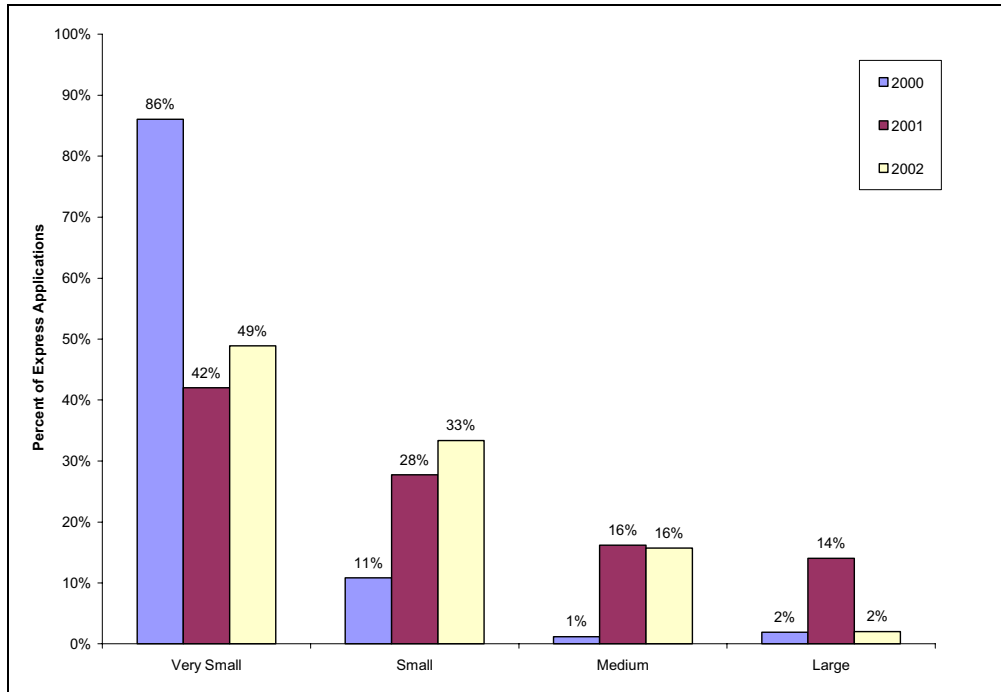
#### **Customer Size Trends**

Exhibits 2-4 and 2-5 present the trends in participation from 2000 to 2002 by the size of the customer participating.<sup>3</sup> Shown are the percentage of applications that were rebated for a given year, and the percentage of energy savings within a given year by customer size. Although large customers were ineligible to participate in 2000 and 2002, there are still some customers that show up as large due to the way in which we classified customers using 2002 CIS data.

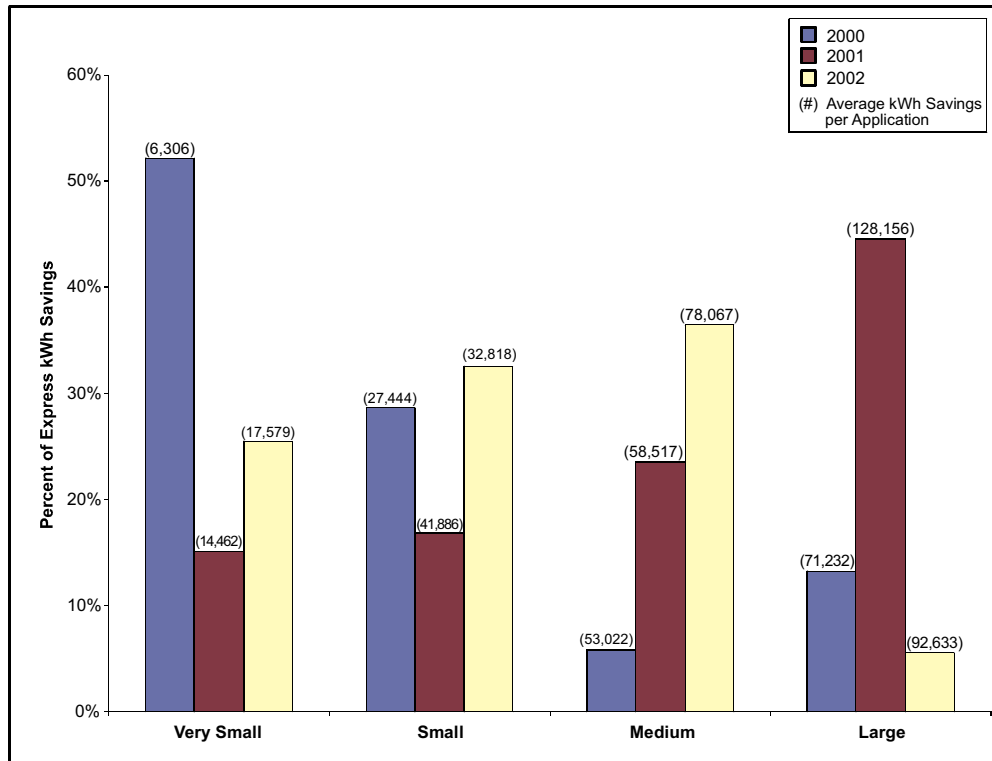
With respect to the number of customers participating, PY2000 saw a very large proportion of very small participants, primarily due to the vendor bonus that was paid as an incentive for vendors to market to very small customers. In PY2000, 86% of the applications rebated were submitted by very small customers, compared to less than half in PY2001 and PY2002. In PY2001 large customers were admitted into the program for a portion of the year, accounting for 14% of the applications and 45% of the energy savings. In 2002, large customers were no longer eligible again, and neither were large chain accounts. In 2002, about 50% of the applications were from very small customers and a third from small customers, however the very small customers comprised only a quarter of the energy savings.

<sup>3</sup> Exhibits 2-5 and 2-7 present average job size (average kWh savings/application).

**Exhibit 2-4**  
**Applications Rebated by Customer Size, PY2000-2002**



**Exhibit 2-5**  
**kWh Energy Savings by Customer Size, PY2000-2002**



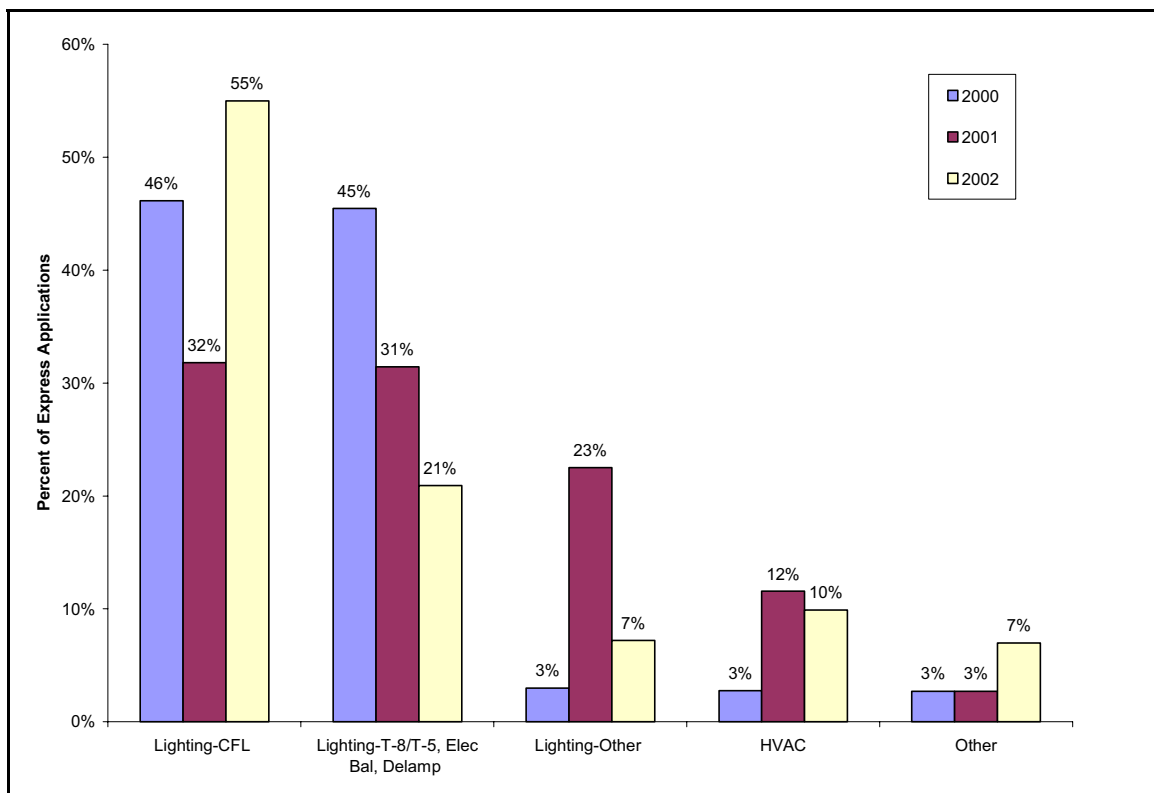
### Measure Trends

Exhibits 2-6 and 2-7 present the trends in participation from 2000 to 2002 among five key measure groups: CFLs, T-8s, miscellaneous lighting, HVAC and other measures. Shown are the percentage of applications that were rebated for a given year that contained at least one of these measures, and the percentage of energy savings within a given year associated with the measures.

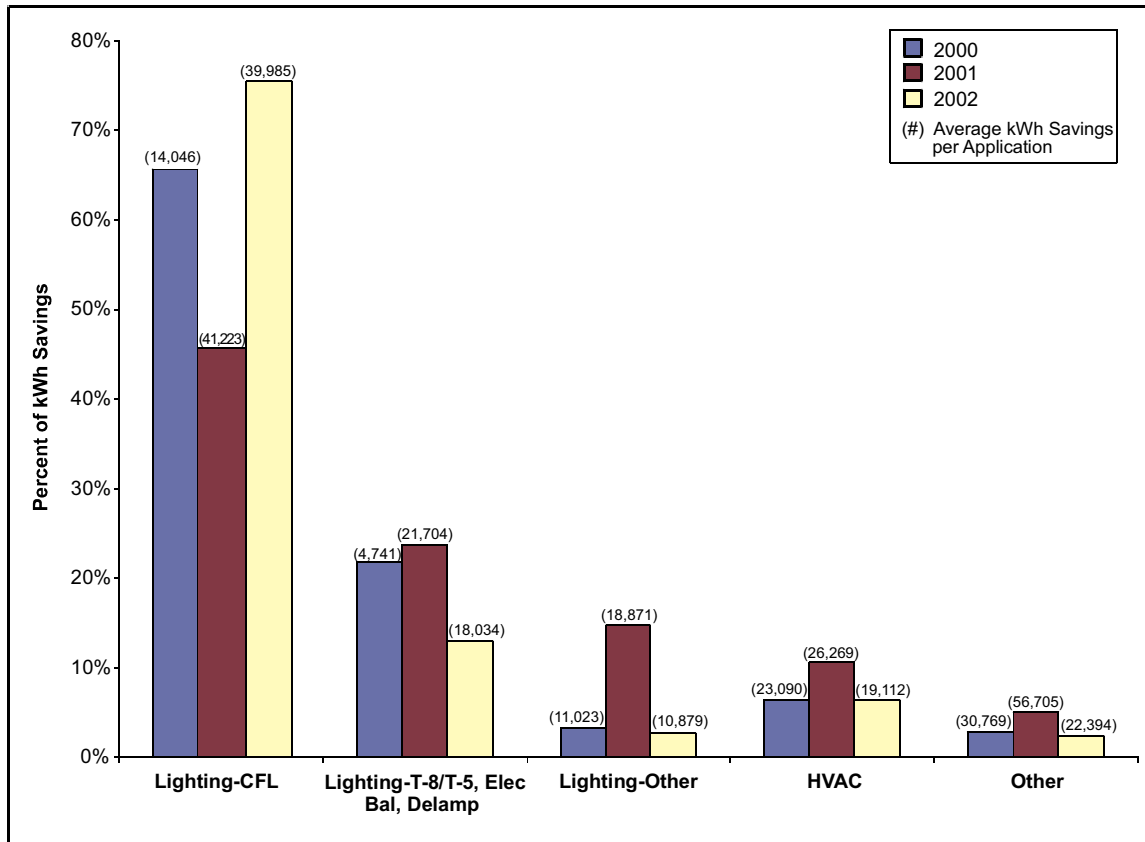
Clearly, lighting measures have dominated the program over the past 3 years in terms of both applications and energy savings. In PY2001, when large customers were admitted into the program, there was more diversity among the measures installed. In PY2002, the program became primarily a CFL program with T-8's taking a back seat. CFL prices dropped significantly and awareness of the technology increased dramatically over the three-year period, making this a much easier measure to push among contractors.

In 2002, boiler and water heater measures accounted for most of SCG's program rebate dollars due to a new Air Quality Management District (AQMD) regulation requiring small and medium businesses to upgrade their boiler.

**Exhibit 2-6**  
**Applications Rebated by Technology, PY2000-2002**



**Exhibit 2-7**  
**Measure kWh Energy Savings by Technology, PY2000-2002**



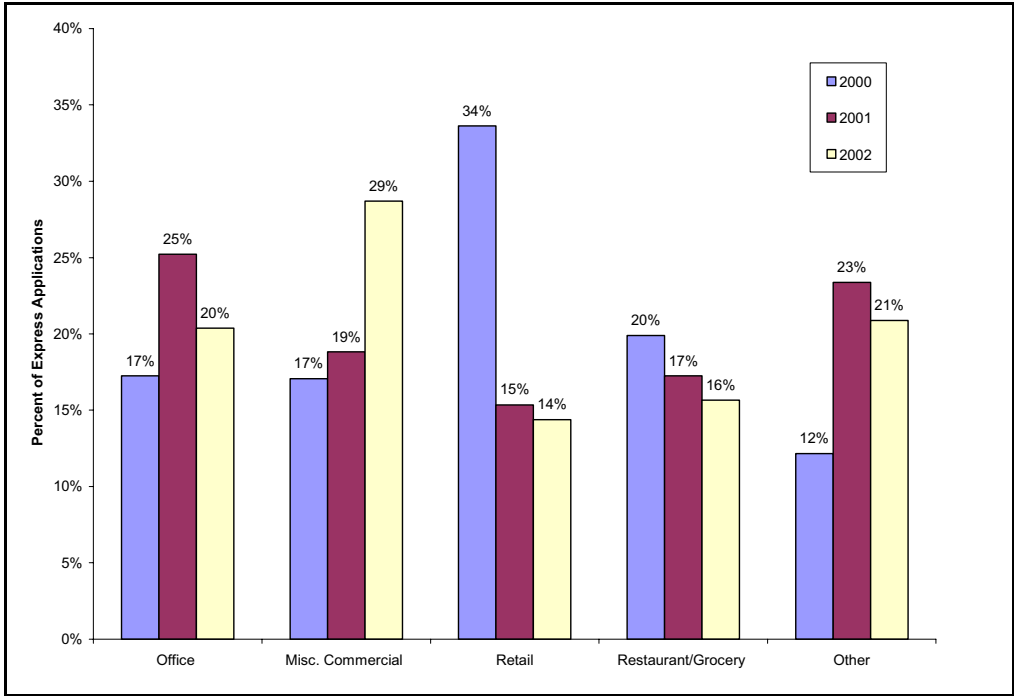
**Business Type Trends**

Exhibits 2-8 and 2-9 present the trends in participation from 2000 to 2002 among five key business type groups: office, miscellaneous commercial, retail, restaurants & groceries, and other. Shown again are the percentage of applications and the percentage of energy savings within a given year.

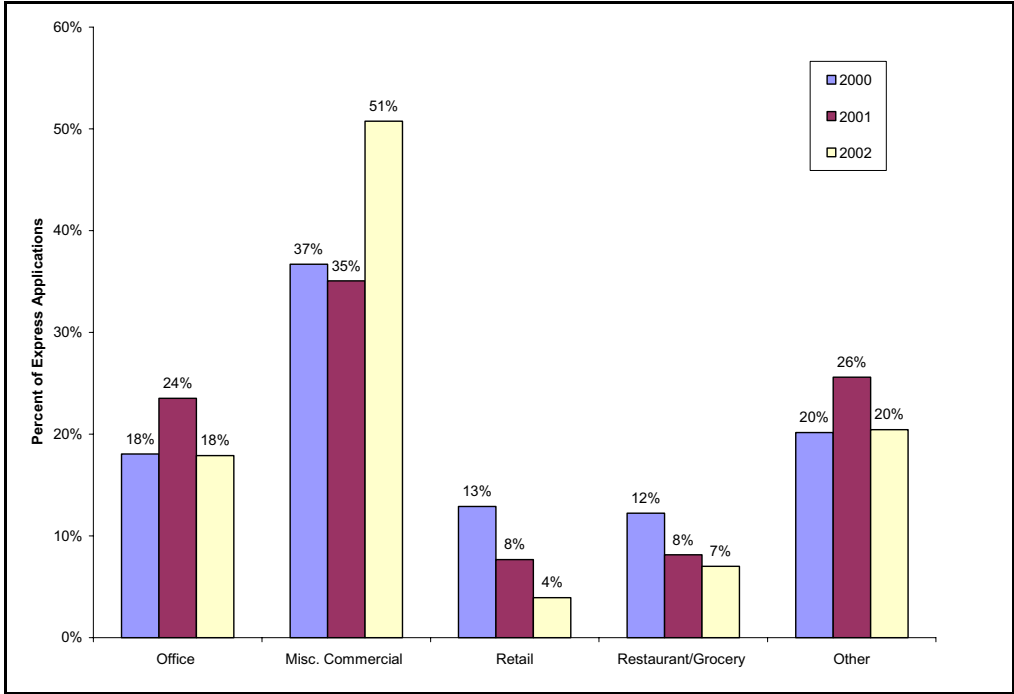
The trends among business types again follow the changes that have occurred with program eligibility and incentives. In 2000, when the program was focused on the very small customers and vendors received bonuses, many of the small retail, restaurant and grocery stores participated. When larger customers were admitted in 2001, we saw more activity among the office and “other” (primarily institutional) business types. In 2002 when CFL installations dominated and smaller customers were emphasized, a lot of miscellaneous commercial establishments (personal services and community services) participated.

These trends also line up well with the measure types being installed. For example, in 2001 when more offices and “other” (institutional) customers participated, there were a larger proportion of T-8s and HVAC measures installed.

**Exhibit 2-8**  
**Applications Rebated by Business Type, PY2000-2002**



**Exhibit 2-9**  
**Measure kWh Energy Savings by Business Type, PY2000-2002**



### ***Application Size and Cost-Effectiveness Trends***

Exhibit 2-10 summarizes the Express Efficiency applications, rebate dollars and energy savings over the past three years. Exhibit 2-11 presents the average rebate size per application, the average kWh energy savings per application and the average rebate per kWh energy savings (both first year saving and lifecycle) over the three-year period.

The large number of applications in 2000 reflected the impact of vendor bonuses, which pushed vendors to pursue small customers. 2001 was a highwater mark for Express Efficiency in terms of energy savings and rebates. Despite a 2002 rebate budget that was 2.5 times smaller than 2001, the 2002 Express program managed to garner almost 70% as much savings as 2001, underscoring the cost-effectiveness of CFLs.

Looking at the average rebate and energy savings per application, we can see the effects of focusing on small customers in 2000 and allowing large customers into the program in 2001. The average rebate is nearly three times as large in 2001 compared to 2000, and the average energy savings is four times as large. Furthermore, the average rebate per kWh saved was nearly 50% higher in 2000 compared to 2001 due primarily to the vendor bonuses. In 2002, large customers and large chain accounts were ineligible, and the program focused on CFLs, explaining the smaller job size and lower rebate per kWh saved. Although the program appears to be much more cost-effective from a rebate per kWh saved perspective, the program is also likely to have many lost opportunities with other measures. It is probably likely that many potential T-8 retrofits were being ignored by contractors marketing the program in order to get an easy CFL sale. Also larger job sizes (like those in 2001) help improve program cost-effectiveness, as fixed costs associated with application, rebate incentive and inspection processing are reduced (larger jobs require fewer applications to meet energy savings targets).

***Exhibit 2-10***  
***Historical Express Efficiency Summary***

PY	Customers		Rebate	Energy Savings
	Unique Sites	Applications	Dollars	kWh
2000	25,745	27,606	28,601,065	296,742,627
2001	10,681	11,072	\$30,927,758	467,036,559
2002	8,400	9,628	\$12,855,669	318,691,965

***Exhibit 2-11***  
***Historical Job Size and Cost-Effectiveness***

	2000	2001	2002
Rebate per Application	\$1,036	\$2,793	\$1,335
kWh Savings per Applications	10,749	42,182	33,101
Rebate (Cents) per First Year kWh	9.6	6.6	4.0
Rebate (Cents) per Lifecycle kWh	0.0092	0.0058	0.0042



Having three diverse program years, where the program eligibility and incentive structures have changed so dramatically allows for a unique opportunity to understand how these types of changes affects the program's accomplishments:

- As seen in 2000, if you provide enough incentive to the vendors, they will get very small customers to participate in large numbers.
- As seen in 2001, if you allow larger customers into the program you will not only observe larger jobs (which helps reduce fixed application, incentive processing and inspection costs) but also see improvements in the diversity of measures installed in the program.
- As seen in 2002, focusing on smaller customers and not providing enough incentive for non-CFL measures (or perhaps paying too much incentive for CFLs) results in a program driven by CFLs that may result in many lost energy efficiency opportunities.

A program that is trying to balance equity considerations, diversity in its measure mix, and maintain cost effectiveness can learn from each of these program years. By properly incenting vendors to market to small customers and diversify the measures installed (e.g., higher incentives to very small customers, higher incentives for non-CFL measures, or higher incentives for applications with multiple measures); and by allowing larger customers into the program, but limiting their participation; it may be possible to meet all of these program objectives.

#### **2.4 EFFECTS OF AGGREGATION ELIGIBILITY RULE**

The statewide Express program exceeded its kWh and therm goals, falling only slightly short of its demand goal. SCE turned in a strong 2002 performance, while other IOUs fell short of some of their goals. As discussed, a new eligibility requirement was imposed on the Express Efficiency program, which excluded customers whose aggregate demand across all of their accounts exceeded 500 kW. This eligibility requirement had a significant effect on the Express program, and is a likely reason for some of the shortfalls in participation relative to program targets.

To assess the effects that the aggregation rule had on participation, we utilized CIS data from each IOU, that contained monthly billing data for every nonresidential customer in 2002. For each customer, we aggregated monthly peak demand data across all accounts for each of the 12 months in 2002. All customers that had an aggregated monthly peak demand that exceeded 500 kW were identified (or annual Therm usage greater than 250,000). Schools, non-profits, and tax-exempt organizations are exempt from the aggregation rule, but the individual monthly demand for a single account still must not exceed 500 kW (or 250,000 Therms). In our analysis, we could not easily identify non-profits and tax-exempt organizations, however we could identify schools using SIC codes. In an attempt to identify non-profits and tax exempt organizations, we classified any customer with an SIC code associated with social services, museums, botanical and zoological gardens, membership organizations or public administration as being exempt from the aggregation ruling. Although this was not a perfect classification, it made our analysis more conservative with respect to the number of customers being identified as ineligible for the Express Efficiency program in 2002. Therefore, any customer that had an aggregated monthly peak demand that exceeded 500 kW (or 250,000

Therms), and was not in one of the above exempt SIC codes, was considered ineligible for the Express Efficiency program for 2002.

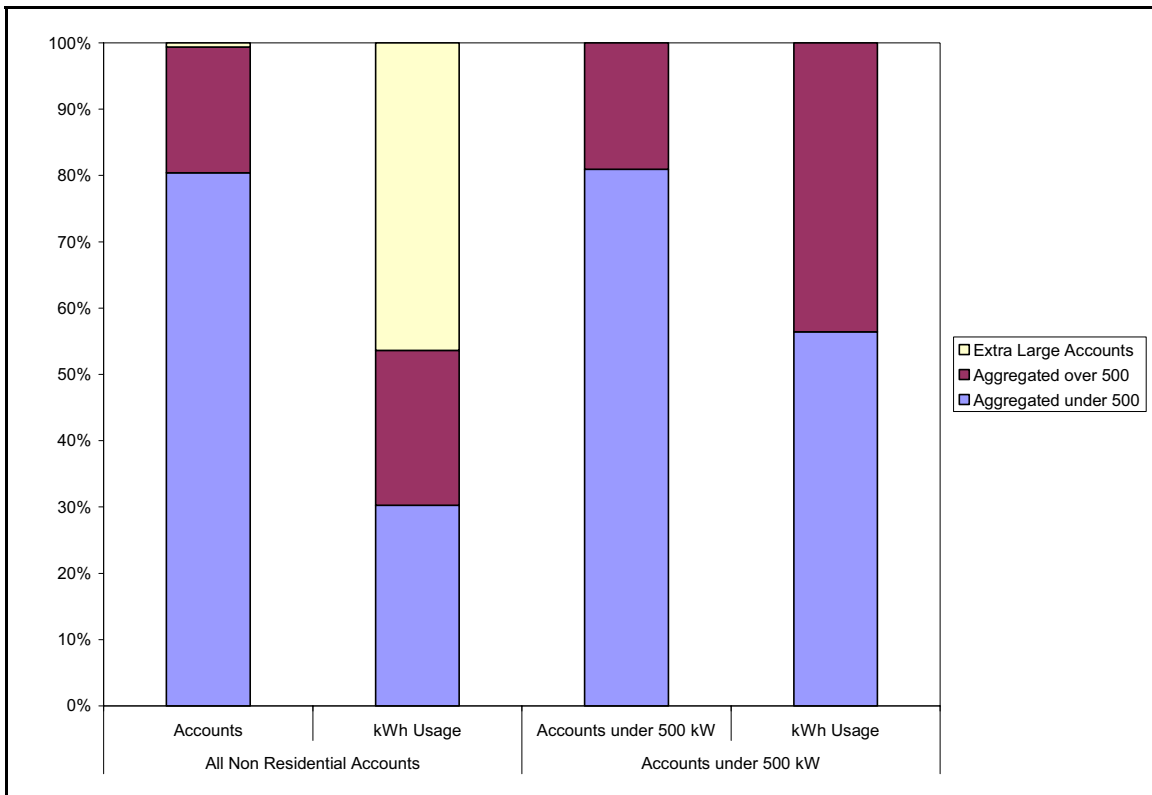
To assess the effects of this ruling we determined what percentage of the customer population (in terms of number of accounts and annual kWh energy consumption) was made ineligible (again, keep in mind that accounts with individual monthly peak demand that exceeded 500 kW were already ineligible). This helped us identify how the ruling reduced the eligible market size for the Express Efficiency program in terms of accounts and potential energy savings. Furthermore, we also analyzed participation in the 2000 and 2001 program years to determine the number of customers (and associated kWh energy savings) in each year that would have been ineligible if this ruling were in effect during that year. This helps us understand how this ruling may have affected 2002 participation.

### ***Effect of Aggregation Rule on Statewide Express Market***

The aggregation rule had a very significant effect on the eligible market for the statewide Express Efficiency program. The percentage of the small/medium nonresidential market that was no longer eligible due to the 500 kW aggregation requirement was calculated as a percentage of sites and annual usage. Exhibit 2-12 below characterizes the statewide nonresidential population in terms of the number of accounts and annual energy consumption. Please note that this analysis is based on 2002 CIS information. Exhibit 2-12 indicates that 19% of the statewide nonresidential accounts aggregate up to over 500 kW (less schools and those sites likely to be non-profits or tax-exempt organizations), which comprise 23% of 2002 kWh usage. (Note individual accounts over 500 kW are not included in this 23%).

In the absence of the 500 kW aggregation rule, only individual accounts that exceed 500 kW would have been ineligible. By examining the percentage of the under 500 kW market, we found that the aggregation rule still only affected 19% of the sites (because less than 1% of individual accounts exceed 500 kW). But, by excluding the individual accounts that are greater than 500 kW, we find that the aggregation rule effects 44% of annual consumption of the remaining market that would otherwise have been eligible for the Express program.

**Exhibit 2-12**  
**Effect of Aggregation Rule on Statewide Express Market**



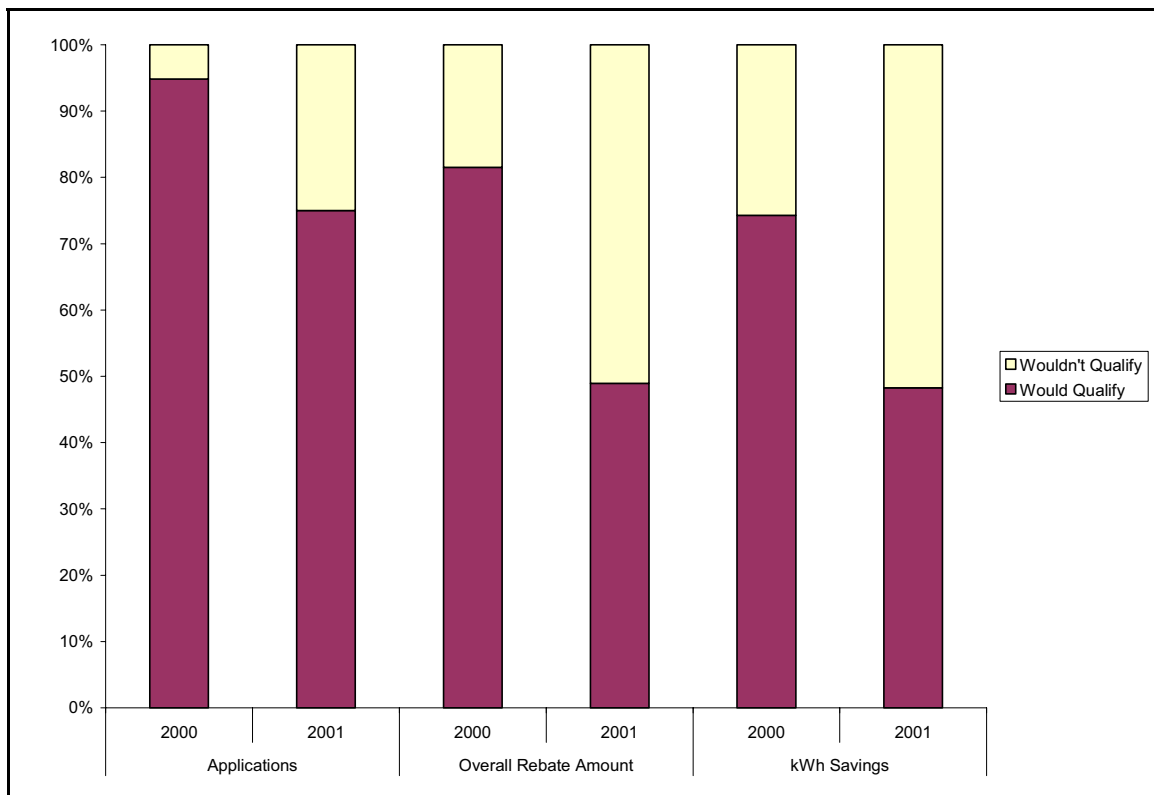
Keep in mind that the contribution to PGC funds are significantly correlated to annual kWh consumption. The newly ineligible customers – excluded from the 2002 Express program by the aggregation rule – contribute roughly 23% towards the nonresidential PGC funds. The only statewide rebate program option for these customers is the Standard Performance Contract (SPC) program, which is primarily driven by the greater than 500 kW accounts. Less than 10,000 accounts are greater than 500 kW. Under the new aggregation eligibility rule, over 200,000 accounts must now compete for these SPC funds (normally targeted to these 10,000 large accounts). The new aggregation rule has essentially displaced 23% of the market in terms of PGC contribution, creating a huge inequity for over 200,000 accounts.

In response to this lower ceiling upon the eligible market, the IOUs targeted their marketing efforts to customers whose eligibility was not affected by the aggregation rule in 2002. First, the IOUs modified their mailing lists to exclude non-qualifying accounts. Second, all collateral materials clearly stated eligibility requirements. Third, vendors were notified. Fourth, when customers called in to reserve funds for the Express Efficiency program, the reservations group tried to ensure that customers qualified before issuing a number. Finally, utility account representatives were given instruction on the rules and profiles of eligible customers.

### ***Effect of Aggregation Rule on Statewide Express Participation***

We can see how this aggregation rule has affected participation by analyzing participation trends in 2000 and 2001, when these customers were eligible. Exhibits 2-13 below present the percentage of customers that participated in 2001 and 2000, respectively, that would have been ineligible under the 500 kW aggregation rule. Presented are the percentage of 2001 and 2000 participant applications, rebates paid, and kWh savings that would have been affected. In 2001, when the program allowed large customers to participate, the aggregation rule would have affected about 25% of the accounts, 52% of the energy savings, and 51% of the rebates paid. In 2000, when the program was heavily focused on very small customers, the aggregation rule would have affected only 5% of the accounts, but 26% of the energy savings, and 18% of the rebates paid. Recall from above that the aggregation rule has affected about 19% of the under 500 kW accounts and about 44% of annual consumption.

***Exhibit 2-13  
Effect That Aggregation Rule Would Have Had on 2001 Statewide Express Applications***



There are three important implications of this finding. First, the Express program's eligible market was significantly reduced by over 40%, in terms of kWh usage. Second, because the aggregation rule affected customers that typically provide more impact per participants, the number of participants needed to meet program goals needs to increase significantly. For example, in 2001, 25% of the applications would have been affected by this rule, and these participants contributed 52% of the kWh savings. In order to maintain the same level of savings, participation would have had to increase by 60% (in terms of number of overall

participants). Increasing participation in this manner, and from a more limited eligible market, has significant cost implications on the program, especially marketing, application and incentive check processing, and conducting site inspections.

Finally, it is likely that this aggregation rule was developed to mitigate inequities among smaller, hard-to-serve customers, but this data indicate that the smaller customers (those that aggregate to under 500 kW) were not significantly underserved. In addition, this aggregation rule has likely created a much larger inequity, causing 23% of the total nonresidential market (in terms of annual kWh consumption) to be displaced with no clear energy efficiency program option.

It is important to note that ALJ Malcolm adopted the utilities' proposal for the 2003 Express Efficiency program, to rescind the 500 kW aggregation rule in her March 3, 2003 Interim Ruling, which stated:

"In 2003 the utilities propose to replace the "Account Aggregation Rule" with a program eligibility limit of 500 kW per site. They argue that the account aggregation rule was difficult for customers to understand in 2002, and "created a significant barrier for eligible and non-eligible customers alike." SCE, SDG&E and SCG would address the possibility that hard-to-reach small business may be disadvantaged by participation by large chain stores by limiting incentives to any single corporation or chain account customer to \$25,000.

For whatever reasons, some utilities have not met Express Efficiency program goals in 2002. SCE, SDG&E, and SCG's proposed modification is designed to improve energy savings while balancing our concerns that this program target smaller customers. We adopt the utility proposal to permit incentives of up to \$25,000 per corporation or chain account customer for work done at sites with loads not exceeding 500 kW. This proposal would apply to all utilities."

## **2.5 VERIFICATION RESULTS**

The overall goal of the verification task was to determine if the measures rebated and tracked in the program tracking system were in fact installed by the customer. Three separate activities were conducted to verify installation:

**Review IOU Inspection Procedures and Results.** The processes used by the IOUs for conducting their own inspections on measure installations were reviewed, along with their inspection tracking databases. In particular, the sample that was inspected by the IOUs was analyzed to ensure that the sample covered a representative number of measures.

**Phone Verification.** 665 telephone surveys were conducted on participants to verify that the rebated equipment was installed and matches the program tracking system.

**On Site Verification.** In addition, 125 on-site verification audits across 191 measure categories were conducted to verify the equipment that was installed and rebated under the Express program.

The results of these activities are discussed below.

### ***Inspection Database Analysis***

The Express program managers from each IOU were interviewed about their inspection process. SCE randomly selects 20% of participating sites for inspection. In addition, performance issues prompted SCE to inspect 100% of some vendors' jobs. Field inspections are recorded in the program tracking system. Most are spot inspections. Problems include having no access to a site (especially in motels), finding key contacts for the site, and discovering that some or none of the fixtures were installed. Adjustments are made when discrepancies are discovered. SCE works with the contractor and customer to resolve issues and rebate the full amount. However, SCE does not pay on partial installs. Even if half the lighting fixtures are in storage for spares, they short pay the rebate application.

This was confirmed through an analysis of SCE's inspection database. Overall, approximately 35% of the applications submitted were inspected, which corresponded to 40% of all items in the database and 69% of the rebates paid. The large percentage of rebates paid being inspected is a result of SCE conducting inspections on the majority of large jobs. By technology group (CFL, T-8, other lighting, A/Cs, other HVAC, agriculture, and refrigeration), SCE inspected 30 to 35% of the items, and 53% of the T-8 applications (likely due to the typically larger rebate for T-8 applications). With respect to applications that failed their inspection, no measure group had more than 8% of the applications fail.

SDG&E and SCG inspect all participating sites. Verification procedure at SoCalGas calls for 100% inspection. If a piece of information is missing from application, it does not go into the tracking system. After all required documentation is processed at SDG&E, staff conducts a field inspection, typically involving a count of all the fixtures. Field inspections in SDG&E's service territory exposed some issues, particularly with CFLs, such as dropped shipment and "double dipping," where applications for the same job were submitted by both customer and contractor. Therefore, SDG&E consistently asked for re-inspection in 2002.

PG&E conducts random inspections on 20% of applications, 100% inspections for any application over \$2500 in rebates. If a problem arises with a vendor, PG&E inspects all of that vendor's work.

This was also confirmed through an analysis of PG&E's inspection database. Overall, approximately 20% of the applications submitted were inspected, which corresponded to 29% of all items in the database and 66% of the rebates paid. The large percentage of rebates paid being inspected is a result of PG&E conducting inspections on all applications with a rebate over \$2500. By technology group (CFL, T-8, other lighting, A/Cs, other HVAC, agriculture, water heating and refrigeration), PG&E typically inspected 20 to 40% of the items. With respect to applications that failed their inspection, no measure group had more than 7% of the applications fail (except agriculture, which had only 1 of 5 applications fail).

### ***Telephone Survey Measure Installation Verification***

A survey was conducted to verify that the IOU's customers installed the measures specified in their program tracking database. The survey asked a sample of 665 participants if they recalled receiving a rebate for the measures recorded in the IOU's tracking database. Of 754 measures asked about in the survey, only three measures were not verified by the respondents. An additional nine respondents were unsure if they received a rebate for one of their measures

and 70 respondents were unaware of their participation in the Express Efficiency Program. The number of unaware respondents is typical of what QC has found in previous studies, dating back to the pre-1998 impact evaluations for PG&E's retrofit express program. Because of staff turnover, or the difficulty in identifying the correct employee to speak with, a 9% unaware rate can be expected.

**Exhibit 2-14**  
**Survey Results of Participants**  
**In Response to the Rebated Measure In the Tracking Database**

Do You Recall Receiving a Rebate for the Given Measure Through the Express Efficiency Program?	CFL	HVAC	Lighting	Refrigeration/Other	Total
Yes	229	129	183	131	672
No	0	1	2	0	3
Don't know	5	1	2	1	9
Unaware of participation	44	8	14	4	70
Total	278	139	201	136	754

### **On-Site Equipment Verification**

On site audits were also completed for a sample of 125 sites, covering 191 measure groups and 12,475 unique pieces of equipment. The equipment rebated through the Express Program was grouped into four measure categories (CFL, other lighting measures, HVAC, and refrigeration/other). Exhibit 2-15 shows the distribution of the 12,475 measures and 191 sites that were audited, and the status of the rebated measures broken out into the four measure categories.

All but one of the refrigeration/other and HVAC measures were found to be installed and operational at the 43 sites sampled from the tracking database. Furthermore, 97 percent of the 6,150 lighting measures other than CFL's were found to be installed and operational. On the other hand, almost a quarter of the rebated CFL measures were found to have failed, been stored for later use, or the respondent had no knowledge of the CFL measures. Over 10 percent of the CFL's that were rebated failed, 8 percent were not installed, and 4 percent we were not able to determine because the respondent was unaware of the measure. The 10% CFL failure rate indicates that an equipment useful life (EUL) study may be necessary for CFLs, which currently claim 8 or more years of measure life.

Overall, nearly all measures in the tracking system that were audited were found to have been installed. Only 5% were not installed, but the vast majority of these were CFLs that were being stored for future use. Only 3% were unaware of the measures, which, as described above, is typical due to staff turnover.

**Table 2-15  
Results of On-Site Audits  
Status of Rebated Measures**

Rebated Measure	Number of Sites	Measure Quantity	Equipment Status											
			Number of Sites				Measure Quantity				Percent of Measure Quantity			
			All Equip. Installed and Operational	Some Equipment Failed	Some Equipment Not Installed	No Knowledge of Equipment at Site	Equipment Installed and Operational	Equipment Failed	Equipment Not Installed	No Knowledge of Equipment at Site	Equipment Installed and Operational	Equipment Failed	Equipment Not Installed	No Knowledge of Equipment at Site
<b>Known Number of Measures Installed/Not Installed</b>														
CFL	87	5,840	58	10	11	8	4,516	565	485	274	77%	10%	8%	5%
HVAC	19	124	19	0	0	0	124	0	0	0	100%	0%	0%	0%
Other Lighting	59	6,150	52	3	3	1	5,951	40	110	49	97%	1%	2%	1%
Refrig./Other	23	65	23	0	0	0	65	0	0	0	100%	0%	0%	0%
<b>Total Known</b>	<b>188</b>	<b>12,179</b>	<b>152</b>	<b>13</b>	<b>14</b>	<b>9</b>	<b>10,656</b>	<b>605</b>	<b>595</b>	<b>323</b>	<b>87%</b>	<b>5%</b>	<b>5%</b>	<b>3%</b>
<b>Unable to Determine Number of Measures Installed/Not Installed*</b>														
CFL	2	275	0	1	1	0	138	115	22	0	50%	42%	8%	0%
HVAC	0	0	0	0	0	0	0	0	0	0	0%	0%	0%	0%
Other Lighting	0	0	0	0	0	0	0	0	0	0	0%	0%	0%	0%
Refrig./Other	1	21	0	0	1	0	0	0	0	21	0%	0%	0%	100%
<b>Total UTD</b>	<b>3</b>	<b>296</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>138</b>	<b>115</b>	<b>22</b>	<b>21</b>	<b>47%</b>	<b>39%</b>	<b>7%</b>	<b>7%</b>
<b>Grand Total</b>														
CFL	89	6,115	58	11	12	8	4,654	680	507	274	76%	11%	8%	4%
HVAC	19	124	19	0	0	0	124	0	0	0	100%	0%	0%	0%
Other Lighting	59	6,150	52	3	3	1	5,951	40	110	49	97%	1%	2%	1%
Refrig./Other	24	86	23	0	1	0	65	0	0	21	76%	0%	0%	24%
<b>Grand Total</b>	<b>191</b>	<b>12,475</b>	<b>152</b>	<b>14</b>	<b>16</b>	<b>9</b>	<b>10,794</b>	<b>720</b>	<b>617</b>	<b>344</b>	<b>87%</b>	<b>6%</b>	<b>5%</b>	<b>3%</b>

\* The auditors were unable to determine the exact number of measures installed for three sites. For these sites the measure quantity that fell into the four equipment status categories was estimated based on the notes recorded for these sites. Detailed explanations of the estimation procedures are provided below:  
- One site was rebated for 185 CFL's. The auditor found that "many" failed. Therefore 50 percent of the measures were placed in the "installed and operational" category and 50 percent were placed in the "failed" category.  
- Another site was rebated for 90 CFL's. The auditor found that "some" failed and "some" were not installed. Therefore 50 percent of the measures were placed in the "installed and operational" category, 25 percent were placed in the "not installed" category and 25 percent were placed in the "failed" category.  
- The last site was rebated for 21 humidistat controls for anti-sweat heaters. The data collected was inconclusive concerning the humidistat controls. Therefore all were placed in the "no knowledge" category.

## 2.6 RECOMMENDATIONS FOR MEASURE SAVINGS UPDATES

The objective of the measure review task was to evaluate the IOU's technical work papers that document the measure savings estimates, and identify any key measures that are in need of having their savings estimates updated. In addition, we attempted to identify any process related issues with how the work papers are developed and kept consistent statewide, and make recommendations to improve those processes.

It is important to note that there is currently a study being managed by the IOUs and funded by the PGC, that will be updating all of the nonresidential deemed savings values contained in the DEER database (the Database for Energy Efficient Resources). The DEER Update Study will develop measure savings estimates for nearly every measure offered under the Express Efficiency program. Therefore, we have focused our recommendations on measure savings updates on those that require additional evaluation resources above and beyond what the DEER Update Study is likely to perform. Furthermore, we have identified measures that are either relatively new, or have not undergone independent evaluation to our knowledge. The reason for calling out these measures is as follows.



The IOUs' technical work papers are a compilation of work that have been developed for over a decade. Many of the measure savings estimates are based on hours of engineering analysis, statistically adjusted billing analysis, and monitored end use data. It is our strong recommendation that the IOUs not simply accept the results of the DEER update, but compare their current savings estimates to the DEER values and ensure that the differences are explainable before adopting them. It is our understanding that the DEER Update team has reviewed the work papers and evaluation studies corresponding to the Express program (and its precursor pre-1998 IOU programs, like PG&E's Retrofit Express Program) and is using these resources to check or validate the updated DEER values. Therefore, we have identified Express measures that we believe are either new or have not undergone independent evaluation to aid the comparison review between existing Express Efficiency savings estimates and updated DEER values.

### ***Ex-Ante Impact Calculation Methods and Results***

As discussed, the ex-ante methods have a long history of development starting in the early 1990's, undergoing revisions over time as measures have changed, baselines have shifted and evaluation studies have been integrated. The necessity to revise those impact procedures is readily justified based on one or more of the following:

- While some measure estimation methods have been highly scrutinized, for example, by evaluators and ORA consultants, others have flown beneath the radar and received little attention.
- New methods for estimating measure impacts have been developed but not yet evaluated.
- New measures are being offered and in some cases the associated impact procedures have not yet been independently evaluated.
- Current impact documentation at times lacks clarity (e.g., unit of measure not specified) or detail.
- Changes have occurred over time in participation patterns by technology, and with customer segments targeted by the program. While intensive impact evaluations were completed for the Commercial Energy Efficiency Incentive programs in 1994-1998, recent studies have emphasized the market transformation attributes of the programs. Therefore what the evaluators learned about the energy efficiency programs in the 90's may no longer be applicable. For example, reasons for this might include the HTR emphasis in today's programs or the swing from a T8-dominated technology profile to the recent emphasis on compact fluorescent retrofits.
- Evaluation-based SAE realization rates have not been applied to the ex-ante impact estimates for several years. Evaluation findings over the years have demonstrated the need for these global adjustments to engineering-based deemed savings estimates.

## Ex-Ante Measure Review Methods

The approach applied consists of comparing and contrasting measure attributes across data sources, including impact estimates, baseline and program qualifying equipment assumptions, incremental cost and measure life. The data sources contributing to the ex-ante impact method review consists of the following:

- Participation patterns
- Ex-ante workpaper documentation
- Past evaluations
- Recent utility 2004/2005 Express Efficiency program filings

The results of these comparisons illuminate ex-ante method changes over time, various utility contributions to a given approach, and, importantly, differences across the utilities. Regarding the later, one would expect consistency among the utilities in a statewide offering, and yet there are frequently differences in impacts, measure life, incremental costs or the use of and application of various “units of measure.” Next the findings from this assessment are presented along with the relevant evaluation recommendations. In most instances the findings are supported by measure-specific examples that best illustrate the need for further study and reconciliation.

Recommendations presented below are classified as either key evaluation projects or ex-ante method and propagation (or process oriented) findings.

### Key Evaluation Projects

Five **key evaluation projects** are recommended.

**Lighting Impact Load Shape Measurement.** As mentioned above, the most dramatic change in the Express Efficiency program since the early 1990’s (then called the Retrofit Express program by PG&E) has been the shift from a T8-dominated set of retrofits to a program today that attains 75 percent of the program’s impacts from compact fluorescents. This change in program emphasis is found across the state. Furthermore, the program now emphasizes retrofits among hard-to-reach customers. Given these shifts in participation, the extensive metering work completed in the early and mid 1990’s to develop lighting impact load shapes should be considered outdated. We recommend an in-depth assessment of compact fluorescent impacts, including time-of-use (TOU) lighting logger metering, to measure retrofit hours of operation, coincident peak hour diversity factors and other load shape findings.

To ensure that T8 estimates reflect the current program HTR mix (rather than, for example, the medium and large customer mix of the early and mid-1990’s), we recommend that metering

studies from this era be unarchived, segmented, and re-weighted to reflect the current program mix, and used to develop impact load shape results for today's Express Efficiency program<sup>4</sup>.

We recommend that this study be used not only to inform the Express Efficiency program, but serve as a key input into future DEER updates.

**Measure Life Study for CFLs.** CFLs are clearly the dominant measure in Express. Unfortunately, CFLs are a relatively new measure compared to the history of the Express program. Ninth year retention studies are now being conducted on the pre-98 programs, such as PG&E's Retrofit Express program, which are providing valuable input for the development of accurate measure life estimates. However, CFLs were not a common enough measure in the pre-98 programs (not to mention the technology has changed significantly), and are not currently being adequately studied. Therefore, we recommend that a measure life study be conducted to update the current equipment useful life estimates for CFLs.

**Net-to-Gross Study for Express.** The net-to-gross ratio used for Express is currently 0.96, which is primarily founded on free ridership and spillover estimates developed as part of the evaluation for the pre-98 programs. Both the target market and the measure mix for the current Express program have changed dramatically since the pre-98 programs. There is more emphasis on smaller and HTR customers, eligibility requirements have excluded large customers, and CFLs have become the dominant measure. Therefore, we recommend that a net-to-gross study be conducted to update the current value of 0.96.

**Statewide Retrofit Express Billing Analysis.** Following completion of the DEER Study, we recommend the completion of a Statistically Adjusted Engineering (SAE) billing analysis to examine the accuracy of those deemed savings estimates, and, furthermore, to examine the relative accuracy of ex-ante workpaper approaches that were developed over the years. This verification step will, at a minimum allow the development of an SAE realization rate, representing the fraction of the deemed savings estimates realized in customer bills, and may also be used to identify the deemed savings approaches that provide the greatest accuracy, allowing updates to refine the DEER database. This study could utilize participation over the past few years, similar to the Multi-Year Billing Analysis CADMAC study conducted by QC and PG&E on the pre-1998 programs. The results of this study could be used not only to inform the Express Efficiency program, but serve as a key input into future DEER updates.

**Tracking System Verification Study.** On an ongoing basis evaluators or other third parties should verify that deemed savings approaches and results are properly propagated from work papers (which may reference DEER) through to program goals and accomplishments. This would require that an independent evaluator ensure that program tracking systems and CPUC reporting workbooks were using the correct values as documented in DEER and/or technical work papers. We would recommend that this study occur after the first year that the IOUs begin to adopt DEER updated values. We expect that the technical workpapers may be significantly revised to take advantage of the new DEER database. Therefore, a thorough verification study should be conducted to ensure that the workpapers are being revised

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<sup>4</sup> T8 lighting retrofits are still an important measure group in the Express Efficiency program, representing 13 percent of annual electric energy impacts in 2002.

correctly, and that the values are being properly propagated into the IOU tracking systems and CPUC reporting workbooks.

### **Ex-Ante Method and Propagation Recommendations**

The evaluation has uncovered the following **ex-ante method and propagation findings**, with a downstream recommendation for further review. These findings suggest that once deemed savings estimates are established statewide that there is an ongoing need for tracking system verification.

**Ensure Consistency Across Utilities in Measure Approach and Results.** Although the utilities have developed a consistent set of measures to rebate and a uniform application process and forms, the behind the scenes measure documentation varies substantially across utilities. This inconsistency spans impact calculation procedures, the “units of measure” (i.e., tons, ton-delta EER, lamps, thermostats, etc.), incremental costs and measure life. For example, in the 2004/2005 Express Efficiency program proposals filed by the three electric IOU’s, the resulting impact estimates and incremental measure costs submitted by PG&E, SCE and SDG&E sometimes vary substantially. A good example is the 5-13 Watt screw-in compact fluorescent measure, where PG&E estimates an annual impact of 224 kWh and a (life cycle cost-based) incremental cost of \$18.13 per lamp, while SCE estimates 145 kWh and \$14.4, and SDG&E estimates 187 kWh and \$5.90. These estimates should be consistent across utilities for the purposes of program planning, goals development and verification of program accomplishments. Other examples of this type of inconsistency are listed below:

- Similar to the 5-13 Watt CFL example above, other lighting fixtures should be reconciled across utilities to a single set of impact and incremental cost estimates, through the use of a consistent approach and set of measure assumptions.
- While both PG&E and SCE 2004/2005 proposals set kWh savings for VSD’s on HVAC fans to 753/hp, SDG&E estimates are set equal to 447 kWh for a motor VSD measure (note, SDG&E has no stated goals for VSD’s).
- For programmable thermostats the PG&E 2004/2005 proposal sets energy impacts equal to 4,093 kWh/**thermostat** and 1,095 therms, while SCE estimates 327 kWh/**thermostat** and no therms, and SDG&E indicates 118 kWh/**ton** and no therms.
- While the SCE 2004/2005 proposal claims 9.25 kWh per motor retrofit horsepower and an incremental cost of \$530/hp (the incremental cost is probably a mistake and is really per motor), the PG&E proposal is per motor by motor size, but results in an equivalent kWh/hp of 60 to 200 (note, no goals were set for motors for any of the utilities).

**Evaluate All New Measure Algorithms.** The list of measures supported by the program has been expanded over the years to include new technologies. Because of this, we believe that a number of these new measures may not have undergone careful review by evaluators and regulators. Newer measures that may fall into this category include the following:

- Change sign LED’s
- High performance T8’s

- T5 measures being tracked using traditional T8 algorithms, methods and assumptions
- High bay, high output T5's
- Metal halide pulse start conversions
- VFD's for injection molding machines
- Commercial horizontal axis washing machines
- Hot water boilers
- Instantaneous water heaters
- Process boilers
- Pipe and tank insulation for steam and hot water applications
- Infrared film
- Pre-rinse spray valve
- Cool roofing
- Auto closer on reach in cooler of freezer doors
- Evaporative cooled oversized condenser
- Evaporative cooled multi-plex compressor system
- High efficiency multi-plex compressor system with mechanical subcooling and energy efficient condenser
- Floating head pressure controls with evaporative condenser
- High efficiency compressors for low temperature applications

As discussed above, the DEER Update Study will be developing measure savings values for these measures. Therefore, when the revised DEER values are being compared to the existing Express values, the reviewers should consider that these Express values may not have undergone the rigorous evaluation and review that many of the other historical Express measures have.

**Evaluate Measure Algorithms that Have Not Yet Undergone Independent Review.** In some cases measure documentation is being shared by the utilities, but we have found that the documentation for those measures is not formally tracked, for example, in PG&E's 2004/2005 work papers. In such cases, measure documentation has not necessarily been reviewed. Examples of this include the following:

- 14-26 Watt compact fluorescent with reflector (has unique incremental cost)
- Ceramic metal halide fixtures
- High output T5 4 lamp fixture (vs. 400 Watt metal halide conversion)
- The SDG&E 2004/2005 filing includes a high bay T5/T8 6 lamp fixture measure
- Pulse start metal halide less than 350 Watts (vs. 400 Watt)
- Micro irrigation for citrus crops
- Most PG&E gas measures (water heaters, boilers and cooking equipment) show differences in impacts, incremental costs and measure life between the new measure documentation and previous methods
- Vending machine controller
- Pressureless steamer
- Insulated hot food holding cabinets
- Low temperature case with special doors
- Evaporative- or water-cooled 135-240 Btuh packaged AC or heat pump
- While PG&E's submitted measure documentation includes new procedures for the reflective window film measure (by climate zone), the proposed measure goals are based on previous energy savings documentation

Again, the DEER Update Study will be developing measure savings values for these measures. Therefore, when the revised DEER values are being compared to the existing Express values, the reviewers should consider that these Express values may not have undergone the rigorous evaluation and review that many of the other historical Express measures have.

**Check for Propagation of Errors in Documented Deemed Savings Estimates.** In transferring results from the utility documentation to spreadsheets used to develop program goals and track accomplishments, errors sometimes propagate. Examples are provided below:

- The PG&E 2004/2005 proposal indicates the incremental costs for package terminal air conditioners at \$65/unit, but the documentation suggests \$65/ton-delta EER.
- The PG&E 2004/2005 proposal indicates that the incremental cost for a low temperature glass door is \$197/door, but work paper documents suggest \$197/linear ft of display.
- Similarly, the new refrigeration case with low/no anti-sweat heaters shows an incremental cost of \$77/door in the 2004/2005 PG&E proposal, but work paper documents indicate \$77/linear ft of display.

- Related “unit of measure” problems may also exist for the cooler/freezer door gasket measure.
- While a shared approach is used by the utilities for many of the refrigeration measures, there appear to be differences in how work paper documents are interpreted, leading to “measure of unit” differences in proposed measure impacts for the following measures: air cooled to evaporative cooled condenser, efficient oversized condenser, multi-plex compressors, and floating head pressure controls.

As discussed above, a key evaluation study has been recommended to thoroughly review the IOU workpapers to ensure they are being revised correctly, and that the values are being properly propagated into the IOU tracking systems and CPUC reporting workbooks.

**Prioritization of Recommendations**

Exhibit 2-16 summarizes recommendations for conducting measure specific impact analyses. Generally, measures that have historically contributed the most towards energy savings accomplishments (kWh and therms) are given a higher priority. Furthermore, parameters (such as the EUL) that have not been studied or are expected to have changed over time for a given measure are also provided higher priority. Finally, activities are prioritized that are expected to provide more benefit relative to the cost to conduct the activity (for example, an algorithm review is relatively inexpensive and may provide significant benefit for measures that have complex algorithms that have not been thoroughly reviewed).

**Exhibit 2-16**  
**Prioritization of Ex Ante Savings Updates**

Measure	Percent of Program's Energy Savings			Priority of Impact Analysis Needs					
	2000	2001	2002	Gross Impacts					
				Algorithm Review	Hours of Operation	Change in kW	SAE Bill Analysis	NTG	EUL
CFLs	66%	45%	69%	-	●	●	●	●	●
T-8s	22%	23%	12%	-	●	●	●	●	-
Other Lighting	3%	15%	2%	-	●	-	●	●	●
HVAC - Other	4%	8%	8%	●	●	-	●	●	●
HVAC - A/C	3%	3%	1%	-	●	-	●	●	-
Refrigeration	2%	3%	1%	●	●	-	●	●	●
Water Heating	0%	0%	5%	●	-	-	●	●	●
Agriculture	0%	3%	2%	-	-	-	-	-	-
Motors	1%	0%	0%	-	-	-	-	-	-

-	Not Recommended
●	Low Priority
●	Moderate Priority
●	High Priority

CFLs have been given the highest priority because over the past 3 years, they have contributed the majority of the programs energy savings. Furthermore, little has been done to study the hours of operation, EUL and NTG for this measure. Because there is some uncertainty around the wattage of the bulb being replaced, it is also important to study the change in connected load associated with CFL retrofits. Also, an SAE analysis would provide a good opportunity to statistically adjust the engineering estimates of savings for behavioral aspects. An algorithm review is not recommended due to the straightforward energy savings calculation.

**T-8s and Other Lighting:** Although T-8s (and to a lesser extent other lighting measures) have been studied in depth as part of the pre-1998 program evaluations, the participant market has changed dramatically with the emphasis on small customers and the under 500 kW eligibility requirements of the program. Because these measures are a large contributor to the programs overall energy savings accomplishments, they receive a moderate priority for updating the hours of operation and net-to-gross ratios (parameters that are likely to be most affected by the change in the participant market). Furthermore, an SAE analysis would provide a good opportunity to statistically adjust the engineering estimates of savings for behavioral aspects. The EUL has been studied in depth for T-8s, but the EUL has not been studied for some of the other lighting measures. Studying the change in connected load for these measures is not seen as much of a priority, however it is a low priority for T-8s due to the incidence of energy saving lamps and ballasts in place among the pre-existing measures that are being retrofitted. An algorithm review is not recommended due to the straightforward energy savings calculation.

The **HVAC** measures have also been significant contributors to the program's energy savings accomplishments. As with the lighting measures, the change in the participant market has likely had an effect on the operating hours and NTG. Because these measures are not as large a contributor as the lighting measures, their priority is low. However the priority for conducting an SAE analysis is moderate because the savings associated with the individual measures are significant enough to be observed in an SAE analysis. The EUL has been studied for ACs, but not for many of the other HVAC measures. Finally, an algorithm review is recommended as a low priority action for some of the other HVAC measures, such as thermostats, that do not have straightforward algorithms.

**Refrigeration and Water Heating** measures are generally seen as a low priority measure due to their relatively low contribution to energy savings accomplishments. However, many of the current algorithms used to estimate savings for refrigeration measures are in need of review, so this task is given a moderate priority. Furthermore, the priority for conducting an SAE analysis is moderate for water heating because the gas savings associated with the individual measures are significant enough to be observed in an SAE analysis

**Agriculture** measures are not recommended due to their relatively low contribution to energy savings accomplishments and because agriculture measures have been studied in depth in prior impact evaluations.

**Motors** are not recommended due to their very low contribution to energy savings accomplishments.



### 3. PROCESS ASSESSMENT

Process evaluations are typically undertaken to review and assess the implementation-related aspects of a program. This process evaluation focuses on five areas:

- Statewide coordination: examines the IOUs' experience with coordinating the program to be consistent statewide.
- Program marketing: awareness rate offers a key metric of marketing success. This section also examines sources of awareness and online marketing.
- Sources of energy efficiency information: presents customers' opinions of the credibility and desirability of various information channels.
- Participation drivers: influence of various on the general population and participants' decisions to purchase equipment.
- Program satisfaction: assesses customers' satisfaction on various dimensions.

To assess these process issues, we rely on participant and general population survey data as well as program staff interviews. Lighting vendor opinions on process issues are found in Chapter 4. IOU marketing to hard-to-reach customers, an important part of Express Efficiency implementation, is examined in Chapter 5.

#### 3.1 STATEWIDE COORDINATION

In 2002, the Express Efficiency program was run "statewide", where all facets of the program were consistent across the four IOUs, as mandated by the CPUC. The program managers at each of the utilities had worked closely together in 2001 (and in some cases before 2001) and as a result these existing working relationships allowed for effective coordination and communication statewide. Express program managers met bi-weekly to ensure the program was consistent across their service territories. The utilities worked together to make rebate levels, product specifications, sales promotions, program design (i.e. applications) and program materials consistent across the four IOUs. This consistency was key in ensuring that the 2002 program was truly a seamless and standardized statewide program.

**Challenges of Statewide Coordination.** While statewide coordination is regarded by the utilities as beneficial to trade allies and consumers, at times it proved difficult to establish consistent product eligibility standards and rebate levels that were appropriate across the state. The IOU's unique needs, based on different market factors and service territories, present challenges for coordination. PG&E and SGD&E depend on lighting measures to reach their goals, while Edison sought to balance the portfolio in 2002 with a greater percentage of HVAC measures. As SDG&E's Express program manager remarked, "I'm one of the first proponents about the need to venture out into other areas, but I realize that a lot of our savings come from lighting ... so my hands are tied. I can't run a promotional sale unless we're all doing the same thing." Thus, the IOU's differing imperatives, combined with the need for consistency, "can

cause problems when you want to raise/lower rebate levels for certain measures,” Edison noted. PG&E’s Express program manager believes that Express Efficiency should be similar statewide, but that the program needs flexibility – particularly with respect to pricing – to address local conditions.

SCE program staff acknowledged that the need for consensus can delay decision-making and reduce creativity and spontaneity. However, the coordination mandate has not “prevented us from being effective.” SCG program staff likewise believe that coordination is working. The utilities have developed successful working relationships that allows for compromising so that the statewide program by-and-large addresses the uniqueness of each utility’s customers.

**Statewide Coordination of Energy Savings Goals.** Energy savings goals were not necessarily consistent statewide in 2002, which may demonstrate the market differences for energy efficient technologies among the service territories. The table below provides the Express Program budgets for PY2002 (after some budgets were reallocated) and their corresponding energy savings targets. SCE had the richest budget per kWh, even though they had no therm goal. If we adjust the PG&E and SDG&E budgets by allocating a portion to therm savings (using the SCG \$/therm ratio), we see that SCE received significantly more budget per kWh. Because SCE has significantly more cooling load in their territory, and cooling measures are “more expensive” (paying more incentive per kWh saved) their projected program portfolio required more budget per kWh.

*Exhibit 3-1  
Comparison of Program Budgets and  
Energy Savings Targets by IOU*

	PG&E	SCE	SCG	SDG&E
	Q4	Q4	Q4	Q4
<b>Budget</b>				
Total Program Budget	\$10,961,000	\$5,400,000	\$3,448,000	\$3,205,000
<b>Energy Savings</b>				
Projected Net kWh	155,382,003	64,303,000	17,000	47,452,000
Projected Net Therms	1,196,648		2,190,000	607,310
<b>Budget per Unit of Energy Savings</b>				
Program \$/kWh	\$ 0.071	\$ 0.084		\$ 0.068
Program \$/Therm	\$ 9.160		\$ 1.574	\$ 5.277
Adjusted Program \$/kWh net of Therms*	\$ 0.058	\$ 0.084		\$ 0.047

\*Budget for PG&E and SDG&E reduced by \$1.57 per projected net Therm, using SCG value.

While this may be appropriate for SCE given their territory, it also raises the question for the need to have rebate levels and sales promotions be consistent statewide. For example, if SCE wanted to promote cooling measures, then SDG&E and PG&E’s budgets would suffer, because more HVAC participation would likely occur in their territories, exceeding their projections and reducing their projected cost-effectiveness. Similarly, if lighting was promoted, SCE would benefit and likely exceed their savings targets (which occurred in 2002).

**Vendor Opinions on Statewide Coordination.** Statewide coordination received widespread praise from vendors who do business in multiple service territories. Standardized rebates simplify vendors' advertising and improves their credibility. One statewide vendor with sales that exceeded \$7 million said: "It's great because it's statewide now so the rebate forms all the same. Suppose there's a \$12.50 rebate on hardwire ceiling fixture. I can do my own advertising, promoting and marketing without having to change it. Certain parts of Bakersfield are Edison and PG&E. I'm sending something to an Edison customer saying you get \$15 back, and it goes to the PG&E who only gets \$12.50, they think I'm gypping them. Consistency really works for you." A high-volume Express statewide vendor similarly noted, "We did business with all utilities when rebates were different; that complicated things somewhat. It's easier when it's standardized. Sometimes we make the same flyer."

### **3.2 PROGRAM MARKETING**

This section examines Express Efficiency program marketing, exploring IOU marketing activities and customer awareness of Express. One key metric of marketing success is the percentage of customers who are aware of the program.

#### ***IOU Marketing Efforts***

The IOUs employed more traditional outreach strategies to customers including flyers, targeted direct mailers, bill inserts and online announcements. These marketing pieces were delivered in conjunction with major program events, such as special promotions. The program also worked with community based organizations (CBOs) to canvass HTR segments and developed in-language rebate applications to reach ethnic markets. These HTR outreach efforts are examined in Chapter 5.

- **Southern California Edison.** SCE's 2002 message was "Save Energy Save Money," the tagline for Express and residential programs. SCE representatives reach out to both organizations and customers about Express, conservation (low and no cost measures), and the audit program. The Small Business Solutions Group reaches out to small business customers' by inquiring about their business issues ("what keeps you up at night?") and attempting to link energy efficiency to their bottom line.
- **Southern California Gas.** SoCalGas' marketing is directed to the customer through bill inserts, one-on-one contact, some direct mail and limited outreach and advertising. Outreach efforts include forums with CBOs and faith-based organizations. SCG promoted low and no cost conservation measures by bundling audits and Express participation in 2002.
- **San Diego Gas & Electric.** SDG&E's outreach focuses on vendors. Like the other IOUs, bill inserts are used to reach the mass market, but it is vendor kickoff meetings and vendor breakfasts that put vendors in touch with the program. While it educates customers on conservation, SDG&E focus groups indicate that customers consider themselves knowledgeable about conservation measures and prefer rebates to education. SDG&E's audit group conducts onsite audits and provides information on the Express program.

- **Pacific Gas and Electric.** PG&E uses bill inserts, direct mail, vendor outreach and account managers to promote the program. PG&E's Account Managers work with customers and do limited community outreach. However, promoting energy efficiency accounts for a small part of their performance goals, compared to SCE, which has more fully dedicated outreach staff.

### ***Express Efficiency Program Awareness<sup>1</sup>***

Customers were asked about program awareness in three different ways. First, customers were asked if they were aware of any utility program in 2002 designed to promote energy efficiency for businesses. Second, customers were asked whether they were aware of Express Efficiency rebate program. Next, unaware customers were prompted with a brief description of the Express Efficiency program, then asked whether they had ever heard of Express.

**Population Awareness Rate.<sup>2</sup>** Five percent of all customers surveyed mentioned Express Efficiency in response to the general utility program awareness question. Twenty percent recalled Express when asked whether they were aware of Express. After hearing a brief description of the program, an additional 16% indicated they were aware of Express. This gap between aided and unaided awareness suggests that Express Efficiency is neither well-branded nor top of mind for customers.

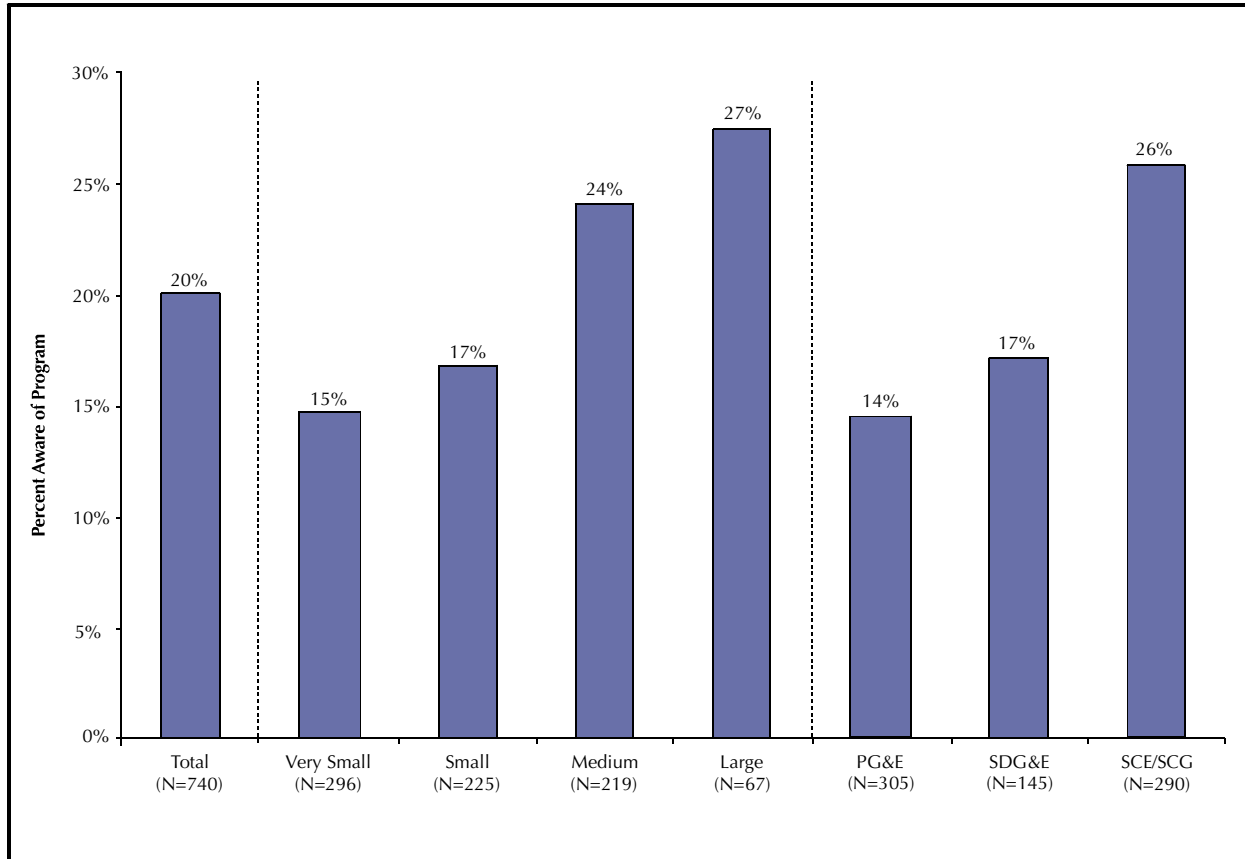
Exhibit 3-2 shows unaided program awareness by size and IOU. **The larger the customer, the more likely they are to be aware of the Express program.** Considerable difference exists among utility service territories. **SCE and SCG customers are far more aware about the program than PG&E and SDG&E customers.**

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<sup>1</sup> Awareness among HTR segments is reported in Chapter 5. Longitudinal awareness is assessed in Chapter 6.

<sup>2</sup> Appendix Exhibit A3-1 (Awareness of Utility Programs), Appendix Exhibit A3-2 (Express Efficiency Awareness - unaided), Appendix Exhibit A3-3 (Express Efficiency awareness - aided)

**Exhibit 3-2**  
**Express Efficiency Awareness**  
**Unaided**



**Sources of Population Awareness<sup>3</sup>**

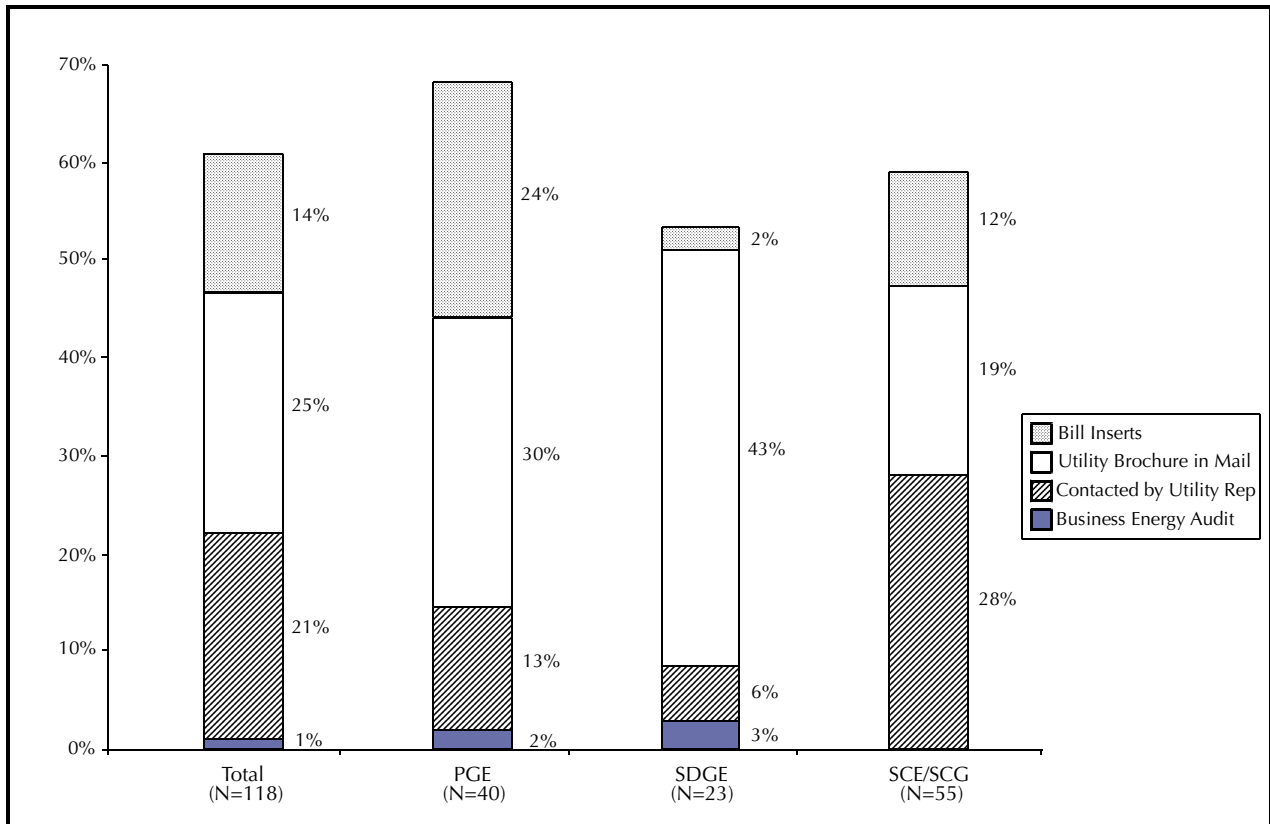
Customer awareness is driven by the IOUs, who account for 61% of overall awareness (through bill inserts, brochure mailings, utility representatives and energy audit reports). Television, radio, and newspaper advertisements rank a distant second (12%). Furthermore, much of this advertising is utility-sponsored. Twelve percent of respondents mentioned vendors, such as a contractor or ESCO. Word of mouth accounted for 9% of overall awareness.

- **Vendor Marketing.** Only 4% of the population became aware of Express Efficiency from a vendor that approached them, whereas 8% learned about Express from a vendor they contacted.
- **IOU Marketing Channels.** The utilities drive customer awareness through their representatives, mailings, bill inserts and energy audits. Nearly 70% of PG&E customers learned of Express through PG&E, compared with one in two SDG&E

<sup>3</sup> Appendix Exhibit A3-4 (Source of Awareness)

customers. **Customers are most likely to become aware of Express through their utility, but the IOUs seem to rely on different marketing channels.** Exhibit 3-3 suggests that SDG&E customers are most likely to learn of the program through mailings, not bill inserts. Representatives drive customer awareness in SCE/SCG territory, while PG&E customers become aware of Express through mass mailings (both utility brochures and bill inserts). However, customers are not learning of Express through utility websites. Very few became aware of Express Efficiency through audits.

**Exhibit 3-3**  
**Utility Marketing Channels as Sources of Program Awareness**



- **Utility Representatives.**<sup>4</sup> Overall, one in five respondents learns of Express through a utility representative. Their coverage of certain segments is uneven at best.
  - **Utility representatives are not reaching HTR segments.** They do not canvass small customers as much as larger ones. They tend to canvass businesses who own space rather than renters as well as English speaking businesses over non-English speaking ones.
  - **SCG/SCG (28%) customers are more likely to hear about Express Efficiency through a utility representative than PG&E (13%) and SDG&E (6%) customers.**

<sup>4</sup> Appendix Exhibit A3-5 (Utility Representative as Source of Awareness)

This pattern is consistent with the way the IOUs deploy their representatives. SDG&E account executives are assigned to large accounts and chains, not small customers. Only 5% of PG&E representatives' performance is based on promoting the Express Efficiency program. By contrast, SoCalGas leverages their service technicians to canvass customers and promote energy efficiency. For example, when an SCG technician is servicing a customer's boiler, the service tech identifies an energy efficiency issue and informs the customer about Express Efficiency.

- Smaller customers and tenants tend to learn about the program through mass media (brochures, bill inserts), whereas medium and large customers are more likely to learn about Express through a utility representative.

**Express Marketing Messages.**<sup>5</sup> One in three respondents aware of Express recalled "Save Energy & Money." Respondents also recalled, "Cut your energy costs" (18%), "Save energy through conservation" (17%), and "Cash rebates" (10%). One in two businesses whose primary language is not English recalled "Save Energy & Money," suggesting that the simplest message is best suited to reach ethnic business customers that are not fluent in English. Twice as many SCE/SCG customers recalled "Save Energy & Money" as other IOU customers. SCE pushed this message in 2002, its tagline for both commercial and residential programs. SDG&E customers were most likely to recall the conservation message.

### ***Sources of Participant Awareness***<sup>6</sup>

Overall, one in three participants learned of Express Efficiency through equipment vendors, significantly more than the general population (only 12%). **Contractors were as important as the utilities in making participants aware of Express Efficiency.** In addition, word of mouth was more important among participants than the population.

- **Of utility marketing channels, utility representatives were the biggest source of awareness for participants.** Mass mailing (brochures, bill inserts) played a much smaller role in creating awareness among participants than the population. The role of reps varied across the utilities. Consistent with population-level findings above, reps were the single biggest source of awareness for SCG customers (36%) due to SoCalGas service technicians. As with the population, 13% of SDG&E participants learned of Express through their utility representative.
- **Edison's community marketing approach is beginning to make inroads with participants, 3% of whom became aware of Express through community-based organizations and trade associations.** SCE's Business Solutions Group, which promotes energy efficiency to community-based organizations, faith-based organizations, and ethnic business communities, can take credit for creating this awareness. Moreover, Edison's community marketing may account for greater word of mouth awareness in SCE territory than the other IOUs.

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<sup>5</sup> Appendix Exhibit A3-6 (Express Program messages)

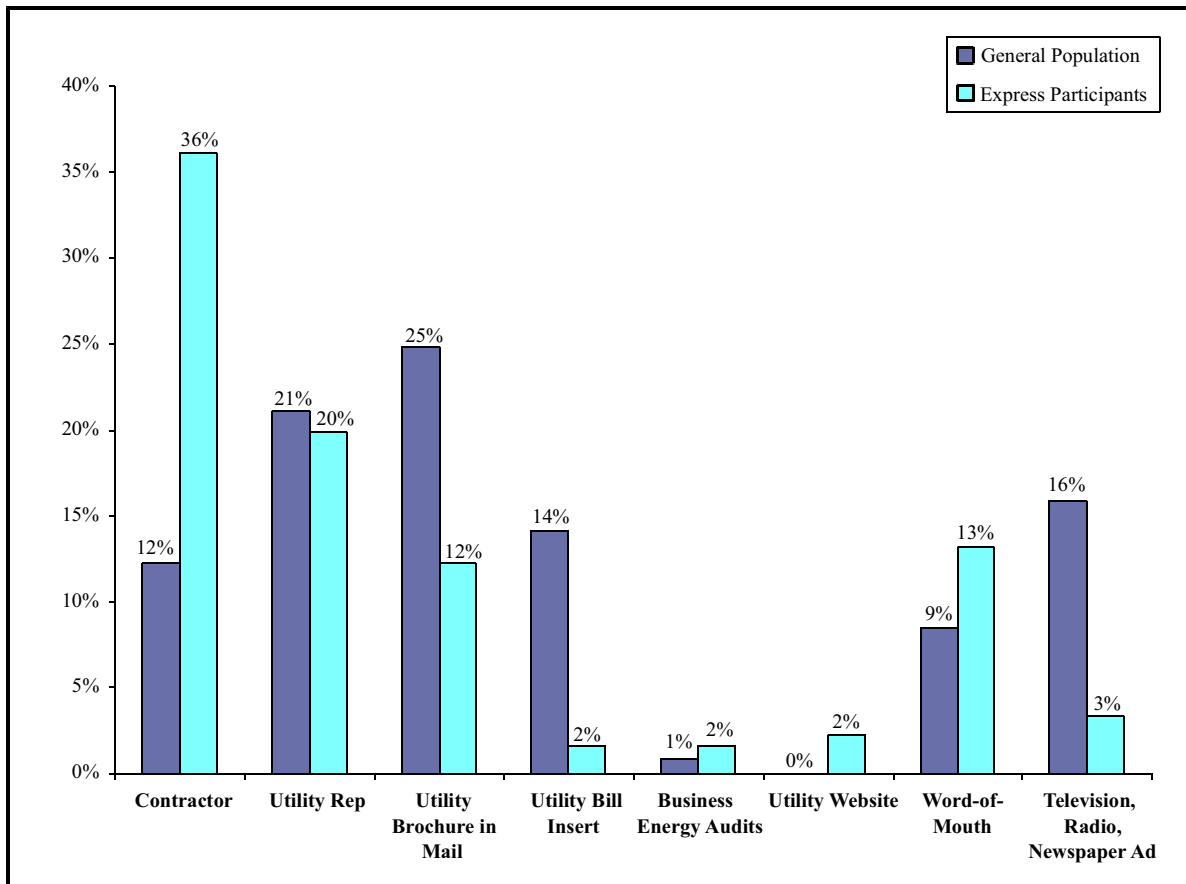
<sup>6</sup> See Appendix Exhibit A3-5 (Utility Representative as Source of Awareness)

- **Equipment vendors appear most active in San Diego.** About one in two SDG&E participants became aware of Express Efficiency through vendors. San Diego-area and PG&E vendors made about twice as many customers aware of Express than Edison and SoCalGas vendors, validating SDG&E’s outreach that focused on Express vendors.

Exhibit 3-4 compares major sources of program awareness for participants and the general population. **Contractors are very effective at getting customers to participate**, demonstrated by the fact that 12% of the general population that learns of Express through a contractor compared with 36% of Express participants. Furthermore, of that 36%, 31% of participants were made aware by a contractor that approached the customers (as opposed to the customer contacting the contractor), compared to only 4% of the general population.

Utility representatives are reaching the general population and participants about equally. **Utility mailings make more customers aware of the program than any other delivery mechanism, but mass mailings are not very effective in moving customers to participate.** For example, 14% of the population becomes aware through bill inserts, but only 2% of participants report learning of the program through a bill insert.

*Exhibit 3-4  
Comparison of Participant and General Population  
Sources of Program Awareness*





## **Online Marketing<sup>7</sup>**

Utility websites were the way the IOUs marketed Express Efficiency to customers online. All four utilities have made Express Efficiency applications available online at their websites. Three of four business customers have Internet access. That proportion is considerably lower for restaurants (45%) and <20kW customers (67%).

**One in five participants downloaded a rebate application off a utility website.** Over a third of SCG participants said they downloaded an Express application. In addition, 44% of participants were aware of online applications. Not surprisingly, awareness was lower in the general population. One in four customers that were aware of Express believed they would download an application. Online applications appealed most to building owners, larger customers, institutions and SCE customers.

### **3.3 SOURCES OF ENERGY EFFICIENCY INFORMATION**

Previous research on small nonresidential customers found that customers were concerned about the reliability of information provided by non-utility firms, while utilities were viewed as credible sources of information.<sup>8</sup> This section delves into the desirability and credibility of various information sources. Respondents rated the credibility of several source of energy efficiency information, shown in Exhibit 3-5.<sup>9</sup> Customers believe utilities are very credible information sources, rating them 8 on a 10-point scale (where 10 is very credible and 1 is not at all credible). Contractors referred by the utility were also viewed favorably, suggesting that utility referrals clearly boost contractor credibility.

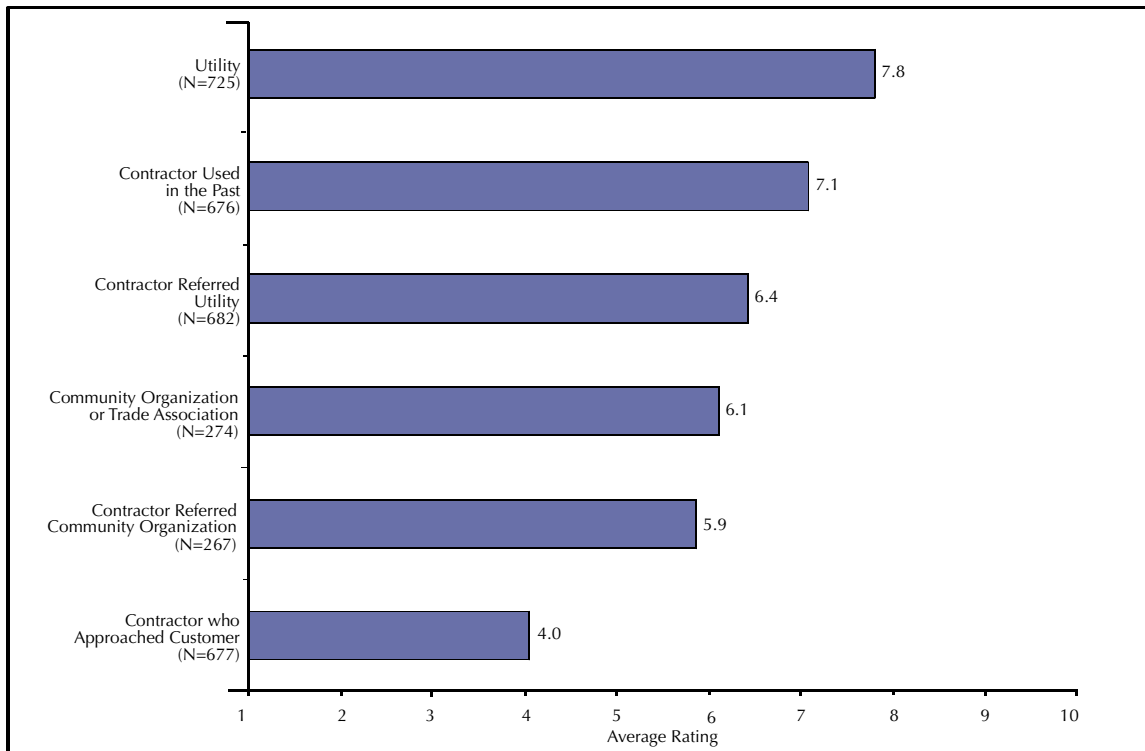
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<sup>7</sup> Appendix Exhibit A3-7 (Percent of Customers With Internet access), Appendix Exhibit A3-8 (Customers Willing to Download Rebate Application), Appendix Exhibit A3-9 (Participants That Downloaded Rebate Application).

<sup>8</sup> Quantum Consulting (2001). *Statewide Small/Medium Nonresidential Customer Needs and Wants Study*.

<sup>9</sup> Detailed segmentation presented in the chart can be found in Appendix Exhibit A3-10 (Credibility of Utility), Appendix Exhibit A3-11 (Credibility of Contractor Referred by Utility), Appendix Exhibit A3-12 (Credibility of Community Organization), Appendix Exhibit A3-13 (Credibility of Contractor Referred by Community Organization), Appendix Exhibit A3-14 (Credibility of Contractor Customer used in the Past), Appendix Exhibit A3-15 (Credibility of Contractor Who Approached Customer).

**Exhibit 3-5**  
**Mean Credibility Rating of Sources of Energy Efficiency Information**



Contractors that customers have used the past also received high marks, whereas contractors that approached customers were viewed with suspicion. Community organizations and trade associations were viewed favorably (6 of 10). Furthermore, customers considered contractors referred by CBO as fairly credible. Survey results suggest that **utilities can gain marketing leverage through vendor referrals – boosting the credibility of trade allies and encouraging them to promote energy efficiency to customers.**

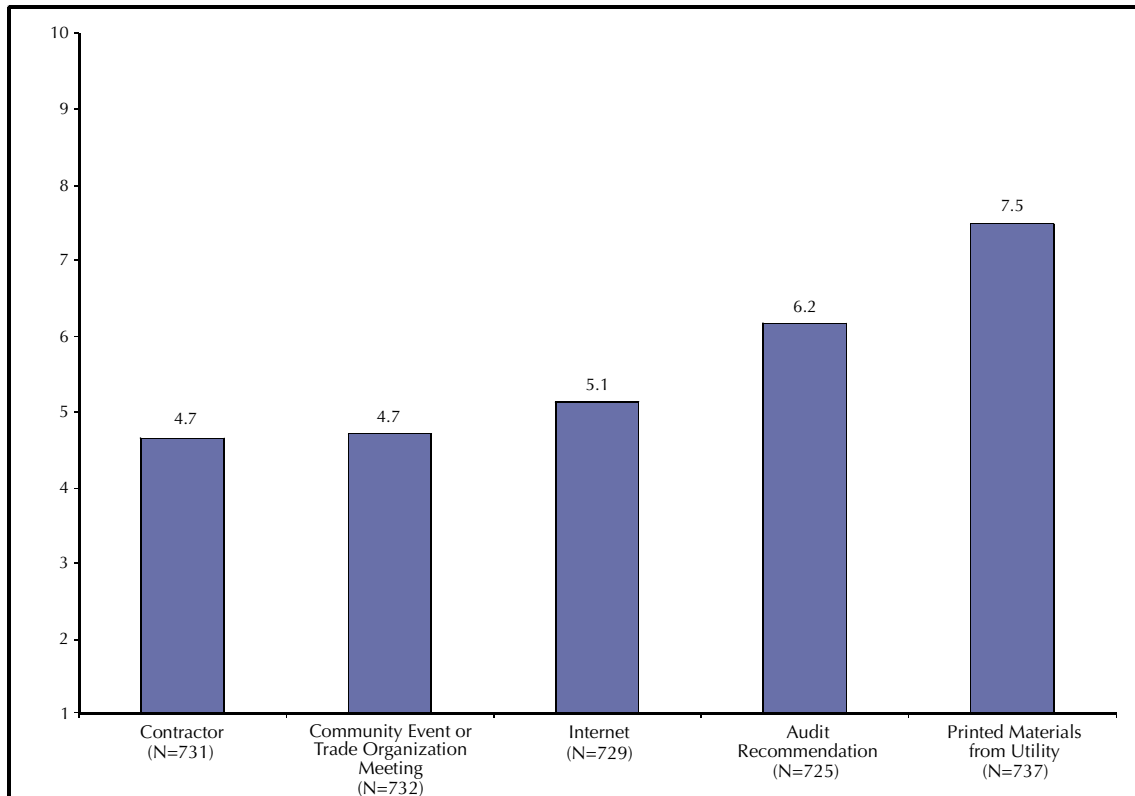
Respondents are not keen on receiving energy efficiency information from contractors or the Internet. Printed materials from utilities or audit recommendations are preferable, as shown in Exhibit 3-6.<sup>10</sup> These results substantiate the earlier research on small/medium nonresidential customer needs and wants.<sup>11</sup>

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<sup>10</sup> Detailed data tables on desirability of various information sources are reported in Appendix Exhibit A3-16 (Desirability of Information from Internet), Appendix Exhibit A3-17 (Desirability of Information from Contractor), Appendix Exhibit A3-18 (Desirability of Information from Community Organization or Event), Appendix Exhibit A3-19 (Desirability of Information from Audit), Appendix Exhibit A3-20 (Desirability of Printed Information from Utility).

<sup>11</sup> Quantum Consulting (2001). *Statewide Small/Medium Nonresidential Customer Needs and Wants Study*.

**Exhibit 3-6**  
**Customer Preferences for Receiving Energy Efficiency Information**  
**Mean Customer Ratings**



**3.4 PARTICIPATION DRIVERS<sup>12</sup>**

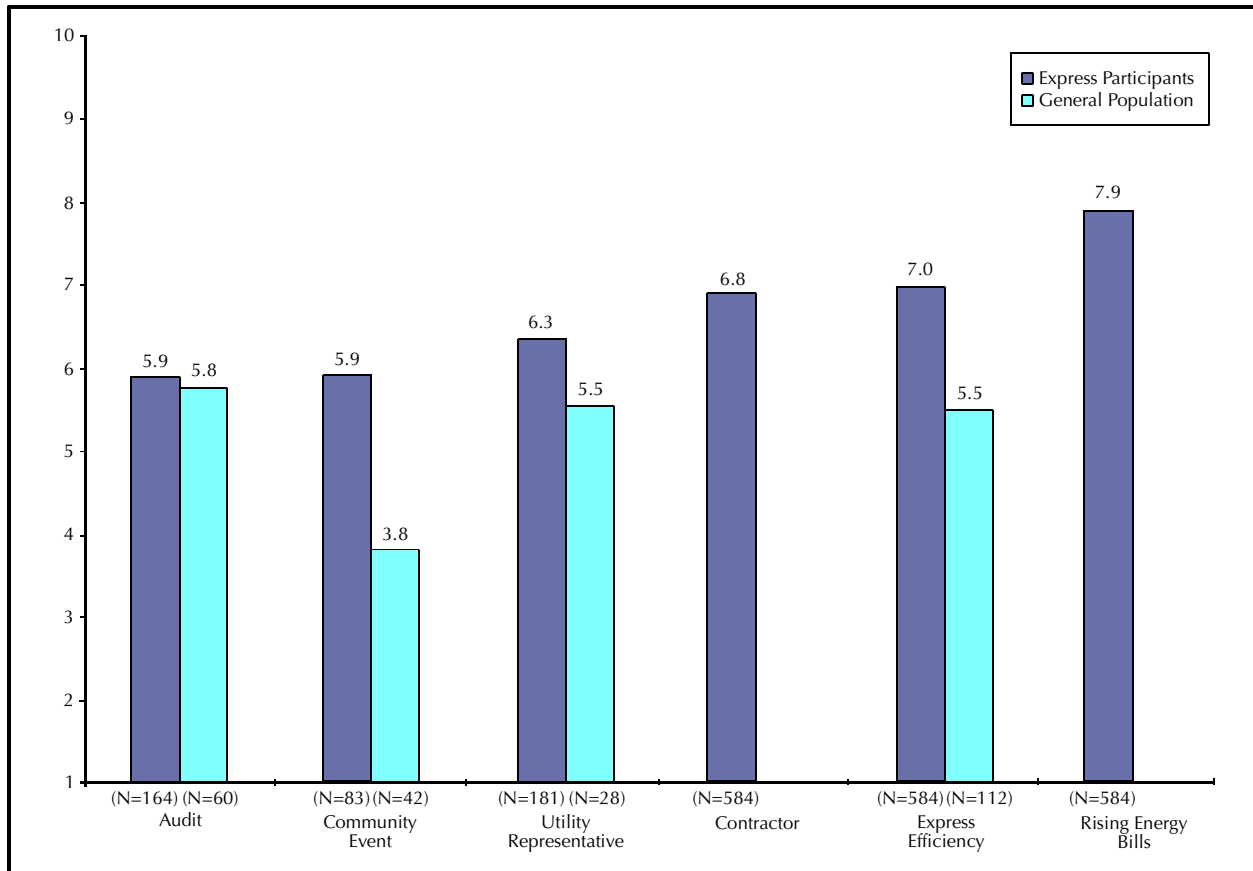
What influences customers to participate in Express Efficiency? Exhibit 3-7 shows mean ratings of the influence of six factors on the general population and participants' decisions to purchase equipment.<sup>13</sup> Participants pointed to rising energy bills as the most influential factor in their decisions to purchase rebated equipment. Contractors are also quite influential with customers. Audits and community events were relatively unimportant in participant decision-making.

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<sup>12</sup> Participation drivers for participants is found in Appendix Exhibit A3-21 (Influence of Express on Rebated Equipment Purchase), Appendix Exhibit A3-22 (Influence of Audit on Rebated Equipment Purchase), Appendix Exhibit A3-23 (Influence of Contractor on Rebated Equipment Purchase), Appendix Exhibit A3-24 (Influence of Utility Representative on Rebated Equipment Purchase), Appendix Exhibit A3-25 (Influence of Rising Energy Bills on Rebated Equipment Purchase), Appendix Exhibit A3-26 (Influence of Community Event on Rebated Equipment Purchase). Purchase drivers for the general population are reported in Appendix Exhibit A3-27 (Influence of Audit on Equipment Purchase), Appendix Exhibit A3-28 (Influence of Community Event on Equipment Purchase), Appendix Exhibit A3-29 (Influence of Utility Representative on Equipment Purchase), Appendix Exhibit A3-30 (Influence of Express Efficiency on Equipment Purchase).

<sup>13</sup> Mean influence ratings are based on 10 point scale, where 10 is very influential and 1 is not at all influential.

**Exhibit 3-7**  
**Influential Factors on Decision to Purchase Equipment**  
**for Participants and General Population**



Rebates tended to motivate small customers more than large ones. Industrial participants found Express rebates (6.6) and their utility representatives (6.9) much more influential than audits (3.7).

SCG participants found contractors and audits to be less influential than other participants.

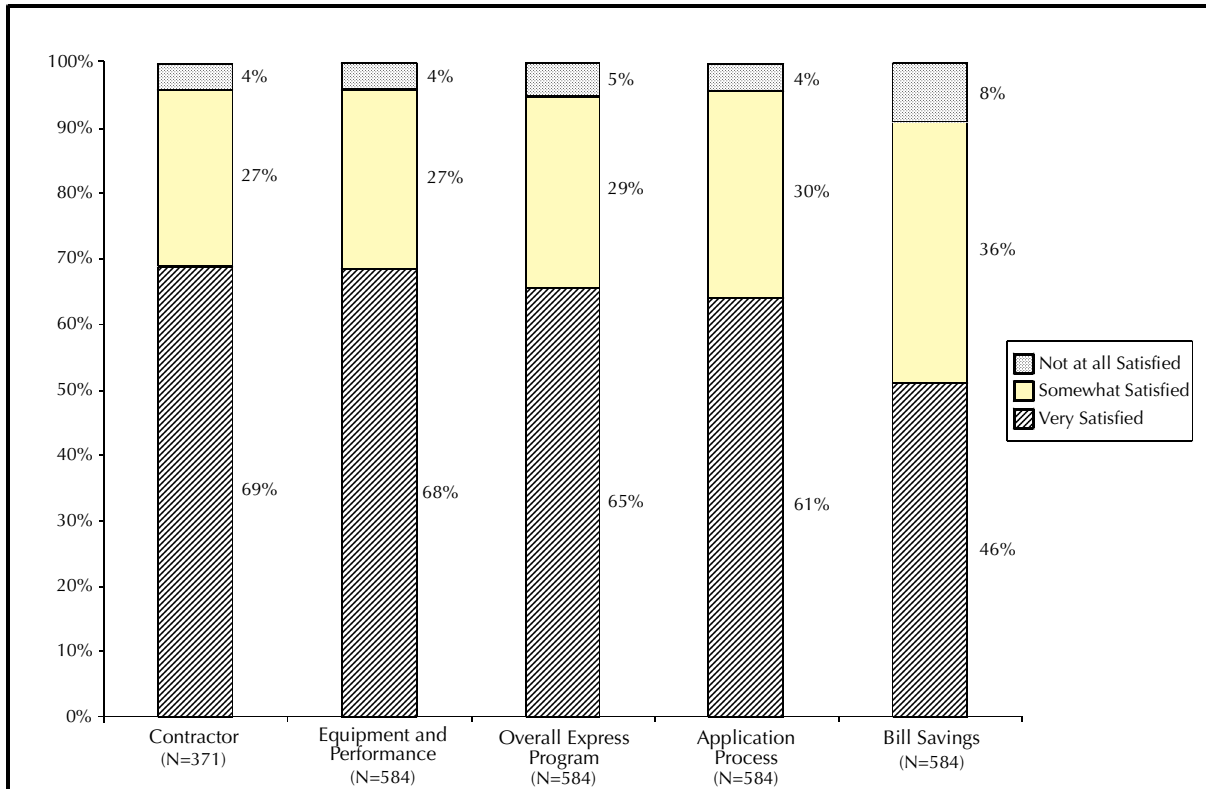
**SCE customers who attended community events found them more influential than the other utilities, suggesting SCE’s community marketing strategy has found favor among its customers.** <20kW participants valued community events more than larger customers. Rural participants found community events to be more influential on their participation decision than urban customers.

HTR customers tended to be more influenced by utility representatives, audits and CBOs, while Express rebates, rising bills and contractors did not have as much influence as on their non-HTR counterparts. This result also substantiates findings from the Small/Medium Customers Wants and Needs Study, which found HTR segments such as very small customers and tenants to be more positively disposed to CBO contact than customers in general.

### 3.5 PARTICIPANT SATISFACTION<sup>14</sup>

Participants rated their satisfaction with several aspects of the Express Efficiency program, shown in Exhibit 3-8. Satisfaction is presented in terms of percentage of satisfied customers in Exhibit 4-10. “Satisfied” customers ranked their satisfaction 8 to 10 on a 10-point satisfaction scale, “neutral” refers to those customers who rated their satisfaction between 4 and 7, while “dissatisfied” customers’ ratings fell between 1 and 3. Some dissatisfaction with bill savings was evident, while customers were most satisfied with contractors and their equipment.

**Exhibit 3-8**  
**Percent of Satisfied Participants**



Satisfaction levels were quite high for contractors, performance of equipment purchased, the Express program and the application process. Customers were a bit less satisfied with bill savings from their measures, perhaps reflecting some uncertainty over how much energy the high efficiency equipment had actually saved. In addition, building owners were a bit more satisfied with their Express program experience than tenants.

<sup>14</sup> Appendix Exhibit A3-31 (Satisfaction with Equipment and Its Performance), Appendix Exhibit A3-32 (Satisfaction with Contractor), Appendix Exhibit A3-33 (Satisfaction with Program Overall), Appendix Exhibit A3-34 (Satisfaction with Application Process), Appendix Exhibit A3-35 (Satisfaction with Bill Savings), Appendix Exhibit A3-36 (Dissatisfaction with Program)

Overall, 13% of participants were dissatisfied with the program. More small and very small customers were dissatisfied than medium and large customers. Dissatisfaction chiefly arose from equipment problems, inadequate bill savings, too much paperwork, problems with contractors and slow rebate processing.

**Positive Program Experience.** IOU staff agreed that rebates are central to customer satisfaction, and that the speed of rebate processing affects satisfaction. Delays in payment cause dissatisfaction. SCG noted that customers liked one-on-one contact and good customer support was a source of source of customer satisfaction.

**Negative Program Experience.** Ease of use is important to customers. As SCG program staff noted, “The program is still cumbersome. Mom and pop shops are unlikely to have the necessary invoices and know dates and specs.” In addition, vendor-related complaints, such as unfulfilled promises or dropped shipment, are most commonly heard by program managers. SDG&E had a few problems with out of state contractors that installed equipment. These vendors were not available when products failed, leaving customers without recourse. To improve product quality, the statewide Express team put a higher standard on CFLs in the market, as product defects can also cause dissatisfaction. In 2002, for example, some customers who purchased dimmable ballasts did not realize the ballasts were *supposed* to dim, and thought the product was defective.

## 4. VENDOR ASSESSMENT

This chapter presents results of interviews with 43 lighting vendors, program managers and customer surveys (both the general population and participants) on the role that vendors played in their equipment purchases.

### 4.1 IOU OUTREACH TO VENDORS

Program managers recognize that vendor participation is critical to success, as the majority of customers sign rebates over to vendors. Stimulating vendor involvement is a challenge. Vendors, who work on commission, want the biggest bang for their buck. “It is not in a vendor’s best interest to visit a customer for seven light bulbs,” observed the manager of SCE’s Small Business Solutions Group. “Vendors try to get the biggest bang for the buck – the large end customers.” The vendor cadre that serves small customers is a different group than those that serve medium and large customers.

- **Southern California Edison.** Edison’s Small Business Solutions Group partners with vendors to acquire customers at community events. SCE works with vendors through community events and outreach, sometimes seeing 200-300 people in a day.
- **San Diego Gas & Electric.** SDG&E relies heavily on vendors to move the small commercial market. Unlike SCG, SDG&E account executives are assigned to large accounts and chains, neither of which was eligible to participate in Express. SDG&E conducted vendor kickoff meetings in 2002 and recruited vendors in serving SCE territory to install equipment in the San Diego area. The majority of SDG&E’s Express applications submitted in 2002 came from a single vendor.
- **Pacific Gas & Electric.** PG&E’s program manager estimated that about 80% of its sales come from 20% of vendors. PG&E faces a unique challenge in that vendors may find it easier to serve Southern California’s dense population than PG&E’s sprawling service territory. Although PG&E’s customer base is no larger than Edison’s, its sprawling territory forces vendors to do a lot of driving. According to one program manager, vendors typically work Southern California first, then move north. One program manager observed that a vendor located in south Orange County can serve both SDG&E and SCE, concentrating on fast-moving products in a fast-moving territory. PG&E competes with other IOUs for vendors as well as its own multi-family rebate program, which pays much higher rebates for hardwired CFL fixtures.
- **Southern California Gas Company.** SoCalGas works downstream. SCG did not conduct direct outreach to vendors in 2002, nor did SCG encourage customers to sign incentives over to vendors. Instead, SCG service technicians go directly to the customer. For example, when an SCG technician is servicing a customer’s boiler, the service tech identifies an energy efficiency issue and informs the customer about Express Efficiency.

## 4.2 CUSTOMER SURVEY FINDINGS

**Use of Contractor.**<sup>1</sup> Sixty-three percent of purchasers in the general population used a contractor to install equipment. Larger firms were more likely to rely on contractors than smaller ones. Very small firms were most likely to do it themselves. Express participants were less likely to turn to contractors than the general population; 54% of participating customers reported using a contractor. This difference is likely because most participants purchased screw-in CFLs, which have minimal installation requirements, unlike T-8s.

Three in four participants were working with their contractor for the first time, indicating that they are open to doing business with new vendors. Referral or reputation (27%) was the primary reason cited for selecting a contractor. Participants were quite receptive to the notion of utility referrals to contractors. An additional 20% said they selected the contractor because he approached them, suggesting that half the battle is simply being in the right place at the right time.

Nearly half of participants that used contractors believed a list of qualified contractors from their utility would be very important in selecting a contractor, while an additional third thought a utility referral to be “somewhat” important. This result is consistent with customers’ favorable views of their utility, reported in Chapter 3 (Exhibit 3-5).

**Contractor Outreach.**<sup>2</sup> Over half of participants that used a contractor reported that the contractor initiated contact with them, while 44% approached a contractor. Very small participants were most likely to be approached (61%), whereas only 42% of medium-sized customers were approached by a contractor. Rural participants claimed contractors contacted them (59%) more often than their urban counterparts (49%).

These patterns are very different from how vendors canvass the general population. Exhibit 4-1 shows the percentage of the population that learned of Express from a vendor that contacted them. In the customer population, vendors tend to bypass small customers in favor of larger ones and prefer urban customers over rural ones. Vendors were most active in soliciting customers in SDG&E’s territory. Fifteen percent of SDG&E customers became aware of Express through a vendor that contacted them, compared with 5% and 2% of PG&E and SCE/SCG customers, respectively. This vendor activity is consistent with SDG&E’s strategy of relying heavily on vendors to move the small commercial market.

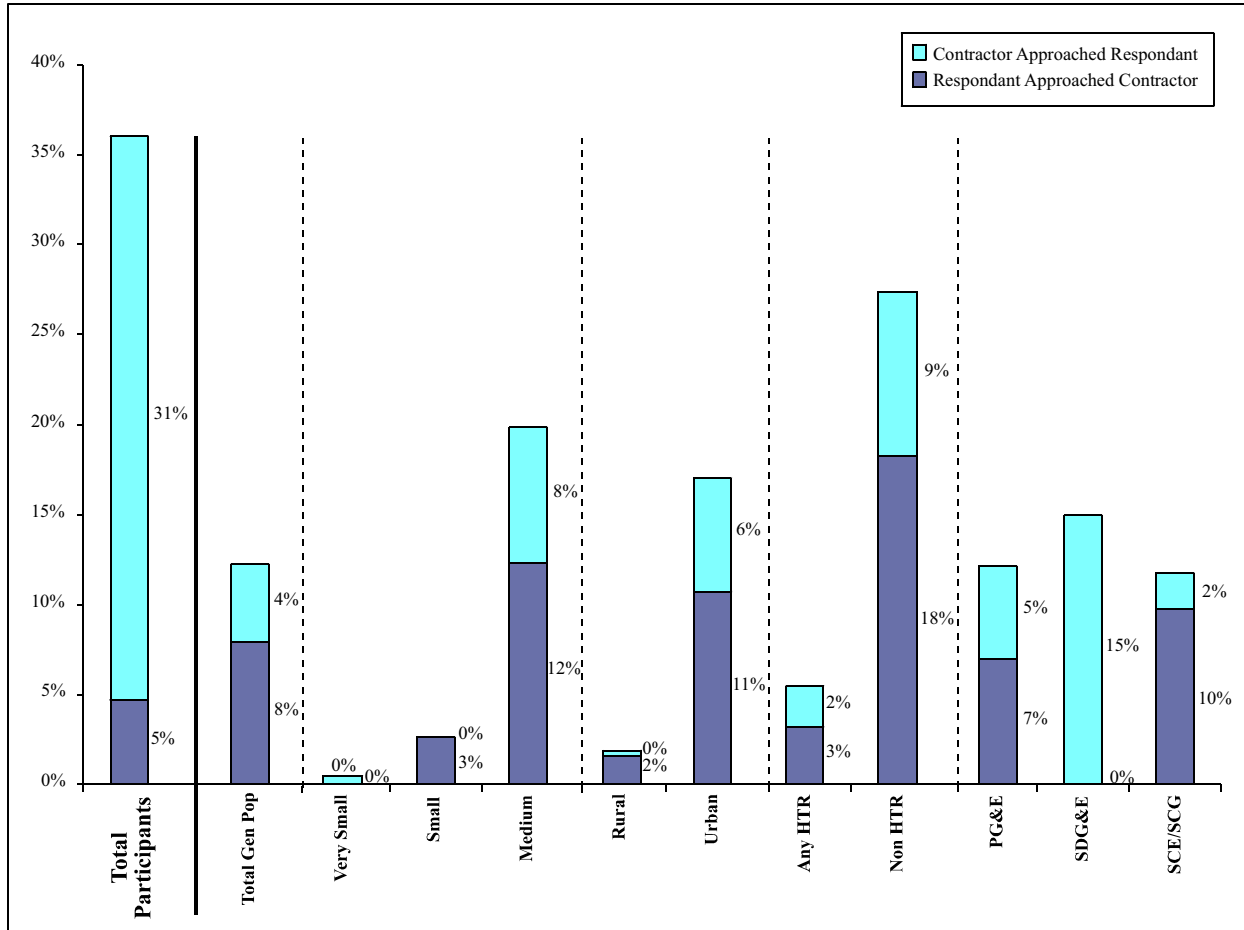
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<sup>1</sup> Appendix Exhibit A4-1 (Percentage That Used Contractor); Appendix Exhibit A4-2 (Percentage That Used New Contractor); Appendix Exhibit A4-3 (Reason for Selecting Contractor); Appendix Exhibit A4-4 (Importance of Utility Referral to Contractor)

<sup>2</sup> Appendix Exhibit A4-5 (Did Contractor Approach Customer?)



**Exhibit 4-1**  
**Contractor Outreach to the General Population<sup>3</sup>**



**Contractor Influence.<sup>4</sup>** Participants report that contractors were quite influential in their equipment decisions. Nearly nine of ten participants felt that input from the contractor they worked with was “very” or “somewhat” important in deciding which specific equipment to install. These participants ranked contractor input 7.3 on a 10-point scale in their equipment selection. In addition, participants that worked with a contractor were very satisfied with them, offering a mean rating of 8.1 on a 10-point scale.

In sum, contractors are important players in the Express market. Most customers use a contractor. One third of participants find out about the program from a contractor that

<sup>3</sup> Exhibit 4-1 shows what percentage of customers learned about Express efficiency from a contractor. Data for this exhibit is reported comes from Appendix Exhibit A3-4.

<sup>4</sup> Appendix Exhibit A4-6 (Importance of Contractor Input); Appendix Exhibit A4-7 (Satisfaction with Contractor)

approached them. Most claim their contractor influenced their equipment specification and purchase decision. Nearly all were satisfied with their contractor.

### **4.3 LIGHTING VENDOR INTERVIEW RESULTS**

This section presents process-oriented results from interviews with 43 lighting vendors. The importance of vendors in moving the commercial market cannot be overemphasized, as small and medium customers rely on contractors to replace equipment in their businesses. We focused on lighting vendors because most of the program's energy savings accomplishments came from compact fluorescents and T-8s.

Our intent was to learn about participating lighting vendors' experience with the Express Efficiency program, not to conduct supply-side baseline research. Previous research has characterized the commercial lighting market in California based on data from interviews with electrical contractor and distributors (1999 State-Level Small/Medium Nonresidential MA&E Study).

We interviewed vendors that are aware of the program and have participated in either 2001 and/or 2002. We categorized vendors based on their volume of participation in 2002, activity across the three IOU territories, and participation in 2001 relative to 2002. The opinions of these "ex-participants" – contractors that were active in the program in previous years, but whose participation dropped off in 2002 – were of particular interest in assessing how well the program is working for lighting contractors whose business was drawn elsewhere.

#### **Data Sources**

This vendor assessment draws heavily on interviews with 43 lighting vendors. Additional vendor information was drawn from an integrated IOU vendor database and Dun & Bradstreet business data on general electric contractors and lighting contractors in California.

- **Integrated IOU Vendor Database.** An integrated database of vendors that participated in the Express Efficiency program in 2002 and 2001 served as the sample frame for lighting vendor interviews.
- **Dun & Bradstreet Business Data.** We used Dun & Bradstreet data on California electric contractors (NAICS 17319903) and lighting contractors (NAICS 17319904) – number of businesses, total sales and number of employees) – to characterize the lighting contractor industry in each IOU service territory.

#### **Vendor Firmographics**

The 43 vendors interviewed varied greatly in size in terms of revenue and number of employees, but the typical profile is a multimillion-dollar electrical or lighting contractor that sells energy efficient lighting products direct to end users.

- **Type of Business.** About half describe themselves as electrical (26%) or lighting (23%) contractors. Other types of companies represented in the sample included lighting maintenance and management companies (15%), ESCOs (13%) and lighting distributors

(8%). Rounding out the group were miscellaneous vendors such as a parts broker and hotel suppliers.

- **Type of Market.** Most vendors primarily sold lighting products to commercial end users, focusing on retrofit projects. A few did business with other contractors. Two supplied ESCOs.
- **Products.** Vendors sell an array of lighting products such as T8/electronic ballasts, CFLs, reflectors, occupancy sensors, LEDs, exit signs, T5 fixture conversions, HID controls. Lighting vendors reported installing 112,000 CFL on average, ranging from 300 to 2,000,000 compact fluorescent bulbs in 2002.
- **Geographic Territory.** Forty percent of the vendors interviewed were headquartered in Edison territory, 38% were located in PG&E service territory, and 19% were in the San Diego area. One vendor was headquartered outside California. Sixty percent claimed to do business in both Northern and Southern California.
- **Express Efficiency Participation.** Sixty-three percent report doing more rebated jobs in 2001 than 2002. Twenty-eight percent did more Express business in 2002, while the remaining 10% indicated Express business did not change from 2001 to 2002. This decline in 2002 Express among vendors is explored in the next section.

About half of the vendors interviewed reported that they installed 20% or less of their CFL jobs through the program. For T-8s, 44% of vendors sold 20% or less through Express. 14% and 13% installed 80% or more CFLs and T-8s, respectively, through Express.

- **Revenue.** The average 2002 revenue was \$3.5 million (of the 32 vendors that reported 2002 company revenues). Sixty percent reported revenues of a million dollars or more. The smallest firm reported \$180,000 and selling 300 CFLs in Southern California as part of its energy services business. The largest, a lighting-focused ESCO, accounted for \$17 million in revenues. This company does T-8, CFL and LED projects with retailers, industrial sites and government facilities across the companies.
- **Employees.** Half employed ten or fewer full-time employees. Another quarter of the vendors interviewed employ 11-25 employees.

### ***“Ex-participants”: Reasons for Decline in Vendor Participation***

Nearly two-thirds of the lighting vendors interviewed recalled doing more business through the Express program in 2001 than 2002. Rebate amount (32%) was the principal reason given for lower participation. Size restrictions (20%), third party programs (12%), poor economy (12%), business shift (12%), and not getting rebates from utilities (12%) also played a role in these vendors’ reduced participation level.

**Rebate Amount.** Vendors most often mentioned lower rebate amounts. A few noted that the dollar value for T-8 conversion was insufficient to even cover costs. One stated, “There was a major reduction in rebate amount - T-8s, everything. The rebate covered cost and labor in 2001, but not in 2002.”

**Third Party Competition.** Some vendors went rebate hunting across California, mentioning better rebates through Edison's Small Business Program, San Francisco's PowerSaver program, EZ TurnKey, Ecology Action/RLW, Stockton, Berkeley and LightWash. A large statewide vendor with revenues greater than \$5 million observed that "PG&E is competing against other rebate programs. A lot of cities are looking for energy savings. We're chasing those programs. All the salesmen like to go where the rebate's the best. It's easier selling." Another was equally candid. "Other rebate programs are better. San Francisco's PowerSaver program took us away from this program. We didn't push Express as hard, the incentives weren't as much." In the words of an electrical contractor working in PG&E territory: "We go through Ecology Action/RLW because they pay more money. Not all the time, but generally."

According to one of Edison's largest participating vendors, "we also worked with the Small Business Program. We worked with several programs, a third party contract. We sold a lot of CFLs through different venues." Another mentioned that "CFLs were low in 2002 because we were hired by SCE for their small business efficiency program" ... We did fewer Express jobs because "we were working for SCE's small business efficiency program"

A Southern California vendor that only does 10% of his CFL business through Express said: "Turnkey was the best because it covered the total cost of the products, and the inflation, where Express is only a fraction of the cost. We've done 3000 customers with Turnkey ... The Express rebate doesn't cover the expense. For example, Express Efficiency's 2003's lighting rebate on a 5-13 watt bulb is \$1.50. You can't even buy the lamp for that much. Yet we're supposed to do that for customers. But with Turnkey, there was no cost to customers. In 2001, that same lamp was rebated at \$11. And now they're going to give you \$1.50."

**Size Restrictions.** Size restrictions – excluding chains and large customers – affected some vendors' participation.

- *Chains.* "The aggregation rule has screwed us up so much," according to one San Diego lighting vendor that specializes in chains like Wendy's restaurants. "Franchisees that own 7-8 restaurants – each small, each under 500kW, were unable to get rebates." One lighting vendor with \$17 million in annual revenues nationally specializes in large rollout programs with large groups of small customers. Only 10% of this company's CFL and T-8 retrofits was done through utility programs. "We do customers with a lot of small facilities like Foot Locker. We roll out a location to 300-400 locations. We don't do customers with 1, 2, 3 or 4 facilities."

A hotel supplier noted that "the aggregation/chain thing really was a problem. Our customers were really upset. Marriott is nothing more than a franchise name. Marriott doesn't own or control a hotel property, doesn't do anything other than slap their name up on that property. Imagine how frustrated the guy was that couldn't get a rebate just because he was a particular brand."

- *Large customers.* Another didn't pursue Express rebates in 2002, noting "rumors that there wasn't any money available. There were restrictions on what size properties that could participate. Information was unclear as to who qualified, who didn't. We were dealing with larger properties at the time, so a lot assumed that they wouldn't qualify."

One large Northern California lighting contractor participated little in 2002 because “quite honestly, the state said Express couldn’t do large customers.” This vendor took issue with the programs’ small customer focus. “Small customers don’t have any money. Financing is a disaster. The energy savings are real, but for a customer to spend \$4000 of his money to save \$250 a month doesn’t seem to add up.” He recommended targeting larger customers to garner more energy savings. “We’re in a power crunch. Reducing nothing to nothing is nothing. In Sacramento, I did the Renaissance Building - 5000 fixtures. We took 80,000 kW out of the grid. We also did the Clorox Building in downtown Oakland and got commended by the mayor. That makes sense. Taking 50kW out of the grid is useless. Take out the biggest chunks.”

Likewise, another lighting contractor with \$3 million in 2002 revenues (who indicated only 10% of his T-8 sales were rebated) noted that “my big customers, the ones that have always supported these programs, got excluded. They felt kind of shafted. We all understood that the state felt we needed to go after Mom and Pops, but Mom and Pops will never get it done.”

Poor Economic Conditions. Poor economic conditions have hit vendors that serve the hospitality industry especially hard. Plunging occupancy rates threatened profitability. One supplier noted, “[The hospitality industry] doesn’t have the money to change lighting. They need 50% occupancy to break even, to pay the mortgage.” Another hotel supplier reported that hotels are “the most beat up industry in the country. Cash is crucial for them. Money’s real tight. They only go for things that are essentially inexpensive, and the rebate only covers 30% of cost.”

These hotel suppliers illustrate how a combination of factors often contributed to vendors’ lower participation levels in 2002. Economic recession, chain exclusion and low rebate levels precluded many hotels from lighting upgrades.

### ***Delays in Program Rollout Hurt Vendor Participation***

Three-quarters of vendors felt that delays in starting the program negatively affected their business. The delays compress their business by creating a short rebate window for doing rebated jobs. Vendors lose customers, cannot retain staff and are unable to plan for their business as a result of delayed program rollout.

A minority of vendors are unaffected by delays, observing that customers are usually willing to wait for the program because “new lights are not something they need to run their business.” However, these vendors tend to do far less work through Express than higher-volume participants, so it is not surprising that program delays do not affect their business.

Vendors described several negative effects of program delays:

- **Hurts Vendor Sales**
  - “It delays our ability to put out bids to waiting customers.”
  - “Once we put the estimate out there, it can take anywhere from immediately to 2-3 months, even five months, before the customer comes back. If those rebates have

changed in that period of time or if program's no longer available for a period of six weeks - for example, December 15 to February 2, then it's very hard."

- **Creates a Short Window for Doing Lighting Jobs**

- "The delays push retrofit customer back five months, consolidates year long program into seven months. I have had jobs fall through because of these delays."
- "It's hard to respond to a short window. The wider the window, the better it is for us. Quick starts and stops are difficult."
- "The first quarter of business is notoriously slow because of delays. The utility surprised us by extending the 2002 rebates. We would have liked to know this and could have planned accordingly."
- "You can't plan and don't know what to do. Before you know it, you've lost the first quarter of the year. In March, they come out with the paper for the year. The year's almost over then. Then they double rebates in August. The rebate program is really a two-month program."

- **Difficult to Retain Staff**

- "It kills the business. It's very hard to level load employees or salespeople to give them enough work to sustain doing this particular business year around when there's no work for the first 4-5 months of the year. We lose some of our best employees."
- "You can't keep employees around if you don't have work for them."

- **Creates Uncertainty and Compromises Business Planning**

- "When it shuts down and restarts up, etc, we can't plan 2-3 months ahead, which we need to do."
- One contractor appreciated the bridge funding, but noted that "one month of confusion where we didn't know what to tell customers" hurt his business.

### ***Vendor Opinions on Rebate Structure***

**Vendors Do More Business During Sales.** Vendors see sales as very important (63%), somewhat important (29%) or not at all (9%) important to their program participation. Eighty-four percent report doing more rebated jobs during sale periods because higher rebates offset project costs, making lighting retrofit more attractive to customers. Vendors do typically staff up during seasonal promotions. While 30% report hiring additional staff, most leverage their existing sales team during sales. "They feast or famine; they're working seven days or two," said one large lighting contractor with \$2 million dollars in 2002 revenues.

Vendors point out two situations where sales really drive participation.

- **Small customers.** Sales "help immensely" with small customers. In the words of one vendor, sales are "not at all important for big jobs, very important for small jobs." Likewise, other cash-strapped businesses value rebates, such as convalescent homes "with super low budgets that wait until sales." One hotel supplier reports that "[sales

are] day and night. Because we only work with hotels and they're the most beat up industry in the country, cash is crucial for them. The hotel industry had their worst year in 73 years last year. The money's real tight." Likewise,

- **Low Base Rebates.** Sales are especially important when base rebates are too low. Sales are imperative when "base rebate levels not enough. At a base rebate level, you're just picking up people that'll already do retrofit projects – a lot of free ridership." Another remarked that "It is important especially when the rebate's not the greatest. CFL's at \$3.50. The customer doesn't want to pick up much. At double, it's boom - done."

Two factors deter a minority of vendors (9%) from taking advantage of sales.

- **Large Customers.** Large customers do not qualify for Express and/or upgrade to efficient lighting on their own.
- **Scheduling Constraints.** The impact of a sale might be limited due to the "timing of the project, planning around customers schedule." For example, a \$12 million lighting contractor that sells to ESCOs rarely participates in Express because "the long sales cycle with ESCOs make scheduling around sales impossible." Also, larger projects like school retrofits can only be done at certain times. Even a large Southern California vendor that acknowledges the importance of sales says that "it all depends on how long they can go. If it's just a few weeks, ouch."

**Vendors Want Timely Notification on Promotions.** Vendors tend to learn about sales by email (29%), mail (26%), word of mouth (20%), telephone (17%), and their own initiative (9%). The utilities tend to personally notify large statewide vendors by telephone about upcoming sales, while others complain of late notice. For example, contractors prefer to learn of promotions directly from the utility in a manner, not by word of mouth. "I do feel like I'm out of the loop. I hear about sales from customers, not from the utility." In addition, some vendors complained about mailings that arrived after a promotion has begun. Vendors' desire for timely communication is also raised in the next section.

**Vendors Prefer Consistent Rebates to Seasonal Sales.** Most vendors (70%) prefer consistently higher rebates that do not change instead of periodic sales. The minority that favor sales believe that "periodic sales push people. Sales gives me a reason to call somebody up."

Lighting vendors enumerated the disadvantages of periodic sales and advantages of constant rebate levels.

#### **Disadvantages of Periodic Sales:**

- *Vendors cannot accommodate customer demand during limited sale periods*
  - "It becomes a mad rush to get some of these done, and some never get done even though you've had people agree to them. Sometimes you have more jobs than you can complete."
  - "We lose whole half of year sitting around waiting. PG&E doesn't pay enough, then doubles the rebates at the last quarter. You can only do so much in a short amount

- of time. They should get a good rebate in the beginning because it takes a while to sell jobs.”
- “You can’t get ahold of everybody within the sale period, a limited amount of time.”
  - “Last year, SCE reserved some funds for a double and ran out in two weeks. We didn’t even have people starting work. It takes a week or two to tell customers about the rebate and fill out an application.”
  - A lighting maintenance company with one thousand maintenance sites in Southern California reports that, “The money’s just not sitting there. Property managers go to owner, who says we’ll do it in a couple months. Property managers typically can’t pull the trigger that quick. They need time. When they get to it, the sale’s off. The program’s changing all the time.”
- *Increase utility responsiveness and increase rebate turnaround.*
    - “The challenge is if you’re in a special program (fall /winter sale) you can’t get through in a timely manner.”
    - “Understaffing is terrible. They cannot keep up with the workload. Numerous times they’ve told us during promotional seasons that they do not have staffing to do the work. We’ve submitted \$50,000 worth of invoicing that cost us \$35,000. We have to sit on it for 45,60, 90 days.”
    - “With the double rebate at end of year, PG&E gets overloaded, it takes longer.”
    - “If they just did this all year, then one could plan one’s work and we would be a lot more productive, flow of work would be a lot smoother, instead of being inundated (both PG&E and us).”

#### **Advantages of Consistent Rebates:**

- *Accommodate customer lead time and schedules*
  - “A lot of businesses take a 1-3 months to decide. A lot do repairs in winter and don’t do any work in the summer. Rebates are low in winter and high in summer, and still not going to do anything in summer.”
  - “We want a constant rate due to our sales cycle – our business does not lend itself to timing projects around sales because our projects are too big.”
- *Simplify vendor marketing and business planning*
  - “The general feeling [among contractors] is to have consistent rebate amounts and have funds available all year long, rather than double rebates for two months and then no rebate. It’s much, much harder to manage a business that way. We must build inventory and account receivables. If rebates end up not being available, I’ve got a bunch of inventory sitting in the back that I can’t sell because people aren’t doing the program. \$50-100,000 of inventory uses up capital that could be used for other projects. **So consistency is much more important than double or higher rebates.**”



- “It just makes it easier when we’re proposing programs or figuring out what’s going to work. There’s a lot less headaches.”
- “It’s easier to approach a customer to say X amount of rebate, instead of not knowing if there’s an increase.”
- Special promotions “create havoc in the marketplace. They’re there, not there. How can I set up a solid marketing and service/installation program?”

One vendor encouraged consistently higher rebates that are “announced, publicized, and pushed forward, so that everybody knew there were never going to be sales again.”

**Rebate Levels.** Vendors were asked what rebate level they’d like to see (in terms of percentage of project cost). About a third were satisfied with current levels. Others suggested anywhere between 25 to 100% of cost. One vendor noted that third parties covered about 80% and thought this was reasonable. One sought a return to 2000 or 2001 levels. According to one vendor, HTR participation requires 75-100% of cost covered. A hotel supplier observed that any money out of pocket in today’s hospitality environment is more than they can afford to spend. “A lot of hotels will decline to participate even for a \$7 rebate on \$8 product. They don’t have that \$1. A Utah rebate pays 50% of job cost and there are almost no takers in hospitality. I spent 2 months in Utah promoting that and did not get a single project completed. 50% is a good discount, but it’s still more than they could afford to pay. It needs to be 100%, close to 100% of cost.”

With respect to CFLs, some vendors would like to see rebates up to \$7 on the 14-26 watt CFL.

**Vendors Prefer Increased Customer Rebates to Bonuses.** While a few vendors mentioned the \$200 vendor bonus offered in prior years in addition to rebates, the majority of vendors favor increased customer rebates over vendor bonuses.

Twenty-eight percent favored a bonus. One contractor reported that, “We were able to persuade a huge number of people to retrofit their lights with the double rebate and vendor bonus. We used to give bonuses to our sales people who are on road 8-10 hours a day. They went out and did incredible business with that incentive to him to sell as many fixtures as he could based on per lamp/per fixture pay schedule. We did 1800 buildings in 7 months – a huge number because the money was there for the sales person and it was attractive to the customer.”

The majority of vendors, however, favored increased customer rebates. In the words of one: “We make our money doing the jobs. Cut the cost to the customer and you’ll get more jobs.” Another liked increased rebates to the customer because “the more obvious I can make a low or no out of pocket, the better. I’m not looking for any back door stuff.” Likewise, another preferred direct customer rebates so “there is no conflict of interest.” One contractor, who preferred an increased customer rebate on a per unit basis, implied that vendor bonuses opened the door to fraud. “I’ve seen some contractors cheat the system doing it the other ways. In 2000, a lot of contractors found real little places where they installed one or two CFLs. We’re here for long run. We want to install as much product as possible.”

## ***IOU Communications with Vendors***

Lighting vendors tend to receive program communications by mass email (22%), mass mail (19%), utility website (17%) and phone (13%). Eleven percent seek program information on their own initiative. Vendors also mentioned utility representatives (7%), seminars (6%) and kickoff meetings (6%). Vendors prefer to receive information by email (28%) or mail (17%). Seminars were valued by the few contractors that attended them.

About half of the lighting vendors interviewed were dissatisfied with program communications. A lighting-focused ESCO observed, "It would be nice if we could depend on utilities to keep us up to date on what's happening, but that very rarely happens." "Utility communications are "kind of spotty," according to a large vendor serving the California hotel industry. "Between the three major utilities we worked with last year, somebody informed us."

Lighting vendors' most frequent complaints centered around program information that was not timely or accurate.

**Timeliness of communications** was a concern, especially during sale periods. "If we don't call and talk with them, we don't find out about it. If there's a double rebate, we may not find out about it until weeks after other contractors who do have an ear are finding about it." Likewise, a vendor who did over a million dollars of commercial retrofits in 2002 – one third of that business through Express – reported that "We get emails and occasionally, a mailing. But that mailing comes out long after. Sometimes, if the promotion is only 2-3 months and you get it a month into the program, that doesn't help someone who basically could have done something a month ago."

**IOU Understaffing Has Hurt Responsiveness**, according to several lighting vendors, leading to delays in making reservations and determining whether customers qualify for Express rebates. One lighting contractor who does most of his CFL business through Express said: "I tried to call the customer service phone number, nobody answered. PG&E just dropped off. I must contact somebody to tell me what's going on this year so I can go ahead and start ... it seems like they're not connecting with vendors."

- *Delays with Reservations.* A high-volume Express vendor pointed to delays in making reservations. "The challenge [in making a reservation] is if you're in a special program (like the fall/winter sale), you can't get through in a timely manner."

Another large statewide vendor echoed these concerns. "We've had some problems with the reservation agent. Typically, when we see new people come in, it seems like they're really overloaded with work. That reflects in their attitude towards us, their responsiveness. Sometimes we request some information and it takes a week to get back to us. Our customer's waiting, it makes us look bad."

- *Determining Whether Customers Qualify.* Determining eligibility is a "hassle," according to a statewide vendor with \$5 million in annual revenues "We call the hotline. Sometimes we get a recording. It's inconvenient when my salespeople are people traveling hours to a customer and staying in a customer's place trying to get an answer right away." Qualifying customers was "easier before the problems, the layoffs, before PG&E staffed back," observed another.

**IOU Staff Sometimes Misinformed.** Miscommunication about whether customers qualified led some vendors to question how well-informed program staff were. “Many of the people on the HelpDesk are not very knowledgeable about lighting. Sometimes they make commitments saying this guy qualifies. We go down the road, find out that's a mistake, and we can't get a rebate. That happened to me with Edison two years ago, had to pay \$4900 out of pocket when rebate was denied.” reported one large contractor who no longer does much business through Express.

Another remarked that “The problem is, sometimes PG&E people don't even know about program. We've been made aware of policies and procedure that even the people that review the applications aren't aware of at the time. The EE hotline may say something different than the people who are reviewing the applications.”

### ***IOU Reservation System***

By and large, lighting vendors appreciated the reservation system because it gave them a “sense of security that we're going to get paid.” One lighting vendor noted that reservations are especially useful at end of year. “I like it because we know we have the money tied up. It gives us confidence that once the job is signed, we know that rebate is going to be good. We put a lot of money into a project. If we don't know we have the funds for sure, we hesitate about ordering the product and completing the job.”

The current reservation system is a change for the better, according to one contractor. “Three or four years ago without the reservation system, we submitted an application and were told that funds have run out. We had told the customer that the job would cost them very little, and they blamed us.”

Contractors raised three criticisms of the reservation system. The biggest concern came from vendors that had encountered problems with payment. In their experience, reserving funds did not necessarily mean that a customer was qualified or guaranteed a rebate. *Reservation agents were not always well-informed about customer eligibility, an issue discussed at length in the following section.* Second, one large contractor noted that “contractors were reserving for customers that had no intention of doing the work, so people hip pocketed funds for projects that weren't going to happen.” Last, one contractor sought more flexibility, noting that reservations were lost if jobs weren't completed in a certain time frame.

### ***The Challenges of Qualifying Customers***

Determining eligibility is important to vendors' business. As one large lighting contractor who installed 40-50,000 fixtures nationally in 2002 remarked, “A lot of the deals we do are negotiated based upon the rebate. We must make sure they're eligible, so when we ship and bill, we're sure that we will get the rebate. We really take a risk if a product is delivered and installed, then later learn they somehow weren't eligible and we don't get our rebate.”

Less than a third of lighting vendors indicated that it was easy to determine if a customer was eligible for Express Efficiency. Experienced salespeople can get a good feeling for size (if it's under 500kW) by looking at a facility, but vendors typically get a bill from the customer then contact the utility to see if the customer qualifies for the program. The majority of vendors reported similar difficulty in determining eligibility.

**Misinformation About Who Qualifies.** Vendors are confused about what qualifies and receive incorrect information when they call the utilities.

“The people at the utilities who process everything need to be well-informed about who qualifies ... Sometimes it's hard to find out whether customers qualify. When a big change happens, qualification-wise, we got different answers from everybody. It took a good month to get that cleared up. The program people were not well informed. We got different answers from the same people” said one statewide high-volume Express lighting vendor.

Another contractor's experience was similar: “Finding out who qualified wasn't as easy as I thought it would be. It also seemed like rules were changing, depending on who you spoke to. One reservation person would tell us they qualified because their last bill was below 500kW, and someone else would say their average over last 6 months is above 500kW, so they don't qualify. I know there was one particular property that we called 6 times over the course of summer and fall sale that was just teetering on the brink of qualifying.”

In some cases, utilities reserved funds for customers that did not qualify. “We made reservations and then found out after we made the reservation that the customer didn't qualify (too large). I was shocked. Of the three utilities, Edison was probably the most guilty. Why give a reservation for a program that the customer doesn't qualify for? We were really shocked by that experience. That happened a half dozen times ... It seemed like a really silly way to do business.”

“We had a few surprises. We reserved funds on one big one, we did the job then found out they weren't qualified at all.”

“We'll call in and they're not sure whether this particular small business has participated or not. They can't tell us. Take CFLs. We do 200 CFLs for a commercial building. We make the call to find out if they qualify, PG&E says it's a good account. We supply all material, labor, and put them in. After we've submitted the paperwork, we find out that a contractor installed the same CFLs in the same building and they're not eligible. The determination from PG&E was wrong. PG&E is difficult to work with - problems with paperwork, a lot of problems getting paid. We had to settle for less than what we owed for a lot of accounts. We had no recourse. Nowhere to go when we have a dispute on an account. We have cut back our work with PG&E substantially. We are not interested in working for free.”

**Delays in the eligibility process hurts vendors' sales momentum.** “If the customer doesn't have his bill right away, it takes a couple of days. It's a big hassle.” Another noted that “often, the customer's accountant has the PG&E bill and we lose momentum tracking that down.” A high-volume Express vendor stated, “ideally, we should be able to do it right there at the customer, but we frequently have to wait for an answer from the utilities. We leave a message, they call back. Usually within 24 hours.”

**Suggestions for Improvement.** Vendors want “an easy way to see if a customer qualifies.” Their suggestions include:

- Basing eligibility on “whoever pays the base charge - not A9, A10.”

- Giving the utility an address instead of requiring an account number (and a copy of the utility bill).
- Up front account review: “having someone review the account and tell us whether or not it’s applicable without having spent tons and tons of effort. That’s far more helpful than reserving funds.”
- Reservations should not be accepted for accounts that do not qualify.
- A dedicated phone number for eligibility and reservations “so we can get through easier.”
- A six-month bill average instead should be used to qualify customers.

### ***Vendor Experience with the Application Process***

**Statewide Coordination.** Statewide coordination received widespread praise from vendors who do business in multiple service territories. Standardized rebates simplify vendors’ advertising and improves their credibility. One statewide vendor with sales that exceeded \$7 million said: “It’s great because it’s statewide now so the rebate forms all the same. Suppose there’s a \$12.50 rebate on a hardwire ceiling fixture. I can do my own advertising, promoting and marketing without having to change it. Certain parts of Bakersfield are Edison and PG&E. I’m sending something to an Edison customer saying you get \$15 back, and it goes the PG&E who only gets \$12.50, they think I’m gypping them. Consistency really works for you.” A high-volume Express statewide vendor similarly noted, “We did business with all utilities when rebates were different; that complicated things somewhat. It’s easier when it’s standardized. Sometimes we make the same flyer.”

**Application Paperwork.** Most vendors fill out applications on behalf of their customers. Lighting vendors mostly commonly described the application as “straightforward.”

Most vendors (58%) liked the idea of submitting applications electronically. An additional 23% wanted both paper and paperless options, while 19% preferred the current paper application process. Vendors favored applications via the Internet because it would save time, offer them an electronic receipt and ensure the utilities did not lose any applications. A few contractors wondered how original signatures would be obtained in an electronic process. “It wouldn’t be efficient if we submitted electronically, then had to submit original signatures.” One suggested a random review of 10% of electronic submissions to ensure their validity.

Vendors’ suggestions for improvements included:

- Eliminate the separate payment release form.
  - Put the payment release on the application, perhaps bound together so it cannot be torn out.
  - Create a check box for the customer to sign or initial on the application.
- Accommodate multiple account numbers on an application. “Some people have 20 accounts, that’s 20 applications, 20 invoices.”

- Make the invoice form more flexible so that any standard invoice can be accepted.

**Rebate Checks to Contractors versus Customers.**<sup>5</sup> The majority of lighting vendors ask customers to sign the rebate over to them. Fronting the rebate amount helps close deals, according to vendors, because cash-strapped small businesses pay less up front. “Small business owners are unbelievably cheap. Front it or forget it. You’ll lose 90% of them at least.” “It’s easier to close a deal because they don’t have to worry about putting all that money up front.” Fronting the rebate also offers customers some reassurance about the rebate. “One customer had doubts, because a previous contractor didn’t get his rebate on another building. “How do I know I’m going to get it?” he asked. “I’ll put my money where my mouth is. I’ll credit the rebate right off the top of the invoice.”

By contrast, participants that used contractors were asked whether they preferred a check sent directly to them from their utility or an instant discount through their contractor. Three in four preferred a rebate through the utility, not a contractor.

One-third of lighting vendors encouraged customers to collect rebate checks directly from the utility, citing three main reasons: (1) direct customer rebates allow customers to see the payoff of their investment, (2) customers are liable for taxes on their “free” lights, and (3) contractors don’t have to wait for a check from the utility.

**Rebate Check Turnaround.** Receiving rebate checks quickly is important to vendors. Many float the rebate to customers up front to close a deal. They do not want to tie up their cash waiting months for rebates from the utilities. “If you don’t have cash backing you up right now, you cannot do these programs the way I’m doing it,” said one contractor.

Vendors did not give the utilities high marks for rebate turnaround. About one-half were “somewhat satisfied.” Nearly 25% were “not at all satisfied,” while the remaining 30% were “very satisfied” with the time taken to process rebate checks.

Slow turnaround time may result from the heavy workload created by seasonal promotions. One large PG&E contractor reported that “Understaffing is terrible. They cannot keep up with the workload. Numerous times they’ve told us during promotional seasons that they do not have staffing to do the work. We’ve submitted \$50,000 worth of invoicing that cost us \$35,000. We have to sit on it for 45, 60, 90 days.” In the words of another Northern California contractor: “With the double rebate at end of year, PG&E gets overloaded, it takes longer.”

**Pocketing Rebates.** Some contractors raised concerns about fraud, primarily relating to pocketing rebates. One very large statewide contractor believes vendors abuse periodic sales, explaining: “We don’t want to abuse the rebates. Other companies will pocket the difference on a double rebate so they’re making twice as much money on the same light as they would have as if it was a single rebate. That’s not fair or legitimate; it’s abusing the system.” Likewise, another said, “I know some contractors that hide rebates, do hard selling, and keep rebates for themselves. They do Express so checks come to them.” A \$6 million statewide vendor agreed: “There are shysters in the construction business. I’d like it so that contractors don’t get any

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<sup>5</sup> Appendix Exhibit A4-8 (Rebate Through Contractor or Utility)

rebate. No third party stuff. Lot of funny business goes on. I think customers and customers only should get the rebate. No contractors should loot the kitty.”

**Business Activity of Statewide Vendors**

A handful of vendors accounted for nearly half of Express applications. Top 10 vendor applications (the largest vendors in terms of application volume) taken from the vendor participation database, are reported in Exhibit 4-2. High-volume vendors accounted for a greater percentage of SDG&E’s 2002 Express applications (50%) than SCE (32%), while PG&E saw high-volume vendors become more concentrated in its service territory from 2001 to 2002.

**Exhibit 4-2  
High Volume Express Vendors**

Express Measures	Utility					
	PG&E		SDG&E		SCE	
	2002	2001	2002	2001	2002	
Measures - Total	2,899	13,041	1,709	1,296	3,798	
Measures - Top 10 Vendors	1332	3452	850	622	1213	
Percent of Total - Top 10 Vendors	46%	26%	50%	48%	32%	

Sixty-percent of the lighting vendors interviewed indicated they work in both Northern and Southern California. They do not tend to work one part of the state at a time.

**Chasing Rebates.** About 40% of statewide vendors indicated they follow rebate dollars, shifting their resources to lighting projects in Northern California when rebates run out in southern California. “Everybody does,” one contractor remarked. “Initially, you got 10 companies dealing with the whole state. When funds run out in southern, you get 40 people running to Northern California and trying to do business there. People come out of the woodwork.” A large statewide vendor said, “We have very flexible staffing levels and can move them within 24 hours.”

**Northern versus Southern California.** While some vendors acknowledge higher cost of doing business in Northern California, they are not deterred from operating in PG&E’s service territory.

- Statewide vendors that do more lighting jobs in Southern California were asked why they don’t do more work in Northern California. Their location and business contacts drive their southern California focus, not Northern California’s business climate or PG&E’s program.
- The majority of statewide vendors believe that doing business in Northern California is more costly than Southern California, but disagree over how much. Some see the difference as marginal, noting that “it doesn’t drive any of our business decisions.” For another, the cost is “secondary to chasing rebates.”
- Contractors largely agreed that Northern California’s customer population is less dense than southern California, but that did not deter them – for various reasons – from

pursuing PG&E customers. One acknowledged that density affected “foot traffic marketing,” but not his telemarketing business. “We work over the phone. I have no reps in Northern California, and I do a substantial amount of biz in Nor Cal. That's when smaller companies start to cry. I pick up the phone and start calling these hotels - there's more of a chance of connecting with these people. Even when you go in, the owner may not be there. What's the point?” Another vendor saw better profits in Northern California due to high competition in Southern California. One believed it is harder to market the outlying areas like the Central Valley, instead positioning sales staff in Sacramento, LA and San Francisco.

**Vendor Density.** The evidence suggests that, contrary to popular opinion, a larger proportion of the vendors that serve the program are not located in Southern California. There is a perception that Southern California has a denser vendor population, leaving PG&E competing for vendors that have trouble covering PG&E's big service territory. However, Dun & Bradstreet business data does not bear out this perception. Frequencies of Dun & Bradstreet data on California electric contractors (NAICS 17319903) and lighting contractors (NAICS 17319904) suggest that lighting vendors are not significantly more concentrated in Southern California

*Exhibit 4-3  
Vendor Density in the California IOU Service Territories*

	Number of Contractors	Total Sales	Total Employees	Average Sales	IOU Customer Sites <500kW (Electric and Gas)	Number of Contractors per Customer
PG&E	1159	\$2,134,279,774	16,627	\$1,841,484	523,383	0.0022
SDG&E	287	\$441,920,702	3,491	\$1,539,793	122,656	0.0023
SCE	979	\$1,845,711,111	17,725	\$1,885,302	344,094	0.0028

The gross numbers show more vendors in PG&E's service territory – more businesses, more employees, and higher sales. PG&E does not appear to be disadvantaged on a per customer basis, either. While the ratio of contractors to IOU customers is slightly smaller in PG&E territory, the difference is small.

***Challenges of Reaching Small Commercial Customers***

Vendors agree that small commercial customers are more costly to reach and less profitable than large customers.

- “If you’re working on a job, a \$400 job, you still have to send people out, invoice it – there’s a certain fixed cost to every contract. For a really low dollar value, it’s prohibitive even if you're doing a large number of small customers.”
- “Small customers are easier to do business with, but jobs must be of a certain magnitude to be profitable. They can’t be too small. That was one of the advantages of double rebates, it did allow you to work with much smaller customers and still be profitable.”



- Small customers don't have any money. The energy savings are real, but for a customer to spend \$4000 of his money to save \$250 a month doesn't seem to add up."
- "They spend equal time with a small and large business owner, they'd rather go to the large guy for more returns. Why spend an hour doing the same thing when you can get 200 bulbs instead of 20? Otherwise, we omit small businesses. That's when the vendor bonus kicks in, even \$100 an account helps them."

Many vendors see little reason to pursue small customers. As a result, some see opportunities in this overlooked market. "Our strategy puts us at the small business level, the most underrepresented market. The large guns in the industry get the projects at larger businesses, like Intel. But they don't want to do small jobs because the numbers aren't there. So we keep away from the large supplier who has material at a much better price than we do."

**Higher incentives** (including vendor bonuses) was the main solution advanced by vendors.

- "Without double rebates and bonuses, we pretty much eliminate anything that's very small."
- "The first thing utilities would have to do is make it very, very lucrative per fixture because there's so few of them. We can only schedule someone in so many places in one day."

One vendor suggested that higher incentives for <20kW customers must be combined with **direct marketing by utilities** to boost credibility. "Utilities would have to go out and see people face to face. A vendor coming in is just another sales person. I come in saying, "This is free." Half will not believe it. They look at you like you're a con man." But free lighting does create a problem. "The other half agree to the retrofit, but if it's free, there's no commitment to them. You arrange to do them and they say, "No, we're too busy now." But you can't do it after hours because they don't want to be there after hours. If you're only going in to do 10 fixtures, you can't afford to go back.

In addition, **small customers must be educated** because they are "not aware of energy management." One contractor suggested "more advertising to get the word out."

### ***Vendor Opinions on Express Program Concepts***

Lighting vendors were asked their opinions on the usefulness of three program ideas, shown in Exhibit 4-4. Vendors were asked their opinion about the following:

- Having access to customers' energy audit data to generate sales leads. The utilities conduct Audits, where customers answer questions about their business and its energy use, then receive a set of recommendations efficiency improvements. Would you find it useful to have access to energy audits?
- Meetings with community organizations to promote the program. The IOUs are looking for ways to help bring together prospective customers with vendors such as yourself. Some are holding meetings with Chambers and other community groups to

promote energy efficiency programs to small businesses. Would you be interested in attending such meetings with the utilities in order to market to small businesses?

- A list of utility-approved contractors to interested customers. What if utilities provided lists of approved contractors, who had been through a certification process, to their customers? Would that be valuable to you?

Two-thirds liked the idea of having access to customers' energy audit data. Forty-four percent believed CBO meetings would be very useful in marketing to small businesses. Thirty-eight percent strongly approved of the idea of lists of approved contractors who had been through a certification process.

*Exhibit 4-4  
Contractor Opinions on Express Program Concepts*

Program Idea	Usefulness to Vendor			
	Very	Somewhat	Not at all	N
Access to customers' energy audit data	66%	13%	22%	32
Meeting with community-based organizations to promote program to small businesses	44%	41%	13%	31
List of utility-approved contractors for customers	38%	34%	25%	31

- **Access to Audit Data.** Proponents saw customer audit data as a sales tool, a source of ideas and additional credibility. "It is reassuring to a customer when PG&E tells them for certain that they are going to save X amount of dollars. When it coincides with what we say, it nails it. We sometimes get a PG&E audit to verify our own audits."

Others conduct their own audits and were uninterested in duplication of effort. One took issue with the accuracy of IOU audits: "Those energy audit guys never count it right. The audit's always off. I know what can and cannot work. I audit it myself and specify different things, the most cost effective things. I re-check auditors' work when I go in."

- **Partnering with CBOs.** Few vendors who had attended such meetings had mixed experiences. "We've met with City of Palo Alto, with groups in the city, and with our CPUC contract, we meet with neighborhood meetings. It's really well-received." On the other hand, a vendor who had worked with SMUD said, "We find we don't get the business based on meeting with customers at the utility company's discretion. The communication process at those meetings is not good. The buying decision isn't made there; it's more of an informational meeting. We don't get any business out of it. We get 100% of our business in one-on-one time spent in that person's business, making them comfortable with its benefits."

- **Utility-Approved Vendor Lists.** Vendor opinion was also mixed about a list of certified contractors. One vendor maintained that small businesses do not pay attention to such lists, they just throw them away. Another doubted the quality of what IOUs endorsed. “A lot of shysters involved in all the utility’s programs last year. That list would be almost misleading to the customer who relied on it as a check that this was a legitimate distributor that would be there to support warranties and provide good product.”

### ***Drawbacks of Compact Fluorescent Bulbs***

Some contractors questioned the persistence of CFL savings. First, vendors pointed out that screw-in CFLs are replaced with incandescent bulbs when they burn out. Second, irregular installations necessitated rigorous inspection and slowed payment. Also, a few vendors believe the commercial market for compact fluorescent bulbs is limited.

**CFL Savings Do Not Persist** when screw-in bulbs are replaced with incandescents or stolen.

- Screw-in CFLs are replaced with incandescent bulbs
  - “As soon as they wear out, people screw in a 60-watt bulb. Junior making \$6.25 an hour screws in an incandescent when the CFL burns out. CFLs to small businesses are a complete waste of time.”
  - “CFLs do burn out. Three years later, the customer’s back to buying incandescent again, whereas T8 ballasts will last forever. Those savings are installed and they are there forever.”
  - “Rebate rules state that the customer can reapply after 5 years and/or the life of the lamp, but nobody takes a look at [lamp life]. Suppose a PG&E customer installed a lamp one or two years ago that’s rated at 7,000 hours. 7,000 hours has passed, the lamps have reached their capacity, customer is reapplying. PG&E says no ... This defeats the purpose of the program. After two years, the customer’s not willing to spend \$5-7 on a lightbulb again, so he converts it back to an incandescent. This does not benefit the utility.” Observed one large statewide vendor.
- Screw-ins Disappear
  - “People steal CFLs at a higher rate. Owners would complain about them disappearing, but the utility won’t rebate again for five years.”

**Irregular CFL Installations Required More Inspections.** Screw-in CFLs burdened the inspection process. As vendor remarked, “It’s real easy to write up a rebate and show some savings. But how many do you check?”

A couple of vendors confirmed the utilities’ problems with dropped shipment. For example, one vendor that no longer participates in Express reported problems with CFL installations in smaller hotels. Because hotel rooms are usually occupied, hotel management volunteered to install CFLs. “The people seemed to be veracity-challenged. They’d say, we’ve installed the rest of them, it’s all done. We call for an inspection, and learn they hadn’t done anything. Inspectors wouldn’t even tell us there’s a problem, they’d just deny the rebate.”

Such situations prompted SDG&E to consistently ask for re-inspection in 2002. One contractor observed that PG&E's experience was similar: "PG&E received so many applications that approached fraud that they checked everything out very carefully. Those [contractors] doing it as best they could were being punished for those who were not. PG&E was taking way too long to pay. We had to get in pretty severe hassles with them over whether/not certain rebates would be different than what we applied for. We argued with them, requested new inspections ... on certain jobs, we had to eat it ... we did the jobs they claimed we didn't, that sort of thing. That's one of the problems with double rebates and bonuses - it encourages irregular installation."

**Limited Commercial Market for CFLs.** A few vendors believe that the commercial CFL market is too small; one even claims saturation in his territory.

- "With CFLs, there's only a limited number of places that have any quantity of them. It doesn't pay to do 30 of them."
- "CFLs are not a big commercial market. We'll put 30 in the lobby of a building - not a big deal, but in anything other than large buildings ... And it's already been done."
- "We don't do much in San Diego much anymore; the CFL market's saturated there."
- "CFLs are not used in small commercial with any regularity - only with a program where they're darn near free."
- CFLs makes sense in the residential market. The utilities should concentrate totally on residential, where the homeowner's actually paying the bill. The products are available; EnergyStar products are showing up at supermarkets and home centers where homeowners can get them. People are starting to see they make sense."

### ***Impact of Third Party Programs on Lighting Vendor Participation***

Lighting vendors were candid about their hunt for the best rebates. They are aware of how other programs' rebates stack up to Express.

- "We work with various third party rebate programs. We do a lot of work with Stockton, Berkeley, Lightwash. Of all of our business, maybe 30% of these types of projects will be through Express."
- "SPC pays twice as much money so we go thru Express only when we have to."
- "Turnkey was the best because it covered the total cost of the products, and the inflation, where Express is only a fraction of the cost. We've done 3000 customers with Turnkey and SGE rebate ... The [Express] rebate doesn't cover the expense. For example, Express Efficiency 2003's lighting rebate on a 5-13watt bulb is \$1.50. You can't even buy the lamp for that much. Yet we're supposed to do that for customers. But with Turnkey, there's no cost to customers. In 2001, that same lamp was rebated at \$11. And now they're going to give you \$1.50."

- “There was a major reduction in rebate amount - T8s, everything. The rebate covered cost and labor in 2001, but not in 2003 ... We're working with EnergySmart Groceries, retrofitting several stores.”

### ***Vendor Suggestions For Program Enhancements***

**Express Rebates for Additional Technologies.** Vendors wish to see a variety of technologies rebated under the Express program.

- One large retrofit contractor urged the utilities to rethink incentives for interior HID lighting due to poor lighting quality in interior application.
- The Express program, which rebate induction light bulbs, does not explicitly support high bay applications. A maintenance vendor would like to see the utilities “do a lot more for induction lighting,” noting that his company was one of the few pushing induction lighting in high bay applications that require special equipment.
- One very large design and build lighting retrofit contractor that supplies ESCOs encouraged the utilities to “place more emphasis on improving lighting quality. Instead of making a bad system more energy efficient, make the system better quality.”
- A maintenance company that deals with photocell systems recommends changing the rebate from \$3.50 per photocell to a rebate based on the number of fixtures *operated by the photocell*, as they replace time clocks that operate common area with 50 or more lights. While this approach may garner more savings, utilities should not offer incentives that are greater than incremental cost.

### **Process Issues**

- *Better Utility Communication.* Vendors mentioned timely communications, an updated website (I look on the website to get the forms and they're weeks late”), and more outreach to small customers and end users.
- *Start the program on January 1.* “Don't wait 5 months to start program, make sure it starts on time.”
- *Faster rebate turnaround*
- *Eliminate the separate payment release form on the application*
- *Accommodate multiple account numbers on an application.* “Some people have 20 accounts, that's 20 applications, 20 invoices.”
- *Improve vendor credibility* through a certification process for contractors that produces “a letter from utility saying contractor has been approved for this kind of work” and something in writing that validates energy savings, telling customer they would save so much based on the installation, backed by PG&E credibility.”

- *Offer pre-inspections* in order to reduce the risk of non-payment (“pre-inspection would really make the outcome much more sure. That would encourage me a lot”) and avoid “the long delays with post-inspections.”

### **Rebate Recommendations**

- *Higher Rebates*
- *Base rebate amount on deemed savings.* Using deemed savings to determine retard levels, as some third party programs do offer the utilities “a lot more energy savings for the buck.”

### **Customer Eligibility**

*Do not accept reservations if the account does not qualify.*

*Clarify what equipment and customers are eligible.*

*Allow chains to participate.* Vendors strongly objected to the aggregation rule imposed upon the 2002 Express program. Hotel suppliers were most vocal about their upset customers. One observed, “We can’t do any rebates on a DoubleTree Hotel where 350 rooms that converted 5 years ago. Interior decorators come through, threw everything away. It’s all incandescent again.”

*Open Express to large customers.* “We’re in a power crunch. Reducing nothing to nothing is nothing. Taking 50kW out of the grid is useless. Take out the biggest chunks.”

*Target market segments with quick paybacks.* One vendor encouraged the utilities to target high-potential market segments. For example, LightWash is a third party program that deals with coin-operated laundries and convenience stores because these businesses have long hours of operation. They offer double rebates for them because they’re open 100-105 hours a week, whereas the average business is only open 50. Coin-ops and convenience stores have faster paybacks than other small businesses.

## 5. *HARD TO REACH CUSTOMER ASSESSMENT*

The IOUs have spent considerable effort pursuing customers that the CPUC has identified as “hard to reach”: businesses that lease space, occupy rural areas, do not speak English as a primary language, or are small in size (<20kW). An overarching objective of this evaluation is to examine the HTR customers’ energy efficiency choices. Has Express Efficiency been successful in reaching these customers? How have the IOUs marketed to these customers? Where do gaps exist? Which HTR customer segment is hardest to reach?

This chapter examines IOU interactions with hard-to-reach customers in several ways:

- **HTR Participation Analysis.** We assessed recent program rebates paid out to nonresidential customers compared to the public goods charge (PGC) contribution made by these customers (through utility bill payments).
- **HTR Program Awareness.** We report HTR segments’ Express Efficiency awareness rates and sources of awareness to determine how HTR customers are learning about Express Efficiency.
- **Tenants.** We examined the energy efficiency behavior of businesses that lease space, one of the largest HTR segments, using customer survey data.
- **Community Marketing to HTR Populations.** We assessed the effectiveness of CBOs as a delivery mechanism for the Express Efficiency program, using interviews with CBOs, program staff and customers.

### 5.1 *HARD-TO-REACH CUSTOMER PARTICIPATION*

We assessed HTR participation by examining the relative success of the program in distributing incentives equally to HTR and non-HTR customer segments over time.

#### *HTR Benefit/Contribution Analysis*

We assessed recent program rebates paid out to <500kW nonresidential customers compared to the public goods charge (PGC) contribution made by these customers (through utility bill payments). The CPUC has placed significant emphasis on targeting HTR customer segments due to its belief that there have been inequities among these customer segments that have contributed to the PGC funds, but have not explicitly benefited from the energy efficiency programs funded by the PGC.

## **Methodology**

The benefit/contribution ratio describes the relative success of the program in distributing incentives equally, based on total dollars paid in public purpose program (PPP) charges<sup>1</sup>. A ratio of one indicates that a given segment is on equal footing with the entire nonresidential population. For a given customer segment, a ratio greater than one indicates that they received more benefit (program rebate) per dollar of PGC contribution than the population on average. Similarly, a PGC ratio less than one indicates that the customer segment received less benefit per dollar of PGC contribution than the population on average.

To determine if certain customer segments were underserved, comparisons were drawn between the total amount of PPP funds that were contributed by a customer segment and the amount of program rebate that the customer segment received. Using CIS utility gas and electric bill payments, the amount of PPP contribution for the entire population was calculated, as well as for HTR customer segments. Using program-tracking data, the amount of program rebate received was calculated for the entire population and also for HTR customer segments.

The ratio of rebate to contribution was then calculated for the population, and for each HTR segment. This ratio (termed the benefit/contribution ratio) was then normalized, such that it is 1.0 for the population.

It is also very important to note that in 2002-2003, many local third-party CPUC programs were funded by the PGC that targeted the HTR segments and offered identical measures as Express. Benefits from these programs are not included in this analysis. Combining the benefits obtained from both Express and these third-party programs would likely increase the benefit contribution ratio for the HTR segments. Therefore, it may not be necessary for the Express program to achieve an equitable distribution of benefit to all HTR segments given there are other PGC funded resources providing these benefits.

### ***PY2002 HTR Accomplishments***

Exhibit 5-1 summarizes the Express Efficiency HTR accomplishments for each of the four IOUs. The table shows the percentages of the Express Efficiency applications coming from HTR segments. It also shows the amount each HTR segment paid into the PGC in 2002 (estimated as described above) and the Express Efficiency rebates they received. The ratio of the PGC dollars paid to the rebates received for each segment we refer to as the PGC ratio, and these are shown for various segments in the table below. Finally, the HTR goals and IOU-reported results for 2002 are presented.

For the purposes of tracking HTR accomplishments, each IOU defined what constituted the target HTR population slightly differently. PG&E and SCE classified HTR as only very small and/or rural customers whereas SDG&E and SCG included very small, rural, non-English, companies with less than 10 employees, and renters as their HTR customers. Some of the flags making up these HTR definitions were available only on the participant tracking data and not

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<sup>1</sup> PPP charges on utility bills include funds collected for energy efficiency, low income and renewable energy programs. The PGC ratio is calculated using total PPP due to difficulties encountered in extracting the funds collected for energy efficiency programs alone.



on the CIS thus making it impossible to calculate the PGC ratios for every HTR definition. For this reason PGC ratios were calculated for only very small, rural and very small or rural HTR segments, however the participation percentages and rebate paid percentages were provided for each unique IOU HTR definition. All customers eligible to participate in the Express Efficiency program in 2002 (defined by an aggregate customer level demand < 500 kW) were included in the population used to normalize the benefit/contribution ratios.

**Exhibit 5-1**  
**2002 Express Efficiency Program Hard-to-Reach**  
**Benefit/Contribution Analysis**  
**Excluding Large Chain Accounts**

IOU	HTR Segment	Application Percent	PGC Paid Percent	Rebate Percent	PGC Ratio	2002 Goal	IOU Results
PGE	Very Small	53%	45%	32%	0.70	41%	41%
SCE	Very Small	54%	27%	20%	0.75	N/A	N/A
SCG	Very Small	27%	35%	18%	0.51	N/A	N/A
SDGE	Very Small	42%	39%	24%	0.62	N/A	N/A
Statewide	Very Small	52%	38%	26%	0.68	N/A	N/A
PGE	Rural	45%	45%	50%	1.11	40%	34%
SCE	Rural	15%	9%	17%	1.80	N/A	N/A
SCG	Rural	11%	22%	10%	0.47	N/A	N/A
SDGE	Rural	3%	9%	3%	0.36	N/A	N/A
Statewide	Rural	26%	25%	28%	1.05	N/A	N/A
PGE	Very Small/Rural	73%	71%	62%	0.88	N/A	75%
SCE	Very Small/Rural	61%	33%	34%	1.00	47%	56.6%
SCG	Very Small/Rural	36%	49%	28%	0.57	N/A	N/A
SDGE	Very Small/Rural	44%	42%	27%	0.65	N/A	N/A
Statewide	Very Small/Rural	63%	52%	44%	0.82	N/A	N/A
SCG	Rent/Rural/Lang/Small # Emp/Thm usage	42%	N/A	34%	N/A	42%	42%
SDGE	Rent/Rural/Lang/Small # Emp/Small	66%	N/A	53%	N/A	59%	66%

In 2002, HTR participation goals were set on an application level. Exhibit 5-1 illustrates that a weakness of this approach is that achieving these goals does not necessarily mean the HTR segment has received their equitable proportion of the PGC dollars collected. In 2002 small customers on a statewide level accounted for 52% of the Express applications, however due to the size of the rebates, they received only 26% of the total rebate dollars. Setting HTR goals based on the portion of PGC dollars each HTR population contributes, and then measuring the accomplishments based upon total rebates received would ensure a more equal distribution of funds to each HTR segment.

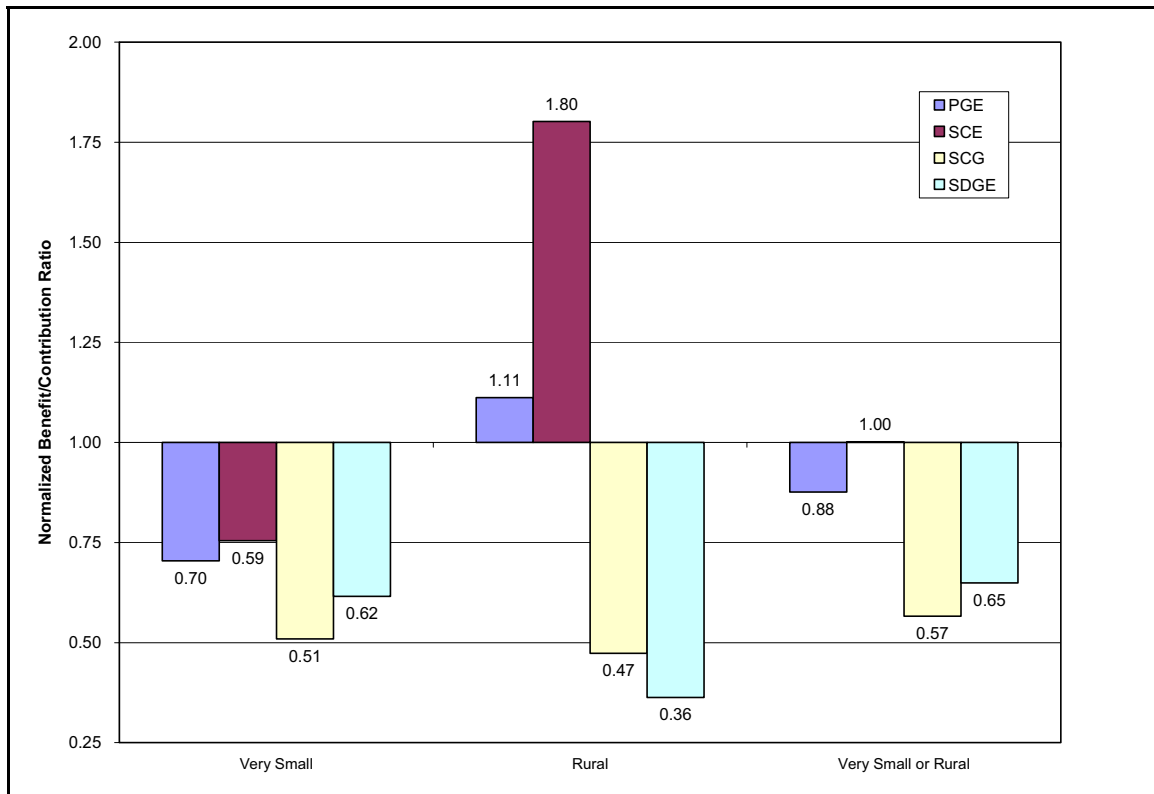
Exhibit 5-2 presents the PGC ratios by IOU for the very small and rural segments separately, and combined. Statewide the program did well in meeting its HTR goals. However, on a PGC benefit-contribution basis, the results are more mixed. Overall, rural customers were well served, however very small customers paid into the PGC significantly more than the benefit they received (all PGC ratios are less than 0.8). It is important to consider that small customers are more costly to serve than other segments. Because costs associated with application and incentive processing and conducting inspections do not vary much with job size, these fixed

administrative costs per rebate dollar paid are significantly higher for smaller customers. Since these administrative costs are paid by PGC funds, and are in a sense a “benefit”, very small customers should have a PGC ratio (in the way it is presented and calculated here) less than one in order to remain equitable.

Combined, very small and rural customers have a PGC benefit of 0.82. Interestingly, these customers comprised 63% of the applications, versus 52% of the PGC paid. From that perspective, they were well served.

Below we discuss the accomplishments for each IOU.

**Exhibit 5-2**  
**2002 Express Efficiency Program Hard-to-Reach**  
**Benefit/Contribution Analysis for HTR segments by IOU**  
**Excluding Large Chain Accounts**



### PG&E PY2002 Accomplishments

PG&E was the only IOU to set separate goals for the small and rural HTR segments. Our analysis found PG&E rebated 53% of their applications among very small customers surpassing their goal of 41%. It is important to note that this is different than what PG&E reported in their Updated Fourth Quarterly Program Report to the CPUC in May 2003. We believe PG&E may have calculated their HTR accomplishments as a percentage of line items (i.e., measures) in

their database instead of applications. Because larger customers typically submit more measures on an application than a smaller customer, the percentage of very small customer applications is larger (53%) than the percentage of very small customer line items (41%). Furthermore, PG&E took a more conservative approach when claiming accomplishments for the rural HTR segment. They excluded all very small customers from the calculation, so as not to double count a customer in multiple HTR categories. Therefore, 34% of the applications that were not from very small customers, were rural. However, when PG&E reported that 75% of the applications were small or rural, they likely added the 41% to the 34%, which is incorrect. The 34% is of the remaining 59% that are not very small, which equates to 20% of the population.

In any case, our analysis, based on applications, indicated that they did meet their CPUC HTR performance target, and that 73 percent of the applications received were either very small or rural. This equated to 62% of the rebate dollars, compared to these customers having paid 71% of the PGC. By individual HTR segment, 53% of the applications and 32% of the rebate were very small compared to a PGC contribution of 45%. Similarly, 45% of the applications and 50% of the rebates were among rural customers, compared to a PGC contribution of 45%.

Overall it would appear that PG&E did very well in serving these two HTR segments, especially from an application perspective.

#### **SCE PY2002 Accomplishments**

SCE also exceeded its HTR target of 47% small or rural applications, which was verified by our analysis. Although very small customers comprise 54% of SCE's 2002 applications, the amount of the rebates paid to these customers is relatively small. The result is that very small customers received only 20% of total rebates. These customers pay in 27% of the total PGC, resulting in a PGC ratio of 0.75. SCE's rural customers account for 15% of the total applications they processed. They received 17% of the total rebates and accounted for 9% of the PGC funds resulting in a very high PGC ratio of 1.80.

Overall, it would also appear that SCE did well in serving these two HTR segments, especially from an application perspective.

It is important to note that SCE used a different approach to calculate their HTR accomplishment of 56.6%, which was reported in their Updated Fourth Quarterly Program Report to the CPUC in May 2003. SCE calculated the number of applications that were from very small customers and added it to the number of applications from rural customers, thereby double counting any applications from customers that were both rural and very small. However, when calculating the percentage of applications from HTR customers, SCE divided by the number of measure types installed instead of dividing by the number of applications (i.e., if an application had two measure types, for example CFLs and T-8s, that application would be double counted in the denominator). By chance, these two differences in methodology nearly canceled each other out, and SCE's calculation resulted in a value of 56.6% which was just below the 61% calculated using QC's evaluation methodology.

SCE used this methodology on its 1999-2001 historical participation data in order to develop their HTR target. Therefore, based this methodology, SCE exceeded their historic performance (as is evident in Exhibit 5-5, which indicates that rebates paid to rural and very small customers

has increased dramatically over program years 2000 and 2001). Furthermore, using QC's evaluation methodology, SCE also exceeded their target, and also distributed the program's rebates very equitably with a PGC ratio of 1.0 among very small and rural customers.

In the future, we would recommend that SCE use the methodology implemented in this evaluation to set HTR targets and measure accomplishments.

### **SCG PY2002 Accomplishments**

Our analysis verified that SCG met its goal of having 42% of the applications submitted by any of the four HTR segments. SCG paid out 18% of their 2002 express efficiency rebates to very small customers which is barely half of what that HTR population contributed, resulting in a PGC ratio of 0.51 for the very small HTR segment. Furthermore, only 27% of the applications were from very small customers, the lowest of all four IOUs. The rural population received only 10% of rebates, and paid in approximately 22% of the total PGC dollars SCG collected. Furthermore, only 11% of the applications were from customers in rural areas. Combined, the very small and rural segments accounted for only 36% of the applications and only 28% of the rebates, compared to 49% of the PGC contribution. When they included the other HTR segments (renter, non-English and therm usage) SCG achieved their goal of receiving 42% of their applications from the HTR segments. These HTR segments received approximately 34% of the total rebates in 2002

Overall, SCG did meet its performance target, however, it had the lowest PGC ratio among the four IOUs of only 0.57 among very small and/or rural customers. Neither very small nor rural customers were well served with respect to either applications or rebates paid.

### **SDG&E PY2002 Accomplishments**

SDG&E exceeded its goal of having 59% of the applications submitted by any of the four HTR segments, which was verified by our analysis. Very small customers contribute nearly 40% of SDG&E's total PGC dollars collected and receive only 24% of the overall Express Efficiency rebates (despite submitting 42% of the applications), which results in a PGC ratio of 0.73. SDG&E's rural population is quite small and makes up only 9% of the PGC dollars paid. However, only 3% of the applications and rebate dollars were from customers in rural areas. The resulting PGC ratio for rural was 0.36, the lowest for any utility and HTR segment. Combined, the very small and rural segments accounted for 44% of the applications and only 27% of the rebates, compared to 42% of the PCG contribution. As mentioned, SDG&E had a goal set of receiving 59% of their applications from HTR customer and surpassed that goal by bringing in 66% of their applications from HTR segments including renters, rural, non-English, companies with less than 10 employees, and very small customers. These HTR segments received approximately 53% of the total rebates in 2002.

Overall, SDG&E did meet its performance target, but had mixed results among the very small and rural segments. Combined, the two segments were well served with respect to the number of applications submitted, but had a PGC ratio of only 0.65. These statistics are similar for the very small customers segment alone, but worse for the rural segment. Given that the rural segment is so small for SDG&E it may be too narrowly defined to be able to be effectively addressed.

## PY2002 HTR Renter Accomplishments

Renters were analyzed separately since it is more difficult to determine renters versus non-renters for commercial customers. In this analysis renters were identified using survey responses from the participant and general population surveys. Because the general population survey for SCG was pulled only from SCE's CIS (due to the overlapping service territories), SCG was excluded from the HTR Renter analysis (we could not calculate the PGC contribution without linking the survey data to the SCG CIS). Additionally, participation for this analysis was calculated on a measure level rather than on an application level.

*Exhibit 5-3  
2002 Express Efficiency Program Hard-to-Reach  
Benefit/Contribution Analysis for the Rental Population (based on survey data)*

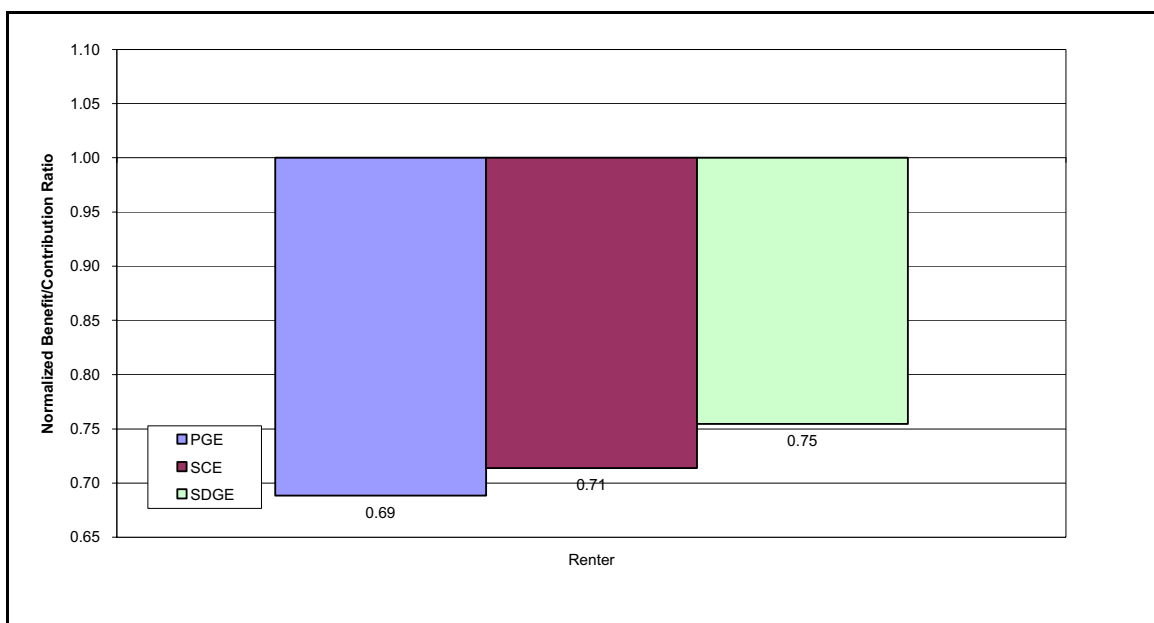
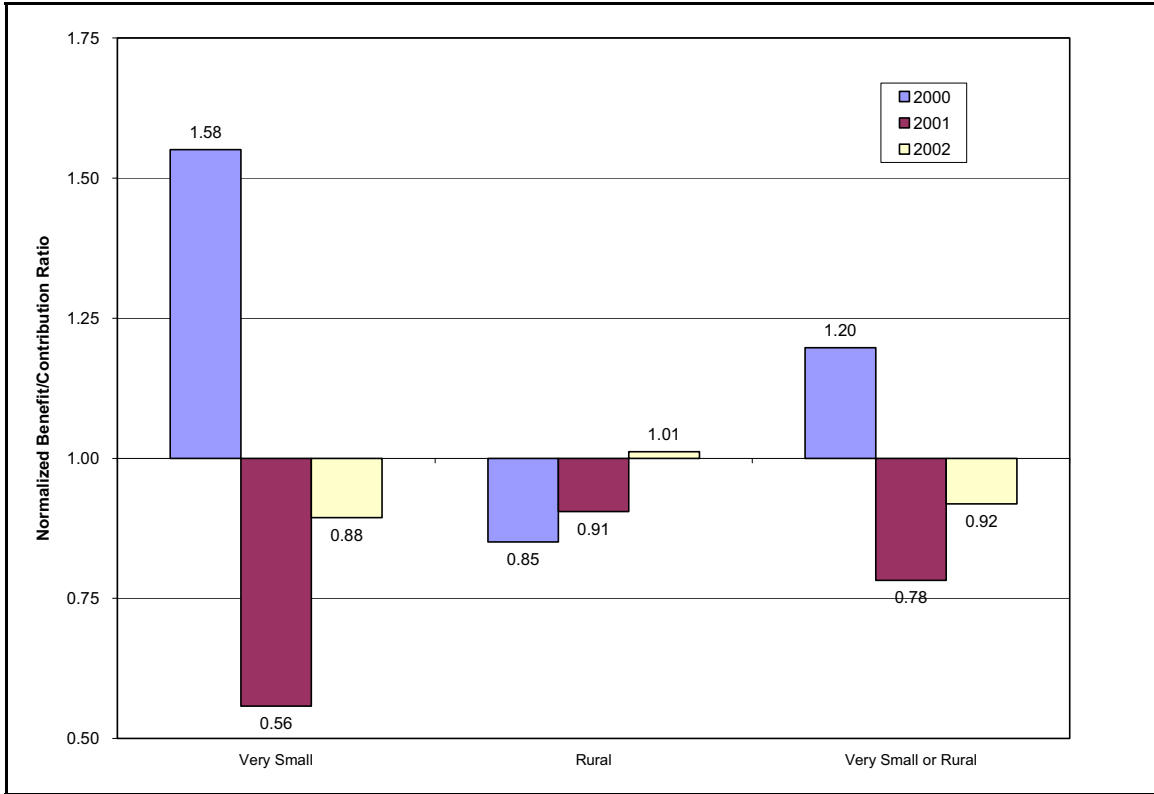


Exhibit 5-3 shows the 2002 Benefit/Contribution ratios for PG&E, SCE and SDG&E for the Renter HTR segment. Overall, renters were fairly well served.

### ***Trends in HTR Accomplishments, PY2000-02***

Exhibit 5-4 illustrates how the Express Efficiency program performed between 2000 and 2002. The majority of the shifts between years for the small HTR population can be attributed to a combination of the program eligibility requirements and the IOUs' marketing strategies. In an effort to make an equal comparison between program years 2000, 2001 and 2002 despite the changes that occurred in program eligibility, one consistent population was used to normalize the benefit/contribution ratios. This consistent population includes all customers with less than < 500 kW of demand regardless of their aggregated demand, which is consistent with current PY2003 eligibility.

*Exhibit 5-4  
Express Efficiency Program Hard-to-Reach  
Benefit/Contribution Analysis for Program Years 2000-2002  
Excluding Individual Accounts >500kW*



In 2000, large customers were not eligible for the program but customers who aggregated to over 500kW were allowed to participate. In this year all utilities saw high participation rates from very small customers and on a statewide basis applications from very small customers made up 89% of the total Express Efficiency applications. In 2000, PG&E's Express Efficiency applications accounted for 88.5% of the statewide totals, and 91% of the applications PG&E processed came from the very small customer segment. This was primarily due to large incentives PG&E paid to program vendors. SDG&E had the second largest quantity of applications in 2000 and 99% of the applications they received came from very small customers.

In 2001, large customers were allowed to participate in the program, and the vendor bonus was not as prevalent. As a result of these two changes there was a major decrease in the percent of applications received from the very small HTR segment as well as a large drop in the percent of the PGC funds they received (note, however, that if large customers were included in the PGC contribution calculation, then the PGC ratio for very small customers would likely have been greater than one).

In 2002, the large customers were again excluded, as were customers who had an aggregated demand of more than 500kW. As a result, the very small customer segment was much better served, with a PGC ratio of 0.89. As discussed above, due to the costs associated with serving these customers, 0.89 is very equitable.

The rural customer HTR segment did not seem to be as heavily impacted by changes in the program policies. This is not surprising since the rural HTR population is less correlated with the size participation rules. Overall, rural customers were well served, particularly in 2002 when the PGC ratio was 1.01.

### ***Program Goals for 2003***

Exhibit 5-5 compares the Express Efficiency program trends for 2000 through 2002 along with the program goals for 2003.<sup>2</sup> The accomplishments are presented in terms of the percent of Express Efficiency rebates received by the HTR segment, however goals are set as a percentage of applications rebated. In 2003 customers with demand greater than 500kW are ineligible for the Express Efficiency program, regardless of their aggregate demand across multiple sites. Thus, the eligible population used to normalize the PGC ratios excludes fewer customers than in 2002.

For PG&E and SCE, based on their performance in 2002, and given that their goals have not changed, it is likely that if they meet their goal, they will also achieve an equitable distribution of rebates to both the very small and rural segments. However, this is not the case for SCG and SDG&E, both of whom met or exceeded their HTR goals in 2002, but did not equitably serve the very small and rural segments.

In the future, when setting goals for HTR accomplishments the following should be considered:

- If the objective is to spend the PGC dollars equitably, measuring accomplishments in terms of rebates may be more appropriate than applications. However, if the objective is to reach the HTR segments, applications is appropriate.
- Serving the HTR segments are more costly, especially the very small. Therefore, to remain equitable, given the way the PGC ratios are constructed here, goals should *not* be set to achieve a ratio of 1 or more.
- Some HTR segments are better served by different program intervention strategies. Therefore, goals should be set differently (e.g., lower) for individual HTR segments (e.g., for segments with specific barriers that a program intervention strategy is not designed to overcome), and set appropriately.
- Similarly, some HTR segments are easier to serve than others. If an aggregate HTR goal is set, as opposed to individual HTR segment goals, then some HTR segments may be over-served to reach the aggregate goal.
- In 2002-2003, many local third-party CPUC programs were funded that targeted the HTR segments and offered identical measures as Express. It is likely that in 2004-05, this will also be the case. Therefore, it may be the case that Express should be targeted more at the non-HTR segments, which the Express program is likely to be capable of

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<sup>2</sup> 2003 goals for SCG, SCE and SDG&E were not set at the individual level for small or rural segments, so they are denoted as N/A in Exhibit 5-5.

serving more cost-effectively. Without considering the benefits received by these third-party programs, it is very likely that many HTR segments are being over-served relative to their PGC contribution.

**Exhibit 5-5**  
**Express Efficiency Program Hard-to-Reach**  
**Accomplishments for 2000-2002 and Goals for 2003**  
**Excluding Individual Accounts >500kW**

IOU	HTR Segment	2002 PGC Percent	Accomplishments			Normalized PGC Ratio			2003 Goals
			2000	2001	2002	2000	2001	2002	
PGE	Small	33%	71%	20%	32%	2.11	0.58	0.95	41%
SCE	Small	17%	16%	4%	20%	0.94	0.23	1.23	n/a
SCG	Small	31%	25%	80%	18%	0.79	2.55	0.57	n/a
SDGE	Small	42%	71%	18%	24%	1.71	0.44	0.58	n/a
Statewide	Small	30%	67%	18%	26%	1.55	0.56	0.89	n/a
PGE	Rural	45%	50%	45%	50%	1.11	0.99	1.10	40%
SCE	Rural	10%	8%	8%	17%	0.80	0.80	1.71	n/a
SCG	Rural	21%	18%	8%	10%	0.87	0.38	0.49	n/a
SDGE	Rural	7%	1%	1%	3%	0.13	0.16	0.47	n/a
Statewide	Rural	25%	39%	36%	28%	0.85	0.91	1.01	n/a
PGE	Small&Rural	64%	85%	54%	62%	1.33	0.85	0.96	n/a
SCE	Small&Rural	25%	22%	11%	34%	0.90	0.46	1.36	47%
SCG	Small&Rural	46%	39%	81%	28%	0.84	1.78	0.60	42%*
SDGE	Small&Rural	44%	71%	19%	27%	1.60	0.43	0.61	59%*
Statewide	Small&Rural	47%	79%	47%	44%	1.20	0.78	0.92	n/a

\* 2003 Goals for SCG and SDG&E include more than just Small and/or Rural HTR segments.

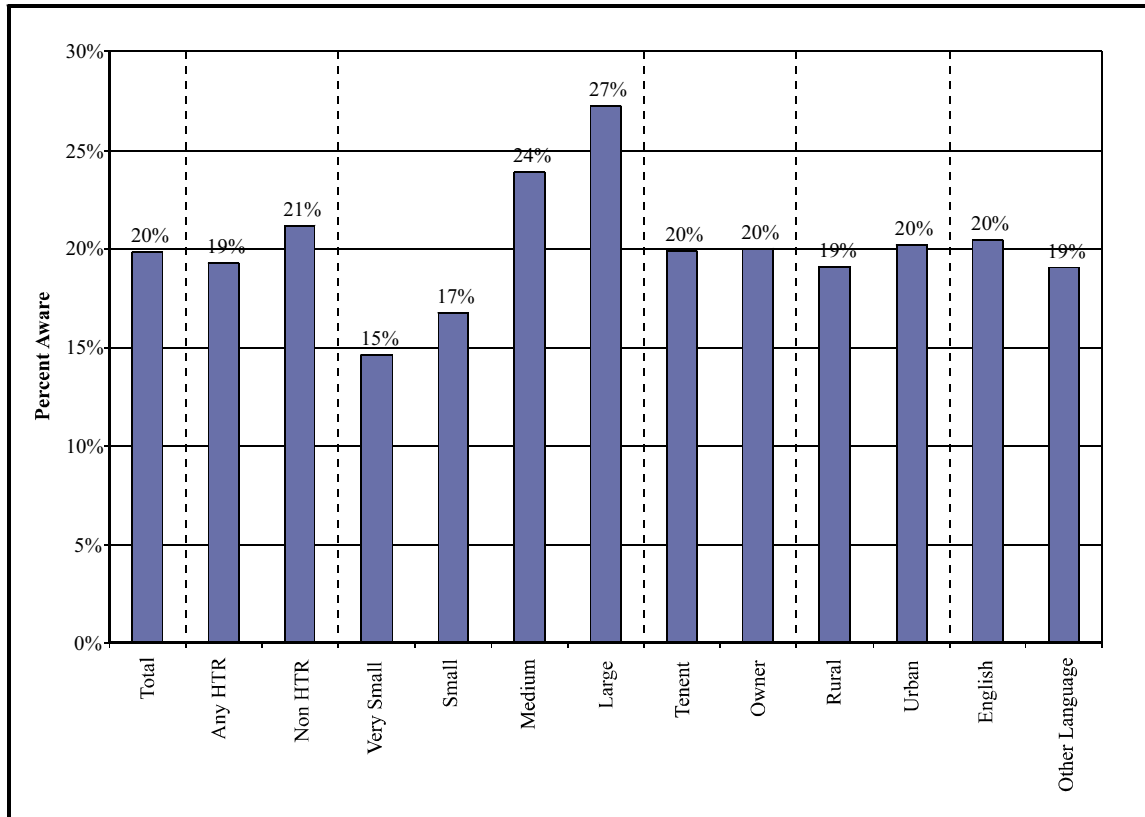
## 5.2 HTR PROGRAM AWARENESS<sup>3</sup>

Exhibit 5-5 shows awareness by HTR segment. Awareness rates among HTR segments do not vary as widely as participation rates, with the exception of business size. **The larger the customer, the more likely they are to be aware of the Express program.** Tenants are as aware of Express as the population, but participate at a lower rate. Tenant-specific barriers likely drive their low participation rate.

<sup>3</sup> Appendix Exhibit A5-1 (Awareness of Utility Programs and Resources), Appendix Exhibit 5-2 (Awareness of Express Efficiency-unaided), Appendix Exhibit A5-3 (Awareness of Express Efficiency-aided), Appendix Exhibit A5-4 (Sources of Awareness).



**Exhibit 5-6**  
**Express Efficiency Awareness (unaided)**



**Sources of Awareness.** Customers became aware of the program in a variety of ways, as reported in Chapter 3 (Process Assessment). The following exhibits compare how HTR customers in the general population and participants became aware of Express through mass media, IOU representatives and trade allies.

Contractors are very effective at getting customers to participate, demonstrated by the fact that 12% of the general population learns of Express through a contractor compared with 36% of Express participants, shown in Exhibit 5-7. Contractors look especially successful compared to mass media, where the population is far more aware (55%) than participants (17%). Customers that participate tend to be the ones that become aware of the program through contractors. Moreover, the contractor effect is independent of HTR status, as roughly a third of all HTR segments (small customers, tenants, rural customers, speakers of other languages) learn of Express through a contractor.

However, contractors are not pursuing many HTR customers. Contractors did not make much contact with very small customers (<1%) in the general population. Only 8% of tenants and 2% of rural customers learned of Express through a contractor. Contractors are clearly effective in generating participation, as is evident by the fact that a third of HTR participants become aware of the program through contractors. However, contractors need more incentive to target HTR segments because the HTR population in general does not become aware of the program via contractors.

**Exhibit 5-7**  
**Percentage of HTR Segments That Learned of Express from a Contractor**  
**- Among Aware Customers**

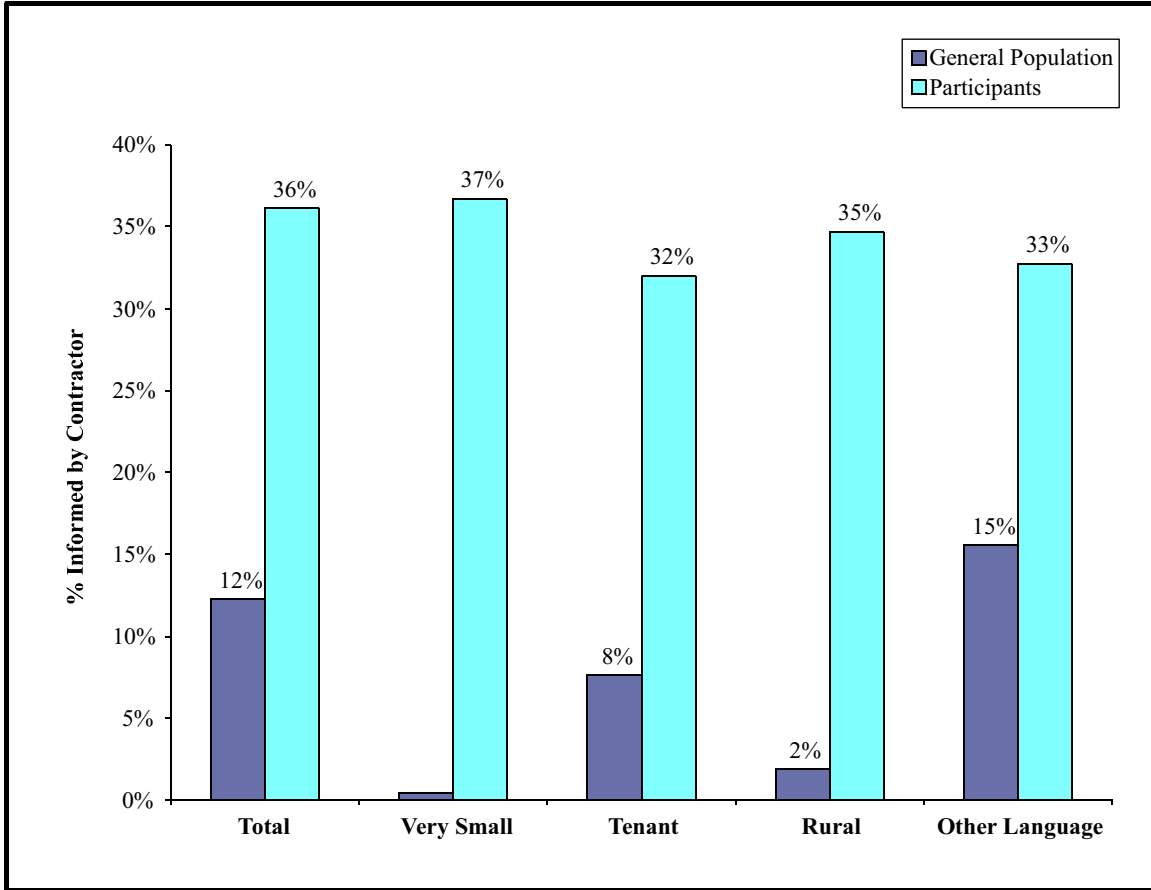


Exhibit 5-8 shows mass media sources of awareness (utility brochures, bill inserts, TV/radio/newspaper ads) for participants and the general population. Mass media made many customers aware of the program, but is not very effective in moving them to participate. For example, 55% of the general population learned of the program through mass media, but only 17% of participants became aware of the program that way. Mass media is the primary way that HTR customers learn about Express Efficiency – three of four small customers, two-thirds of tenants, rural customers and speakers of other languages. Customers that participate – regardless of HTR status – tend to find out about program through contractors, not mass media.

**Exhibit 5-8**  
**Percentage of HTR Segments That Learned of Express from Mass Media**  
**- Among Aware Customers**

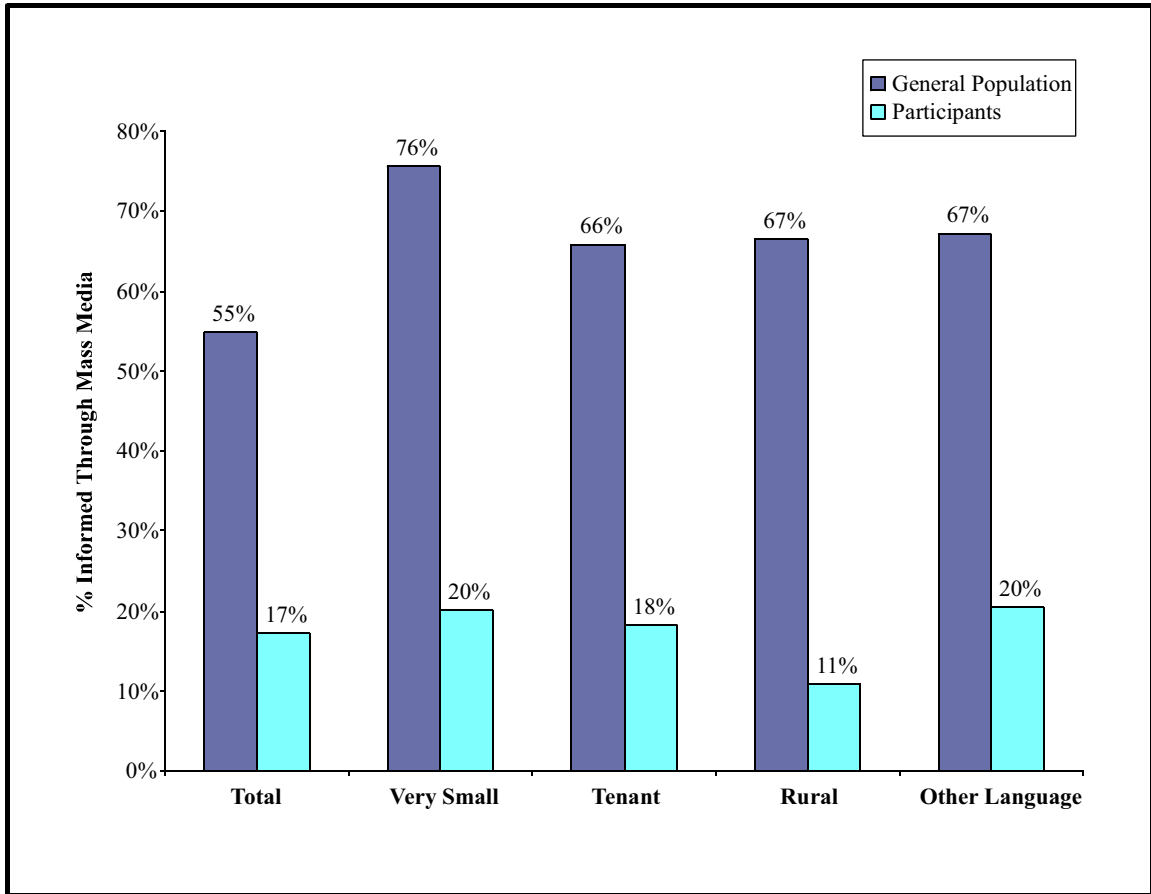
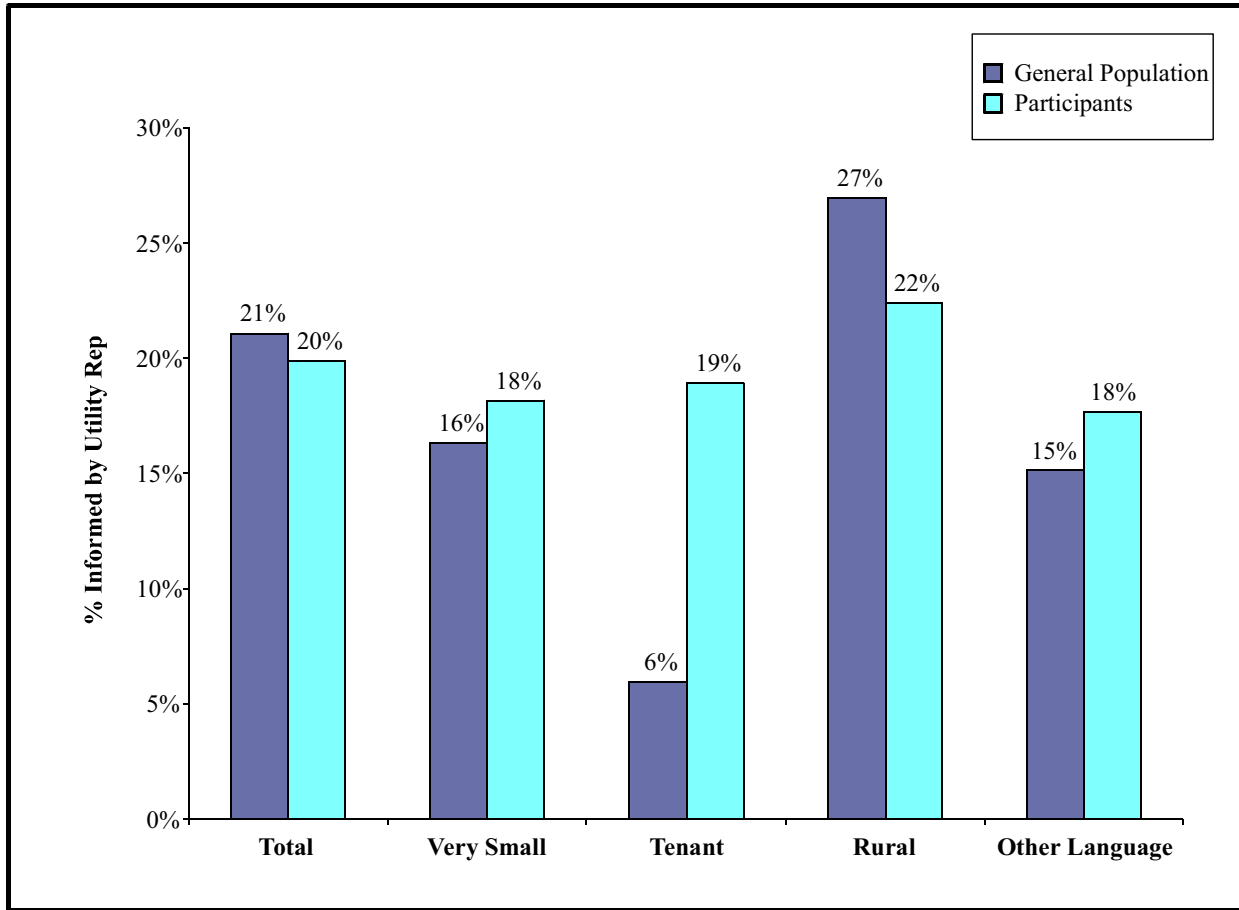


Exhibit 5-9 shows the percent of HTR customers that learned of the program from a utility representative. No dramatic differences between the population and participants exist with respect to representatives, suggesting that utility representatives are neutral in their effectiveness in moving customers to participate. Twenty percent of participants learned of the program through a utility representative. Representatives are canvassing HTR segments about as much as the population.

**Exhibit 5-9**  
**Percentage of HTR Segments That Learned of Express from a Utility Representative**  
**Among Aware Customers**



### 5.3 TENANTS AND ENERGY EFFICIENCY

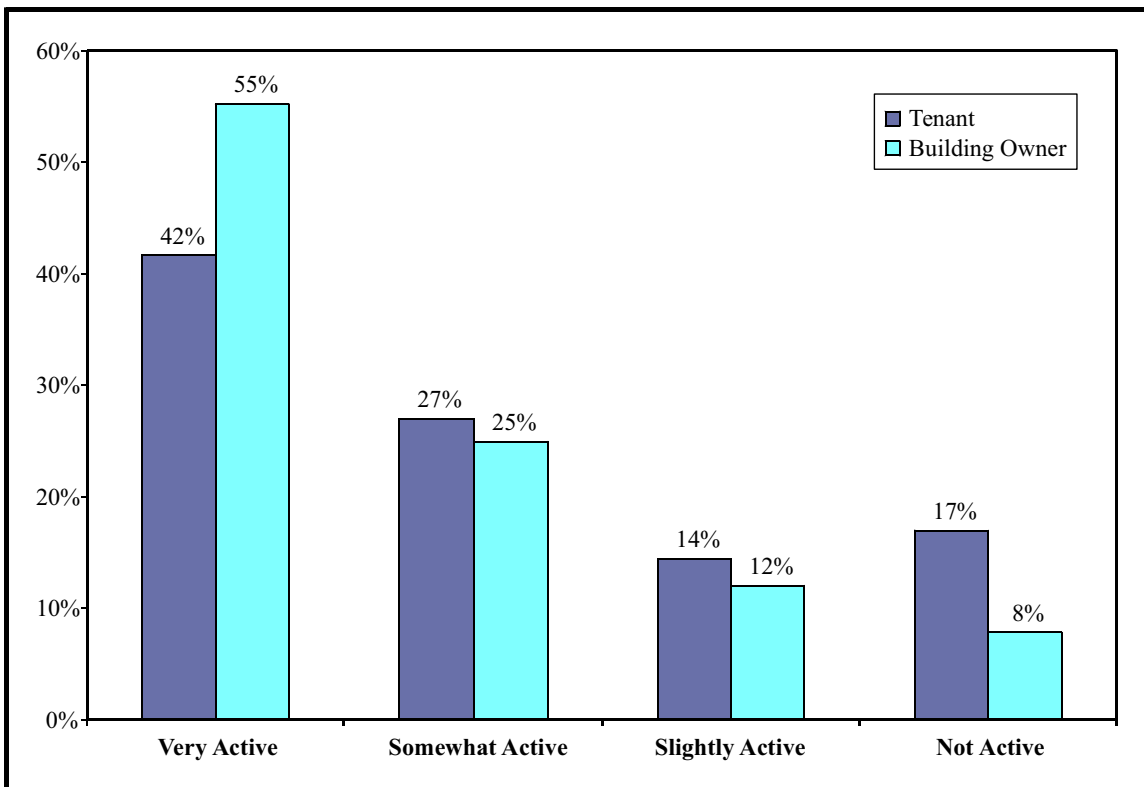
The 2002 Nonresidential General Population survey indicates that businesses that lease space make up 41% of the customer population.<sup>4</sup> Tenants may even be underreported, as this percentage does not reflect customers in selected business segments who report owning their space, such as office buildings, who are building operators who lease out the space to multiple tenants under lease arrangements where the landlord pays the utility bill. With so many customers in rented space, it becomes important to understand renters’ leasing arrangements and their energy efficiency decisions.

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<sup>4</sup> These include renters represented in the utilities’ CIS (people that pay their own bill). See Appendix Exhibit A5-5 (Percentage of Renters in General Population)

Tenants are not making many energy efficiency improvements.<sup>5</sup> Outside of the program, owners are twice as likely than tenants to upgrade their lighting and cooling equipment. It is unlikely that increased marketing and outreach to tenants will increase their participation, as increased awareness alone does not overcome the split incentive barrier or other tenant-related barriers. This is evident from Exhibit 5-6, which shows tenant awareness is equal to the population but their participation is much lower. Most renters neither own the equipment they use nor have an interest in making improvements to a facility owned by someone else. Exhibit 5-10 shows that building owners tend to be more active than tenants, involved in all phases and having veto power over equipment purchase decisions. Twice as many tenants as building owners said they are not at all active in making equipment changes.

**Exhibit 5-10**  
**Role of Tenants versus Building Owners**  
**in Making Equipment Purchase Decisions**

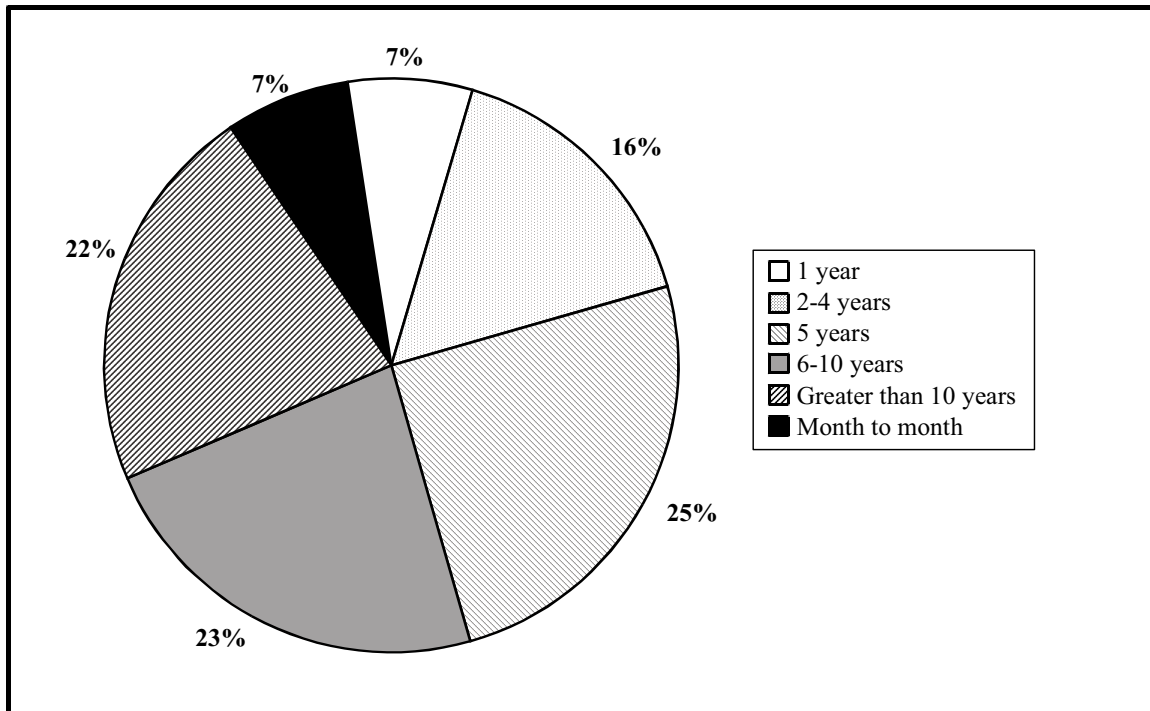


**Length lease may affect tenants’ willingness to participate.** Any decision to install energy efficiency upgrades would have to be made by the tenant on the basis of the economics for a specific project. Theoretically, then, tenants should undertake upgrades consistent with the length (or remaining term) of their lease; a lighting retrofit with a two-year payback should be clearly beneficial for a tenant with a typical 5 to 10 year lease. By this logic, longer leases should be associated with higher participation rates, all else equal.

<sup>5</sup> Appendix Exhibit A5-6 (Lighting Changes), Appendix Exhibit A5-7 (Cooling Changes)

Over two-thirds of tenants report that their lease term is five years or more, shown in Exhibit 5-11.

*Exhibit 5-11  
Length of Lease*



However, many tenants do not know much about their lease other than its length.<sup>6</sup> Nearly one in two said they were “not at all familiar” with the terms of their lease regarding energy costs and energy efficiency improvements to the facility they occupy. About one-third reported being “very familiar” with the terms of their lease.

Tenants’ outlook on energy efficiency improvements varies by lease length. Respondents were asked how much they agree with the statement: “I may not be at this location long enough for it to make sense to do equipment improvements.”<sup>7</sup> Tenants with leases less than five years were twice as inclined to agree with this statement than those with leases longer than five years.

Shorter-term tenants agreed somewhat that efficiency upgrades don’t make sense, while long-term tenants take issue with the notion that they are not at their location long enough to make upgrades. **In short, tenant attitudes agree with the logic that that the longer the lease, the more it makes sense to upgrade equipment in a facility.**

<sup>6</sup> Appendix Exhibit A5-8 (Familiarity with Lease Terms)

<sup>7</sup> Appendix Exhibit A5-9 (Renter Attitudes about Time Horizon and Equipment Improvements)

However, this attitude does not reflect tenants' actions. Using historic Express Efficiency data, the PG&E Renter-Building Owner Scoping Study found participation to be independent of lease length.<sup>8</sup> There was little difference between participants holding shorter leases (0-5 years) and longer ones (5 or more years) among <500kW customers. According to the real estate professionals interviewed in this scoping study, tenants rarely undertake efficiency upgrades despite long lease terms. "There is a real reluctance to invest money to improve someone else's property," explains one property manager. "Even if the payback period is less than the lease length, tenants just don't want to do it."<sup>9</sup>

Tenants in the general population and participants were asked how much they agreed with a series of statements about energy efficiency improvements, shown in Exhibit 5-12. There is little difference between the attitudes of tenants that participate and those that do not. Three out of four take issue with the idea that equipment improvements don't make sense because they do not own the building. However, tenants' energy efficiency choices contradict this attitude: they install fewer energy efficient measures and participate in Express Efficiency less than the general population. One barrier to making improvements is owner's consent. Nearly 40% of tenants in the general population must secure the owner's consent to make changes to their leased facilities.

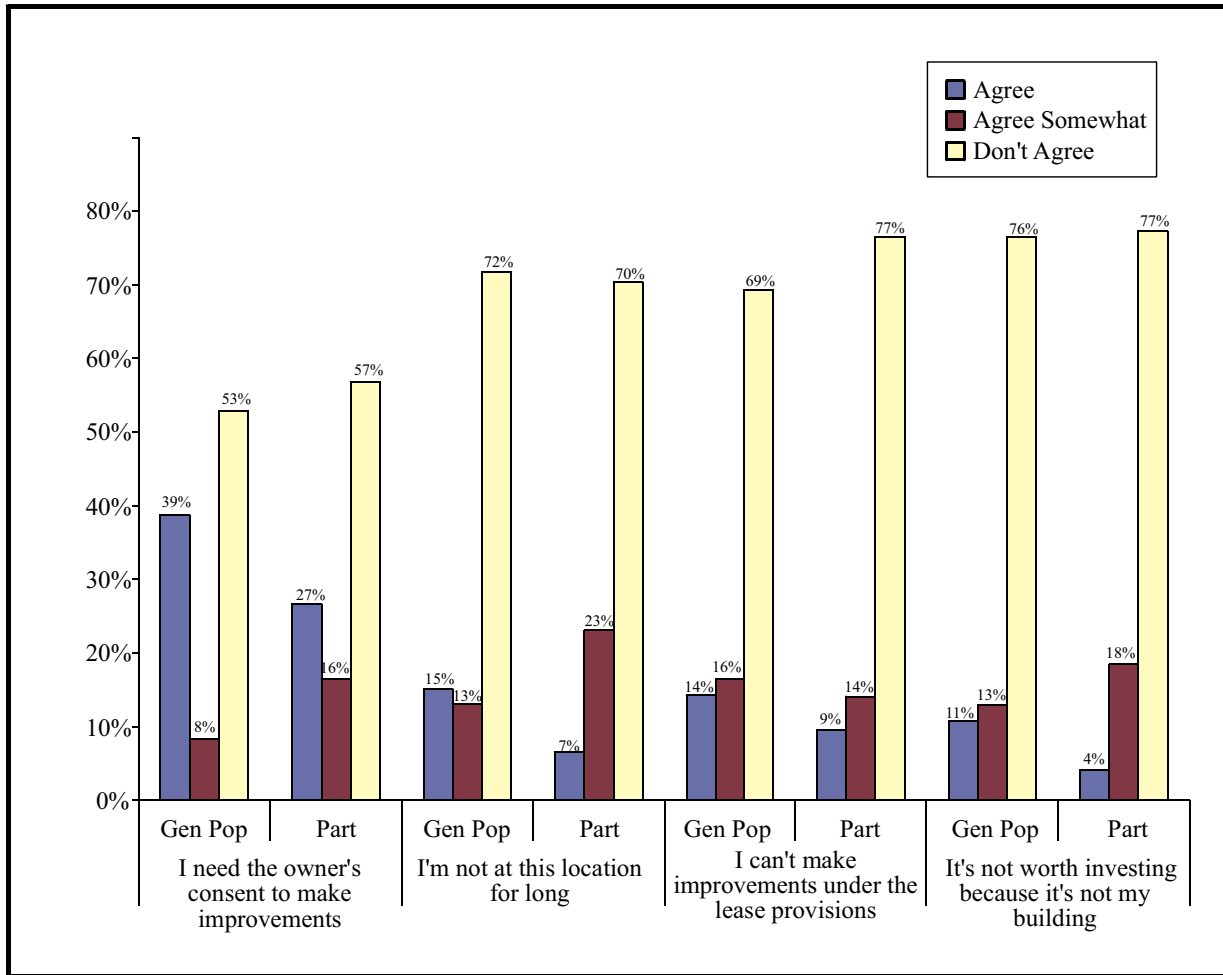
Although the differences in perceived barriers are not that significantly different when comparing participants to nonparticipants, the difference nevertheless is consistent across all barriers. It demonstrates that the barriers are larger for nonparticipants, and there are a number of barriers present, any one of which can inhibit a customer from participating.

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<sup>8</sup> Quantum Consulting, *Renter-Building Owner Scoping Study and Market Characterization*, 2002. The scoping study used historic Express Efficiency participation tracking data from 1993-2001 and survey data from pre-1998 program participants to determine ownership and lease length.

<sup>9</sup> Quantum Consulting, *Renter-Building Owner Scoping Study and Market Characterization*, 2002.

**Exhibit 5-12**  
**Tenants' Views on Energy Efficiency Improvements**



**5.4 COMMUNITY MARKETING TO HARD-TO-REACH POPULATIONS**

The CPUC called on IOUs to involve community-based organizations in the task of delivering the program to hard-to-reach business customers. IOU-CBO partnerships are an attractive delivery mechanism because they offer marketing leverage – using CBO resources to deliver the Express Efficiency program – as well as a way to reach underserved communities, particularly small businesses in ethnic communities.

Forty percent of the general population indicated they were members of a community-based organization, trade organization, service group or faith-based organization.<sup>10</sup> Small customers were as likely to belong as a group as medium-sized customers. These relatively high rates of CBO membership suggest that developing relationships with CBOs is a good way of leveraging utility marketing resources.

<sup>10</sup> Appendix Exhibit A5-10 (Membership in Community-based Organization)



SCE's commitment to seeking out joint efforts with community-based organizations has been lauded by the other IOUs, who see this approach as a good model to emulate. In the words of one SCG Express staff member: "SCE's mass markets and business solutions group is awesome." SCE's Small Business Solutions Group, a team of account executives that conduct CBO outreach, gets the energy efficiency message out to organizations. They work with community leaders, faith-based organizations, community-based organizations, giving presentations to Chamber of Commerce breakfasts, Expos, and other groups with regular events. Twenty percent of these account executives' performance is based on Express Efficiency.

### ***Objectives and Methodology***

This section assesses the effectiveness of community-based organizations as a delivery mechanism for the Express Program. We use interview findings from seven of SCE's CBO partners and three SCE Small Business Solutions staff as well as customer survey results to:

- understand how SCE interacts with CBOs.
- determine what CBO strategies have been particularly effective in reaching their members.
- assess customer awareness of CBOs.

We interviewed leaders of seven CBOs: the Hong Kong Association of Southern California, the Korean Federation, the Korean American Coalition, the Black Chamber of Commerce (Orange County), the Asian-American Hotel Owners Association, Chinese American Construction Professionals and Hong Kong Association, and the Economic Development and Public Services Group (ED/PSG) of San Bernadino County, which runs a Small Business Energy Efficiency Program. These CBOs reflect SCE's emphasis on ethnic business communities, hotels and small businesses.

### ***SCE Outreach to Community-Based Organizations***

SCE identified HTR targets, developed a marketing approach for them, and organized various outreach efforts to reach those HTR communities.

- **HTR Targets.** SCE identified areas where ethnic groups are concentrated, such as Chinese customers in the San Gabriel Valley and industry segments dominated by ethnic businesses (such as Chinese restaurants). Consequently, Edison's Business Solutions group targets the ethnic small business marketplace (Chinese, Korean, Hispanic, African American) and certain business types (hotels, restaurants and dry cleaners).
- **Marketing Approach.** SCE's marketing approach to CBOs focuses on customer needs, not kWh goals. The manager of their Business Solutions Group, said: We approach customers by asking "What's important to you?" We do not go out with a 'Here's our program' approach." The Business Solutions Group views energy efficiency as an enabler that allows SCE to meet some of the needs of its HTR customers.

SCE first builds trust with HTR populations by understanding what is important to these customers, then delivers the energy efficiency message. An executive of the Chinese American Construction Professionals and Hong Kong Association emphasized the importance of trust, explaining that, “SCE starts off by asking how they can help, and they follow through with their promises. And they are sincere about it. In many Asian communities, business is conducted with a handshake, based on trust. “

For example, workers’ compensation is a major issue among small businesses. SCE translated workers’ compensation information into Korean for Korean business owners. As the director of the Korean Federation noted, “Workers comp is not energy related, but it signals that Edison care about the Korean community.” SCE also developed a wet dry cleaning display in its technology center to help dry cleaners deal with environmental concerns, as recent regulations outlaw certain chemicals in dry cleaning. During the SARS epidemic, SCE brought in local health department officials to update Chinese restaurant owners on current health regulations.

- **Outreach Activities.** Community marketing involves a lot of weekend work and evening meetings for SCE account executives, who focus on interaction with CBOs rather than one-way message delivery or simple brochures. Account executives make presentations to CBOs and their members, and use CBO delivery channels to market the program to members. In addition, SCE organized 18 simultaneous events in 18 different cities in 2002, involving 90 Edison volunteers and collecting 1700 Express Efficiency applications that day. One SCE account executive sits on the board of eight CBOs, meeting with Chinese restaurant owners at 11 PM on the third Wednesday of the month. This account exec also has a local cable television show that reaches the Chinese business community.

### ***CBO Energy Efficiency Activities***

CBOs described their involvement in terms of outreach to their communities, education, energy audits and measure installation.

**Outreach and Education.** The chief activity of the CBOs interviewed is outreach and education to members.

- Some CBOs function as **facilitators**, serving as middlemen to ethnic business communities. These CBOs connect SCE to Korean business associations, help Edison conduct events at local Korean businesses, help make the Korean community aware of program offerings, through showcases and demonstrations (i.e. retrofitting a local grocery store before an SCE event), helping with translation services when SCE visits customers or attends business events, and making arrangements for an SCE presence at business mixers, dinners, and expos.
- Some CBOs focus on **raising awareness** of energy efficiency, conservation, and rebates in their community. The Black Chamber of Commerce, the “nucleus of the black community in Orange County,” teaches the African American community about energy efficiency, equipment, and reducing bills.

- **CBOs view in-language materials as essential to reaching communities with limited English-speaking ability.** “Korean-language materials and advertising are necessary for reaching the Korean community. Edison’s Korean division now advertises in the Korean media,” said one leader of the Korean business community.
- CBOs use a **variety of communication methods:** community events, direct mail, cultural events, business events, newsletters, flyers, website, word of mouth marketing at salons and barbershops, town hall meetings, and door-to-door canvassing.

**Energy Audits.** Only one of the six CBOs interviewed “put legs to the [Express] program,” training staff members to conduct free energy audits for small businesses in San Bernadino County in 2001. 300 small businesses participated in energy audits, but not a single one purchased a rebated measure through Express. The San Bernadino Economic Development Group (ED/PSG) reported that small businesses, very concerned about spending money for equipment, were not buying EE products. ED/PSG looked to SCE for a different approach, who found a lighting vendor that discounted the CFL to the price of the rebate and charged no installation costs. Small businesses were quite responsive to these lower prices.

**Measure Installations.** Two of the CBOs interviewed, San Bernadino County’s ED/PSG and the Asian-American Hotel Owners Association (AAHOA), partnered with vendors to sell rebated lighting measures, primarily CFLs, to their constituents.

- **ES/PSG’s Small Business Energy Efficiency Program**, which won a national award for its work, rounded up over 30 electricians and HVAC contractors to help businesses install energy efficient measures, saving small businesses more than 2.2 million kWh in 2002.<sup>11</sup> Small businesses responded in 2002 when ES/ PSG and SCE recruited vendors who accepted the rebate as the full price of a CFL. “That’s when it really took off. All businesses had to do was fill out the Express paperwork,” said the county’s program manager. She estimated that about 1700 CFLs went to over 200 business in 2002. During the double rebate period, they did exit signs as well as CFLs. “Small businesses and the county are happy. Businesses see this as a big benefit.” Moreover, the program gives our staff one-on-one contact with small businesses constituents, enabling them to learn about their business needs (ES/PSG’s primary mission). ES/PSG plans to expand to T-8 lamps to compete with third party vendors who offer more retrofit measures to small business customers.
- The Asian-American Hotel Owners Association (AAHOA) brokers town hall meetings in the San Gabriel Valley, Orange County and the San Diego area, bringing together hotelier members, SCE and Lighting suppliers. **The AAHOA negotiates volume CFL discounts for hotelier members with lighting suppliers** that honor the Express rebate. The regional director estimates that his hotelier members have claimed \$20-60,000 in CFL rebates.
  - The regional director noted, “The key is everybody under one roof. The Edison presentation, the supplier, the Express paperwork are all done on the spot.” This

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<sup>11</sup> County of San Bernadino Press Release, “County programs honored with six national awards,” July 29, 2003. <http://www.sbcounty.gov/pressreleases/docs/523nacoawardsrelease.doc.htm>

- one-stop shopping approach** means “the transaction is done right there. Members go back to their hotels and the product is shipped...it doesn’t get lost in the shuffle.”
- Word of mouth has generated interest in the hotel industry. “It’s a **homogeneous community** ... they tell their friends, fellow hoteliers, about the programs ... Word of mouth has been excellent. We are the envy of other regions.”
  - SCE’s partnership with the Chinese American Construction Professionals and Hong Kong Association resulted in successful work with 99 Ranch Market, a large grocery chain frequented by the Asian community. SCE worked with lighting manufacturers to get a discounted price on large volumes of CFLs and torchieres. They set up a booth at 99 ranch Market stores and displayed the product. Any shopper who spent more than \$20-30 at the grocery store received three free CFLs. SCE also did a torchiere trade in event at 99 Ranch Market that got 1,000s of CFLs into households.

## 5.5 EFFECTIVENESS OF OUTREACH TO HTR POPULATIONS

Customer survey results shed some light on the penetration of in-language program materials and community events among customers.

### *In-language Program Communications*<sup>12</sup>

The IOUs have made program materials, including rebate applications, in Spanish, Chinese, Korean and Vietnamese. However, in-language materials are not reaching many customers, nor do many minority-language participants find them useful. One in four participants who spoke a language other than English at their business noticed rebate applications. Only eight percent of SCE customers that claimed to speak another language and were aware of in-language program materials reported using them (none in the other IOU territories). SCE customers, particularly Chinese speakers in SCE territory, are more responsive to in-language program materials than any other IOU customer.

### *Community Marketing*

**CBOs are a growing source of program awareness among SCE customers.** Edison’s community marketing approach is beginning to make inroads with participants, 3% of whom became aware of Express through community-based organizations and trade associations. SCE’s Business Solutions Group can take credit for creating this awareness through its CBO partnerships. In addition, word of mouth awareness is biggest among SCE customers, and Edison’s community marketing may be driving some of that word of mouth.

**Despite relatively high CBO membership rates in the general population, only 15% of the population surveyed attended a community, trade or faith-based meeting or event where energy efficiency was discussed.**<sup>13</sup> Small businesses are less responsive; customers under

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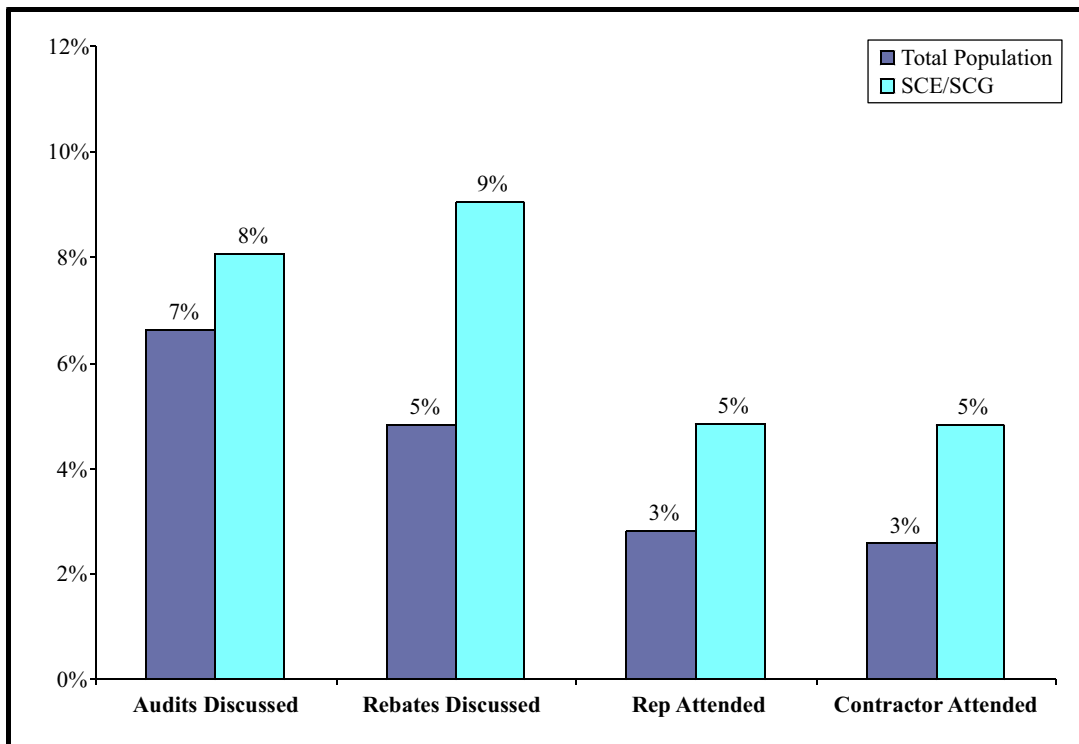
<sup>12</sup> Appendix Exhibit A5-18 (Language Other Than English Spoken at Business), Appendix Exhibit A5-19 (Awareness of In-language Rebate Application), Appendix Exhibit A5-20 (Participant That Used English versus in-language Express program material).

<sup>13</sup> Appendix Exhibit A5-11 (Attendance at Community Meetings where Energy Efficiency was Discussed)

100kW were far less likely to attend meetings than their larger counterparts. However, no such gap existed between English speaking businesses and those with limited English, suggesting that speakers of minority languages may be reached through the organizations that knit together ethnic business communities. Attendance rates were higher for SCE/SCG customers (19%) than in PG&E (11%) and SDG&E (11%) territory, suggesting some success for SCE's community marketing strategy. Meetings in SCE/SCG territory boasted the most exposure to both audits and rebates, among both the population and participants.

Exhibit 5-13 shows that **population-level exposure to energy efficiency at community meetings was fairly low**; 10% of the population attended a meeting where energy audits were discussed, while 6% heard about utility rebates at such meetings. Utility representatives and contractors were even less likely to be present. SCE/SCG stands out in its efforts to promote energy efficiency at such meetings. For example, its representatives were twice as likely to be present.

*Exhibit 5-13<sup>14</sup>*  
**Percent of Population that Attended a Meeting Where Audits or Rebates were Discussed or a Utility Rep or Contractor were Present where Energy Was Discussed**



<sup>14</sup> Appendix Exhibit A5-12 (Were Energy Audits Discussed at Meeting?); Appendix Exhibit A5-13 (Were Utility Rebates Discussed at Meeting?); Appendix Exhibit A5-14 (Did a Representative Attend Meeting?); Appendix Exhibit A5-15 (Was a Contractor at Meeting?)

At meetings where a contractor was present, only 23% of customers found that the meeting was helpful in finding a contractor, suggesting that customers are not going to CBO meetings to *find* contractors.<sup>15</sup> Very small customers found these meetings to be more helpful (36%) in finding a contractor. Furthermore, 40% of participants that attended a meeting where a contractor was present found the meeting helpful for finding a contractor (again, highest in SCE territory). Not only did community events and meetings not reach many customers, they were not persuasive in attendees' equipment purchase decisions.<sup>16</sup>

At meetings where energy efficiency was discussed, utility rebates, Express Efficiency and energy audits were frequent topics of discussion. Utility representatives were present at nearly two-thirds of meetings where energy efficiency was discussed. SCE representatives were more likely to attend meetings than other IOU account executives. One in three attendees heard about utility rebates at an organization meeting, while energy audits were discussed at 45% of meetings.

Although population-level survey results do not show much energy efficiency activity at community meetings, SCE has made a concerted effort to work closely with a number of CBOs which have demonstrated significant accomplishments as discussed earlier. Interviews with CBOs and SCE outreach staff suggest that **community events were most effective in getting customers to participate when:**

- **Contractors were present** so that customers can purchase a measure on the spot.
- **Products are displayed**, such as a booth at an Expo, or a demonstration site.
- **Previous participants or product adopters attended** to boost credibility. Many customers feel the program is too good to be true, and that there must be a catch. Having previous participants (particularly those that are CBO members) present that can vouch for the program from personal experience helps overcome this barrier.
- **Customers can sign up for the program on the spot.** The one-stop shopping approach brings all players – customer, utility, contractor – together to complete the transaction. If you don't get the customer to participate on the spot, often times the program application sits on the customer's desk, lacking follow-through.

Interview results also suggest that **IOU-CBO partnerships:**

- **Take time to foster.** Several of the CBOs interviewed have long-standing relationships with SCE, developed over several years.
- **Are based on trust.** Several CBO leaders emphasized the importance of trust in ethnic business communities.

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<sup>15</sup> Appendix Exhibit A5-16 (Was Community Meeting Useful In Finding Contractor?)

<sup>16</sup> Appendix Exhibit A5-17 (Influence of Community Meeting on Equipment Purchase)

- **Need upper management support** that broadens the IOU-CBO relationship beyond a single account executive.
- **Require IOU staff that are available and willing to help.** Responsiveness is one key to a successful relationship with CBOs.
- **Should be approached with CBO as “what can we do for you,”** not here’s what you can do for us. SCE’s Small Business Solutions group opens conversations with CBOs by asking, “What keeps you up at night?” This focus on customer needs is quite different from approaching a customer with “Here’s our Express Efficiency program. Let me tell you why you need it.”

## **6. BENCHMARKING PROGRAM SUCCESS**

We benchmark program success by making three types of comparisons:

- (1) longitudinal: compare the Express Efficiency over time in terms of customer awareness, reach, attitudes, participation trends over time, and changes in baseline behavior.
- (2) program effects: compare participants to non-participants along these dimensions.
- (3) cross program comparison: compare the 2002 Express Efficiency program to Standard Performance Contract and Nonresidential Audit Program on some key metrics such as awareness and participation.

The third comparison will be documented in a separate report when the 2002 SPC and Nonresidential Audit evaluations are completed.

### **6.1 METHODOLOGY**

#### ***Longitudinal Analysis***

The longitudinal comparison focuses on several elements related to the program including customer awareness, participation, equipment changes and conservation actions. We primarily rely on two data sources – the General Population Survey, fielded in July 2003, and a random sample of 767 nonresidential customers surveyed in July 2001. The 2001 customer surveys offer an excellent comparison group. First, the 2001 and 2003 surveys ask some of the exact same questions. Second, both surveys were fielded in July, asking participants about their energy-related purchases and behavior over a nineteen month period (January 2000-July 2001 and January 2002-July 2003, respectively).

We also created a panel of respondents by asking a series of questions to a subset of survey respondents in both 2001 and 2003. We asked 218 customers about their awareness, participation and conservation actions. Of particular interest is how conservation persisted over time (what the panel of customers was doing in 2001 – during the height of the energy crisis – versus 2003, how much they were doing and whether they claim to be doing more or less over time). In the exhibits that follow, we compare panel results (where available) to the full sample.

We also leverage participant findings from the 1999 Express evaluation to compare to 2002 participants.<sup>1</sup>

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<sup>1</sup> Xenergy and Quantum Consulting, 1999 State-Level Small/Medium Nonresidential MA&E Study. Volume 1.



## Program Effects

We compare participants and the general population using survey data to examine program effects. However, directly comparing participants and the general population runs the risk of conflating program effects with demographic effects. To correct for the effect that demographics have on customer behavior, we weighted the general population to a distribution similar to participants with respect to business type and customer size.

### 6.2 LONGITUDINAL ANALYSIS FINDINGS

**Program awareness.** Exhibit 6-1 shows unaided awareness over time. Overall, awareness of utility programs did not change from 2001 to 2003, with 38% of the population being aware in each year. However, there was a major shift in a customer's ability to specify specific programs over the past couple of years. In particular, **unaided awareness of Express Efficiency increased from 1% in 2001 to 5% in 2003.** Panel respondents confirm these trends.

*Exhibit 6-1  
Utility Program Awareness (unaided)*

Aware of any utility programs?	PANEL		FULL SAMPLE	
	2003	2001	2003	2001
Express Efficiency	3%	1%	5%	1%
Standard Performance Contracting (SPC)	1%	0%	3%	1%
Business energy audits	2%	3%	5%	3%
Distributor incentives	4%	2%	3%	2%
Rebate (unspecified)	19%	16%	19%	14%
Other	4%	15%	3%	17%
N	216	216	740	767

**Sources of Awareness.** Over a third of Express participants in 1999 learned of the program through previous participation. In 2002, however, very few participants had previous experience with the program. Third party vendors – contractors, ESCOs and the like – remained an important source of program awareness in 2002. Far more participants learned of the program through word of mouth in 2002 (13%) than in 1999 (3%). Utility representatives and brochures (in particular) are increasingly important in making customers aware of the program, together accounting for 32% of participant awareness in 2002, compared with 21% three years ago. Very few 2002 participants learned of the program through previous participation, unlike 1999. This suggests the 2002 program was more diverse and not made up of previous participants.

**Exhibit 6-2**  
**Sources of Express Efficiency Awareness for 1999 and 2002 Participants**

How did you first learn about the Express Efficiency Program?	2002	1999
Contacted by contractor/ESCO/other 3rd party	31%	30%
Contacted by utility rep	20%	16%
Word-of-mouth	13%	3%
Utility brochure in mail	12%	5%
Respondent approached contractor/ESCO	5%	1%
Television, radio, newspaper ad	3%	1%
Manufacturer information/suggestion	2%	1%
Utility website	2%	0%
Respondent approached utility concerning another matter	2%	6%
Business Energy Audits	2%	0%
Bill insert	2%	1%
Participation in previous years	2%	36%
Community organization	1%	0%
Trade association	1%	0%
Seminars	1%	4%
Magazine or trade journal	0%	1%
Other	15%	2%
Don't know	4%	1%
N	584	209

**Participation.** Self-reported participation rates increased from 2001 to 2003 from 1% to 3%. Panel responses confirm this trend, although full sample results are more reliable than the limited panel sample.

**Exhibit 6-3**  
**Self-Reported Participation Rates**  
**2001 versus 2003**

	PANEL		FULL SAMPLE	
	2003	2001	2003	2001
% participated in Express Efficiency	1.7%	0.4%	3.0%	1.0%
N	218	218	741	767

Self-reported participation rates are similar to the program penetration rates, based on participant tracking data, shown in Exhibit 6-4.<sup>2</sup> Penetration rates (the ratio of participating sites to IOU customer sites) show a decline in participation over time.

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<sup>2</sup> Program penetration rates are based on Express participant data 2000-2002 and the current <500 kW nonresidential customer population from the CIS. There is little change in this customer population in the last three years, so the current population is used to estimate population rates for 2000-2002. The number of IOU sites is based on 2002 CIS data.

**Exhibit 6-4**  
**Express Efficiency Penetration Rates**  
**Actual Program Tracking, 2000-2002**

	Express Number of Sites	IOU Number of Sites	Penetration rate
2000	25,745	1,184,424	2.2%
2001	10,681	1,184,424	0.9%
2002	8,400	1,184,424	0.7%

**Equipment Change.** Equipment changeouts were fairly stable from 2001 to 2003, as indicated in Exhibit 6-5.<sup>3</sup> It is likely that the energy crisis had an impact on equipment changes in 2001, explaining this difference.

**Exhibit 6-5**  
**Percent of Customers that Made Equipment Changes**

	2003	2001
Lighting	24%	27%
Cooling	20%	21%
Gas	11%	9%
Other	14%	13%
N	767	742

**Early Replacement.** Cooling equipment is a replacement market, the majority of cooling changeouts occurred after equipment failed. The energy crisis may have prompted more customers to replace equipment before it failed in 2001, but not a substantial difference, as indicated in the above Exhibit.

**Exhibit 6-6**  
**Early Replacement Trends**

	Lighting		Cooling	
	2003	2001	2003	2001
Old equipment failed/problems	38%	21%	66%	39%
Old equipment working fine	57%	65%	20%	36%
No pre-existing equipment	4%	10%	13%	24%
N	162	209	134	153

<sup>3</sup> Detailed equipment change rates for various customer segments can be found in Appendix Exhibits A6-1 (Lighting Replacement), Appendix Exhibit A6-2 (Cooling Replacement), Appendix Exhibit A6-3 (Gas Changes), Appendix Exhibit A6-4 (Other Changes).

**Conservation Persistence.**<sup>4</sup> Conservation has declined since the energy crisis. Customer responses to the question, “Have you taken any energy conservation actions over the past year to reduce your overall energy use?” presented in Exhibit 6-7, indicate that conservation actions have dropped off. Nearly all nonresidential customers interviewed in 2001 reported taking some action to conserve energy, while nearly three in four report they are conserving since January 2002. 71% remains a high level of conservation activity, but nonetheless a drop from energy crisis levels.

**Exhibit 6-7**  
**Percent of Population Taking Conservation Actions,**  
**2003 versus 2001**

% taking conservation actions	PANEL		FULL SAMPLE	
	2003	2001	2003	2001
Yes	75%	96%	71%	92%
No	25%	4%	29%	8%
N	218	218	741	767

Of those claiming to have taken conservation actions, most respondents said that they currently conserve as much energy or more in 2003 as they did in 2001. Only 6% report doing less. Also, they claim to be reducing their usage about as much if not more than in 2001. In fact, more customers claim to be reducing their usage by 15% or more. Conservers’ self-reported estimates of energy savings as a result of their conservation activities are shown in Exhibit 6-8.

**Exhibit 6-8**  
**Self-Reported Estimates of Energy Savings**

Estimated reduction in energy use from conservation actions	PANEL		FULL SAMPLE	
	2003	2001	2003	2001
0 to 5 percent	34%	34%	28%	39%
6 to 10 percent	28%	22%	24%	21%
11 to 15 percent	9%	11%	9%	13%
16 to 20 percent	19%	16%	19%	10%
More than 20 percent	11%	16%	19%	17%
N	156	156	404	713

Customers continue to turn off lights and adjust thermostat settings about as much as they did during the energy crisis. They are slightly less mindful of turning off unused equipment, however. In addition, turning down remaining lighting levels and shifting load to off-peak

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<sup>4</sup> Appendix Exhibit A6-5 (Percent of Population Taking Conservation Actions), Appendix Exhibit A6-6 (Level of Conservation Activity, 2003 versus 2001), Appendix Exhibit A6-7 (Self-Reported Reduction in Usage), Appendix Exhibit A6-8 (Types of Conservation Activities)

usage has tapered somewhat. In 2003, the average customer that conserved reported taking 2.37 conservation actions, compared with 1.79 actions in 2001. In other words, customers undertook 32% more conservation actions in 2001 than 2003, a trend that was also observed in the panel.

**Exhibit 6-9**  
**Energy Conservation Actions**  
**2003 versus 2001**  
**- Among Conservers**

What energy conservation actions have you taken?	PANEL		FULL SAMPLE	
	2003	2001	2003	2001
Turn off any lights that are not being used	76%	78%	76%	69%
Set thermostats lower when heating and higher when using A/C	48%	58%	46%	48%
Turn off office equipment when not in use	22%	31%	21%	25%
Turn down the remaining lighting levels if you can	16%	25%	14%	19%
Set air conditioning thermostats to pre-cool spaces at off-peak times	8%	14%	7%	16%
Schedule high electrical energy-use processes during off-peak periods	4%	5%	4%	5%
(If available) Use dimmer switches to lower lights	2%	5%	1%	3%
Turn off personal appliances	2%	4%	2%	2%
Turn off your computer if you are out of the office for more than a few minutes	1%	3%	3%	1%
Establish a system to alert employees of expected high demand days	0%	2%	0%	1%
Reprogram EMS schedule	0%	6%	1%	3%
Run backup generator at times of peak demand	0%	1%	0%	1%
N	156	156	512	706

A closer look at lighting conservation, the most common conservation action, suggests that customers were still vigilant about lighting conservation, as indicated by Exhibits 6-10 and 6-11.<sup>5</sup> In 2003, customers appeared to be turning off all of their lights more frequently. However, in 2003, customers were also more likely to turn off 5% or less of their lights.

**Exhibit 6-10**  
**Daytime Lighting Conservation**  
**2003 versus 2001**

% of daytime lights kept off	PANEL		FULL SAMPLE	
	2003	2001	2003	2001
0 to 5 percent	19%	10%	27%	15%
6 to 10 percent	17%	16%	14%	13%
11 to 15 percent	11%	10%	6%	6%
16 to 25 percent	15%	22%	14%	20%
26 to 50 percent	26%	31%	22%	28%
51 to 75 percent	3%	8%	5%	10%
Over 75 percent	9%	2%	12%	7%
N	104	104	123	598

<sup>5</sup> Appendix Exhibit A6-9 (Daytime Lighting Conservation), Appendix Exhibit A6-10 (Evening Lighting Conservation).

**Exhibit 6-11**  
**Evening Lighting Conservation**  
**2003 versus 2001**

% of evening lights kept off	PANEL		FULL SAMPLE	
	2003	2001	2003	2001
0 to 5 percent	36%	42%	34%	29%
6 to 10 percent	7%	9%	8%	9%
11 to 15 percent	2%	3%	2%	6%
16 to 25 percent	5%	7%	4%	10%
26 to 50 percent	17%	20%	15%	21%
51 to 75 percent	3%	1%	3%	6%
Over 75 percent	31%	17%	33%	18%
N	104	104	114	598

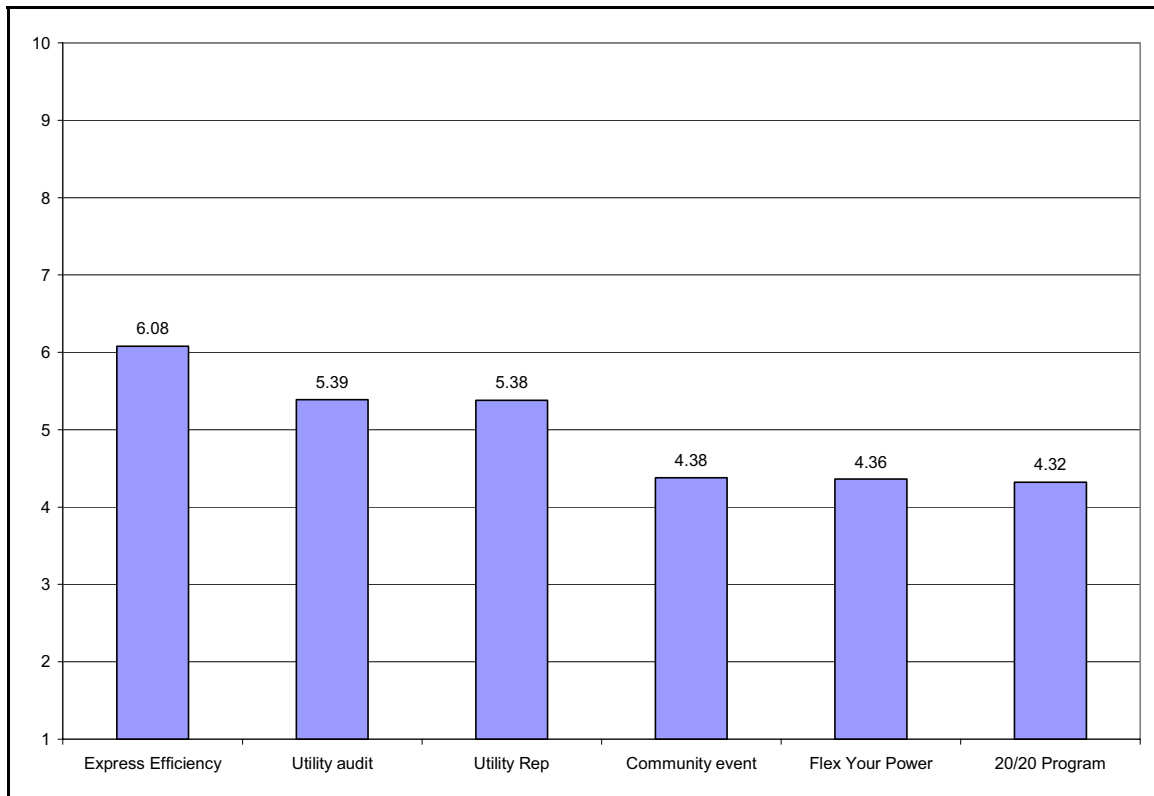
**In sum, customers are still inclined to conserve, but are conserving less than they did during the energy crisis.**

Exhibit 6-12 reports some influences on customers' post-crisis conservation efforts. Customers that were aware of various energy information sources, rated the influence of the information source on their conservation actions on a 1 to 10 scale, with 10 being very influential, and 1 being not at all influential. Customers give relatively little credit to the Flex your Power campaign and the 20/20 program, both programs run by the state of California. Consumer exposure to these efforts likely declined in 2003. Customers give more credit to utility programs – Express Efficiency, audits, and utility representatives – for influencing their conservation efforts. It is important to note that awareness was significantly higher for the Flex Your Power campaign and the 20/20 programs than the utility programs. However, none of these factors greatly influenced customers' conservation actions. In fact, only one quarter or those that were aware of Flex Your Power or the 20/20 program felt they were very influential on their conservation actions, compared to 45% of those aware of the Express Efficiency program.<sup>6</sup>

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<sup>6</sup> Appendix Exhibit A6-11 (Influence of Audit), Appendix Exhibit A6-12 (Influence of Express Efficiency), Appendix Exhibit A6-13 (Influence of Flex Your Power Campaign), Appendix Exhibit A6-14 (Influence of 20/20 Rebate Program), Appendix Exhibit A6-15 (Influence of Utility Representative), Appendix Exhibit A6-16 (Influence of Community Event),

**Exhibit 6-12**  
**Influences on General Population Conservation Efforts**



### 6.3 PROGRAM EFFECTS

While adoption of energy efficient products, not behavioral change, is the goal of the rebate program, customer knowledge and attitudes can be an important determinant of equipment purchase. For a more direct assessment, participants were also asked questions about the influence of the program on their purchases.

#### **Program Influence on Purchases**

**Additional Purchases.**<sup>7</sup> One in three participants said they bought more energy efficient equipment as a result of the program. The most common purchase was lighting.

**Purchase Intentions.**<sup>8</sup> Participants consider themselves slightly more likely to consider buying energy-efficient products in the future than the general population (8.75 versus 8.11).

<sup>7</sup> Appendix Exhibit A6-17 (Equipment Purchase Due to Program).

<sup>8</sup> Appendix Exhibit A6-18 (Future Purchase Intentions).

**Actions in Absence of Program.**<sup>9</sup> The program motivated one in five participants to buy equipment they would otherwise not have bought. Thirteen percent reported the rebate program persuaded them to buy high efficiency instead of standard equipment. Another 27% stated that the program influenced them to replace equipment earlier than they otherwise would. Thirty-seven percent, however, indicated they would have bought the same high efficiency equipment regardless of the program's existence. The rebate influenced more small customers (21%) than large ones to buy equipment. Free ridership was most evident among SCG customers; nearly 60% reported they would have bought the same high efficiency equipment regardless of rebate. Much of this free ridership is due to a new Air Quality Management District regulation requiring boiler upgrades, a high-volume measure in SCG's Express program in 2002. Overall, HTR Customers were less likely to have purchased the same equipment at the same time, but only slightly.

**Early Replacement.**<sup>10</sup> Participants were far more likely to replace lighting equipment that was completely operational than nonparticipants. Nearly eight in ten participants replaced working lights - lights that had not failed or worked poorly - compared with six of ten customers in the general population. This early replacement trend is also evident in cooling equipment, where more participants tended to replace cooling equipment before it failed or had problems than the general population.

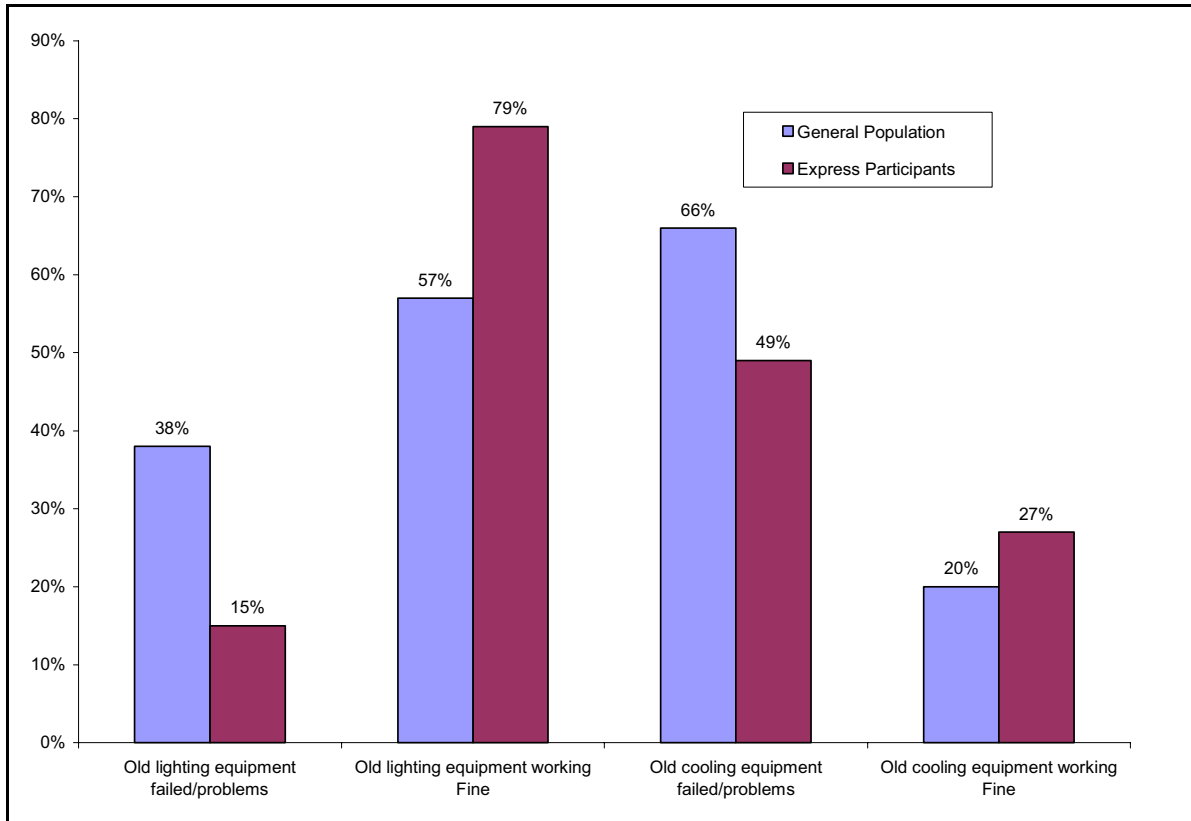
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<sup>9</sup> Appendix Exhibit A6-19 (Actions in Absence of Program).

<sup>10</sup> Appendix Exhibit A6-20 (Early Replacement - Lighting), Appendix Exhibit A6-21 (Early Replacement - Cooling)



**Exhibit 6-13  
Early Replacement**



**In sum, participants believe the Express Efficiency program influenced them to purchase their rebated measures, buy additional energy efficient products, and consider more purchases in the future.**

**Attitudes Toward Energy Efficiency.**<sup>11</sup> Customers were asked their perception about various barriers to energy efficiency, and asked how much they agreed with 6 different statements on a 1 to 10 scale, where 10 is strong agree and 1 is do not agree at all. Comparing the responses over time among the general population, as well as comparing participants and the general population, did not reveal any significant trends. Exhibit 6-14 presents the responses to these attitudinal questions.

In a related question, nearly two-thirds of the general population indicated decision-makers at their businesses find energy efficiency very important. The importance of energy efficiency to the general population may explain why customer attitudes (measured by their responses to a series of statements about energy efficiency) do not show much difference between participants and the population at large.

<sup>11</sup> Appendix Exhibit A6-22 (Importance of Energy Efficiency to Decision Makers)

**Exhibit 6-14**  
**Participant and Population**  
**Attitudes toward Energy Efficiency**

		2003		2001
		General Population	Express Participant	General Population
Concerned that bill savings will be less than was estimated	Agree	30%	36%	34%
	Agree somewhat	47%	45%	49%
	Don't agree	23%	19%	17%
Not enough information to make EE investment	Agree	30%	24%	23%
	Agree somewhat	35%	40%	35%
	Don't agree	35%	36%	42%
Uncertain about reliability of information provided by non-utility firms	Agree	27%	25%	29%
	Agree somewhat	50%	48%	48%
	Don't agree	22%	26%	23%
Satisfied with my energy conservation decisions	Agree	56%	68%	67%
	Agree somewhat	35%	26%	27%
	Don't agree	9%	6%	6%
Too much time and hassle to select a contractor	Agree	19%	19%	19%
	Agree somewhat	35%	34%	38%
	Don't agree	46%	47%	43%
Lack of financing is a barrier to making desired energy efficiency	Agree	25%	33%	25%
	Agree somewhat	34%	34%	33%
	Don't agree	41%	33%	42%

**Knowledge of Energy Efficiency.**<sup>12</sup> Customers do not consider themselves highly knowledgeable about energy efficiency products. Participants rated their knowledge of what energy efficiency products are available and how they'll perform, on average, a 5.47 (on a 10-point scale). The general population pegged itself only slightly higher with a mean rating of 5.51.

Before participating in the program, however, participants gave themselves a mean knowledge rating of 4.27, suggesting they learned a fair bit about energy efficient products through their program participation.

A significant difference in perceived knowledge does exist among the large customers in the general population, who rated their knowledge a 7.3 on average. Nearly three times as many large customers (62%) felt they were very knowledgeable compared to the general population (23%).

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<sup>12</sup> Appendix Exhibit A6-23 (Customer Knowledge of Energy Efficiency), Appendix Exhibit A6-24 (Participant Knowledge of Energy Efficiency Before Participating in Program)

## 7. SUMMARY OF FINDINGS AND RECOMMENDATIONS

This chapter integrates market and process findings from consumers and upstream market actors to offer a summary of findings and recommendations for program planners. This chapter summarizes study findings and offers recommendations about program participation and awareness, hard-to-reach populations, program process and regulatory issues.

### **PROGRAM PARTICIPATION AND AWARENESS**

- Statewide, the program met most of its goals, producing energy savings of 305,000 MWh, 50 MW, and 4,105,257 therms.
- Furthermore, the IOUs met all but one of their HTR goals. HTR customers comprised about two thirds of all participant applications.
- The 2002 Express program was dominated by a single CFL measure: 14-26 watt screw-in modular ballasts. This measure accounted for over three quarters of the program's energy savings, along with 39% of the rebates paid.
- Over the past three program years, program eligibility and incentive structures have changed so dramatically, which allows for a unique opportunity to understand how these types of changes effect program accomplishments:
  - In 2000, there was a strong focus on serving the very small customers, and a vendor bonus was offered to incent vendors. As a result, the average rebate per kWh saved was nearly 50% higher compared to 2001. In 2000, retail, restaurant and small grocery establishments participated at all time high rates.
  - In 2001, large customers were allowed to participate in the program. As a result average job size increased dramatically: compared to 2000 the average rebate was nearly three times as large, and the average energy savings was four times as large. With the larger customers participating, the mix of rebated measures was also more diversified, with CFLs hitting their three-year low, and T-8s and HVAC hitting their three-year high. Furthermore, more office buildings and institutional customers participated.
  - In 2002, large customers and large chain accounts were ineligible, and the program focused on CFLs, resulting in a smaller job size and lower rebate per kWh saved. With the focus on CFL installations in smaller businesses, community and personal service organizations participated at relatively high rates.
  - Although the 2002 program appears to be much more cost-effective than 2000 and 2001 from a rebate per kWh saved perspective, the program is also likely to have many lost opportunities with other measures. It is probably likely that many potential T-8 retrofits were being ignored by contractors marketing the program in order to get an easy CFL sale. Also larger job sizes, like that seen in 2001, help improve program cost-effectiveness, as fixed costs associated with application,

- rebate incentive and inspection processing are reduced (larger jobs requires fewer applications to meet energy savings targets).
- The aggregation rule, which excluded accounts that aggregated over 500 kW, affected about 19% of the under 500 kW accounts and about 44% of annual consumption, and is a likely reason why the program's kWh energy savings target was not achieved for each IOU. This rule had further implications on cost-effectiveness and equity considerations as well.
    - Because the aggregation rule affected customers that typically provide more impact per participant, the number of participants needed to meet program goals increased. As a result, program costs associated with application and incentive check processing, and site inspections (not to mention marketing) all increased significantly.
    - This aggregation rule has likely created an inequity among the customers affected, causing 23% of the total nonresidential market (in terms of annual kWh consumption) to be displaced with no clear energy efficiency program option.
  - Unaided program awareness was quite low (5%); aided awareness was somewhat higher (20%), suggesting the program is not an automatic process for customers.
    - However, program awareness has increased over time. Unaided awareness has increased from 1% in 2001 to 5% in 2003.
  - Although mass market campaigns are responsible for the majority of program awareness, vendors are the most effective delivery mechanism for the program.
    - The population is generally made aware of the program through mass market advertising campaigns (55% through bill inserts, brochure mailings, and television, radio and newspaper ads.) However, this may not be the most effective source of information, as only 17% of participants became aware of the program through these sources
    - Vendors are by far the most effective means for informing customers about the participants. While only 12% of the general population was made aware of the program through a vendor, 36% of the participants were first made aware of the program through a vendor.
    - Utility representatives are also an effective means, being responsible for making 21% of the general population and 20% of the participants aware of the program.
    - Sources of awareness among participants has also shifted over time. In 1999, over one third of participants cited have participated in previous years (likely pre-98 programs) as their source of awareness, compared to only 2 percent among 2002 participants. Participants in 2002 are now more likely to have become aware of the program by word-of-mouth, utility mailings, and utility representatives.

### ***Recommendations***

- A program that is trying to balance equity considerations, diversity in its measure mix, and maintain cost effectiveness can learn from the diversity in design and

corresponding accomplishments that occurred in the past three program years. By properly incenting vendors to market to small customers and diversify the measures installed (e.g., higher incentives to very small customers, higher incentives for non-CFL measures, or higher incentives for application with multiple measures); and by allowing larger customers into the program, but limiting their participation; it may be possible to meet all of these program objectives.

- ALJ Malcolm adopted the utilities' proposal for the 2003 Express Efficiency program, to rescind the 500 kW aggregation rule in her March 3, 2003 Interim Ruling. We recommend that the CPUC continue to eliminate this eligibility requirement in the future.

### ***HARD-TO-REACH CUSTOMER FINDINGS***

- Self-reported rates of participation among the general population were significantly lower among HTR customers. Three percent of respondents reported that they participated in Express, whereas only 1% of very small customers participated. Tenants were far less likely (1%) to participate than building owners (5%). Rural and urban customers participated at about the same rate.
- Program reach was analyzed over time through the analysis of a PGC benefit-contribution ratio. In 2002, it was found that the program did well overall in serving the HTR segments, in particular with respect to the number of applications submitted by HTR customers. Combined, very small and rural customers have a PGC benefit of 0.79, comprising 62% of the applications and 44% of the rebate dollars, versus 52% of the PGC paid.
- Program awareness rates among HTR segments did not vary as widely as participation rates – about 20% are aware of Express Efficiency. Small customers, however, were far less likely (15%) to be aware of the program than their large counterparts (27%)
- HTR customers are more likely to become aware of the program through mass market media campaigns, and very unlikely to become aware of the program through vendors. However, vendors continue to be an effective means for delivering the program, as HTR participants were well informed about the program through vendors.
  - For example, among very small HTR customers 76% of the population was made aware of the program through bill inserts, utility brochure mailing, and television, radio and newspaper ads. Less than one percent of the very small HTR population became aware through a vendor. However, among the very small HTR customers that participated, only 20% were made aware through mass market media campaigns compared to 37% that were made aware through vendors (more than the overall participant population.)
- Although they are an effective means for delivering the program, lighting vendors see small commercial customers as more costly to reach and less profitable than large customers. Lighting vendors feel rebate levels need to be higher to justify the fixed costs associated with marketing to these customers.

- This is consistent with the PY2000 accomplishments, when the program offered vendor bonuses for getting very small customers to participate. In fact, the number of very small customers that participated in 2000 was nearly three times more than in 2001 and 2002 combined.
- Despite being as aware of the Express program as the population, tenants still participate much less than the population on average. Furthermore, most tenants have leases that are five years or longer, and disagree with the statement that they will not be around long enough to make it worth investing in energy efficiency. Among tenants paying their own energy bill, barriers may center more around their uncertainty over energy efficiency improvements being allowable under their lease, than with split incentive barriers.
  - Tenants that pay their own energy bills tend to be less active in making equipment purchase decisions than those that own their building.
  - Nearly half of the tenants said they were not at all familiar with the terms of their lease regarding energy costs and energy efficiency improvements to the facility they occupy.
  - Probably the most significant barrier for tenants is the need to get the owner’s consent to make energy efficiency improvements. Nearly half of the tenants agreed with this statement, more so than any other barrier.
  - Over three-quarters of the tenants disagreed that it was not worth investing in energy efficiency because they did not own the building.
- Southern California Edison’s partnerships with CBOs are beginning to impact customers.
  - CBOs are a growing source of program awareness for SCE customers.
  - More SCE/SCG customers attend community meetings than other IOUs.
  - SCE representatives are more likely to attend community meetings than other IOUs.
  - However, population-level exposure to community meetings is fairly low; only 6% of the population attended a meeting where rebates were discussed.
- Community marketing events were most effective in getting customers to participate when customers can sign up for the program on the spot. The one-stop shopping approach brings all players – customer, utility, contractor – together to complete the transaction. The attendance of previous participants, who can vouch for the program from personal experience, helps boost credibility.
- IOU-CBO partnerships take time to foster, are based on trust, need utility upper management support, responsive IOU staff and a “what can we do for you” approach, not “here’s what you can do for us.”
- In-language program materials are not reaching many customers, nor do many minority-language participants find them useful. SCE customers, particularly Chinese speakers in SCE territory, are more responsive to in-language program materials.

## **Recommendations**

- IOU-CBO partnerships are an attractive delivery mechanism because they offer marketing leverage and a way to reach HTR populations, such as small businesses in ethnic communities. SCE has enjoyed some success penetrating HTR markets.
  - Attempt to get customers to sign up on the spot at events by having contractors present, the product displayed, and past participants present to vouch for the program.
  - Consider that CBO partnerships should be treated as a two-way street, and require time to foster a trusting relationship that must extend beyond a single account representative.
- When setting goals for HTR accomplishments the following should be considered:
  - If the objective is to spend the PGC dollars equitably, measuring accomplishments in terms of rebates may be more appropriate than applications. However, if the objective is to reach the HTR segments, applications is appropriate.
  - Serving the HTR segments are more costly, especially the very small. Therefore, to remain equitable, given the way the PGC ratios are constructed here, goals should *not* be set to achieve a ratio of 1 or more.
  - Some HTR segments are better served by different program intervention strategies. Therefore, goals should be set differently (e.g., lower) for individual HTR segments (e.g., for segments with specific barriers that a program intervention strategy is not designed to overcome), and set appropriately.
  - Similarly, some HTR segments are easier to serve than others. If an aggregate HTR goal is set, as opposed to individual HTR segment goals, then some HTR segments may be over-served to reach the aggregate goal.
  - In 2002-2003, many local third-party CPUC programs were funded that targeted the HTR segments and offered identical measures as Express. It is likely that in 2004-05, this will also be the case. Therefore, it may be the case that Express should be targeted more at the non-HTR segments, which the Express program is likely to be capable of serving more cost-effectively. Without considering the benefits received by these third-party programs, it is very likely that many HTR segments are being over-served relative to their PGC contribution.

## **PROCESS FINDINGS**

- As discussed above, over one-third of the participant population became aware of the program from a vendor, more than any other source. Over 86% of the participants that became aware of the program through a vendor, were approached by the vendor as opposed to contacting the vendor themselves.
- Next to rising energy bills, contractors were the most influential factor on participants' decision to participate in the program.

- Nine of 10 participants felt the vendors input was quite important in deciding which equipment to install.
- However, three in four participants were working with a vendor that was new to them, and the general population had concerns over credibility with vendors that approach customers unsolicited.
  - Customers felt that if a vendor were referred by a utility, that they would be a credible source of energy efficiency information, significantly more so than a vendor that approached them unsolicited.
  - Nearly half of participants that used a vendor believed a list of qualified contractors from their utility would be very important in selecting a contractor.
- Online applications gained popularity among program participants.
  - Nearly half of participants with Internet access were aware that rebate applications were available online.
  - 20% of participants reported that they downloaded an application and one in four customers said they would download an application.
- On the whole, participants appear to be quite satisfied with the program. Less than 5% of customers were dissatisfied with their contractor, the equipment performance, the application process or their overall program experience. Contractors and equipment received the highest satisfaction rating, while satisfaction with bill savings lagged slightly (only 8% dissatisfied). Only 13% were dissatisfied with the program for any reason. Although no component of the program was highlighted, dissatisfaction chiefly arose from equipment problems, inadequate bill savings, too much paperwork, problems with contractors and slow rebate processing.

### ***Recommendations***

- Provide Vendor Referrals. Perhaps the most effective and influential delivery mechanism for the program is vendors marketing the program directly to potential participants. One of the biggest barriers vendors face is credibility, as the vast majority of vendors are approaching customers that they do not have existing relationships with. Although mass market program awareness campaigns help vendors overcome this barrier, by making customers aware of the program prior to their interaction with the vendors, having the IOU provide a referral for the vendor can significantly increase the vendor's credibility with the customer.

### ***VENDOR FINDINGS***

- Vendor participation has declined. Two-thirds did more business through Express in 2001 than in 2002 due to lower rebates, size restrictions, and third party programs.
- Express Efficiency competes for vendors with third party programs. Some vendors went rebate hunting across California, mentioning better rebates through Edison's Small



Business Program, San Francisco's PowerSaver program, EZ TurnKey, Ecology Action/RLW, Stockton, Berkeley and LightWash.

- Most vendors prefer consistently higher rebates instead of periodic sales. During sale periods:
  - Vendors cannot accommodate customer demand
  - Utilities are less responsive (delays with reservations, communications not always timely)
  - Rebates turnaround is slower.
- Vendors also prefer higher base rebate levels over vendor bonuses.
- Vendors agree that small commercial customers are more costly to reach and less profitable than large customers.
  - Higher incentives was the main solution advanced by vendors to improve reach.
  - Direct marketing by utilities to booster credibility was also mentioned.
- In general, vendors were satisfied with most components of the program process.
  - By and large, vendors appreciated the reservation system because it gave them a “sense of security that we’re going to get paid.”
  - Vendors liked the program being consistent statewide.
  - Vendors felt the application process was straightforward, and generally fill out the application on behalf of their customers.
  - However, determining whether customers qualify for the program is a hassle.
  - Furthermore, a quarter of all vendors were not at all satisfied with the time taken to process rebate checks.
- Vendors were generally positive about three potential program design concepts, focused on bringing customers and vendors together, and increasing vendor credibility.
  - Two-thirds of the vendors felt that having access to customer audits that were conducted through the Statewide Nonresidential Audit program would generate valuable sales leads and provide additional credibility for the vendor.
  - Nearly half of the vendors felt that partnering with CBO's, and attending CBO meetings with IOU representatives would be valuable.
  - Over one third of the vendors felt that providing customers with a list of utility-approved vendors would be of value.
- Vendors questioned whether CFL savings persist.
  - Screw-in CFLs are replaced with incandescent bulbs when they burn out.
  - Irregular installations necessitated rigorous inspection and slowed payment.

- The commercial market for compact fluorescent bulbs is limited.
- Contrary to what many of the Express program managers believe, vendor density is well distributed through the state, and vendors are not deterred from operating in PG&E’s sprawling service territory.

**Recommendations**

- Get the base rebate level right. As one vendor noted, sales are necessary when “base rebate levels not enough. At a base rebate level, you’re just picking up people that’ll already do retrofit projects – a lot of free ridership.”
- Implement consistent rebate levels instead of periodic sales in order to
  - Accommodate customer lead time and schedules
  - Improve utility responsiveness
  - Reduce rebate turnaround time
  - Simplify vendor marketing and business planning
- Strengthen linkage between audits and Express Efficiency. Customers indicated that printed materials from utilities or audit recommendations are preferable to any other source of energy efficiency information, yet very few customers learn about Express through an audit. Consider giving access of audit results to vendors, with customer approval. Two-thirds of the vendors surveyed felt this would be valuable. Audits can be used as marketing collateral, driving customers to the Express program, and increasing the credibility of vendor recommendations. For example, SCG bundled audits and Express participation in 2002.

**PROGRAM INFLUENCE**

- Participants pointed to rising energy bills as the most influential factor in their decisions to purchase rebated equipment, followed by vendors. Audits and community events were relatively unimportant in participant decision-making.
- SCE customers who attended community events found them more influential than the other utilities, suggesting SCE’s community marketing strategy has found favor among its customers.
- HTR customers tended to be more influenced by utility representatives, audits and CBOs, while Express rebates, rising bills and contractors did not have as much influence relative to the population. This result also substantiates findings from the Small/Medium Customers Wants and Needs Study, which found HTR segments such as small customers and tenants to be more positively disposed to CBO contact than customers in general.
- The majority of customers would not have purchased the same equipment at the same time had the program not existed.

- One in five participants would not have purchased any equipment at all in the absence of the program. Another 13% would have purchased standard efficiency equipment, and 27% would have made their purchase at a later date.
- HTR customers were only slightly less likely to have purchased the same equipment at the same time in the absence of the program.
- One in three participants said they bought more energy efficient equipment as a result of the program. The most common purchase was lighting.
- Participants consider themselves slightly more likely to consider buying energy-efficient products in the future than the general population.
- Participants were far more likely to replace lighting equipment that was completely operational than nonparticipants. This early replacement trend is also evident in cooling equipment, where more participants tended to replace cooling equipment before it failed or had problems than the general population.

## **REGULATORY ISSUES**

### ***Delays in Program Rollout***

- Delays in Program Rollout Hurt Vendor Participation
  - Uncertainty surrounding funding for the 2002 program ended momentum generated by the 2001 program and resulted in a very slow start for the 2002 program. The late launch, coupled with initially low rebate levels and vendor' tendency to delay participation until sales promotions were offered, resulted in little participation during the first three quarters of calendar year.
  - Three-quarters of vendors felt that delays in starting the program negatively affected their business. Delays compress their business by creating a short window for doing rebated jobs. Vendors lose customers, cannot retain staff and are unable to plan for their business as a result of delayed program rollout.
- Delays Hurt Vendor Sales
  - “Once we put the estimate out there, it can take anywhere from immediately to 2-3 months, even five months, before the customer comes back. If those rebates have changed in that period of time or if program's no longer available for a period of six weeks - for example, December 15 to February 2, then it's very hard.”
  - “You can't plan and don't know what to do. Before you know it, you've lost the first quarter of the year. In March, they come out with the paper for the year. The year's almost over then. Then they double rebates in August. The rebate program is really a two-month program.”
  - “It's hard to respond to a short window. If program gets started halfway through year, we lost the first months or two just in getting organized to promote it, really compressed to last half of year. The wider the window, the more defined the window, the better it is for us. Quick starts and stops are difficult.”

- “The delays push retrofit customer back five months, consolidates yearlong program into seven months. I have had jobs fall through because of these delays.”
- Delays Make it Difficult for Vendors to Retain Staff
  - “It kills the business. It's very hard to level load employees or salespeople to give them enough work to sustain doing this particular business year around when there's no work for the first 4-5 months of the year. We lose some of our best employees.”
  - “You can't keep employees around if you don't have work for them.”

### ***Statewide Coordination***

- The IOUs have successfully coordinated the program (product specifications, sales promotions, rebate applications, program materials). Statewide vendors really like standardized rebates and applications, which makes their advertising and marketing easier.
- Although the IOU program managers have been positive overall about statewide coordination, it has at times proved difficult to establish consistent product eligibility standards and rebate levels that were appropriate across the state. Express program managers believe that the program needs flexibility with respect to setting rebate levels to address local conditions.
- Energy savings goals are not consistent in terms of program budget per kWh.
  - SCE had richest budget per kWh, SDG&E the least. As a result, SDG&E and PG&E wanted lighting measures, which offer the biggest bang for the buck, to make their goals, whereas SCE preferred more expensive HVAC measures in its cooling-intensive service territory.
  - Differences in goals per budget dollars posed a major challenge for statewide consistency, which tied IOU's hands on pricing.

### ***Recommendations***

- As much as possible, the program should avoid interruptions between program years, and/or delays in starting a new program cycle.
- The CPUC should implement at least a two year funding cycle for the program.
- The program should continue to be run consistently statewide, but allow some flexibility in rebate pricing.

### ***RECOMMENDATIONS FOR FUTURE RESEARCH***

The measure and work paper review task resulted in a number of impact evaluation projects being recommended, which are prioritized in Exhibit 6-1 and discussed below.

Generally, measures that have historically contributed the most towards energy savings accomplishments (kWh and therms) are given a higher priority. Furthermore, parameters (such as the EUL) that have not been studied or are expected to have changed over time for a given measure are also provided higher priority. Finally, activities are prioritized that are expected to provide more benefit relative to the cost to conduct the activity (for example, an algorithm review is relatively inexpensive and may provide significant benefit for measures that have complex algorithms that have not been thoroughly reviewed).

**Exhibit 6-1**  
**Prioritization of Ex Ante Savings Updates**

Measure	Percent of Program's Energy Savings			Priority of Impact Analysis Needs					
	2000	2001	2002	Gross Impacts				NTG	EUL
			Algorithm Review	Hours of Operation	Change in kW	SAE Bill Analysis			
CFLs	66%	45%	69%	-	●	●	●	●	●
T-8s	22%	23%	12%	-	●	●	●	●	-
Other Lighting	3%	15%	2%	-	●	-	●	●	●
HVAC - Other	4%	8%	8%	●	●	-	●	●	●
HVAC - A/C	3%	3%	1%	-	●	-	●	●	-
Refrigeration	2%	3%	1%	●	●	-	●	●	●
Water Heating	0%	0%	5%	●	-	-	●	●	●
Agriculture	0%	3%	2%	-	-	-	-	-	-
Motors	1%	0%	0%	-	-	-	-	-	-

-	Not Recommended
●	Low Priority
●	Moderate Priority
●	High Priority

**CFLs** have been given the highest priority because over the past three years, they have contributed the majority of the programs energy savings. Furthermore, little has been done to study the hours of operation, EUL and NTG for this measure. Because there is some uncertainty around the wattage of the bulb being replaced, it is also important to study the change in connected load associated with CFL retrofits. Also, an SAE analysis would provide a good opportunity to statistically adjust the engineering estimates of savings for behavioral aspects. An algorithm review is not recommended due to the straightforward energy savings calculation.

**T-8s and Other Lighting:** Although T-8s (and to a lesser extent other lighting measures) have been studied in depth as part of the pre-1998 program evaluations, the participant market has changed dramatically with the emphasis on small customers and the under 500 kW eligibility requirements of the program. Because these measures are a large contributor to the programs overall energy savings accomplishments, they receive a moderate priority for updating the hours of operation and net-to-gross ratios (parameters that are likely to be most affected by the change in the participant market). Furthermore, an SAE analysis would provide a good opportunity to statistically adjust the engineering estimates of savings for behavioral aspects. The EUL has been studied in depth for T-8s, but the EUL has not been studied for some of the other lighting measures. Studying the change in connected load for these measures is not seen as much of a priority, however it is a low priority for T-8s due to the incidence of energy saving lamps and ballasts in place among the pre-existing measures that are being retrofitted. An algorithm review is not recommended due to the straightforward energy savings calculation.

The **HVAC** measures have also been significant contributors to the program's energy savings accomplishments. As with the lighting measures, the change in the participant market has likely had an effect on the operating hours and NTG. Because these measures are not as large a contributor as the lighting measures, their priority is low. However the priority for conducting an SAE analysis is moderate because the savings associated with the individual measures are significant enough to be observed in an SAE analysis. The EUL has been studied for ACs, but not for many of the other HVAC measures. Finally, an algorithm review is recommended as a low priority action for some of the other HVAC measures, such as thermostats, that do not have straightforward algorithms.

**Refrigeration and Water Heating** measures are generally seen as a low priority measure due to their relatively low contribution to energy savings accomplishments. However, many of the current algorithms used to estimate savings for refrigeration measures are in need of review, so this task is given a moderate priority. Furthermore, the priority for conducting an SAE analysis is moderate for water heating because the gas savings associated with the individual measures are significant enough to be observed in an SAE analysis

**Agriculture** measures are not recommended due to their relatively low contribution to energy savings accomplishments and because agriculture measures have been studied in depth in prior impact evaluations.

**Motors** are not recommended due to their very low contribution to energy savings accomplishments.

In addition, we recommend that the following evaluation activities occur as part of the 2003 and/or 2004 MA&E studies:

- This PY2002 Express evaluation focused its upstream market research on lighting vendors, as lighting consisted of 90% of the program's kWh accomplishments. The 2004 Express program is placing more emphasis on moving the delivery of HVAC and Motor measures upstream. Therefore, we recommend conducting interviews with HVAC and Motor vendors and distributors, in much of the same way that lighting vendors were interviewed, but to also investigate the effects of moving the program upstream.

We recommend that future MA&E studies continue to include a similar set of research objectives as those addressed in this study. In particular,

- **A Participation Assessment**, that continues to track and analyze trends in Express participation by utility, technology, customer business type, customer size, and HTR segment. Continue tracking PGC benefits and contributions to aid in setting and evaluating appropriate HTR goals and accomplishments.
- **A Process Assessment**, based on customer survey data and interviews with program staff and upstream market actors to examine program awareness, marketing, statewide coordination, delivery channels (such as community-based organizations, utility representatives), factors that influenced participation, program effects (comparing knowledge and attitudes of participants and non-participants), and customer satisfaction.

- **A Verification Assessment**, to verify energy and peak demand savings accomplishments claimed by the program. Verification should include tracking system review as discussed above, but also an application review to ensure application data are being properly entered into the tracking system, phone and/or onsite verification of measure installations to ensure measures rebated are installed and are program qualifying, and potentially billing analyses to at a minimum evaluate the validity or accuracy of deemed savings values.

## APPENDIX 1:

# EXPRESS EFFICIENCY PROGRAM STAFF INTERVIEWS



## **EXPRESS EFFICIENCY STAFF INTERVIEW FINDINGS**

A series of interviews were conducted with SCE, SCG, SDG&E and PG&E Express program staff. These qualitative interviews (conducted April 23, 24 and May 9, 2003) were conducted to discuss program evaluation objectives, obtain program manager input to help refine objectives and research issues, ensure the report will provide program managers with useful findings to help with future program design, and educate the evaluation team on program design, verification process, marketing activities, and vendor operations.

Interviews concentrated on four main areas:

- Verification
- Deemed Savings Review
- Process Assessment (statewide coordination, vendor involvement, the effectiveness of program marketing, satisfaction with the program, participation eligibility, HTR participation)
- Program Changes & Innovations

The views and insights of Express program staff are summarized below.

### **VERIFICATION**

SCE randomly selects 20% of participating sites for inspection. In addition, performance issues prompted SCE to inspect 100% of some vendors' jobs. Field inspections are recorded in the program tracking system. Most are spot inspections. Problems include having no access to a site (especially in motels), finding key contacts for the site, and discovering that some or none of the fixtures were installed. Adjustments are made when discrepancies are discovered. SCE works with the contractor and customer to resolve issues and rebate the full amount. However, SCE does not pay on partial installs. Even if half the lighting fixtures are in storage for spares, they short pay the rebate application.

SDG&E and SCG inspect all participating sites. Verification procedure at SoCalGas calls for 100% inspection. If a piece of information is missing from application, it does not go into the tracking system. After all required documentation is processed at SDG&E, staff conducts a field inspection, typically involving a count of all the fixtures. Field inspections in SDG&E's service territory exposed some issues, particularly with CFLs, such as dropped shipment and "double dipping," where applications for the same job were submitted by both customer and contractor. Therefore, SDG&E consistently asked for re-inspection in 2002.<sup>1</sup>

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<sup>1</sup> SDG&E is considering changing its re-inspection fee (currently \$200) to \$200 or 10% of the total rebate.

PG&E conducts random inspections on 20% of applications, 100% inspections for any application over \$2500 or over 100 CFLs. If a problem arises with a vendor, PG&E inspects all of that vendor's work.

A good rule of thumb seems to be 10-20% random inspections, 100% inspections for large applications, and 100% inspections of "problem" vendors.

### ***DEEMED SAVINGS REVIEW***

Express program staff suggested several Express measures that may need review as part of the update deemed savings update.

In general, lighting hours of operation needs review. SCE and PG&E suggested revisiting CFLs. While lighting logger research exists, there is a single deemed savings value for the 15-26 watt CFL, despite different operating hours, customer and building types. Express staff expressed doubts about the reliability of CFL operating hours and measure life. They suspect operating hours may be out of date, as participant populations have changed in recent years. For example, SCE's field experience suggests operating hours are different for very small customers. SCE's self-reported numbers are low for very small HTR customers and these customers make up an increasingly large percentage of Express customers. In addition, PG&E's program manager noted that the IOUs claim a flat 10,000-hour measure life instead of differentiating between modular and integral varieties.

New measures, such as food service and cool roofs, also deserve attention. The IOUs currently rely on CEC information for cool roofs. The Gas Company noted that no technical baseline exists for process boilers, tank insulation, pipe insulation. In addition, SCG relies on self-reported usage for food service equipment (i.e. power burners, infrared).<sup>2</sup> Standards for food service equipment would be desirable. These measures should be revisited to address stated concerns about important assumptions.

### ***PROCESS ASSESSMENT***

The process evaluation assesses statewide coordination, vendor involvement, the effectiveness of program marketing, satisfaction with the program, participation eligibility review, and HTR participation review.

#### ***Statewide Coordination***

In 2002, the Express Efficiency program was officially "statewide", where all facets of the program were consistent across the four IOUs, as mandated by the CPUC. The program managers at each of the utilities had worked together closely in 2001 (and in some cases before 2001) and as a result these existing working relationships allowed for effective coordination and communication statewide. Express program managers meet bi-weekly to ensure the program is consistent across their service territories. The utilities not only coordinated so that rebate levels, product specifications, sales promotions, program design (i.e. applications) and

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<sup>2</sup> SCG adopts a default value when customers do not report hours of usage.

program materials were consistent across the four IOUs. This consistency was key in ensuring that the 2002 program was truly a seamless and standardized statewide program.

While statewide coordination is regarded by the utilities as beneficial to trade allies and consumers, at times it proved difficult to establish consistent product eligibility standards and rebate levels that were appropriate across the state. The IOU's unique needs, based on different market factors and service territories, present challenges for coordination. PG&E and SDG&E depend on lighting measures to reach their goals, while Edison sought to balance the portfolio in 2002. As SDG&E's Express program manager remarked, "I'm one of the first proponents about the need to venture out into other areas, but I realize that a lot of our savings come from lighting ... so my hands are tied. I can't run a promotional sale unless we're all doing the same thing." Thus, the IOU's differing imperatives, combined with the need for consistency, "can cause problems when you want to raise/lower rebate levels for certain measures," Edison noted. The Express program is currently conducting an evaluation of rebate levels. PG&E's Express program manager believes that Express Efficiency should be similar statewide, but that the program needs flexibility – particularly with respect to pricing – to address local conditions.

SCE program staff acknowledged that the need for consensus can delay decision making and reduce creativity and spontaneity. However, the coordination mandate has not "prevented us from being effective." SCG program staff likewise believe that believe coordination is working. However, SCG noted that the need for consensus has not greatly affected gas measures because the electric IOUs typically defer to SCG. The utilities have developed successful working relationships that allowed for compromising so that the statewide program by-and-large addresses the uniqueness of each utility's customers.

Energy savings goals were not necessarily consistent statewide in 2002, which may demonstrate the market differences for energy efficient technologies among the service territories. The table below provides the Express Program budgets for PY2002 (after some budgets were reallocated) and their corresponding energy savings targets. SCE had the richest budget per kWh, even though they had no therm goal. If we adjust the PG&E and SDG&E budgets by allocating a portion to therm savings (using the SCG \$/therm ratio), we see that SCE received significantly more budget per kWh. Because SCE has significantly more cooling load in their territory, and cooling measures are "more expensive" (needing more incentive per kWh saved) there projected program portfolio required more budget per kWh.

**Comparison of Program Budgets and Energy Savings Targets  
By IOU**

	PG&E	SCE	SCG	SDG&E
	Q4	Q4	Q4	Q4
<b>Budget</b>				
Total Program Budget	\$10,961,000	\$5,400,000	\$3,448,000	\$3,205,000
<b>Energy Savings</b>				
Projected Net kWh	155,382,003	64,303,000	17,000	47,452,000
Projected Net Therms	1,196,648		2,190,000	607,310
<b>Budget per Unit of Energy Savings</b>				
Program \$/kWh	\$ 0.071	\$ 0.084		\$ 0.068
Program \$/Therm	\$ 9.160		\$ 1.574	\$ 5.277
Adjusted Program \$/kWh net of Therms*	\$ 0.058	\$ 0.084		\$ 0.047

\*Budget for PG&E and SDG&E reduced by \$1.57 per projected net Therm, using SCG value.

While this may be appropriate for SCE given their territory, it also raises the question for the need to have rebate levels and sales promotions be consistent statewide. For example, if SCE wanted to promote cooling measures (as you might expect given they are targeting cooling), then SDG&E and PG&E's budgets would suffer, because more HVAC participation would like occur in their territories, exceeding their projections and reducing their projected cost-effectiveness. Similarly, if lighting was promoted, SCE would benefit and likely exceed their savings targets (which appears to have been the case in 2002).

**Vendor Involvement**

Vendor participation is critical to success, as the majority of customers sign rebates over to vendors. Stimulating vendor involvement is a challenge. Vendors, who work on commission, want the biggest bang for their buck. "It is not in a vendor's best interest to visit a customer for seven light bulbs," observed Timothy Davis, who heads SCE's Small Business Solutions Group. "Vendors try to get the biggest bang for the buck – the large end customers." The vendor cadre that serves small customers is a different group than those that serve medium and large customers.

**Southern California Edison.** SCE's field delivery team – comprised of program management staff, the Small Business Solutions group and vendors – has focused on small customers since 1997. SCE takes a two-pronged approach to the small customer market, casting a broad net as well as one-on-one contact.

The Small Business Solutions Group focuses on vendor relationships. The Group's primary focus is to get energy efficiency message to organizations. SCE works with vendors through events and outreach, sometimes seeing 200-300 people in a day. SCE works with community leaders, faith-based organizations, community-based organizations to deliver energy efficiency to small customers. The team gives presentations to Chamber of Commerce breakfasts, Expos, and other groups with regular events. Edison partners with vendors to acquire customers at community events. SCE also employs a one-on-one approach to outreach, doing onsite visits to small customers. Timothy Davis reports that even busy small business owners appreciate one-

on-one contact, especially in the outlying areas. This approach has increased awareness and participation among customers.

**Southern California Gas Company.** SoCalGas works downstream. SCG did not conduct direct outreach to vendors in 2002, nor did SCG encourage customers to sign incentives over to vendors. Instead, SCG service technicians go directly to the customer. For example, when a SCG technician is servicing a customer's boiler, the service tech identifies an energy efficiency issue and informs the customer about Express Efficiency.

**San Diego Gas & Electric.** SDG&E relies heavily on vendors to move the small commercial market. Unlike SCG, SDG&E account executives are assigned to large accounts and chains, neither of which was eligible to participate in Express. SDG&E conducted vendor kickoff meetings in 2002 and recruited vendors in serving SCE territory to install equipment in the San Diego area. The majority of SDG&E's Express applications submitted come from American Lighting.

**Pacific Gas & Electric.** PG&E's program manager estimated that about 80% of sales come from 20% of vendors. PG&E faces a unique challenge in that vendors may find it easier to serve Southern California's dense population than PG&E's sprawling service territory. Although PG&E's customer base is no larger than Edison's, its territory is huge, forcing vendors to do a lot of driving. Vendors typically work Southern California first, then move north. One program manager observed that a vendor located in south Orange County can serve both SDG&E and SCE, concentrating on fast-moving products in fast-moving territory. PG&E competes with other IOUs for vendors as well as its own multi-family rebate program, which pays much higher rebates for hardwired CFL fixtures.

The IOUs point to SCE as a successful partnership with vendors. In the words of one SCG program staff member: "SCE's mass markets and business solutions group is awesome." PG&E also sees Edison's approach to managing vendor relationships as a good model.

### ***Effectiveness of Program Marketing***

**Marketing Activities.** SCE's 2002 message was "Save Energy Save Money," the tagline for Express and residential programs. SCE representatives reach out to both organizations and customers about Express, conservation (low and no cost measures), and the audit program. Representatives attempt to deliver messages to business, residential and income qualifying customers. In addition, the Small Business Group inquire customers' business issues ("what keeps you up at night?"). SCE has also targeted seven industry segments and developed distinct strategies for these groups.

SoCalGas' marketing is directed to the customer through bill inserts, one-on-one contact, some direct mail and limited outreach and advertising. Outreach efforts include forums with CBOs and faith-based organizations. SCG promoted low and no cost conservation measures by bundling audits and Express participation in 2002.

SDG&E's outreach focuses on vendors. Like the other IOUs, bill inserts are used to reach the mass market, but it is vendor kickoff meetings and vendor breakfasts that bring vendors in touch with the program. While it educates customers on conservation, SDG&E focus groups indicate that customers consider themselves knowledgeable about conservation measures and

prefer rebates to education. SDG&E's audit group conducts onsite audits and provides information on the Express program.

PG&E uses bill inserts, direct mail, vendor outreach and account managers to promote the program. PG&E's Account Managers work with customers and do limited community outreach. However, promoting energy efficiency accounts for a small part of their performance goals, compared to SCE, which has more fully dedicated outreach staff.

**Sales.** Program staff agree that vendors wait for sales, some even ramped up sales staff during the fourth quarter sale. SCE estimated that 70-80% of Express participation occurs during sales. SCG holds a negative view of sales. One staff person compared sales to a drug, "[IOUs] keep giving them this drug, so they'll wait for it ... Part of that is because the IOUs are so fixed on getting their goal. We have no choice, we have to meet the goal." The IOU's savings goals give vendors leverage. Vendors know the IOUs must meet a certain level, so "they'll wait and you might not meet the goal. As long as IOUs have that liability, vendors will wait and they'll have to pay to meet them." SoCalGas is the only IOU that did not use sales as a promotion tool in PY2002. SCE sees sales as a useful marketing tool, while SDG&E management opposes promotions. To eliminate the need for sales, the statewide Express team is reassessing rebate levels and considering changing base rebate numbers for PY04.

### ***Satisfaction with the Program***

Positive program experience. IOU staff agreed that customers are most satisfied with the rebates themselves. Satisfaction is also driven by speed in rebate processing. Delays in payment cause dissatisfaction. SCG noted that customers liked one-on-one contact and good customer support was a source of customer satisfaction. Ease of use is important to customers.

Negative program experience. As SCG staff noted, "The program is still cumbersome. Mom and pop shops are unlikely to have the necessary invoices and know dates and specs." In addition, Vendor-related complaints, such as unfulfilled promises or dropped shipment, are most commonly heard by program managers. SDG&E had a few problems with out of state contractors that installed equipment. These vendors were not available when products failed, leaving customers without recourse. To improve product quality, the statewide Express team put a higher standard on CFLs in the market. Product defects can also cause dissatisfaction. In 2002, for example, some customers who purchased dimmable ballasts did not realize the ballasts were *supposed* to dim, and thought the product was defective.

### ***Participation Eligibility Review***

IOU staff diverged on the impact of the aggregation rule in 2002. SCE had self-imposed an aggregation rule on previous years, so the PY02 ruling did not greatly affect its Express participation. One program manager noted that only 2% of the eligible market participates in Express, so a smaller eligible population has little effect. SDG&E was disappointed that participating chain customers, such as Home Depot, were no longer eligible for Express. A recent study of 2002 Express participation in PG&E service territory, conducted by Quantum Consulting, found the 500 kW aggregation rule affected as much as 40% of the eligible market.

## ***Hard to Reach Customers***

The IOU's believe they are reaching hard to reach customer segments. SCE's Business Solutions Group uses in-language materials and staff to target organizations and customers in HTR zip codes. SCE's staff – which includes Cantonese, Korea and Spanish speakers – tries to be representative of the diversity of SCE's customer base. These representatives canvass ethnic markets through community events. SCG developed program materials in four languages: Spanish, Chinese, Vietnamese and Korean. PG&E also has applications in these four languages. SDG&E exceeded its HTR goal (59% for any HTR segment) in 2002, garnering 66%. PG&E 's HTR outreach is based on geography and rate schedule (A-1 and A-6). PG&E met its HTR goal in 2002.

Renters are a large segment of the HTR population. Program staff noted that many business are worried about staying in business and don't have the time to consider energy efficiency. PG&E's program manager noted that they "take care of basic needs first – food, water, safety." Furthermore, 90% of all first year businesses fail. SDG&E works with BOMA and the International Facilities Management Association (IFMA) on energy issues. While some property owners recognize that a property looks better to a potential client if it's energy efficient, participation depends on the individual building owner.

However, SCG program staff believe that some ownership barriers to participation may apply to some measures more than others. For example, lighting is part of a facility, whereas a boiler may belong to the business owner. As a result, the owner is more motivated to care about his boiler than the facility's lighting. SCG's Express measures, such as boilers and water heaters, are equipment necessary for their operation and more likely to be owned by the business itself. Such measures may be more amenable to EE upgrades.

## ***PROGRAM CHANGES AND AREAS FOR IMPROVEMENT***

IOU staff want to see more money for rebates, long range planning, multi-year programs, stable eligibility requirements and relaxed rules. Less stringent rules might lower administration costs because the program would not demand fine operations work. Customers could be served easier, faster and cheaper with fewer rules.

**Longer range program horizon.** Starting and stopping the program negatively impacts the whole chain – customers, vendors. Momentum that takes months to build is lost, according to SCG staff. Schools and municipalities, who do facilities upgrades at the end of the year, vacations and holidays, are especially hurt when programs are shut off in mid-December. SCG noted that the short program horizon especially hurts process boilers, which have 8-10 month lead time. The customer misses the window unless they place the purchase order at just the right time.

**Fewer rules.** Program staff agreed that relaxing the rules would improve participation. SDG&E's program manager observed that, "We keep adding rules and regulations to this program and it's getting bogged down. People don't want to participate because it's too much trouble." When eligibility requirements change from year to year, customers don't know if they're eligible and they lose interest. A multi-year program would be easier to promote and market to customers.

**The reservation process.** Two IOUs expressed some frustration with the reservation process, which was required statewide by the CPUC in 2002. Although customers may like the reservation system because it offers a guarantee that money is set aside of them, reservations create implementation problems. First, the reservation system causes participants to overestimate their rebate amounts, so rebate money is not efficiently utilized. “People on reservation list tend to err on the high side about how much money they reserve to make sure they get what they need.” Second, reservations are not appropriate for prescriptive rebate program with quick installations and easy paperwork, according to one program manager. Third, the system poses a problem for projects with longer lead times. The reservation system is a particular hassle for process boilers because the length of the boiler installation process exceeds the 60 day maximum set by the reservation system, resulting in a high drop off rate for boiler applications.

**Downstream motors and HVAC.** Opinion is mixed about the effect of the program shifting HVAC and motor components from upstream to downstream. SDG&E’s Express program manager believes downstream is the proper place for HVAC; SDG&E is fielding many calls from customers asking about HVAC rebates. Motors, however, should remain an upstream program. Motors are typically used in assembly lines, and quickly replaced when broken. Customers don’t have time to look at EE options; therefore, upstream is the best way to push this market. Motors and refrigeration (due to its complexity) do not belong in Express. Express is a simple prescriptive program, not suited to measures such as high efficiency multiplex compressor systems.

**Rebate levels.** The Express team is reassessing rebate levels in PY03. New measures are also under consideration. SCG has reduced space heating/boiler rebates and expects to lose market share to a new third party program implemented by Energex. In addition, SCG is rebating programmable thermostats in PY03. SG&E is offering cool roofs, a new food service application and is reaching out to the boiler industry in PY03. SG&E has also tripled the rebate on de-lamping in PY03, which garners more savings than T-8s. SDG&E offered an online application for the first time in 2002 and estimates that 3-4% of customers submitted their applications online.

## ***SUCCESSFUL INNOVATIONS***

Program manager interviews uncovered several noteworthy successes in IOU program implementation: leveraging service technicians to promote energy efficiency, community outreach to HTR segments, strong vendor partnerships, and bundling audit recommendations and rebate opportunities.

**Promoting Express Efficiency during service calls.** SCG uses service calls as opportunities to promote energy efficiency. In servicing equipment, technicians identify energy efficiency issues and inform customers about Express Efficiency. One-on-one contact has proved effective in driving program awareness and participation.

**Bundling audits and rebate opportunities.** SCG bundles audits and the Express Efficiency program. Customers received audits before participating in a program to ensure they get what they really need. For example, if all a customer needs is a blanket on a water heater, then no rebate is involved. Typically, SCG provided audit recommendations, then gave a customer



Express information. SCG staff estimates 80% of Express participants have had an audit in the last year. Thus, SCG audits in 2002 were a complement to Express program. PG&E is taking a similar approach in 2003 with a new on-site audit checklist that lists savings, incremental cost, rebate and Express application.

**Developing vendor partnerships.** The IOUs hold up SCE's outreach efforts as exceptional. First, SCE is unique in the way it partners with vendors. SCE has developed a close relationship with vendors, SCE representatives bring vendors to community events to sign up customers on the spot. In addition, SCE has posted a service provider list on its website to help customers find contractors. Both PG&E and SDG&E hold program kickoff meetings with their vendors, which have been an effective way of educating vendors about the program and changes that have occurred program design, eligibility, etc.

**Community outreach.** SCE leverages its Business Solutions Group to reach the Southern California's HTR community. SCE representatives – which includes Cantonese, Korea and Spanish speakers – canvass ethnic markets through community events. The other IOUs lauded SCE's approach. "SCE's mass markets and business solutions group is awesome. Their primary focus is to get message out to organizations. That's all they do."

APPENDIX 2:  
PARTICIPATION ASSESSMENT DATA  
TABLES

**Exhibit 2-1**  
**2000 Participation by Technology**

Utility	Technology	Customers			Rebate		Energy Savings	
		Unique Sites	Applications	Pct of Program	Dollars	Pct of Program	kWh	Pct of Program
PG&E	HVAC-A/Cs	465	165	0.60%	\$2,253,534	7.88%	7,654,107	2.58%
	HVAC-Bonus	130	142	0.51%	\$164,539	0.58%	-	0.00%
	HVAC-Other	491	512	1.85%	\$876,265	3.06%	10,096,186	3.40%
	Lighting-Bonus	16,920	17,715	64.17%	\$3,863,523	13.51%	-	0.00%
	Lighting-CFL	11,584	13,237	47.95%	\$7,068,942	24.72%	163,210,000	55.00%
	Lighting-Other	726	762	2.76%	\$340,522	1.19%	8,410,272	2.83%
	Lighting-T-8/T-5, Elec Bal, Delamp	10,903	11,303	40.94%	\$6,280,782	21.96%	46,071,658	15.53%
	Motors	664	114	0.41%	\$285,615	1.00%	2,023,008	0.68%
	Motors-Bonus	1	27	0.10%	\$113,000	0.40%	-	0.00%
	Refrigeration	136	142	0.51%	\$187,016	0.65%	6,116,692	2.06%
	Refrigeration-Bonus	32	32	0.12%	\$4,381	0.02%	-	0.00%
	Water Heating	16	16	0.06%	\$4,292	0.02%	-	0.00%
	<b>TOTAL</b>		<b>22,310</b>	<b>23,990</b>	<b>86.90%</b>	<b>21,442,411</b>	<b>74.97%</b>	<b>243,581,923</b>
SCE	HVAC-Other	97	108	0.39%	\$262,587	0.92%	1,230,986	0.41%
	Lighting-CFL	525	569	2.06%	\$1,332,294	4.66%	30,497,447	10.28%
	Lighting-Other	96	120	0.43%	\$55,981	0.20%	1,406,028	0.47%
	Lighting-T-8/T-5, Elec Bal, Delamp	186	206	0.75%	\$433,884	1.52%	2,063,438	0.70%
	Refrigeration	7	7	0.03%	\$1,235	0.00%	56,835	0.02%
	Unknown	125	129	0.47%	\$154	0.00%	2,267	0.00%
<b>TOTAL</b>		<b>834</b>	<b>996</b>	<b>3.61%</b>	<b>2,086,135</b>	<b>7.29%</b>	<b>35,257,001</b>	<b>11.88%</b>
SCG	HVAC-Other	19	23	0.08%	\$63,182	0.22%	-	-
	Water Heating	378	390	1.41%	\$362,885	1.27%	-	-
	<b>TOTAL</b>	<b>392</b>	<b>411</b>	<b>1.49%</b>	<b>426,067</b>	<b>1.49%</b>	<b>-</b>	<b>0.00%</b>
SDG&E	HVAC-Other	21	21	0.08%	\$99,030	0.35%	159,959	0.05%
	Incentive Adjustment	33	33	0.12%	-	-	-	0.00%
	Lighting-CFL	59	59	0.21%	\$34,315	0.12%	1,043,259	0.35%
	Lighting-Other	13	13	0.05%	\$1,627	0.01%	48,935	0.02%
	Lighting-T-8/T-5, Elec Bal, Delamp	2,152	2,152	7.80%	\$4,515,735	15.79%	16,628,258	5.60%
	Refrigeration	4	4	0.01%	\$1,700	0.01%	18,853	0.01%
	Reinspection Fee	54	54	0.20%	-\$6,200	-0.02%	-	0.00%
	Water Heating	3	3	0.01%	\$243	0.00%	-	0.00%
<b>TOTAL</b>	<b>2,209</b>	<b>2,209</b>	<b>8.00%</b>	<b>4,646,450</b>	<b>16.25%</b>	<b>17,899,264</b>	<b>6.03%</b>	
STATEWIDE	HVAC-A/Cs	465	165	0.60%	2,253,534	7.88%	7,654,107	2.58%
	HVAC-Bonus	130	142	0.51%	164,539	-	-	-
	HVAC-Other	628	664	2.41%	1,301,064	4.55%	11,487,131	3.87%
	Incentive Adjustment	33	33	0.12%	-	0.00%	-	0.00%
	Lighting-Bonus	16,920	17,715	64.17%	3,863,523	-	-	-
	Lighting-CFL	12,168	13,865	50.22%	8,435,551	29.49%	194,750,706	65.63%
	Lighting-Other	835	895	3.24%	398,130	1.39%	9,865,235	3.32%
	Lighting-T-8/T-5, Elec Bal, Delamp	13,241	13,661	49.49%	11,230,401	39.27%	64,763,354	21.83%
	Motors	664	114	0.41%	285,615	1.00%	2,023,008	0.68%
	Motors-Bonus	1	27	0.10%	113,000	-	-	-
	Refrigeration	147	153	0.55%	189,951	0.66%	6,192,380	2.09%
	Refrigeration-Bonus	32	32	0.12%	4,381	-	-	-
	Reinspection Fee	54	54	0.20%	(6,200)	-0.02%	-	0.00%
	Water Heating	397	409	1.48%	367,420	1.28%	-	0.00%
	Unknown	125	129	0.47%	154	0.00%	2,267	0.00%
<b>TOTAL</b>	<b>25,745</b>	<b>27,606</b>	<b>100.00%</b>	<b>28,601,063</b>	<b>100.00%</b>	<b>296,738,188</b>	<b>100.00%</b>	

**Exhibit 2-2**  
**2000 Participation by Business Type**

Utility	Business Type	Customers			Rebate		Energy Savings	
		Unique Sites	Applications	Pct of Program	Dollars	Pct of Program	kWh	Pct of Program
PG&E	Agriculture	254	215	0.78%	\$191,243	0.67%	5,029,051	1.69%
	Industrial	1,160	1,026	3.72%	\$826,619	2.89%	8,381,777	2.82%
	Institutional	488	445	1.61%	\$1,765,996	6.17%	14,191,440	4.78%
	Misc. Commercial	3,817	4,072	14.75%	\$5,503,960	19.24%	92,308,453	31.11%
	Office	3,815	4,056	14.69%	\$3,951,244	13.82%	45,107,534	15.20%
	Other	691	563	2.04%	\$2,223,972	7.78%	10,266,969	3.46%
	Restaurant/Grocery	4,321	5,041	18.26%	\$2,538,819	8.88%	34,610,715	11.66%
	Retail	7,764	8,572	31.05%	\$4,440,559	15.53%	33,686,025	11.35%
<b>TOTAL</b>		<b>22,310</b>	<b>23,990</b>	<b>86.90%</b>	<b>\$21,442,412</b>	<b>74.97%</b>	<b>243,581,964</b>	<b>82.09%</b>
SCE	Agriculture	2	3	0.01%	\$3,361	0.01%	37,203	0.01%
	Industrial	12	12	0.04%	\$46,855	0.16%	146,142	0.05%
	Institutional	8	9	0.03%	\$32,137	0.11%	696,539	0.23%
	Misc. Commercial	237	284	1.03%	\$713,628	2.50%	14,416,800	4.86%
	Office	90	100	0.36%	\$157,878	0.55%	1,753,881	0.59%
	Other	425	522	1.89%	\$1,033,398	3.61%	17,464,165	5.89%
	Restaurant/Grocery	24	28	0.10%	\$60,381	0.21%	517,349	0.17%
	Retail	36	38	0.14%	\$38,497	0.13%	224,922	0.08%
<b>TOTAL</b>		<b>834</b>	<b>996</b>	<b>3.61%</b>	<b>\$2,086,135</b>	<b>7.29%</b>	<b>35,257,001</b>	<b>11.88%</b>
SCG	Agriculture	1	1	0.00%	\$750	0.00%	.	-
	Industrial	5	5	0.02%	\$3,624	0.01%	.	-
	Institutional	34	40	0.14%	\$87,406	0.31%	.	-
	Misc. Commercial	68	73	0.26%	\$111,893	0.39%	.	-
	Office	25	29	0.11%	\$58,937	0.21%	.	-
	Other	2	2	0.01%	\$1,000	0.00%	.	-
	Restaurant/Grocery	233	236	0.85%	\$141,989	0.50%	.	-
	Retail	24	25	0.09%	\$20,468	0.07%	.	-
<b>TOTAL</b>		<b>392</b>	<b>411</b>	<b>1.49%</b>	<b>\$425,317</b>	<b>1.49%</b>	<b>-</b>	<b>0.00%</b>
SDG&E	Agriculture	18	18	0.07%	\$29,188	0.10%	109,901	0.04%
	Industrial	177	177	0.64%	\$360,575	1.26%	1,398,805	0.47%
	Institutional	40	40	0.14%	\$197,363	0.69%	846,723	0.29%
	Misc. Commercial	283	283	1.03%	\$624,820	2.18%	2,182,897	0.74%
	Office	579	579	2.10%	\$1,862,045	6.51%	6,680,683	2.25%
	Other	280	280	1.01%	\$323,419	1.13%	1,248,704	0.42%
	Restaurant/Grocery	185	185	0.67%	\$239,882	0.84%	1,150,169	0.39%
	Retail	647	647	2.34%	\$1,009,159	3.53%	4,281,383	1.44%
<b>TOTAL</b>		<b>2,209</b>	<b>2,209</b>	<b>8.00%</b>	<b>\$4,646,451</b>	<b>16.25%</b>	<b>17,899,265</b>	<b>6.03%</b>
STATEWIDE	Agriculture	275	237	0.86%	\$224,542	0.79%	5,176,155	1.74%
	Industrial	1,354	1,220	4.42%	\$1,237,673	4.33%	9,926,724	3.35%
	Institutional	570	534	1.93%	\$2,082,902	7.28%	15,734,702	5.30%
	Misc. Commercial	4,405	4,712	17.07%	\$6,954,301	24.31%	108,908,150	36.70%
	Office	4,509	4,764	17.26%	\$6,030,104	21.08%	53,542,098	18.04%
	Other	1,398	1,367	4.95%	\$3,581,789	12.52%	28,979,838	9.77%
	Restaurant/Grocery	4,763	5,490	19.89%	\$2,981,071	10.42%	36,278,233	12.23%
	Retail	8,471	9,282	33.62%	\$5,508,683	19.26%	38,192,330	12.87%
<b>TOTAL</b>		<b>25,745</b>	<b>27,606</b>	<b>100.00%</b>	<b>\$28,601,065</b>	<b>100.00%</b>	<b>296,738,230</b>	<b>100.00%</b>

**Exhibit 2-3**  
**2000 Participation by Size**

Utility	Size	Customers			Rebate		Energy Savings	
		Unique Sites	Applications	Pct of Program	Dollars	Pct of Program	kWh	Pct of Program
PG&E	Extra Large	582	520	1.88%	\$1,852,457	6.48%	37,731,073	13%
	Large	170	198	0.72%	\$548,563	1.92%	11,129,200	4%
	Medium	1,545	1,521	5.51%	\$2,942,862	10.29%	47,382,029	16%
	Small	19,468	21,588	78.20%	\$14,129,335	49.40%	135,770,000	46%
	Unknown	545	563	2.04%	\$1,969,194	6.89%	11,574,060	4%
	<b>TOTAL</b>		<b>22,310</b>	<b>23,990</b>	<b>86.90%</b>	<b>21,442,411</b>	<b>74.97%</b>	<b>243,586,362</b>
SCE	Extra Large	3	3	0.01%	\$2,883	0.01%	8,800	0%
	Large	51	62	0.22%	\$299,987	1.05%	4,743,848	2%
	Medium	511	615	2.23%	\$1,516,650	5.30%	26,575,939	9%
	Small	269	316	1.14%	\$266,616	0.93%	3,928,414	1%
	Unknown	-	-	0.00%	\$0	0.00%	-	0%
	<b>TOTAL</b>		<b>834</b>	<b>996</b>	<b>3.61%</b>	<b>2,086,136</b>	<b>7.29%</b>	<b>35,257,001</b>
SCG	Extra Large	4	4	0.01%	\$13,428	0.05%	.	-
	Large	30	37	0.13%	\$84,933	0.30%	.	-
	Medium	189	198	0.72%	\$189,233	0.66%	.	-
	Small	146	148	0.54%	\$95,461	0.33%	.	-
	Unknown	23	24	0.09%	\$43,012	0.15%	.	-
	<b>TOTAL</b>		<b>392</b>	<b>411</b>	<b>1.49%</b>	<b>426,067</b>	<b>1.49%</b>	<b>-</b>
SDG&E	Extra Large	3	3	0.01%	\$4,848	0.02%	13,316	0%
	Large	21	21	0.08%	\$179,227	0.63%	987,929	0%
	Medium	646	646	2.34%	\$2,119,874	7.41%	7,823,866	3%
	Small	1,539	1,539	5.57%	\$2,342,502	8.19%	9,074,153	3%
	Unknown	-	-	0.00%	\$0	0.00%	-	0%
	<b>TOTAL</b>		<b>2,209</b>	<b>2,209</b>	<b>8.00%</b>	<b>4,646,451</b>	<b>16.25%</b>	<b>17,899,264</b>
STATEWIDE	Extra Large	592	530	1.92%	1,873,616	6.55%	37,753,189	13%
	Large	272	318	1.15%	1,112,710	3.89%	16,860,977	6%
	Medium	2,891	2,980	10.79%	6,768,619	23.67%	81,781,834	28%
	Small	21,422	23,591	85.46%	16,833,914	58.86%	148,772,567	50%
	Unknown	568	587	2.13%	2,012,206	7.04%	11,574,060	4%
	<b>TOTAL</b>		<b>25,745</b>	<b>27,606</b>	<b>100.00%</b>	<b>28,601,065</b>	<b>100.00%</b>	<b>296,742,627</b>

**Exhibit 2-4**  
**2001 Participation by Technology**

Utility	Technology	Customers		Rebate		Energy Savings		
		Unique Sites	Applications	Pct of Program	Dollars	Pct of Program	kWh	Pct of Program
PG&E	Agriculture	120	81	0.73%	\$1,422,160	4.60%	6,050,996	1.30%
	HVAC-A/Cs	540	172	1.55%	\$2,293,229	7.41%	8,193,852	1.75%
	HVAC-Other	603	649	5.86%	\$1,386,775	4.48%	23,149,302	4.96%
	Lighting-Bonus	1,383	1,481	13.38%	\$1,555,674	5.03%	-	0.00%
	Lighting-CFL	3,526	3,775	34.10%	\$4,527,931	14.64%	153,440,000	32.85%
	Lighting-Other	2,444	2,601	23.49%	\$3,051,009	9.86%	26,296,008	5.63%
	Lighting-T-8/T-5, Elec Bal, Delamp	3,416	3,675	33.19%	\$7,983,104	25.81%	74,388,615	15.93%
	Motors	598	98	0.89%	\$142,675	0.46%	1,608,259	0.34%
	Refrigeration	143	145	1.31%	\$742,254	2.40%	10,833,044	2.32%
	Refrigeration-Bonus	4	4	0.04%	\$24,941	0.08%	-	0.00%
	Water Heating	27	28	0.25%	\$68,853	0.22%	544,050	0.12%
<b>TOTAL</b>	<b>7,254</b>	<b>7,203</b>	<b>65.06%</b>	<b>23,198,605</b>	<b>75.00%</b>	<b>304,504,126</b>	<b>65.19%</b>	
SCE	Agriculture	9	9	0.08%	\$44,132	0.14%	734	0.00%
	HVAC-A/Cs	436	466	4.21%	\$473,698	1.53%	3,767,324	0.81%
	HVAC-Other	317	349	3.15%	\$436,460	1.41%	13,728,101	2.94%
	Lighting-CFL	623	707	6.39%	\$694,452	2.25%	38,639,419	8.27%
	Lighting-Other	649	717	6.48%	\$1,701,016	5.50%	40,860,284	8.75%
	Lighting-T-8/T-5, Elec Bal, Delamp	373	417	3.77%	\$516,911	1.67%	3,269,417	0.70%
	Refrigeration	41	41	0.37%	\$146,458	0.47%	3,778,023	0.81%
	<b>TOTAL</b>	<b>1,863</b>	<b>2,123</b>	<b>19.17%</b>	<b>4,013,127</b>	<b>12.97%</b>	<b>104,043,302</b>	<b>22.27%</b>
SCG	Agriculture	2	2	0.02%	\$600	0.00%	-	0.00%
	HVAC-A/Cs	21	25	0.23%	\$55,553	0.18%	58,298	0.01%
	HVAC-Other	88	100	0.90%	\$21,215	0.07%	266,038	0.06%
	Incentive Adjustment	9	9	0.08%	-\$36,309	-0.12%	-	0.00%
	Lighting-CFL	331	352	3.18%	\$305,402	0.99%	11,113,499	2.38%
	Lighting-Other	173	177	1.60%	\$182,452	0.59%	879,698	0.19%
	Lighting-T-8/T-5, Elec Bal, Delamp	511	534	4.82%	\$1,242,204	4.02%	17,401,128	3.73%
	Refrigeration	8	8	0.07%	\$86,627	0.28%	452,797	0.10%
	Reinspection Fee	1	1	0.01%	-\$100	0.00%	-	0.00%
	Water Heating	5	5	0.05%	\$1,864	0.01%	-	0.00%
	<b>TOTAL</b>	<b>764</b>	<b>868</b>	<b>7.84%</b>	<b>1,859,508</b>	<b>6.01%</b>	<b>30,171,458</b>	<b>6.46%</b>
SDG&E	Agriculture	8	10	0.09%	\$107,372	0.35%	-	0.00%
	HVAC-A/Cs	20	24	0.22%	\$55,553	0.18%	36,355	0.01%
	HVAC-Other	95	98	0.89%	\$21,415	0.07%	266,038	0.06%
	Incentive Adjustment	9	9	0.08%	-\$36,309	-0.12%	-	0.00%
	Lighting-CFL	335	348	3.14%	\$305,402	0.99%	10,422,330	2.23%
	Lighting-Other	170	171	1.54%	\$165,535	0.54%	1,145,322	0.25%
	Lighting-T-8/T-5, Elec Bal, Delamp	521	493	4.45%	\$1,152,349	3.73%	16,044,421	3.44%
	Refrigeration	10	10	0.09%	\$86,927	0.28%	452,797	0.10%
	Reinspection Fee	1	1	0.01%	-\$100	0.00%	-	0.00%
	Water Heating	4	5	0.05%	\$2,150	0.01%	-	0.00%
<b>TOTAL</b>	<b>800</b>	<b>878</b>	<b>7.93%</b>	<b>1,860,294</b>	<b>6.01%</b>	<b>28,367,263</b>	<b>6.07%</b>	
STATEWIDE	Agriculture	139	102	0.92%	1,574,264	5.09%	6,051,730	1.30%
	HVAC-A/Cs	1,017	687	6.20%	2,878,033	9.30%	12,055,829	2.58%
	HVAC-Other	1,103	1,196	10.80%	1,865,865	6.03%	37,409,479	8.01%
	Incentive Adjustment	18	18	0.16%	(72,618)	-0.23%	-	0.00%
	Lighting-Bonus	1,383	1,481	13.38%	1,555,674	-	-	-
	Lighting-CFL	4,815	5,182	46.80%	5,833,187	18.86%	213,615,248	45.73%
	Lighting-Other	3,436	3,666	33.11%	5,100,012	16.49%	69,181,312	14.81%
	Lighting-T-8/T-5, Elec Bal, Delamp	4,821	5,119	46.23%	10,894,568	35.22%	111,103,581	23.79%
	Motors	598	98	0.89%	142,675	0.46%	1,608,259	0.34%
	Refrigeration	202	204	1.84%	1,062,266	3.43%	15,516,661	3.32%
	Refrigeration-Bonus	4	4	0.04%	24,941	-	-	-
	Reinspection Fee	2	2	0.02%	(200)	0.00%	-	0.00%
	Water Heating	36	38	0.34%	72,867	0.24%	544,050	0.12%
	<b>TOTAL</b>	<b>10,681</b>	<b>11,072</b>	<b>100.00%</b>	<b>30,931,534</b>	<b>100.00%</b>	<b>467,086,149</b>	<b>100.00%</b>

**Exhibit 2-5**  
**2001 Participation by Business Type**

Utility	Business Type	Customers			Rebate		Energy Savings	
		Unique Sites	Applications	Pct of Program	Dollars	Pct of Program	kWh	Pct of Program
PG&E	Agriculture	248	178	1.61%	\$1,770,071	5.72%	11,466,329	2.45%
	Industrial	541	401	3.62%	\$1,060,162	3.43%	16,431,833	3.52%
	Institutional	692	712	6.43%	\$3,015,832	9.75%	28,331,791	6.07%
	Misc. Commercial	1,263	1,360	12.28%	\$4,634,837	14.98%	110,430,000	23.64%
	Office	1,475	1,609	14.53%	\$5,114,014	16.53%	68,726,402	14.71%
	Other	781	599	5.41%	\$4,053,069	13.10%	21,511,503	4.61%
	Restaurant/Grocery	1,125	1,181	10.67%	\$1,586,245	5.13%	25,498,575	5.46%
	Retail	1,129	1,163	10.50%	\$1,964,373	6.35%	22,108,648	4.73%
<b>TOTAL</b>		<b>7,254</b>	<b>7,203</b>	<b>65.06%</b>	<b>\$23,198,603</b>	<b>75.00%</b>	<b>304,505,081</b>	<b>65.19%</b>
SCE	Agriculture	21	21	0.19%	\$40,739	0.13%	300,045	0.06%
	Industrial	137	150	1.35%	\$521,547	1.69%	13,138,664	2.81%
	Institutional	87	102	0.92%	\$424,746	1.37%	11,159,808	2.39%
	Misc. Commercial	333	388	3.50%	\$862,775	2.79%	31,958,638	6.84%
	Office	431	534	4.82%	\$1,019,779	3.30%	20,689,446	4.43%
	Other	57	74	0.67%	\$84,814	0.27%	2,462,544	0.53%
	Restaurant/Grocery	346	357	3.22%	\$296,778	0.96%	6,018,551	1.29%
	Retail	209	224	2.02%	\$260,713	0.84%	4,140,265	0.89%
	Missing	242	273	2.47%	\$501,237	1.62%	14,175,341	3.03%
<b>TOTAL</b>		<b>1,863</b>	<b>2,123</b>	<b>19.17%</b>	<b>4,013,128</b>	<b>12.97%</b>	<b>104,043,302</b>	<b>22.27%</b>
SCG	Industrial	6	6	0.05%	\$9,189	0.03%	206,229	0.04%
	Misc. Commercial	12	13	0.12%	\$37,181	0.12%	1,114,625	0.24%
	Office	108	114	1.03%	\$202,640	0.66%	2,944,072	0.63%
	Other	11	11	0.10%	\$41,711	0.13%	339,839	0.07%
	Restaurant/Grocery	54	78	0.70%	\$13,919	0.04%	432,453	0.09%
	Retail	61	66	0.60%	\$152,487	0.49%	3,020,119	0.65%
	Missing	512	580	5.24%	\$1,402,383	4.53%	22,114,123	4.73%
<b>TOTAL</b>		<b>764</b>	<b>868</b>	<b>7.84%</b>	<b>1,859,510</b>	<b>6.01%</b>	<b>30,171,460</b>	<b>6.46%</b>
SDG&E	Agriculture	4	6	0.05%	\$25,650	0.08%	10,440	0.00%
	Industrial	37	46	0.42%	\$75,337	0.24%	1,159,982	0.25%
	Institutional	26	31	0.28%	\$109,988	0.36%	2,049,378	0.44%
	Misc. Commercial	102	127	1.15%	\$277,896	0.90%	5,636,176	1.21%
	Office	292	273	2.47%	\$531,618	1.72%	7,731,648	1.66%
	Other	8	8	0.07%	\$28,396	0.09%	280,317	0.06%
	Restaurant/Grocery	91	114	1.03%	\$269,342	0.87%	2,679,202	0.57%
	Retail	94	87	0.79%	\$204,096	0.66%	3,385,076	0.72%
	Missing	146	186	1.68%	\$337,972	1.09%	5,435,045	1.16%
<b>TOTAL</b>		<b>800</b>	<b>878</b>	<b>7.93%</b>	<b>1,860,295</b>	<b>6.01%</b>	<b>28,367,264</b>	<b>6.07%</b>
STATEWIDE	Agriculture	273	205	1.85%	\$1,836,460	5.94%	11,776,814	2.52%
	Industrial	721	603	5.45%	\$1,666,235	5.39%	30,936,708	6.62%
	Institutional	805	845	7.63%	\$3,550,566	11.48%	41,540,977	8.89%
	Misc. Commercial	1,710	1,888	17.05%	\$5,812,689	18.79%	149,139,439	31.93%
	Office	2,306	2,530	22.85%	\$6,868,051	22.20%	100,091,568	21.43%
	Other	857	692	6.25%	\$4,207,990	13.60%	24,594,203	5.27%
	Restaurant/Grocery	1,616	1,730	15.63%	\$2,166,284	7.00%	34,628,781	7.41%
	Retail	1,493	1,540	13.91%	\$2,581,669	8.35%	32,654,108	6.99%
	Missing	900	1,039	9.38%	\$2,241,592	7.25%	41,724,509	8.93%
<b>TOTAL</b>		<b>10,681</b>	<b>11,072</b>	<b>100.00%</b>	<b>\$30,931,536</b>	<b>100.00%</b>	<b>467,087,107</b>	<b>100.00%</b>

**Exhibit 2-6**  
**2001 Participation by Size**

Utility	Size	Customers			Rebate		Energy Savings	
		Unique Sites	Applications	Pct of Program	Dollars	Pct of Program	kWh	Pct of Program
PG&E	Extra Large	1,105	1,222	11.04%	\$8,007,160	25.89%	134,050,000	29%
	Large	861	950	8.58%	\$5,172,912	16.73%	59,889,320	13%
	Medium	1,724	1,811	16.36%	\$4,370,920	14.13%	51,279,435	11%
	Small	3,322	3,436	31.03%	\$4,269,282	13.80%	51,996,816	11%
	Unknown	242	233	2.10%	\$1,378,329	4.46%	7,285,971	2%
	<b>TOTAL</b>		<b>7,254</b>	<b>7,203</b>	<b>65.06%</b>	<b>23,198,603</b>	<b>75.01%</b>	<b>304,501,542</b>
SCE	Extra Large	184	228	2.06%	\$1,644,067	5.32%	51,876,187	11%
	Large	447	525	4.74%	\$1,165,571	3.77%	24,978,976	5%
	Medium	663	726	6.56%	\$566,098	1.83%	10,964,047	2%
	Small	327	371	3.35%	\$136,155	0.44%	2,048,751	0%
	Unknown	242	273	2.47%	\$501,237	1.62%	14,175,341	3%
	<b>TOTAL</b>		<b>1,863</b>	<b>2,123</b>	<b>19.17%</b>	<b>4,013,128</b>	<b>12.98%</b>	<b>104,043,302</b>
SCG	Extra Large	-	-	0.00%	\$0	0.00%	-	0%
	Large	1	1	0.01%	\$14,070	0.05%	563,723	0%
	Medium	37	46	0.42%	\$66,388	0.21%	1,394,218	0%
	Small	174	182	1.64%	\$318,993	1.03%	5,180,557	1%
	Unknown	552	639	5.77%	\$1,460,057	4.72%	23,032,962	5%
	<b>TOTAL</b>		<b>764</b>	<b>868</b>	<b>7.84%</b>	<b>1,859,508</b>	<b>6.01%</b>	<b>30,171,460</b>
SDG&E	Extra Large	2	2	0.02%	\$15,902	0.05%	156,066	0%
	Large	133	199	1.80%	\$755,521	2.44%	12,583,661	3%
	Medium	221	284	2.57%	\$460,904	1.49%	6,521,786	1%
	Small	296	357	3.22%	\$286,220	0.93%	3,623,697	1%
	Unknown	148	190	1.72%	\$337,972	1.09%	5,435,045	1%
	<b>TOTAL</b>		<b>800</b>	<b>878</b>	<b>7.93%</b>	<b>1,856,519</b>	<b>6.00%</b>	<b>28,320,255</b>
STATEWIDE	Extra Large	1,291	1,452	13.11%	9,667,129	31.26%	186,082,253	40%
	Large	1,442	1,675	15.13%	7,108,074	22.98%	98,015,680	21%
	Medium	2,645	2,867	25.89%	5,464,310	17.67%	70,159,486	15%
	Small	4,119	4,346	39.25%	5,010,650	16.20%	62,849,821	13%
	Unknown	1,184	1,335	12.06%	3,677,595	11.89%	49,929,319	11%
	<b>TOTAL</b>		<b>10,681</b>	<b>11,072</b>	<b>100.00%</b>	<b>30,927,758</b>	<b>100.00%</b>	<b>467,036,559</b>



**Exhibit 2-7**  
**2002 Participation by Technology**

Utility	Technology	Customers			Rebate		Energy Savings	
		Unique Sites	Applications	Pct of Program	Dollars	Pct of Program	kWh	Pct of Program
PG&E	Agriculture	14	14	0.15%	\$64,803	0.50%	1,079,809	0.34%
	HVAC-A/Cs	140	143	1.49%	\$129,485	1.01%	462,743	0.15%
	HVAC-Other	429	452	4.69%	\$520,444	4.05%	12,034,424	3.78%
	Lighting-CFL	2,100	2,250	23.37%	\$2,381,591	18.52%	111,380,000	34.95%
	Lighting-Other	486	424	4.40%	\$284,936	2.22%	4,851,573	1.52%
	Lighting-T-8/T-5, Elec Bal, Delamp	881	947	9.84%	\$1,697,890	13.20%	22,999,764	7.22%
	Motors	18	18	0.19%	\$11,155	0.09%	275,381	0.09%
	Refrigeration	223	137	1.42%	\$458,685	3.57%	4,314,486	1.35%
	Water Heating	19	20	0.21%	\$109,734	0.85%	591	0.00%
	<b>TOTAL</b>		<b>3,560</b>	<b>3,917</b>	<b>40.68%</b>	<b>5,658,723</b>	<b>44.00%</b>	<b>157,398,771</b>
SCE	Agriculture	14	14	0.15%	\$70,309	0.55%	1,189,710	0.37%
	HVAC-A/Cs	221	243	2.52%	\$293,214	2.28%	2,355,962	0.74%
	HVAC-Other	140	153	1.59%	\$88,556	0.69%	5,365,664	1.68%
	Lighting-CFL	2,921	3,296	34.23%	\$1,465,941	11.40%	87,571,166	27.48%
	Lighting-Other	253	293	3.04%	\$159,994	1.24%	3,365,583	1.06%
	Lighting-T-8/T-5, Elec Bal, Delamp	1,053	1,117	11.60%	\$1,168,946	9.09%	12,496,409	3.92%
	Motors	4	4	0.04%	\$1,010	0.01%	25,424	0.01%
	Refrigeration	33	34	0.35%	\$20,074	0.16%	394,783	0.12%
	<b>TOTAL</b>		<b>3,720</b>	<b>4,458</b>	<b>46.30%</b>	<b>3,268,044</b>	<b>25.41%</b>	<b>112,764,701</b>
SCG	Agriculture	13	13	0.14%	\$113,142	0.88%	-	0.00%
	Food Processing	33	33	0.34%	\$62,113	0.48%	-	0.00%
	Water Heating	393	415	4.31%	\$1,738,905	13.52%	5,126	0.00%
	<b>TOTAL</b>		<b>438</b>	<b>460</b>	<b>4.78%</b>	<b>1,914,160</b>	<b>14.88%</b>	<b>5,126</b>
SDG&E	Agriculture	2	2	0.02%	\$9,838	0.08%	2,956	0.00%
	HVAC-A/Cs	28	29	0.30%	\$40,140	0.31%	81,818	0.03%
	HVAC-Other	58	62	0.64%	\$56,296	0.44%	378,569	0.12%
	Incentive Adjustment	7	8	0.08%	\$6,221	0.05%	-	0.00%
	Lighting-CFL	415	470	4.88%	\$1,161,266	9.03%	41,601,002	13.05%
	Lighting-Other	67	71	0.74%	\$45,497	0.35%	355,707	0.11%
	Lighting-T-8/T-5, Elec Bal, Delamp	193	226	2.35%	\$678,365	5.27%	5,801,431	1.82%
	Refrigeration	43	44	0.46%	\$4,544	0.04%	297,297	0.09%
	Reinspection Fee	6	6	0.06%	-\$1,200	-0.01%	-	0.00%
	Water Heating	14	15	0.16%	\$18,135	0.14%	2,184	0.00%
	<b>TOTAL</b>		<b>682</b>	<b>793</b>	<b>8.24%</b>	<b>2,019,102</b>	<b>15.70%</b>	<b>48,520,964</b>
STATEWIDE	Agriculture	43	43	0.45%	258,092	2.01%	2,272,475	0.71%
	Food Processing	33	33	0.34%	62,113	0.48%	-	0.00%
	HVAC-A/Cs	389	415	4.31%	462,839	3.60%	2,900,523	0.91%
	HVAC-Other	627	667	6.93%	665,296	5.17%	17,778,657	5.58%
	Incentive Adjustment	7	8	0.08%	6,221	0.05%	-	0.00%
	Lighting-CFL	5,436	6,016	62.48%	5,008,798	38.95%	240,552,168	75.48%
	Lighting-Other	806	788	8.18%	490,427	3.81%	8,572,863	2.69%
	Lighting-T-8/T-5, Elec Bal, Delamp	2,127	2,290	23.78%	3,545,201	27.57%	41,297,604	12.96%
	Motors	22	22	0.23%	12,165	0.09%	300,805	0.09%
	Refrigeration	299	215	2.23%	483,303	3.76%	5,006,566	1.57%
	Reinspection Fee	6	6	0.06%	(1,200)	-0.01%	-	0.00%
	Water Heating	426	450	4.67%	1,866,774	14.52%	7,901	0.00%
	<b>TOTAL</b>		<b>8,400</b>	<b>9,628</b>	<b>100.00%</b>	<b>12,860,029</b>	<b>100.00%</b>	<b>318,689,562</b>

**Exhibit 2-8**  
**2002 Participation by Business Type**

Utility	Business Type	Customers			Rebate		Energy Savings	
		Unique Sites	Applications	Pct of Program	Dollars	Pct of Program	kWh	Pct of Program
PG&E	Agriculture	87	100	1.04%	\$138,636	1.08%	3,671,446	1.15%
	Industrial	67	71	0.74%	\$150,815	1.17%	3,384,487	1.06%
	Institutional	457	485	5.04%	\$1,005,726	7.82%	18,737,678	5.88%
	Misc. Commercial	961	1,128	11.72%	\$1,815,716	14.12%	74,385,978	23.34%
	Office	668	734	7.62%	\$1,085,198	8.44%	24,151,637	7.58%
	Other	321	339	3.52%	\$585,273	4.55%	14,242,839	4.47%
	Restaurant/Grocery	604	640	6.65%	\$558,031	4.34%	12,683,404	3.98%
	Retail	395	420	4.36%	\$319,328	2.48%	6,143,705	1.93%
	<b>TOTAL</b>	<b>3,560</b>	<b>3,917</b>	<b>40.68%</b>	<b>\$5,658,723</b>	<b>44.00%</b>	<b>157,401,174</b>	<b>49.39%</b>
SCE	Agriculture	15	15	0.16%	\$29,902	0.23%	506,884	0.16%
	Industrial	126	151	1.57%	\$112,603	0.88%	1,894,118	0.59%
	Institutional	102	114	1.18%	\$231,461	1.80%	5,549,800	1.74%
	Misc. Commercial	885	1,070	11.11%	\$1,124,709	8.75%	55,804,185	17.51%
	Office	583	730	7.58%	\$711,909	5.54%	17,143,502	5.38%
	Other	227	269	2.79%	\$90,202	0.70%	2,091,277	0.66%
	Restaurant/Grocery	559	653	6.78%	\$176,703	1.37%	7,025,217	2.20%
	Retail	569	670	6.96%	\$218,429	1.70%	3,850,173	1.21%
	Missing	654	786	8.16%	\$572,125	4.45%	18,899,545	5.93%
<b>TOTAL</b>	<b>3,720</b>	<b>4,458</b>	<b>46.30%</b>	<b>3,268,043</b>	<b>25.41%</b>	<b>112,764,701</b>	<b>35.38%</b>	
SCG	Agriculture	9	9	0.09%	\$64,977	0.51%	-	0.00%
	Industrial	37	38	0.39%	\$210,540	1.64%	-	0.00%
	Institutional	78	86	0.89%	\$360,621	2.80%	190	0.00%
	Misc. Commercial	91	97	1.01%	\$546,294	4.25%	-	0.00%
	Office	114	114	1.18%	\$471,603	3.67%	-	0.00%
	Other	1	3	0.03%	\$12,360	0.10%	-	0.00%
	Restaurant/Grocery	45	45	0.47%	\$86,361	0.67%	-	0.00%
	Retail	63	68	0.71%	\$161,404	1.26%	4,936	0.00%
	<b>TOTAL</b>	<b>438</b>	<b>460</b>	<b>4.78%</b>	<b>1,914,160</b>	<b>14.88%</b>	<b>5,126</b>	<b>0.00%</b>
SDG&E	Agriculture	20	22	0.23%	\$79,778	0.62%	2,172,306	0.68%
	Industrial	26	27	0.28%	\$97,249	0.76%	781,762	0.25%
	Institutional	86	88	0.91%	\$262,286	2.04%	6,872,743	2.16%
	Misc. Commercial	206	222	2.31%	\$679,009	5.28%	20,291,656	6.37%
	Office	195	209	2.17%	\$506,650	3.94%	11,724,418	3.68%
	Other	13	14	0.15%	\$27,051	0.21%	603,153	0.19%
	Restaurant/Grocery	35	36	0.37%	\$37,028	0.29%	1,002,134	0.31%
	Retail	100	103	1.07%	\$146,903	1.14%	1,670,539	0.52%
	Missing	1	72	0.75%	\$183,148	1.42%	3,402,254	1.07%
<b>TOTAL</b>	<b>682</b>	<b>793</b>	<b>8.24%</b>	<b>2,019,102</b>	<b>15.70%</b>	<b>48,520,965</b>	<b>15.23%</b>	
STATEWIDE	Agriculture	131	146	1.52%	313,293	2.44%	6,350,636	1.99%
	Industrial	256	287	2.98%	571,207	4.44%	6,060,367	1.90%
	Institutional	723	773	8.03%	1,860,094	14.46%	31,160,411	9.78%
	Misc. Commercial	2,143	2,517	26.14%	4,165,728	32.39%	150,481,819	47.22%
	Office	1,560	1,787	18.56%	2,775,360	21.58%	53,019,557	16.64%
	Other	562	625	6.49%	714,886	5.56%	16,937,269	5.31%
	Restaurant/Grocery	1,243	1,374	14.27%	858,123	6.67%	20,710,755	6.50%
	Retail	1,127	1,261	13.10%	846,064	6.58%	11,669,353	3.66%
	Missing	655	858	8.91%	755,273	5.87%	22,301,799	7.00%
<b>TOTAL</b>	<b>8,400</b>	<b>9,628</b>	<b>100.00%</b>	<b>12,860,028</b>	<b>100.00%</b>	<b>318,691,966</b>	<b>100.00%</b>	

**Exhibit 2-9**  
**2002 Participation by Size**

Utility	Size	Customers			Rebate		Energy Savings	
		Unique Sites	Applications	Pct of Program	Dollars	Pct of Program	kWh	Pct of Program
PG&E	Extra Large	122	152	1.58%	\$682,973	5.31%	15,738,706	5%
	Large	559	624	6.48%	\$1,702,089	13.24%	45,757,955	14%
	Medium	998	1,048	10.88%	\$1,388,061	10.80%	37,239,505	12%
	Small	1,879	2,060	21.40%	\$1,755,277	13.65%	56,391,993	18%
	Unknown	2	67	0.70%	\$130,323	1.01%	2,273,015	1%
	<b>TOTAL</b>	<b>3,560</b>	<b>3,917</b>	<b>40.68%</b>	<b>5,658,723</b>	<b>44.02%</b>	<b>157,401,174</b>	<b>49%</b>
SCE	Extra Large	4	4	0.04%	\$33,590	0.26%	337,255	0%
	Large	352	480	4.99%	\$1,210,451	9.42%	39,689,564	12%
	Medium	1,190	1,409	14.63%	\$1,024,940	7.97%	41,629,499	13%
	Small	1,520	1,780	18.49%	\$426,937	3.32%	12,208,838	4%
	Unknown	654	786	8.16%	\$572,125	4.45%	18,899,545	6%
	<b>TOTAL</b>	<b>3,720</b>	<b>4,458</b>	<b>46.30%</b>	<b>3,268,043</b>	<b>25.42%</b>	<b>112,764,701</b>	<b>35%</b>
SCG	Extra Large	17	18	0.19%	\$151,064	1.18%	-	0%
	Large	96	101	1.05%	\$687,636	5.35%	190	0%
	Medium	200	208	2.16%	\$681,542	5.30%	2,634	0%
	Small	116	122	1.27%	\$330,318	2.57%	2,302	0%
	Unknown	9	9	0.09%	\$59,240	0.46%	-	0%
	<b>TOTAL</b>	<b>438</b>	<b>460</b>	<b>4.78%</b>	<b>1,909,800</b>	<b>14.86%</b>	<b>5,126</b>	<b>0%</b>
SDG&E	Extra Large	2	2	0.02%	\$3,798	0.03%	227,402	0%
	Large	152	167	1.73%	\$734,937	5.72%	21,659,703	7%
	Medium	231	246	2.56%	\$650,115	5.06%	16,662,591	5%
	Small	291	302	3.14%	\$438,154	3.41%	6,353,209	2%
	Unknown	6	77	0.80%	\$192,099	1.49%	3,618,059	1%
	<b>TOTAL</b>	<b>682</b>	<b>793</b>	<b>8.24%</b>	<b>2,019,103</b>	<b>15.71%</b>	<b>48,520,964</b>	<b>15%</b>
STATEWIDE	Extra Large	145	176	1.83%	871,425	6.78%	16,303,363	5%
	Large	1,159	1,372	14.25%	4,335,113	33.72%	107,107,412	34%
	Medium	2,619	2,911	30.23%	3,744,658	29.13%	95,534,229	30%
	Small	3,806	4,264	44.29%	2,950,686	22.95%	74,956,342	24%
	Unknown	671	939	9.75%	953,787	7.42%	24,790,619	8%
	<b>TOTAL</b>	<b>8,400</b>	<b>9,628</b>	<b>100.00%</b>	<b>12,855,669</b>	<b>100.00%</b>	<b>318,691,965</b>	<b>100%</b>

APPENDIX 3:  
PROCESS ASSESSMENT DATA  
TABLES

# Guide to Process Assessment Data Tables (Appendix 3)

## *General Population Customer Survey*

Customer population results are presented in the upper panel of data tables. Population-level data is segmented as follows:

- **Total:** overall self-report customer data.
- **Size:** Customers are segmented by very small (0-20kW), small (20-100kW), medium (100-500kW) and large (>500kW).
- **Renter/owner.** This information comes from customer's self-reported response to whether facilities are leased or owned.
- **Urban/rural.** This segment is based on urban/rural zip codes provided by the IOUs.
- **English/other language.** This segment is based on self-reported respondent data on primary language spoken at the business.
- **Any HTR/non-HTR:** the "any HTR" segment includes businesses where the primary language spoken is other than English, businesses located in areas other than the San Francisco Bay Area, San Diego area, Los Angeles Basin or the City of Sacramento, very small businesses using less than 20kW or less than 10 employees, and customers who lease rather than own their facilities. The non-HTR segment captures English-speaking, non-rural businesses who own their facilities and use more than 20kW or employ 10 or more employees. The non-HTR segment captures English-speaking, urban businesses that own their facilities and use more than 20kW.
- **Business Type.** survey responses are segmented by seven business types: office, retail, restaurant and grocery, institutional, industrial, miscellaneous commercial and agriculture.
- **IOUs:** 305 PG&E customers, 291 SCE/SCG customers and 145 SDG&E customers were interviewed. One sample represented both SCE and SCG because they serve much of the same territory.

### ***Express Participant Survey***

Express Efficiency participant results are presented in the lower panel of each exhibit from 584 customer participants surveyed in July 2003.

Participant data tables are segmented similarly to the general population (above), with a few differences.

- **All customers.**
- Hard-to-reach customers. Survey respondents and CIS data were used to classify each respondent into one or more of the HTR segments. The residential HTR definitions provided by the CPUC are:
  - **Urban/rural.** The IOUs define rural HTR customers by zip codes. For example, PG&E uses only geography to define HTR in their service territory, where zip codes outside the 9 Bay Area counties are considered HTR.
  - **English/other language.** Primary languages other than English include respondents who indicated they spoke a non-English language at their business.
  - **Tenant/building owner.** This information comes from customer's self-reported facility ownership.
  - **Size.** Customers are segmented by very small (0-20kw), small (20-100kW), medium (100-500kW) and large (>500kW). Large customers are moved from the segment totals because they are not considered eligible for the program, but we do at times report them separately because large customer data illustrate differences between large and small customers. Small customers are those with usage less than 100kW.
  - **Any HTR/Non-HTR:** this segment includes respondents whose businesses is located in a rural area, speak a language other than English at the business, lease a facility, or use less than 20kW.
- **IOU:** Participants are segmented by PG&E, SCE, SCG and SDG&E.
- **Business Type:** survey responses are segmented by seven business types: office, retail, restaurant and grocery, institutional, industrial, miscellaneous commercial and agriculture.

**Exhibit 3-1**  
**Awareness of Utility Programs**

General Population Survey Results																								
A25. Are you aware of programs or resources provided by [UTILITY] in 2002 that were designed to promote energy efficiency for businesses like yours? What types of programs can you recall?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Express Efficiency	5%	3%	3%	7%	8%	4%	6%	6%	5%	5%	6%	4%	8%	6%	6%	7%	13%	0%	3%	2%	4%	3%	7%	
SPC/Standard Performance Contract	3%	2%	2%	4%	3%	2%	3%	2%	4%	3%	3%	2%	6%	2%	5%	6%	6%	0%	1%	1%	1%	3%	4%	
Business Energy Audits	5%	5%	3%	6%	2%	3%	6%	3%	6%	5%	4%	3%	8%	6%	3%	9%	4%	2%	2%	2%	5%	7%	4%	
Distributor Incentives	3%	1%	2%	4%	0%	2%	3%	2%	3%	3%	2%	2%	4%	4%	0%	4%	4%	5%	1%	1%	2%	1%	4%	
Rebate (unspecified)	19%	15%	15%	22%	29%	11%	24%	22%	17%	19%	17%	17%	22%	21%	7%	23%	34%	15%	16%	20%	21%	15%	17%	
No, not aware of any programs	64%	69%	67%	60%	47%	72%	58%	63%	64%	63%	66%	67%	56%	59%	76%	57%	44%	72%	70%	63%	62%	65%	66%	
Other programs	3%	3%	4%	4%	4%	5%	2%	2%	4%	4%	3%	4%	3%	4%	4%	4%	3%	1%	4%	3%	6%	2%	2%	
Refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Don't know	6%	5%	9%	4%	1%	7%	5%	5%	7%	5%	8%	6%	6%	5%	2%	10%	8%	7%	3%	7%	5%	7%	6%	
N	740	297	225	218	67	333	398	269	471	451	289	585	155	113	113	111	97	101	115	90	305	144	291	
Express Participant Survey Results																								
A25. Besides Express Efficiency, are you aware of OTHER programs or resources provided by [UTILITY] in 2002 that were designed to promote energy efficiency for businesses like yours? What types of programs can you recall?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
SPC/Standard Performance Contract	1%	1%	0%	1%	5%	1%	1%	0%	1%	1%	0%	1%	0%	1%	2%	0%	3%	0%	0%	0%	1%	2%	1%	0%
Business Energy Audits	4%	4%	2%	7%	21%	5%	4%	6%	3%	4%	5%	5%	1%	6%	3%	5%	6%	8%	2%	0%	5%	2%	3%	3%
Distributor Incentives	1%	1%	0%	3%	0%	1%	1%	2%	1%	0%	2%	1%	0%	0%	0%	0%	0%	7%	1%	0%	1%	0%	1%	0%
Rebate (unspecified)	8%	9%	6%	10%	27%	8%	8%	6%	9%	9%	7%	8%	9%	7%	12%	3%	16%	11%	8%	0%	8%	7%	9%	4%
No, not aware of any programs	71%	77%	66%	63%	42%	73%	70%	68%	72%	71%	71%	72%	68%	71%	74%	77%	47%	70%	70%	74%	70%	78%	69%	76%
CTAC	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Seminars and classes	1%	1%	0%	2%	0%	0%	1%	0%	1%	0%	2%	1%	1%	0%	0%	1%	2%	1%	2%	0%	1%	1%	0%	3%
Off-peak energy rates/TOU/interruptible rates	1%	0%	1%	2%	0%	0%	1%	1%	1%	1%	1%	1%	1%	0%	0%	0%	4%	0%	2%	0%	0%	0%	1%	0%
Savings by Design	0%	0%	0%	1%	0%	0%	0%	0%	1%	1%	0%	0%	0%	1%	0%	0%	2%	0%	0%	0%	1%	0%	0%	0%
Lighting Rebates	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%	0%	0%	0%
Cooling rebates	0%	0%	0%	1%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	1%	0%	0%	2%	0%	0%	1%	0%	0%	0%
Equipment replacement	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	1%	1%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%
Other programs	4%	3%	6%	6%	5%	6%	4%	4%	5%	5%	4%	4%	5%	6%	3%	2%	9%	7%	3%	19%	4%	7%	4%	8%
Refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Don't know	11%	8%	19%	6%	10%	9%	12%	16%	10%	11%	11%	10%	14%	11%	8%	14%	19%	7%	13%	7%	12%	2%	13%	6%
N	584	255	209	120	16	198	377	148	436	349	235	391	193	166	97	69	41	49	146	16	208	110	194	72

**Exhibit 3-2**  
**Express Efficiency Awareness-unaided**

General Population Survey Results																								
A1. Are you aware of the [UTILITY] Express Efficiency rebate program?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Yes	20%	15%	17%	24%	27%	20%	20%	19%	20%	20%	19%	19%	21%	24%	18%	21%	23%	22%	14%	16%	14%	17%	26%	
No	80%	84%	83%	76%	70%	80%	80%	81%	79%	79%	80%	80%	79%	75%	82%	79%	77%	76%	86%	83%	85%	82%	74%	
Refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Don't Know	0%	1%	0%	0%	3%	1%	0%	0%	1%	0%	1%	1%	0%	1%	0%	0%	0%	2%	0%	0%	1%	1%	0%	
N	740	296	225	219	67	332	399	269	471	451	289	584	156	113	112	111	97	101	115	90	305	145	290	
Express Participant Survey Results																								
A1. Are you aware of the [UTILITY] Express Efficiency rebate program?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Yes																								
No																								
Refused																								
Don't Know																								
N																								



**Exhibit 3-3**  
**Express Efficiency Awareness – aided**

General Population Survey Results																								
A3. Express Efficiency is a program offered by your utility where businesses like yours receive a rebate for installing one or more energy-efficient products. Before this survey, had you ever heard of [UTILITY] Express Efficiency Program?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Yes	16%	12%	17%	17%	23%	20%	13%	17%	15%	14%	19%	17%	13%	15%	16%	26%	14%	8%	15%	8%	15%	22%	15%	
No	83%	84%	83%	82%	70%	79%	86%	82%	84%	85%	80%	82%	85%	84%	83%	72%	85%	89%	85%	92%	83%	76%	84%	
Refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Don't Know	1%	3%	0%	1%	7%	1%	1%	1%	1%	1%	1%	1%	2%	1%	1%	2%	0%	2%	0%	0%	2%	1%	0%	
N	614	253	188	173	46	286	320	217	397	383	231	488	126	92	96	94	78	83	100	70	263	122	229	
Express Participant Survey Results																								
A3. Express Efficiency is a program offered by your utility where businesses like yours receive a rebate for installing one or more energy-efficient products. Before this survey, had you ever heard of [UTILITY] Express Efficiency Program?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Yes																								
No																								
Refused																								
Don't Know																								
N																								

**Exhibit 3-4  
Source of Awareness**

		General Population Survey Results																						
A30. How did you first learn about the 2002 Express Efficiency Program?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCC
Business Energy Audits	1%	6%	0%	0%	0%	2%	0%	2%	0%	1%	1%	1%	0%	0%	0%	3%	0%	0%	3%	0%	2%	3%	0%	0%
Respondent approached contractor/ESCO/	8%	0%	3%	12%	0%	4%	11%	2%	11%	8%	7%	3%	18%	6%	12%	10%	0%	0%	22%	3%	7%	0%	10%	0%
Respondent approached utility concerning	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Contacted by utility rep	21%	16%	10%	28%	36%	6%	32%	27%	18%	25%	15%	15%	34%	18%	4%	28%	44%	14%	30%	26%	13%	6%	28%	0%
Contacted by contractor/ESCO/A&E firm/o	4%	0%	0%	8%	0%	4%	5%	0%	6%	2%	9%	2%	9%	11%	0%	0%	26%	0%	0%	1%	5%	15%	2%	0%
Utility brochure in mail	25%	41%	35%	16%	20%	33%	19%	27%	24%	25%	25%	30%	12%	23%	39%	25%	4%	40%	7%	17%	30%	43%	19%	0%
Bill insert	14%	20%	25%	7%	0%	18%	11%	21%	11%	9%	23%	20%	2%	6%	32%	12%	0%	8%	12%	45%	24%	2%	12%	0%
Word-of-mouth from friend or co-workers	7%	4%	5%	8%	0%	4%	8%	1%	9%	8%	4%	3%	15%	0%	12%	7%	9%	16%	3%	0%	5%	5%	8%	0%
Word-of-mouth from friends or other busin	2%	8%	3%	0%	0%	2%	2%	0%	3%	2%	3%	2%	3%	6%	0%	1%	1%	1%	0%	0%	0%	14%	1%	0%
Television, radio, newspaper ad	16%	15%	19%	15%	10%	15%	17%	18%	15%	14%	19%	16%	17%	34%	16%	12%	3%	13%	3%	4%	17%	8%	17%	0%
Magazine or trade journal	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Participation in previous years	3%	0%	5%	3%	9%	0%	6%	5%	2%	5%	0%	2%	5%	0%	12%	0%	0%	0%	0%	23%	5%	0%	3%	0%
Manufacturer information/suggestion	2%	0%	0%	4%	3%	5%	0%	0%	3%	4%	0%	3%	0%	0%	0%	0%	14%	0%	0%	0%	0%	0%	4%	0%
Community organization such as Chamber	0%	0%	0%	0%	8%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Church	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Trade association	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%
Utility website																								
Seminars																								
Other	3%	2%	2%	4%	12%	1%	5%	0%	4%	3%	2%	0%	9%	0%	0%	10%	0%	6%	0%	0%	0%	0%	5%	0%
Refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Don't know	2%	3%	0%	4%	0%	6%	0%	0%	4%	4%	0%	4%	0%	0%	0%	10%	0%	2%	0%	0%	1%	0%	3%	0%
N	118	42	35	41	21	43	74	49	69	66	52	91	27	19	15	17	16	18	14	19	40	23	55	
		Express Participant Survey Results																						
A30. How did you first learn about the 2002 Express Efficiency Program?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCC
Business Energy Audits	2%	1%	0%	6%	0%	2%	1%	1%	2%	2%	1%	1%	2%	3%	0%	5%	2%	0%	1%	0%	2%	4%	1%	0%
Respondent approached contractor/ESCO/	5%	7%	3%	1%	15%	5%	5%	6%	4%	6%	3%	7%	1%	7%	5%	5%	2%	5%	2%	15%	8%	7%	1%	4%
Respondent approached utility concerning	2%	1%	4%	0%	0%	3%	2%	5%	1%	2%	2%	3%	1%	3%	3%	1%	1%	1%	1%	0%	4%	1%	1%	3%
Contacted by utility rep	20%	18%	19%	26%	77%	19%	20%	22%	19%	21%	18%	19%	22%	19%	14%	27%	39%	16%	18%	7%	18%	13%	21%	36%
Contacted by contractor/ESCO/A&E firm/o	31%	29%	35%	30%	15%	27%	34%	28%	33%	32%	30%	30%	35%	30%	36%	31%	27%	26%	33%	21%	37%	41%	25%	14%
Utility brochure in mail	12%	15%	10%	9%	7%	12%	13%	10%	13%	12%	13%	13%	11%	15%	11%	10%	4%	17%	12%	2%	10%	10%	16%	11%
Bill insert	2%	1%	2%	1%	0%	2%	2%	0%	2%	1%	2%	1%	3%	1%	3%	0%	4%	0%	2%	0%	0%	2%	3%	3%
Word-of-mouth from friend or co-workers	8%	5%	9%	14%	0%	6%	9%	5%	9%	7%	9%	6%	12%	7%	8%	3%	7%	7%	12%	14%	4%	8%	13%	4%
Word-of-mouth from friends or other busin	5%	8%	4%	0%	15%	7%	4%	8%	4%	5%	6%	6%	4%	2%	7%	6%	0%	2%	8%	0%	6%	4%	4%	4%
Television, radio, newspaper ad	3%	4%	3%	3%	0%	5%	2%	1%	4%	2%	5%	4%	2%	3%	3%	3%	0%	8%	3%	10%	1%	2%	7%	0%
Magazine or trade journal	0%	0%	1%	0%	0%	1%	0%	1%	0%	0%	1%	1%	0%	1%	0%	0%	0%	3%	0%	0%	0%	0%	0%	0%
Participation in previous years	2%	2%	1%	2%	0%	1%	2%	2%	1%	1%	2%	1%	2%	1%	1%	3%	1%	2%	1%	7%	1%	4%	1%	1%
Manufacturer information/suggestion	2%	3%	2%	2%	0%	4%	2%	2%	3%	3%	2%	3%	2%	3%	4%	1%	7%	4%	1%	3%	3%	1%	1%	14%
Community organization such as Chamber	1%	2%	0%	2%	0%	1%	2%	2%	1%	1%	2%	2%	0%	3%	0%	0%	2%	0%	1%	12%	1%	0%	2%	0%
Church																								
Trade association	1%	1%	2%	0%	0%	1%	1%	1%	1%	1%	0%	1%	1%	0%	3%	0%	0%	0%	1%	14%	1%	0%	1%	0%
Utility website	2%	1%	3%	5%	5%	1%	3%	4%	2%	3%	2%	2%	2%	3%	1%	1%	4%	0%	3%	4%	3%	2%	1%	3%
Seminars	1%	0%	1%	1%	0%	0%	1%	1%	0%	1%	0%	1%	1%	0%	0%	0%	3%	0%	1%	0%	0%	0%	1%	3%
Other	15%	10%	22%	15%	21%	13%	17%	12%	16%	16%	14%	11%	23%	9%	20%	20%	14%	13%	16%	21%	12%	12%	19%	17%
Refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Don't know	4%	3%	3%	6%	0%	3%	4%	3%	4%	3%	5%	4%	4%	6%	1%	3%	3%	7%	3%	0%	3%	8%	3%	4%
N	584	255	209	120	16	198	377	148	436	349	235	391	193	166	97	69	41	49	146	16	208	110	194	72

**Exhibit 3-5**  
**Utility Representative as Source of Awareness**

General Population Survey Results																								
A80. Did your [UTILITY] representative inform you about Express Efficiency rebates?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Yes	7%	5%	4%	10%	24%	6%	8%	6%	8%	8%	6%	6%	10%	6%	8%	8%	13%	5%	9%	2%	4%	2%	12%	
No	92%	95%	96%	88%	74%	93%	91%	94%	90%	90%	94%	94%	87%	92%	92%	91%	86%	94%	91%	98%	96%	95%	87%	
Refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Don't know	1%	1%	0%	2%	1%	1%	1%	0%	2%	2%	0%	1%	3%	2%	0%	2%	1%	1%	0%	0%	0%	3%	2%	
N	734	293	223	218	65	330	395	268	466	448	286	579	155	112	112	111	97	97	115	89	302	144	288	
Express Participant Survey Results																								
A80. Did your [UTILITY] representative inform you about Express Efficiency rebates?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Yes	28%	25%	26%	38%	68%	23%	30%	28%	27%	30%	24%	26%	31%	29%	16%	17%	40%	31%	35%	10%	27%	16%	28%	50%
No	63%	65%	65%	54%	24%	66%	62%	61%	64%	61%	67%	64%	61%	60%	74%	71%	54%	65%	57%	87%	63%	75%	63%	49%
Refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%
Don't know	9%	9%	9%	8%	8%	11%	8%	11%	8%	9%	10%	9%	8%	11%	9%	12%	6%	4%	8%	3%	10%	8%	9%	1%
N	584	255	209	120	16	198	377	148	436	349	235	391	193	166	97	69	41	49	146	16	208	110	194	72

**Exhibit 3-6  
Express Program Messages**

		General Population Survey Results																					
A40. What would you say were the main messages of the advertising or information materials for the Express Efficiency Program?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG
Save Energy & Money	34%	45%	44%	27%	28%	42%	29%	36%	34%	23%	53%	36%	32%	21%	35%	46%	35%	45%	25%	32%	23%	22%	42%
Fall/summer sales/year end special	1%	8%	1%	0%	0%	3%	0%	2%	1%	2%	0%	2%	1%	3%	0%	3%	0%	0%	0%	3%	2%	5%	0%
Cut your energy costs	18%	18%	9%	22%	4%	14%	20%	16%	18%	15%	23%	15%	23%	9%	16%	25%	11%	31%	7%	25%	19%	17%	17%
Improve your bottom line	5%	10%	1%	6%	4%	4%	6%	2%	6%	4%	6%	2%	11%	7%	0%	12%	0%	0%	3%	3%	2%	18%	4%
Cash rebates for small and medium-sized business customers	10%	20%	5%	10%	13%	3%	16%	23%	5%	15%	4%	12%	8%	19%	0%	3%	31%	8%	14%	8%	14%	21%	7%
Helping business customers make smart choices	2%	12%	1%	0%	6%	3%	1%	4%	1%	3%	0%	3%	1%	3%	4%	0%	4%	0%	3%	3%	3%	5%	1%
Save energy / conservation	17%	24%	17%	15%	22%	21%	14%	22%	15%	18%	15%	19%	12%	7%	37%	8%	43%	19%	3%	31%	12%	29%	17%
Off-peak energy usage	2%	0%	0%	4%	0%	2%	3%	4%	1%	1%	4%	3%	1%	0%	0%	3%	0%	0%	0%	26%	5%	6%	1%
Tips on conserving energy	6%	10%	3%	5%	3%	7%	4%	5%	6%	1%	12%	7%	2%	3%	2%	3%	9%	16%	3%	6%	3%	10%	6%
Buy EE appliances	2%	7%	1%	1%	4%	3%	1%	3%	1%	3%	1%	3%	0%	0%	2%	0%	0%	7%	6%	1%	1%	7%	2%
Appliance rebates	3%	2%	3%	4%	4%	0%	5%	7%	1%	4%	1%	3%	3%	6%	0%	0%	18%	3%	0%	0%	9%	5%	0%
Other	6%	0%	6%	7%	0%	3%	7%	6%	5%	6%	5%	5%	7%	9%	0%	7%	0%	0%	17%	1%	5%	1%	7%
Don't know	30%	21%	28%	33%	16%	37%	25%	14%	37%	36%	19%	30%	29%	34%	37%	25%	8%	25%	40%	31%	33%	21%	30%
N	118	42	35	41	21	43	74	49	69	66	52	91	27	19	15	17	16	18	14	19	40	23	55

		Express Participant Survey Results																						
A40. What would you say were the main messages of the advertising or information materials for the Express Efficiency Program?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Save Energy & Money																								
Fall/summer sales/year end special																								
Cut your energy costs																								
Improve your bottom line																								
Cash rebates for small and medium-sized business customers																								
Helping business customers make smart choices																								
Save energy / conservation																								
Off-peak energy usage																								
Tips on conserving energy																								
Buy EE appliances																								
Appliance rebates																								
Other																								
Don't know																								
N																								

**Exhibit 3-7**  
**Percent of Customers with Internet Access**

		General Population Survey Results																						
PE46_INT. Do you have internet access at your business?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
		Yes	75%	67%	63%	86%	100%	71%	78%	70%	78%	73%	78%	71%	85%	83%	77%	45%	95%	86%	88%	65%	71%	77%
No	25%	32%	37%	14%	0%	29%	22%	30%	22%	27%	21%	29%	15%	17%	23%	55%	5%	13%	12%	35%	29%	23%	22%	
Refused	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	
N	741	297	225	219	67	333	399	269	472	451	290	585	156	113	113	111	97	101	115	90	305	145	291	
		Express Participant Survey Results																						
PE46_INT. Do you have internet access at your business?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Yes																								
No																								
Refused																								
N																								

**Exhibit 3-8**  
**Customers Willing to Download Rebate Applications**

General Population Survey Results																								
PE47. Rebate applications are online at your [UTILITY] website. Do you see yourself downloading an application and submitting it online?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Yes	27%	19%	12%	44%	83%	22%	32%	28%	27%	30%	22%	24%	37%	35%	26%	13%	61%	37%	43%	17%	22%	21%	33%	
No	72%	81%	88%	54%	17%	78%	67%	71%	72%	70%	75%	76%	60%	65%	74%	85%	39%	62%	57%	83%	78%	79%	65%	
Refused	1%	0%	0%	2%	0%	0%	2%	0%	1%	2%	2%	0%	4%	0%	0%	3%	0%	0%	0%	0%	0%	0%	2%	
Don't know	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	
N	289	130	86	73	22	138	150	115	174	171	118	242	47	37	39	79	31	30	32	41	116	51	122	
Express Participant Survey Results																								
PE47. Were you aware that rebate applications are online at your [UTILITY] website?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Yes	44%	42%	42%	53%	76%	39%	46%	49%	42%	48%	37%	44%	43%	51%	39%	25%	63%	44%	46%	28%	40%	39%	47%	60%
No	55%	57%	57%	47%	24%	59%	53%	49%	57%	51%	61%	54%	57%	49%	59%	72%	37%	51%	54%	72%	59%	61%	52%	40%
Refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Don't know	1%	1%	1%	0%	0%	2%	0%	2%	1%	1%	1%	2%	0%	0%	1%	3%	0%	5%	0%	0%	1%	0%	2%	0%
N	584	255	209	120	16	198	377	148	436	349	235	391	193	166	97	69	41	49	146	16	208	110	194	72

**Exhibit 3-9**  
**Participants That Downloaded Rebate Application**

		General Population Survey Results																													
PE50. Did you download a rebate application off your utility's website?		Total	Very Small				Small		Medium		Large		Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCESCG	
Yes																															
No																															
Don't know																															
N																															
		Express Participant Survey Results																													
PE50. Did you download a rebate application off your utility's website?		Total	Very Small				Small		Medium		Large		Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Yes		19%	17%	20%	22%	32%	15%	21%	26%	16%	23%	13%	19%	18%	22%	16%	12%	35%	21%	18%	21%	20%	17%	16%	35%	20%	17%	16%	35%		
No		81%	83%	79%	78%	68%	85%	78%	74%	84%	77%	86%	80%	82%	78%	84%	88%	65%	79%	81%	79%	79%	83%	84%	65%	79%	83%	84%	65%		
Don't know		0%	0%	1%	0%	0%	0%	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%		
N		580	252	208	120	16	196	376	146	434	347	233	387	193	166	96	68	41	48	145	16	206	110	192	72						

**Exhibit 3-10  
Credibility of Utility**

		General Population Survey Results																							
		Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
V45. On a scale from 1 to 10 where 1 is NOT AT ALL CREDIBLE and 10 is EXTREMELY CREDIBLE, please rate how credible you think your utility is as a source of energy-efficiency related information.																									
Very	32%	63%	61%	60%	65%	59%	63%	63%	59%	65%	63%	62%	62%	65%	61%	59%	66%	61%	66%	66%	59%	62%	65%	64%	
Somewhat	5%	32%	34%	30%	27%	30%	33%	33%	31%	31%	33%	31%	32%	34%	34%	31%	35%	26%	30%	32%	32%	27%	32%		
Not at all	7.8	5%	7%	6%	4%	13%	6%	4%	8%	4%	5%	5%	6%	3%	5%	7%	2%	3%	8%	4%	10%	6%	8%	4%	
Mean	7.8	7.53	7.73	7.95	7.32	7.73	7.86	7.49	7.97	7.79	7.81	7.68	8.09	7.72	7.68	8.01	7.79	7.94	7.94	7.23	7.64	7.75	7.97		
N	725	287	222	216	67	324	392	267	458	442	283	573	152	113	109	111	94	96	111	90	303	141	281		
		Express Participant Survey Results																							
		Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Very (8-10)																									
Somewhat (4-7)																									
Not at all (1-3)																									
Mean																									
N																									



**Exhibit 3-11**  
**Credibility of Contractor Referred by Utility**

		General Population Survey Results																						
V45. On a scale from 1 to 10 where 1 is NOT AT ALL CREDIBLE and 10 is EXTREMELY CREDIBLE, please rate how credible you think a <b>contractor referred to you by your utility</b> is as a source of energy-efficiency related information.	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
	Very	39%	33%	38%	42%	40%	39%	38%	41%	38%	37%	42%	40%	36%	37%	29%	46%	25%	41%	39%	55%	38%	37%	40%
Somewhat	48%	53%	47%	47%	41%	48%	49%	44%	51%	50%	46%	47%	51%	54%	60%	37%	67%	42%	45%	38%	51%	51%	45%	
Not at all	13%	14%	15%	11%	18%	12%	13%	15%	12%	13%	13%	13%	13%	10%	11%	17%	8%	17%	16%	7%	11%	13%	15%	
Mean	6.44	6.08	6.32	6.67	6.23	6.45	6.44	6.44	6.44	6.33	6.6	6.45	6.42	6.37	6.16	6.63	6.15	6.46	6.24	7.34	6.51	6.34	6.4	
N	682	271	211	200	63	309	364	246	436	415	267	539	143	104	103	107	90	93	105	79	282	136	264	
		Express Participant Survey Results																						
	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Very (8-10)																								
Somewhat (4-7)																								
Not at all (1-3)																								
Mean																								
N																								

**Exhibit 3-12**  
**Credibility of Community Organization**

		General Population Survey Results																						
V45. On a scale from 1 to 10 where 1 is NOT AT ALL CREDIBLE and 10 is EXTREMELY CREDIBLE, please rate how credible you think a <b>community organization or trade association</b> is as a source of energy-efficiency related information.	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
	Very	33%	27%	26%	40%	38%	43%	28%	25%	37%	27%	41%	33%	32%	37%	19%	37%	28%	16%	41%	53%	32%	36%	33%
Somewhat	55%	64%	55%	51%	38%	40%	61%	63%	51%	59%	49%	55%	56%	60%	63%	51%	65%	56%	43%	45%	57%	52%	54%	
Not at all	12%	9%	19%	9%	24%	16%	11%	12%	12%	13%	11%	12%	13%	3%	18%	12%	7%	28%	17%	3%	11%	12%	13%	
Mean	6.12	6.03	5.68	6.44	5.8	6.22	6.06	6.03	6.16	5.88	6.47	6.14	6.07	6.69	5.51	6.12	6.19	4.63	6.33	7.39	6.23	6.38	5.96	
N	274	104	91	79	30	98	172	100	174	169	105	205	69	61	39	35	35	35	38	31	117	51	106	
		Express Participant Survey Results																						
	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Very (8-10)																								
Somewhat (4-7)																								
Not at all (1-3)																								
Mean																								
N																								

**Exhibit 3-13**  
**Credibility of Contractor Referred by Community Organization**

		General Population Survey Results																							
V45. On a scale from 1 to 10 where 1 is NOT AT ALL CREDIBLE and 10 is EXTREMELY CREDIBLE, please rate how credible you think a contractor referred by your community organization is as a source of energy-efficiency related information.		Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
		Very	26%	23%	26%	29%	13%	34%	23%	29%	25%	24%	29%	29%	22%	28%	20%	30%	14%	17%	37%	31%	28%	28%	24%
Somewhat	58%	59%	57%	57%	65%	50%	61%	62%	56%	57%	59%	57%	60%	64%	60%	50%	78%	52%	47%	66%	58%	56%	58%		
Not at all	16%	18%	17%	14%	22%	17%	16%	9%	19%	19%	11%	15%	18%	9%	20%	20%	8%	30%	16%	3%	14%	16%	18%		
Mean	5.87	5.59	5.74	6.07	5.26	6.16	5.71	6.42	5.6	5.58	6.28	6.11	5.43	6.14	5.83	5.7	5.61	4.97	6.29	6.36	5.94	5.79	5.82		
N	267	105	87	75	26	98	165	96	171	164	103	202	65	57	38	34	36	34	37	31	114	50	103		
		Express Participant Survey Results																							
		Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
		Very (8-10)																							
Somewhat (4-7)																									
Not at all (1-3)																									
Mean																									
N																									

**Exhibit 3-14**  
**Credibility of Contractor Customer Used in the Past**

		General Population Survey Results																							
V45. On a scale from 1 to 10 where 1 is NOT AT ALL CREDIBLE and 10 is EXTREMELY CREDIBLE, please rate how credible you think a contractor you've used in the past is as a source of energy-efficiency related information.		Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Very	52%	50%	52%	53%	49%	44%	57%	54%	51%	53%	52%	51%	56%	65%	43%	52%	40%	54%	44%	62%	52%	58%	52%		
Somewhat	37%	33%	34%	39%	37%	41%	34%	34%	38%	34%	40%	37%	35%	28%	44%	30%	59%	36%	44%	24%	37%	32%	37%		
Not at all	11%	17%	14%	7%	14%	15%	9%	12%	11%	13%	8%	12%	9%	7%	13%	18%	1%	10%	12%	14%	11%	10%	11%		
Mean	7.1	6.69	6.93	7.36	6.73	6.67	7.38	7.14	7.08	7.04	7.19	6.97	7.41	7.62	6.83	6.97	6.98	7.11	6.74	7.4	7.05	7.28	7.09		
N	676	256	212	208	66	304	363	246	430	413	263	531	145	109	98	105	90	91	105	77	281	133	262		
		Express Participant Survey Results																							
		Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Very (8-10)																									
Somewhat (4-7)																									
Not at all (1-3)																									
Mean																									
N																									

**Exhibit 3-15**  
**Credibility of Contractor Who Approached Customer**

		General Population Survey Results																						
V45. On a scale from 1 to 10 where 1 is NOT AT ALL CREDIBLE and 10 is EXTREMELY CREDIBLE, please rate how credible you think a contractor who's approached you is as a source of energy-efficiency related information.	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
	Very	8%	7%	8%	8%	3%	9%	7%	11%	6%	6%	10%	10%	4%	8%	12%	12%	1%	3%	5%	9%	8%	4%	8%
Somewhat	51%	47%	47%	56%	58%	49%	53%	51%	51%	50%	52%	49%	56%	47%	49%	49%	59%	57%	56%	42%	53%	47%	50%	
Not at all	41%	47%	45%	36%	40%	42%	40%	38%	43%	44%	38%	41%	40%	45%	39%	39%	40%	40%	39%	50%	38%	49%	42%	
Mean	4.04	3.82	3.82	4.28	4.09	4.03	4.08	4.3	3.91	3.88	4.27	4.12	3.86	3.8	4.28	4.37	3.74	3.93	4.1	3.72	4.15	3.67	4.05	
N	677	266	213	198	66	303	365	246	431	408	269	534	143	104	102	105	86	94	105	80	282	136	259	
		Express Participant Survey Results																						
	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
	Very (8-10)																							
Somewhat (4-7)																								
Not at all (1-3)																								
Mean																								
N																								

**Exhibit 3-16**  
**Desirability of Information from Internet**

General Population Survey Results																								
PE40. Information on energy efficiency can come from a number of different sources. How desirable would it be for you to receive energy-related information on the internet?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Very	30%	29%	29%	31%	42%	30%	30%	28%	31%	30%	30%	29%	33%	38%	36%	16%	23%	29%	38%	25%	31%	34%	28%	
Somewhat	33%	35%	31%	33%	44%	36%	31%	30%	34%	31%	35%	34%	31%	27%	31%	38%	45%	28%	35%	28%	32%	25%	36%	
Not at all	37%	36%	39%	36%	14%	34%	39%	41%	35%	38%	35%	38%	36%	35%	33%	46%	32%	43%	27%	47%	37%	40%	36%	
Mean	5.13	5.11	4.97	5.25	6.55	5.33	4.98	4.81	5.3	5.03	5.28	5.1	5.21	5.41	5.51	4.32	5.13	5.01	5.94	4.25	5.08	5.15	5.18	
N	729	288	223	218	66	330	390	264	465	443	286	573	156	112	112	110	94	99	113	88	298	144	287	
Note that ratings are based on a scale from 1=not at all desirable to 10=extremely desirable																								
Express Participant Survey Results																								
PE40. Information on energy efficiency can come from a number of different sources. How desirable would it be for you to receive energy-related information on the internet?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Very																								
Somewhat																								
Not at all																								
Mean																								
N																								

Note that ratings are based on a scale from 1=not at all desirable to 10=extremely desirable

**Exhibit 3-17**  
**Desirability of Information from Contractor**

		General Population Survey Results																						
PE40. Information on energy efficiency can come from a number of different sources. How desirable would it be for you to receive energy-related information directly from a contractor?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
	Very	20%	17%	19%	23%	15%	20%	21%	20%	21%	18%	23%	19%	23%	23%	24%	23%	13%	13%	20%	21%	24%	23%	16%
Somewhat	40%	40%	35%	44%	47%	38%	42%	41%	40%	42%	38%	39%	43%	37%	40%	34%	48%	52%	43%	37%	39%	33%	43%	
Not at all	39%	42%	46%	33%	38%	42%	37%	39%	39%	39%	39%	41%	35%	41%	36%	44%	39%	35%	37%	42%	36%	44%	40%	
Mean	4.66	4.37	4.28	5	4.55	4.51	4.78	4.75	4.61	4.56	4.79	4.56	4.86	4.73	4.87	4.68	4.41	4.45	4.66	4.54	4.93	4.63	4.41	
N	731	290	224	217	66	328	394	264	467	445	286	575	156	113	112	110	96	98	113	88	302	144	285	
Note that ratings are based on a scale from 1=not at all desirable to 10=extremely desirable																								
		Express Participant Survey Results																						
PE40. Information on energy efficiency can come from a number of different sources. How desirable would it be for you to receive energy-related information directly from a contractor?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
	Very																							
Somewhat																								
Not at all																								
Mean																								
N																								

Note that ratings are based on a scale from 1=not at all desirable to 10=extremely desirable

**Exhibit 3-18**  
**Desirability of Information from Community Organization or Event**

		General Population Survey Results																							
PE40. Information on energy efficiency can come from a number of different sources. How desirable would it be for you to receive energy-related information at a <b>community event or trade organization meeting?</b>		Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Very		22%	20%	18%	26%	22%	21%	24%	25%	21%	21%	25%	21%	25%	23%	21%	24%	28%	19%	17%	30%	26%	25%	18%	
Somewhat		39%	36%	37%	41%	44%	35%	41%	39%	38%	39%	38%	38%	40%	35%	33%	37%	43%	42%	45%	42%	39%	34%	40%	
Not at all		39%	44%	45%	34%	34%	44%	35%	36%	41%	41%	37%	41%	36%	42%	46%	39%	30%	38%	39%	28%	36%	41%	42%	
Mean		4.7	4.39	4.38	5.04	4.96	4.37	4.96	4.8	4.65	4.57	4.9	4.55	5.06	4.47	4.51	4.9	5.14	4.63	4.45	5.38	4.86	4.67	4.56	
N		732	291	225	216	66	331	392	268	464	444	288	578	154	113	112	111	96	97	112	90	300	145	287	
Note that ratings are based on a scale from 1=not at all desirable to 10=extremely desirable																									
		Express Participant Survey Results																							
PE40. Information on energy efficiency can come from a number of different sources. How desirable would it be for you to receive energy-related information at a <b>community event or trade organization meeting?</b>		Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Very																									
Somewhat																									
Not at all																									
Mean																									
N																									

Note that ratings are based on a scale from 1=not at all desirable to 10=extremely desirable



**Exhibit 3-19**  
**Desirability of Information from Audit**

		General Population Survey Results																						
PE40. Information on energy efficiency can come from a number of different sources. How desirable would it be for you to receive energy-related information as part of an <b>audit recommendation</b> ?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
	Very	41%	39%	41%	41%	39%	37%	43%	37%	42%	43%	38%	39%	45%	46%	39%	47%	42%	30%	40%	31%	40%	53%	37%
Somewhat	38%	38%	37%	40%	35%	44%	35%	40%	38%	38%	40%	42%	31%	35%	42%	33%	46%	40%	42%	35%	38%	33%	40%	
Not at all	21%	23%	22%	19%	27%	19%	22%	23%	20%	19%	23%	20%	24%	19%	19%	20%	12%	30%	18%	34%	21%	14%	23%	
Mean	6.17	5.98	6.07	6.31	5.91	6.05	6.26	5.9	6.31	6.27	6.03	6.11	6.31	6.37	6.29	6.49	6.51	5.3	6.41	5.18	6.15	7	5.96	
N	725	289	222	214	66	324	392	265	460	440	285	571	154	111	109	109	95	98	114	88	301	142	282	
Note that ratings are based on a scale from 1=not at all desirable to 10=extremely desirable																								
		Express Participant Survey Results																						
PE40. Information on energy efficiency can come from a number of different sources. How desirable would it be for you to receive energy-related information as part of an <b>audit recommendation</b> ?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
	Very																							
Somewhat																								
Not at all																								
Mean																								
N																								

Note that ratings are based on a scale from 1=not at all desirable to 10=extremely desirable

**Exhibit 3-20**  
**Desirability of Printed Information from Utility**

		General Population Survey Results																						
PE40. Information on energy efficiency can come from a number of different sources. How desirable would it be for you to receive energy-related information as <b>printed materials from [UTILITY]</b> ?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
	Very	60%	57%	61%	61%	54%	58%	62%	62%	59%	63%	57%	61%	60%	59%	52%	67%	59%	60%	63%	61%	61%	56%	61%
Somewhat	30%	32%	29%	30%	36%	31%	30%	29%	31%	29%	32%	30%	30%	35%	31%	27%	32%	32%	26%	28%	29%	35%	30%	
Not at all	9%	11%	10%	8%	10%	11%	8%	9%	10%	8%	12%	9%	10%	6%	17%	6%	9%	9%	11%	11%	10%	9%	9%	
Mean	7.5	7.39	7.47	7.56	7.16	7.37	7.61	7.53	7.48	7.69	7.23	7.52	7.45	7.52	7	7.93	7.44	7.57	7.51	7.26	7.51	7.35	7.53	
N	737	293	225	219	66	332	396	269	468	448	289	581	156	113	112	111	97	99	114	90	304	144	289	
Note that ratings are based on a scale from 1=not at all desirable to 10=extremely desirable																								
		Express Participant Survey Results																						
PE40. Information on energy efficiency can come from a number of different sources. How desirable would it be for you to receive energy-related information as <b>printed materials from [UTILITY]</b> ?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
	Very																							
Somewhat																								
Not at all																								
Mean																								
N																								

Note that ratings are based on a scale from 1=not at all desirable to 10=extremely desirable

**Exhibit 3-21**  
**Influence of Express on Rebated Equipment Purchase**

General Population Survey Results																								
A130. When considering your decision to purchase the equipment and deciding on the actual efficiency level of the equipment you selected, how influential was <b>Express Efficiency</b> on your decision to purchase rebated equipment?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Very																								
Somewhat																								
Not at all																								
Refused/Don't know																								
Mean																								
N																								
Note that ratings are based on a scale from 1=not at all influential to 10=extremely influential																								
Express Participant Survey Results																								
A130. When considering your decision to purchase the equipment and deciding on the actual efficiency level of the equipment you selected, how influential was <b>Express Efficiency</b> on your decision to purchase rebated equipment?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Very	50%	47%	52%	55%	28%	52%	49%	48%	51%	50%	51%	50%	50%	51%	49%	54%	44%	48%	49%	67%	48%	56%	51%	47%
Somewhat	34%	34%	35%	31%	48%	31%	35%	35%	33%	33%	34%	33%	36%	33%	23%	39%	38%	25%	39%	21%	35%	26%	33%	36%
Not at all	13%	14%	12%	12%	8%	15%	12%	15%	12%	15%	10%	13%	12%	14%	23%	7%	15%	21%	8%	11%	13%	10%	13%	14%
Refused/Don't know	3%	5%	2%	2%	15%	2%	4%	3%	3%	3%	5%	4%	3%	3%	5%	0%	3%	5%	5%	0%	3%	8%	2%	3%
Mean	6.98	6.84	7.1	7.08	6.45	6.9	7.01	6.85	7.03	6.87	7.14	6.97	7	6.95	6.58	7.22	6.86	6.66	7.11	8.14	6.9	7.42	7	6.8
N	584	255	209	120	16	198	377	148	436	349	235	391	193	166	97	69	41	49	146	16	208	110	194	72

Note that ratings are based on a scale from 1=not at all influential to 10=extremely influential

**Exhibit 3-22**  
**Influence of Audit on Rebated Equipment Purchase**

General Population Survey Results																								
A130. When considering your decision to purchase the equipment and deciding on the actual efficiency level of the equipment you selected, how influential was the <b>audit</b> on your decision to purchase rebated equipment?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Very																								
Somewhat																								
Not at all																								
Refused/Don't know																								
Mean																								
N																								
Note that ratings are based on a scale from 1=not at all influential to 10=extremely influential																								
Express Participant Survey Results																								
A130. When considering your decision to purchase the equipment and deciding on the actual efficiency level of the equipment you selected, how influential was the <b>audit</b> on your decision to purchase rebated equipment?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Very	39%	41%	35%	43%	48%	35%	41%	41%	38%	43%	31%	42%	34%	45%	16%	36%	46%	24%	50%	53%	44%	35%	38%	23%
Somewhat	30%	22%	38%	31%	37%	30%	31%	32%	30%	26%	41%	29%	33%	37%	20%	60%	27%	16%	25%	23%	33%	24%	29%	27%
Not at all	26%	34%	22%	19%	15%	30%	23%	25%	26%	26%	25%	26%	25%	18%	52%	3%	17%	59%	19%	23%	18%	31%	29%	46%
Refused/Don't know	5%	3%	5%	7%	0%	5%	5%	3%	6%	6%	3%	3%	8%	1%	13%	0%	9%	0%	6%	0%	5%	10%	3%	4%
Mean	5.88	5.46	6.06	6.24	6.9	5.46	6.09	5.86	5.89	6.03	5.53	5.86	5.91	6.46	3.6	6.65	6.53	3.74	6.59	6.67	6.33	5.38	5.75	4.44
N	164	55	59	50	10	46	117	48	116	103	61	95	69	54	31	14	18	12	32	3	64	26	48	26

Note that ratings are based on a scale from 1=not at all influential to 10=extremely influential

**Exhibit 3-23**  
**Influence of Contractor on Rebated Equipment Purchase**

General Population Survey Results																								
A130. When considering your decision to purchase the equipment and deciding on the actual efficiency level of the equipment you selected, how influential was your contractor on your decision to purchase rebated equipment?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Very																								
Somewhat																								
Not at all																								
Refused/Don't know																								
Mean																								
N																								
Note that ratings are based on a scale from 1=not at all influential to 10=extremely influential																								
Express Participant Survey Results																								
A130. When considering your decision to purchase the equipment and deciding on the actual efficiency level of the equipment you selected, how influential was your contractor on your decision to purchase rebated equipment?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Very	40%	40%	37%	45%	54%	41%	40%	45%	38%	41%	38%	41%	38%	39%	51%	40%	32%	28%	39%	36%	41%	43%	39%	33%
Somewhat	27%	26%	33%	20%	5%	24%	29%	25%	28%	29%	25%	27%	28%	31%	23%	20%	44%	12%	31%	10%	31%	19%	26%	21%
Not at all	22%	22%	22%	23%	25%	23%	21%	25%	21%	22%	23%	22%	22%	26%	14%	23%	16%	40%	19%	46%	20%	26%	22%	36%
Refused/Don't know	11%	12%	8%	12%	15%	12%	10%	5%	13%	8%	14%	10%	12%	4%	13%	17%	8%	20%	11%	7%	8%	13%	14%	10%
Mean	6.15	6.25	6	6.19	6.11	6.2	6.18	6.24	6.11	6.15	6.15	6.24	5.95	5.97	7.26	6.27	5.97	4.63	6.11	5.06	6.29	6.12	6.12	5.32
N	584	255	209	120	16	198	377	148	436	349	235	391	193	166	97	69	41	49	146	16	208	110	194	72

Note that ratings are based on a scale from 1=not at all influential to 10=extremely influential

**Exhibit 3-24**  
**Influence of Utility Representative on Rebated Equipment Purchase**

General Population Survey Results																								
A130. When considering your decision to purchase the equipment and deciding on the actual efficiency level of the equipment you selected, how influential was your <b>utility</b> on your decision to purchase rebated equipment?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Very																								
Somewhat																								
Not at all																								
Refused/Don't know																								
Mean																								
N																								
Note that ratings are based on a scale from 1=not at all influential to 10=extremely influential																								
Express Participant Survey Results																								
A130. When considering your decision to purchase the equipment and deciding on the actual efficiency level of the equipment you selected, how influential was your <b>utility representative</b> on your decision to purchase rebated equipment?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Very	48%	51%	46%	44%	62%	50%	47%	56%	44%	48%	47%	52%	40%	42%	31%	61%	41%	50%	52%	100%	45%	55%	47%	56%
Somewhat	22%	20%	24%	22%	8%	25%	21%	21%	22%	21%	24%	23%	20%	29%	8%	12%	31%	15%	23%	0%	27%	24%	15%	25%
Not at all	22%	22%	24%	20%	7%	17%	24%	19%	24%	24%	19%	20%	27%	22%	49%	12%	14%	14%	21%	0%	19%	14%	28%	14%
Refused/Don't know	8%	7%	7%	14%	23%	7%	8%	4%	10%	8%	10%	5%	13%	6%	12%	16%	13%	21%	4%	0%	8%	7%	9%	6%
Mean	6.35	6.48	6.08	6.52	7.97	6.73	6.22	6.74	6.18	6.29	6.47	6.62	5.81	6.51	4.49	7.62	6.1	6.93	6.37	9.39	6.31	7.12	6.16	6.97
N	181	65	65	51	13	47	131	43	138	113	68	106	75	53	22	18	16	17	53	2	61	18	66	36

Note that ratings are based on a scale from 1=not at all influential to 10=extremely influential

**Exhibit 3-25**  
**Influence of Rising Energy Bills on Rebated Equipment Purchase**

General Population Survey Results																								
A130. When considering your decision to purchase the equipment and deciding on the actual efficiency level of the equipment you selected, how influential were <b>rising energy bills</b> on your decision to purchase rebated equipment?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Very																								
Somewhat																								
Not at all																								
Refused/Don't know																								
Mean																								
N																								
Note that ratings are based on a scale from 1=not at all influential to 10=extremely influential																								
Express Participant Survey Results																								
A130. When considering your decision to purchase the equipment and deciding on the actual efficiency level of the equipment you selected, how influential were <b>rising energy bills</b> on your decision to purchase rebated equipment?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Very	64%	64%	62%	70%	90%	61%	65%	72%	61%	64%	64%	65%	63%	72%	50%	56%	64%	62%	68%	77%	62%	69%	67%	54%
Somewhat	23%	24%	23%	18%	5%	27%	21%	15%	26%	23%	23%	23%	23%	17%	33%	32%	20%	21%	20%	6%	25%	17%	21%	31%
Not at all	9%	9%	11%	4%	5%	8%	10%	10%	8%	9%	9%	9%	9%	10%	10%	10%	7%	15%	6%	15%	8%	10%	10%	11%
Refused/Don't know	4%	3%	3%	8%	0%	4%	4%	2%	5%	4%	4%	3%	6%	1%	6%	3%	9%	3%	6%	2%	6%	4%	3%	4%
Mean	7.91	7.84	7.75	8.44	8.94	7.81	7.93	8.18	7.8	7.89	7.94	7.91	7.92	8.19	7.5	7.37	8.04	7.34	8.19	8.43	7.94	8.04	7.93	7.35
N	584	255	209	120	16	198	377	148	436	349	235	391	193	166	97	69	41	49	146	16	208	110	194	72

Note that ratings are based on a scale from 1=not at all influential to 10=extremely influential

**Exhibit 3-26**  
**Influence of Community Event on Rebated Equipment Purchase**

		General Population Survey Results																						
A130. When considering your decision to purchase the equipment and deciding on the actual efficiency level of the equipment you selected, how influential was the <b>community event</b> you attended on your decision to purchase rebated equipment?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Very																								
Somewhat																								
Not at all																								
Refused/Don't know																								
Mean																								
N																								
Note that ratings are based on a scale from 1=not at all influential to 10=extremely influential																								
		Express Participant Survey Results																						
A130. When considering your decision to purchase the equipment and deciding on the actual efficiency level of the equipment you selected, how influential was the <b>community event</b> you attended on your decision to purchase rebated equipment?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Very	33%	42%	36%	21%	19%	26%	36%	44%	30%	38%	28%	40%	24%	57%	13%	37%	50%	48%	12%	21%	27%	26%	44%	22%
Somewhat	37%	33%	37%	42%	69%	41%	36%	51%	33%	30%	47%	41%	33%	31%	51%	44%	28%	8%	42%	79%	52%	48%	22%	39%
Not at all	24%	22%	27%	21%	12%	31%	21%	5%	29%	23%	25%	16%	34%	10%	36%	10%	22%	44%	32%	0%	18%	25%	24%	33%
Refused/Don't know	5%	3%	0%	16%	0%	3%	7%	0%	7%	9%	0%	3%	9%	2%	0%	10%	0%	0%	14%	0%	3%	0%	9%	6%
Mean	5.9	6.37	5.81	5.5	5.07	5.19	6.17	7.23	5.47	6.03	5.75	6.53	5	7.69	4.45	6.41	6.81	5.13	4.51	5.62	5.92	5.67	6.28	4.94
N	83	23	32	28	4	25	58	14	69	46	37	45	38	24	12	9	11	8	17	2	23	18	24	18

Note that ratings are based on a scale from 1=not at all influential to 10=extremely influential



**Exhibit 3-27**  
**Influence of Audit on Equipment Purchase**

		General Population Survey Results																						
A58. On a scale of 1 to 10, what influence did the audit have in your decision to purchase new equipment?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Very Influential (8-10)	32%	46%	16%	40%	17%	17%	41%	41%	29%	35%	28%	32%	32%	44%	27%	25%	72%	18%	29%	15%	53%	4%	23%	
Somewhat Influential (4-7)	39%	53%	36%	38%	25%	60%	26%	31%	42%	32%	48%	40%	36%	6%	42%	55%	22%	82%	28%	17%	18%	77%	46%	
Not at all Influential (1-3)	29%	1%	49%	22%	57%	23%	33%	28%	30%	33%	24%	27%	32%	50%	32%	20%	6%	0%	44%	68%	29%	19%	31%	
Mean	5.77	7.22	4.65	6.22	3.72	5.65	5.85	5.95	5.7	5.71	5.87	5.83	5.7	5	5.58	6.33	7.34	5.9	5.12	3.25	6.28	4.84	5.59	
N	60	14	20	26	18	21	39	18	42	36	24	38	22	7	9	12	12	3	10	7	24	14	22	
		Express Participant Survey Results																						
A58. On a scale of 1 to 10, what influence did the audit have in your decision to purchase new equipment?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Very (8-10)																								
Somewhat (4-7)																								
Not at all (1-3)																								
Mean																								
N																								

**Exhibit 3-28**  
**Influence of Community Event on Equipment Purchase**

General Population Survey Results																								
A110. In thinking about your decision to purchase the equipment and deciding on the actual efficiency level of the equipment you selected, how influential was the event(s) you attended on your decision to purchase equipment? (scale from 1-10)	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Very (8-10)	9%	2%	22%	6%	7%	16%	7%	13%	6%	2%	18%	9%	9%	0%	0%	0%	47%	0%	9%	82%	15%	14%	5%	
Somewhat (4-7)	36%	55%	18%	40%	27%	37%	36%	22%	45%	33%	41%	33%	41%	29%	31%	53%	7%	50%	38%		41%	19%	37%	
Not at all (1-3)	55%	44%	60%	55%	66%	47%	57%	64%	49%	65%	41%	58%	50%	71%	69%	47%	46%	50%	54%	18%	45%	67%	58%	
Mean	3.82	3.6	3.56	3.93	2.79	3.72	3.84	3.48	4.02	3.28	4.54	3.42	4.34	3.38	2.63	3.5	5.23	4.04	3.88	6.99	3.94	3.73	3.76	
N	42	11	9	22	13	10	32	17	25	23	19	28	14	7	6	6	7	5	7	4	15	8	19	
Express Participant Survey Results																								
A110. In thinking about your decision to purchase the equipment and deciding on the actual efficiency level of the equipment you selected, how influential was the event(s) you attended on your decision to purchase equipment? (scale from 1-10)	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Very (8-10)																								
Somewhat (4-7)																								
Not at all (1-3)																								
Mean																								
N																								

**Exhibit 3-29**  
**Influence of Utility Representative on Equipment Purchase**

		General Population Survey Results																							
A85. On a scale of 1 to 10, what influence did your [UTILITY] representative have in your decision to purchase new equipment?		Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Very Influential (8-10)		37%	27%	30%	41%	31%	38%	36%	29%	40%	50%	20%	34%	41%	0%	43%	49%	24%	86%	17%	39%	47%	23%	34%	
Somewhat Influential (4-7)		33%	37%	26%	35%	29%	43%	27%	26%	36%	23%	45%	32%	35%	49%	57%	27%	53%	0%	15%		12%	27%	42%	
Not at all Influential (1-3)		30%	37%	44%	25%	40%	19%	37%	45%	25%	26%	35%	34%	25%	51%	0%	24%	23%	14%	68%	61%	42%	50%	25%	
Mean		5.54	4.65	5.02	5.91	4.39	6.36	5.04	4.91	5.77	6.05	4.91	5.56	5.51	3.46	7.56	6.14	5.37	7.14	3.32	5.14	5.42	3.69	5.7	
N		28	10	6	12	11	8	20	9	19	13	15	19	9	2	3	5	8	2	6	2	9	3	16	
		Express Participant Survey Results																							
A85. On a scale of 1 to 10, what influence did your [UTILITY] representative have in your decision to purchase new equipment?		Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Very Influential (8-10)																									
Somewhat Influential (4-7)																									
Not at all Influential (1-3)																									
Mean																									
N																									

**Exhibit 3-30**  
**Influence of Express Efficiency on Equipment Purchase**

		General Population Survey Results																																									
A41. On a scale of 1 to 10, what influence did your awareness of the Express program have in your decision to purchase new equipment?	Total	Very Small				Renter		Owner		Rural		Urban		English		Other Language		Any HTR		Non HTR		Office		Retail		Restaurant/Grocery		Institutional		Industrial		Misc. Commercial		Agriculture		PGE		SDGE		SCE/SCG			
		Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG																				
Very (8-10)	36%	58%	52%	22%	29%	44%	30%	32%	38%	29%	47%	38%	30%	29%	44%	56%	39%	22%	37%	13%	48%	51%	26%																				
Somewhat (4-7)	29%	27%	7%	40%	22%	14%	39%	17%	34%	37%	15%	16%	58%	52%	10%	24%	30%	22%	26%	9%	13%	36%	35%																				
Not at all (1-3)	36%	16%	41%	38%	50%	42%	31%	51%	28%	34%	38%	46%	12%	19%	46%	20%	32%	56%	37%	78%	39%	14%	38%																				
Mean	5.47	7.02	6.09	4.77	4.28	5.51	5.44	4.63	5.89	5.31	5.73	5.12	6.28	5.92	5.28	6.73	5.61	4.17	5.44	3.37	5.78	7.22	4.95																				
N	112	38	35	39	17	39	72	47	65	63	49	86	26	19	12	16	16	17	14	18	40	23	49																				
		Express Participant Survey Results																																									
A41. On a scale of 1 to 10, what influence did your awareness of the Express program have in your decision to purchase new equipment?	Total	Very Small				Renter		Owner		Rural		Urban		English		Other Language		Any HTR		Non HTR		Office		Retail		Restaurant/Grocery		Institutional		Industrial		Misc. Commercial		Agriculture		PGE		SDGE		SCE		SCG	
		Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG																			
Very (8-10)																																											
Somewhat (4-7)																																											
Not at all (1-3)																																											
Mean																																											
N																																											

**Exhibit 3-31**  
**Satisfaction with Equipment and its Performance**

General Population Survey Results																																
SAT55. On a scale from 1 to 10, where 10 means EXTREMELY SATISFIED and 1 means EXTREMELY DISSATISFIED, please rate your satisfaction with <b>the equipment you purchased and its performance.</b>	Total	Very Small				Renter		Owner		Rural		Urban		English		Other Language		Any HTR		Non HTR		Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Very	77%	76%	77%	78%	74%	71%	80%	78%	77%	78%	76%	75%	81%	85%	77%	76%	72%	75%	68%	85%	81%	78%	74%	72%	75%	68%	85%	81%	78%	74%		
Somewhat	22%	23%	22%	22%	26%	28%	20%	22%	22%	22%	23%	24%	19%	15%	23%	24%	27%	25%	30%	15%	19%	20%	26%	27%	30%	15%	19%	20%	26%			
Not at all	0%	1%	1%	0%	0%	1%	0%	0%	1%	0%	1%	1%	0%	0%	0%	0%	1%	0%	2%	0%	0%	2%	0%	0%	2%	0%	0%	2%	0%			
Don't know/Refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
Mean	8.41	8.22	8.38	8.49	8.36	8.2	8.51	8.41	8.42	8.44	8.37	8.34	8.54	8.5	8.58	8.39	8.1	8.44	8.27	8.71	8.53	8.27	8.35	8.1	8.44	8.27	8.71	8.53	8.27	8.35		
N	298	103	91	104	38	108	188	100	198	175	123	213	85	56	34	54	44	33	47	29	121	62	115	44	33	47	29	121	62	115		
Express Participant Survey Results																																
SAT55. On a scale from 1 to 10, where 10 means EXTREMELY SATISFIED and 1 means EXTREMELY DISSATISFIED, please rate your satisfaction with <b>the equipment you purchased and its performance.</b>	Total	Very Small				Renter		Owner		Rural		Urban		English		Other Language		Any HTR		Non HTR		Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Very	68%	72%	64%	66%	79%	67%	69%	72%	67%	71%	64%	69%	67%	67%	75%	75%	67%	72%	61%	86%	72%	63%	64%	75%	67%	72%	61%	86%	72%	63%	64%	75%
Somewhat	27%	25%	30%	28%	21%	29%	26%	24%	28%	25%	30%	27%	27%	29%	23%	18%	21%	26%	34%	14%	24%	25%	33%	18%	21%	26%	34%	14%	24%	25%	33%	18%
Not at all	4%	3%	5%	6%	0%	3%	4%	3%	5%	3%	6%	3%	6%	2%	2%	7%	12%	2%	5%	0%	4%	10%	3%	4%	2%	5%	0%	4%	10%	3%	4%	
Don't know/Refused	1%	1%	1%	0%	0%	1%	0%	1%	1%	1%	0%	1%	1%	2%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	3%	0%	0%	2%	0%	3%		
Mean	7.96	8.2	7.82	7.62	8.32	8.04	7.95	8.17	7.88	8.12	7.71	8.04	7.79	8.26	8.34	8.01	7.6	8.15	7.51	8.62	8.06	7.63	7.89	8.27	7.6	8.15	7.51	8.62	8.06	7.63	7.89	8.27
N	584	255	209	120	16	198	377	148	436	349	235	391	193	166	97	69	41	49	146	16	208	110	194	72	41	49	146	16	208	110	194	72

**Exhibit 3-32**  
**Satisfaction with Contractor**

General Population Survey Results																									
SAT40. On a scale from 1 to 10, where 10 means EXTREMELY SATISFIED and 1 means EXTREMELY DISSATISFIED, please rate your satisfaction with <b>your contractor</b> .	Total	Very Small			Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
	Very	79%	79%	77%	80%	56%	69%	84%	81%	78%	77%	82%	77%	82%	77%	56%	79%	74%	97%	89%	95%	88%	68%	77%	
Somewhat	20%	16%	23%	19%	31%	29%	16%	19%	20%	23%	16%	21%	18%	21%	44%	20%	26%	3%	11%	5%	12%	29%	22%		
Not at all	1%	5%	0%	1%	13%	2%	0%	0%	1%		2%	2%	0%	2%	0%	2%	0%	0%	0%		0%	3%	1%		
Don't know/Refused	0%	0%	0%	0%	0%	0%	0%	0%	0%		0%	0%	0%	0%	0%	0%	0%	0%	0%		0%	0%	0%		
Mean	8.42	8.31	8.46	8.42	7.08	8.17	8.52	8.53	8.38	8.45	8.38	8.38	8.48	8.33	8	8.27	7.97	9.04	8.68	9.46	8.81	8.05	8.29		
N	172	49	58	65	30	59	111	50	122	91	81	115	57	39	23	30	24	20	20	15	58	40	74		
Express Participant Survey Results																									
SAT40. On a scale from 1 to 10, where 10 means EXTREMELY SATISFIED and 1 means EXTREMELY DISSATISFIED, please rate your satisfaction with <b>your contractor</b> .	Total	Very Small			Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
	Very	69%	70%	70%	67%	100%	69%	70%	66%	71%	72%	66%	70%	68%	77%	66%	64%	72%	66%	66%	74%	69%	69%	70%	68%
Somewhat	27%	27%	25%	28%	0%	28%	26%	32%	25%	25%	29%	27%	24%	17%	30%	35%	17%	30%	32%	26%	26%	25%	27%	28%	
Not at all	4%	3%	5%	3%	0%	3%	4%	2%	4%	4%	3%	2%	6%	5%	4%	2%	6%	5%	2%	0%	4%	5%	3%	4%	
Don't know/Refused	0%	0%	0%	2%	0%	0%	1%	0%	1%	0%	1%	0%	1%	0%	0%	0%	6%	0%	0%	0%	1%	1%	0%	0%	
Mean	8.09	8.17	8.07	7.95	8.65	8.02	8.12	8.07	8.1	8.15	8	8.1	8.06	8.4	7.96	8	7.86	7.88	8.02	7.99	8.07	8.12	8.12	8.05	
N	371	152	140	79	7	136	230	88	283	219	152	249	122	116	71	44	28	28	76	8	134	67	113	57	

**Exhibit 3-33**  
**Satisfaction with Program Overall**

General Population Survey Results																										
SAT1. On a scale from 1 to 10, where 10 means EXTREMELY SATISFIED and 1 means EXTREMELY DISSATISFIED, please rate your <b>overall</b> satisfaction with the <b>2002 Express Efficiency program experience.</b>	Total	Very Small			Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
	Very																									
Somewhat																										
Not at all																										
Don't know/Refused																										
Mean																										
N																										
Express Participant Survey Results																										
SAT1. On a scale from 1 to 10, where 10 means EXTREMELY SATISFIED and 1 means EXTREMELY DISSATISFIED, please rate your <b>overall</b> satisfaction with the <b>2002 Express Efficiency program experience.</b>	Total	Very Small			Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
	Very	65%	63%	69%	62%	86%	62%	66%	66%	64%	65%	64%	64%	67%	71%	73%	55%	63%	51%	62%	83%	64%	66%	62%	83%	
Somewhat	29%	31%	26%	33%	14%	30%	29%	30%	29%	29%	31%	30%	29%	25%	21%	33%	34%	37%	33%	11%	31%	25%	31%	14%		
Not at all	5%	6%	3%	4%	0%	7%	3%	4%	5%	5%	4%	5%	3%	3%	6%	11%	0%	7%	2%	4%	4%	7%	6%	0%		
Don't know/Refused	1%	1%	2%	1%	0%	1%	2%	1%	2%	1%	1%	1%	2%	1%	1%	0%	4%	5%	2%	2%	2%	2%	1%	3%		
Mean	7.93	7.82	8.07	7.93	8.56	7.66	8.1	8.04	7.88	7.93	7.92	7.87	8.06	8.31	8.02	7.23	8.19	7.33	7.92	8.81	7.96	7.86	7.77	8.9		
N	584	255	209	120	16	198	377	148	436	349	235	391	193	166	97	69	41	49	146	16	208	110	194	72		

**Exhibit 3-34**  
**Satisfaction with Application Process**

General Population Survey Results																								
SAT15. On a scale from 1 to 10, where 10 means EXTREMELY SATISFIED and 1 means EXTREMELY DISSATISFIED, please rate your overall satisfaction with the <b>application process</b> .	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
	Very																							
Somewhat																								
Not at all																								
Don't know/Refused																								
Mean																								
N																								
Express Participant Survey Results																								
SAT15. On a scale from 1 to 10, where 10 means EXTREMELY SATISFIED and 1 means EXTREMELY DISSATISFIED, please rate your overall satisfaction with the <b>application process</b> .	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
	Very	61%	58%	62%	67%	81%	59%	63%	63%	60%	60%	62%	59%	62%	63%	59%	60%	55%	60%	89%	65%	63%	54%	79%
Somewhat	30%	32%	28%	27%	19%	31%	29%	28%	31%	30%	29%	28%	33%	29%	24%	26%	37%	40%	32%	3%	26%	28%	36%	19%
Not at all	4%	3%	6%	3%	0%	4%	4%	4%	4%	5%	3%	4%	4%	2%	6%	8%	0%	3%	4%	0%	3%	2%	6%	0%
Don't know/Refused	5%	6%	5%	3%	0%	7%	4%	5%	5%	4%	7%	6%	4%	6%	6%	7%	3%	2%	4%	8%	6%	7%	4%	1%
Mean	7.91	7.89	7.78	8.18	8.3	7.78	8.01	8.08	7.84	7.85	7.99	7.97	7.75	8.23	7.84	7.49	7.99	7.53	7.86	9.19	8.17	8.04	7.47	8.76
N	584	255	209	120	16	198	377	148	436	349	235	391	193	166	97	69	41	49	146	16	208	110	194	72



**Exhibit 3-35**  
**Satisfaction with Bill Savings**

General Population Survey Results																									
SAT30. On a scale from 1 to 10, where 10 means EXTREMELY SATISFIED and 1 means EXTREMELY DISSATISFIED, please rate your satisfaction with the <b>bill savings</b> .	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG		
	Very																								
Somewhat																									
Not at all																									
Don't know/Refused																									
Mean																									
N																									
Express Participant Survey Results																									
SAT30. On a scale from 1 to 10, where 10 means EXTREMELY SATISFIED and 1 means EXTREMELY DISSATISFIED, please rate your satisfaction with the <b>bill savings</b> .	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG	
	Very	46%	47%	47%	42%	57%	45%	47%	49%	45%	46%	46%	47%	44%	47%	59%	38%	42%	25%	47%	59%	43%	48%	48%	53%
Somewhat	36%	36%	37%	38%	31%	38%	36%	35%	37%	35%	38%	37%	36%	35%	28%	41%	39%	46%	38%	23%	40%	28%	35%	35%	
Not at all	8%	8%	8%	7%	0%	8%	7%	8%	8%	6%	10%	8%	7%	4%	9%	16%	10%	2%	8%	4%	7%	9%	9%	1%	
Don't know/Refused	10%	9%	8%	14%	12%	9%	10%	8%	10%	12%	6%	8%	12%	15%	4%	5%	8%	27%	7%	14%	9%	15%	8%	11%	
Mean	7.16	7.15	7.16	7.22	8	7.06	7.24	7.19	7.15	7.24	7.05	7.12	7.27	7.65	7.41	6.29	7.04	6.64	7.14	8.17	7.02	7.41	7.18	7.81	
N	584	255	209	120	16	198	377	148	436	349	235	391	193	166	97	69	41	49	146	16	208	110	194	72	

**Exhibit 3-36**  
**Dissatisfaction with Program**

		General Population Survey Results																						
SAT45. Were you at all dissatisfied with the program?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Yes																								
No																								
Don't Know																								
N																								
		Express Participant Survey Results																						
SAT45. Were you at all dissatisfied with the program?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Yes	13%	15%	13%	9%	5%	16%	11%	16%	12%	16%	9%	15%	10%	12%	11%	16%	16%	12%	14%	4%	11%	17%	15%	4%
No	85%	84%	86%	89%	95%	82%	88%	82%	87%	84%	88%	84%	89%	88%	88%	81%	84%	88%	83%	96%	87%	83%	83%	96%
Don't Know	1%	1%	2%	2%	0%	2%	1%	2%	1%	1%	3%	1%	2%	0%	1%	3%	0%	0%	3%	0%	2%	0%	1%	0%
N	584	255	209	120	16	198	377	148	436	349	235	391	193	166	97	69	41	49	146	16	208	110	194	72

APPENDIX 4:  
VENDOR ASSESSMENT DATA  
TABLES

# Guide to Process Assessment Data Tables (Appendix 4)

## ***General Population Customer Survey***

Customer population results are presented in the upper panel of data tables. Population-level data is segmented as follows:

- **Total:** overall self-report customer data.
- **Size:** Customers are segmented by very small (0-20kW), small (20-100kW), medium (100-500kW) and large (>500kW).
- **Renter/owner.** This information comes from customer's self-reported response to whether facilities are leased or owned.
- **Urban/rural.** This segment is based on urban/rural zip codes provided by the IOUs.
- **English/other language.** This segment is based on self-reported respondent data on primary language spoken at the business.
- **Any HTR/non-HTR:** the "any HTR" segment includes businesses where the primary language spoken is other than English, businesses located in areas other than the San Francisco Bay Area, San Diego area, Los Angeles Basin or the City of Sacramento, very small businesses using less than 20kW or less than 10 employees, and customers who lease rather than own their facilities. The non-HTR segment captures English-speaking, non-rural businesses who own their facilities and use more than 20kW or employ 10 or more employees. The non-HTR segment captures English-speaking, urban businesses that own their facilities and use more than 20kW.
- **Business Type.** survey responses are segmented by seven business types: office, retail, restaurant and grocery, institutional, industrial, miscellaneous commercial and agriculture.
- **IOUs:** 305 PG&E customers, 291 SCE/SCG customers and 145 SDG&E customers were interviewed. One sample represented both SCE and SCG because they serve much of the same territory.

### ***Express Participant Survey***

Express Efficiency participant results are presented in the lower panel of each exhibit from 584 customer participants surveyed in July 2003.

Participant data tables are segmented similarly to the general population (above), with a few differences.

- **All customers.**
- Hard-to-reach customers. Survey respondents and CIS data were used to classify each respondent into one or more of the HTR segments. The residential HTR definitions provided by the CPUC are:
  - **Urban/rural.** The IOUs define rural HTR customers by zip codes. For example, PG&E uses only geography to define HTR in their service territory, where zip codes outside the 9 Bay Area counties are considered HTR.
  - **English/other language.** Primary languages other than English include respondents who indicated they spoke a non-English language at their business.
  - **Tenant/building owner.** This information comes from customer's self-reported facility ownership.
  - **Size.** Customers are segmented by very small (0-20kW), small (20-100kW), medium (100-500kW) and large (>500kW). Large customers are moved from the segment totals because they are not considered eligible for the program, but we do at times report them separately because large customer data illustrate differences between large and small customers. Small customers are those with usage less than 100kW.
  - **Any HTR/Non-HTR:** this segment includes respondents whose businesses is located in a rural area, speak a language other than English at the business, lease a facility, or use less than 20kW.
- **IOU:** Participants are segmented by PG&E, SCE, SCG and SDG&E.
- **Business Type:** survey responses are segmented by seven business types: office, retail, restaurant and grocery, institutional, industrial, miscellaneous commercial and agriculture.

**Exhibit 4-1  
Percentage That Used Contractor**

		GEN_POP																																									
V1. Did you use a contractor, engineering firm or other service provider to design or install the equipment you installed?	Total	GEN_POP				Renter		Owner		Rural		Urban		English		Other Language		Any HTR		Non HTR		OFFC		RETL		EATS		INST		IND		COTH		AG		PGE		SDGE		SCE/SCG			
		Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	OFFC	RETL	EATS	INST	IND	COTH	AG	PGE	SDGE	SCE	SCG																			
Contractor	63%	50%	62%	67%	74%	54%	67%	54%	67%	62%	63%	55%	76%	69%	69%	54%	54%	77%	62%	45%	53%	72%	68%																				
Engineering firm	3%	5%	2%	3%	11%	4%	3%	1%	4%	4%	3%	4%	2%	2%	5%	3%	6%	0%	4%	0%	3%	7%	3%																				
Energy services firm	3%	0%	4%	3%	6%	5%	2%	2%	4%	1%	5%	3%	2%	0%	0%	9%	0%	0%	0%	13%	1%	0%	5%																				
No, did it ourselves	23%	36%	22%	20%	25%	23%	23%	29%	20%	23%	23%	25%	19%	19%	23%	25%	41%	17%	20%	19%	28%	21%	19%																				
Other	7%	11%	4%	7%	2%	7%	7%	12%	4%	10%	3%	10%	2%	8%	5%	5%	1%	6%	12%	12%	11%	1%	5%																				
Refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%																				
Don't know	4%	3%	5%	3%	1%	7%	2%	3%	4%	1%	7%	4%	2%	2%	3%	3%	7%	0%	4%	11%	6%	2%	2%																				
N	311	107	98	106	40	113	195	107	204	182	129	225	86	58	36	57	46	35	49	30	127	64	120																				
		EXPRESS																																									
V1. Did you use a contractor, engineering firm or other service provider to design or install the equipment you installed?	Total	EXPRESS				Renter		Owner		Rural		Urban		English		Other Language		Any HTR		Non HTR		OFFC		RETL		EATS		INST		IND		COTH		AG		PGE		SDGE		SCE		SCG	
		Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	OFFC	RETL	EATS	INST	IND	COTH	AG	PGE	SDGE	SCE	SCG																			
Contractor	54%	50%	55%	60%	38%	59%	51%	52%	54%	52%	55%	54%	51%	58%	67%	53%	64%	48%	43%	46%	59%	56%	44%	81%																			
Engineering firm	0%	1%	0%	0%	0%	1%	0%	0%	0%	1%	0%	1%	0%	0%	0%	0%	0%	5%	0%	0%	1%	0%	0%	0%																			
Energy services firm	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%																			
No, did it ourselves	42%	43%	43%	40%	53%	34%	47%	44%	42%	43%	41%	41%	46%	41%	28%	34%	36%	41%	56%	54%	36%	44%	53%	19%																			
Other	1%	1%	1%	0%	8%	0%	1%	1%	1%	1%	0%	0%	1%	0%	0%	3%	0%	1%	1%	0%	2%	0%	0%	0%																			
Refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%																			
Don't know	2%	3%	1%	0%	0%	3%	1%	1%	2%	1%	2%	2%	1%	1%	2%	5%	0%	0%	1%	0%	3%	0%	1%	0%																			
N	584	255	209	120	16	198	377	148	436	349	235	391	193	166	97	69	41	49	146	16	208	110	194	72																			

**Exhibit 4-2  
Percentage That Used New Contractor**

		GEN_POP																						
V5. Had you worked with this contractor before participating in the 2002 Express Efficiency program?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	OFFC	RETL	EATS	INST	IND	COTH	AG	PGE	SDGE	SCE/SCG	
Yes																								
No																								
Don't Know																								
N																								
		EXPRESS																						
V5. Had you worked with this contractor before participating in the 2002 Express Efficiency program?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	OFFC	RETL	EATS	INST	IND	COTH	AG	PGE	SDGE	SCE	SCG
Yes	28%	22%	32%	33%	72%	26%	28%	35%	25%	29%	25%	28%	26%	39%	23%	19%	61%	26%	14%	62%	26%	23%	23%	54%
No	72%	78%	68%	66%	28%	74%	71%	65%	75%	70%	75%	72%	74%	60%	77%	81%	39%	74%	86%	38%	74%	77%	76%	44%
Don't Know	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%
N	371	152	140	79	7	136	230	88	283	219	152	249	122	116	71	44	28	28	76	8	134	67	113	57

**Exhibit 4-3  
Reason for Selecting Contractor**

		GEN POP																								
		Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	OFFC	RETL	EATS	INST	IND	COTH	AG	PGE	SDGE	SCE/SCG		
V10. Why did you select this contractor?																										
Needed immediate replacement/turnaround time																										
Lower price																										
Worked with contractor before/prior experience																										
Contractor reputation/referral																										
Service/maintenance offerings																										
Contractor approached firm																										
Other																										
Refused																										
Don't know																										
N																										
		EXPRESS																								
		Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	OFFC	RETL	EATS	INST	IND	COTH	AG	PGE	SDGE	SCE	SCG	
V10. Why did you select this contractor?																										
Needed immediate replacement/turnaround time		7%	6%		8%	0%	8%	6%	11%	6%	9%	5%	8%	4%	4%	6%	13%	0%	4%	11%	0%	8%	8%	8%	0%	
Lower price		9%	5%	11%	11%	29%	7%	9%	6%	10%	5%	13%	7%	11%	8%	5%	7%	25%	13%	8%	0%	6%	9%	10%	16%	
Worked with contractor before/prior experience		22%	16%	22%	34%	41%	22%	22%	28%	19%	24%	19%	21%	22%	29%	17%	14%	43%	40%	11%	46%	20%	19%	22%	33%	
Contractor reputation/referral		27%	30%	24%	26%	29%	27%	27%	26%	28%	29%	25%	28%	27%	33%	28%	25%	14%	27%	25%	38%	28%	14%	28%	33%	
Service/maintenance offerings		2%	1%	2%	1%	0%	2%	2%	0%	2%	1%	2%	1%	3%	0%	1%	0%	4%	0%	4%	0%	0%	1%	3%	2%	
Contractor approached firm		19%	23%	16%	17%	0%	19%	19%	23%	17%	19%	19%	20%	16%	12%	24%	23%	9%	20%	24%	9%	23%	28%	16%	2%	
Other		14%	17%	17%	5%	0%	14%	15%	9%	17%	13%	16%	14%	16%	14%	14%	21%	5%	5%	16%	7%	15%	13%	14%	16%	
Refused		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	
Don't know		2%	3%	2%	2%	0%	3%	2%	0%	3%	3%	2%	2%	3%	0%	5%	0%	4%	0%	4%	0%	3%	8%	1%	0%	
N		371	152	140	79	7	136	230	88	283	219	152	249	122	116	71	44	28	28	76	8	134	67	113	57	



**Exhibit 4-4**  
**Importance of Utility Referral to Contractor**

		GEN_POP																							
V25. How important would a list of qualified contractors FROM YOUR UTILITY be in selecting a contractor? (scale from 1 to 10)		Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	OFFC	RETL	EATS	INST	IND	COTH	AG	PGE	SDGE	SCE/SCG	
Very																									
Somewhat																									
Not at all																									
Don't know/Refused																									
Mean																									
N																									
		EXPRESS																							
V25. How important would a list of qualified contractors FROM YOUR UTILITY be in selecting a contractor? (scale from 1 to 10)		Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	OFFC	RETL	EATS	INST	IND	COTH	AG	PGE	SDGE	SCE	SCG
Very	46%	49%	45%	39%	14%	45%	46%	47%	45%	46%	45%	46%	45%	43%	47%	46%	36%	47%	50%	39%	48%	59%	44%	28%	
Somewhat	31%	24%	35%	37%	60%	30%	31%	25%	33%	27%	36%	30%	33%	28%	23%	47%	28%	35%	30%	45%	28%	23%	35%	39%	
Not at all	22%	24%	17%	23%	26%	23%	21%	28%	19%	25%	16%	23%	19%	28%	25%	7%	36%	16%	17%	17%	23%	17%	18%	28%	
Don't know/Refused	2%	2%	2%	1%	0%	2%	2%	1%	2%	2%	3%	1%	3%	0%	5%	0%	0%	2%	3%	0%	0%	1%	3%	5%	
Mean	6.46	6.51	6.58	6.14	4.39	6.49	6.43	6.13	6.59	6.29	6.71	6.42	6.56	6.04	6.32	7.17	5.59	6.8	6.78	6.56	6.45	7.24	6.55	5.35	
N	367	149	140	78	7	135	227	86	281	216	151	245	122	114	71	43	28	28	75	8	131	67	112	57	

**Exhibit 4-5**  
**Did Contractor Approach Customer?**

		GEN_POP																						
V12. Did the contractor approach you about the retrofit or did you contact the contractor?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	OFFC	RETL	EATS	INST	IND	COTH	AG	PGE	SDGE	SCE/SCG	
Contractor approached me																								
I approached contractor																								
Other																								
Refused																								
Don't know																								
N																								
		EXPRESS																						
V12. Did the contractor approach you about the retrofit or did you contact the contractor?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	OFFC	RETL	EATS	INST	IND	COTH	AG	PGE	SDGE	SCE	SCG
Contractor approached me	52%	61%	46%	42%	16%	50%	54%	59%	49%	53%	50%	55%	46%	48%	52%	61%	34%	33%	60%	40%	62%	53%	48%	9%
I approached contractor	44%	38%	49%	49%	71%	46%	42%	41%	45%	43%	46%	43%	46%	47%	43%	38%	60%	61%	36%	60%	37%	35%	47%	81%
Other	1%	0%	3%	1%	14%	1%	1%	0%	2%	2%	1%	1%	3%	1%	2%	1%	0%	5%	1%	0%	0%	0%	1%	9%
Refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%
Don't know	3%	1%	2%	8%	0%	3%	2%	0%	4%	2%	4%	2%	6%	5%	4%	0%	6%	0%	2%	0%	1%	11%	4%	2%
N	371	152	140	79	7	136	230	88	283	219	152	249	122	116	71	44	28	28	76	8	134	67	113	57

**Exhibit 4-6**  
**Importance of Contractor Input**

		GEN_POP																											
V40. How important was the input from the contractor you worked with in deciding which specific equipment to install? (scale from 1 to 10)	Total	Very Small			Large	Renter	Owner	Rural		Urban		English		Other Language		Any HTR	Non HTR	OFFC	RETL	EATS	INST	IND	COTH	AG	PGE	SDGE	SCE/SCG		
		Small	Medium	Rural				Urban	English	Other Language																			
Very (8-10)																													
Somewhat (4-7)																													
Not at all (1-3)																													
Mean																													
N																													
		EXPRESS																											
V40. How important was the input from the contractor you worked with in deciding which specific equipment to install? (scale from 1 to 10)	Total	Very Small			Large	Renter	Owner	Rural		Urban		English		Other Language		Any HTR	Non HTR	OFFC	RETL	EATS	INST	IND	COTH	AG	PGE	SDGE	SCE	SCG	
		Small	Medium	Rural				Urban	English	Other Language																			
Very (8-10)	57%	53%	64%	55%	59%	56%	57%	55%	58%	55%	60%	54%	64%	61%	61%	53%	42%	57%	58%	50%	58%	63%	58%	46%					
Somewhat (4-7)	31%	35%	27%	28%	31%	33%	30%	28%	32%	32%	28%	34%	24%	27%	28%	46%	27%	16%	32%	24%	31%	25%	33%	28%					
Not at all (1-3)	12%	12%	9%	17%	10%	11%	13%	17%	10%	13%	11%	12%	12%	12%	11%	1%	31%	26%	11%	26%	11%	12%	9%	26%					
Mean	7.25	7.3	7.52	6.63	7.23	7.26	7.21	6.99	7.35	7.17	7.36	7.25	7.24	7.44	7.42	7.39	5.83	6.76	7.36	6.25	7.29	7.6	7.38	6.18					
N	363	148	138	77	7	132	226	85	278	215	148	243	120	114	69	44	27	27	74	8	131	64	111	57					

**Exhibit 4-7  
Satisfaction with Contractor**

		GEN_POP																							
On a scale from 1 to 10, where 10 means EXTREMELY SATISFIED and 1 means EXTREMELY DISSATISFIED, please rate your satisfaction with your contractor.		Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	OFFC	RETL	EATS	INST	IND	COTH	AG	PGE	SDGE	SCE/SCG	
Very	79%	79%	77%	80%	56%	69%	84%	81%	78%	77%	82%	77%	82%	77%	56%	79%	74%	97%	89%	95%	88%	68%	77%		
Somewhat	20%	16%	23%	19%	31%	29%	16%	19%	20%	23%	16%	21%	18%	21%	44%	20%	26%	3%	11%	5%	12%	29%	22%		
Not at all	1%	5%	0%	1%	13%	2%	0%	0%	1%		2%	2%	0%	2%	0%	2%	0%	0%	0%		0%	3%	1%		
Don't know/Refused	0%	0%	0%	0%	0%	0%	0%	0%	0%		0%	0%	0%	0%	0%	0%	0%	0%	0%		0%	0%	0%		
Mean	8.42	8.31	8.46	8.42	7.08	8.17	8.52	8.53	8.38	8.45	8.38	8.38	8.48	8.33	8	8.27	7.97	9.04	8.68	9.46	8.81	8.05	8.29		
N	172	49	58	65	30	59	111	50	122	91	81	115	57	39	23	30	24	20	20	15	58	40	74		
		EXPRESS																							
On a scale from 1 to 10, where 10 means EXTREMELY SATISFIED and 1 means EXTREMELY DISSATISFIED, please rate your satisfaction with your contractor.		Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	OFFC	RETL	EATS	INST	IND	COTH	AG	PGE	SDGE	SCE	SCG
Very	69%	70%	70%	67%	100%	69%	70%	66%	71%	72%	66%	70%	68%	77%	66%	64%	72%	66%	66%	74%	69%	69%	70%	68%	
Somewhat	27%	27%	25%	28%	0%	28%	26%	32%	25%	25%	29%	27%	24%	17%	30%	35%	17%	30%	32%	26%	26%	25%	27%	28%	
Not at all	4%	3%	5%	3%	0%	3%	4%	2%	4%	4%	3%	2%	6%	5%	4%	2%	6%	5%	2%	0%	4%	5%	3%	4%	
Don't know/Refused	0%	0%	0%	2%	0%	0%	1%	0%	1%	0%	1%	0%	1%	0%	0%	0%	6%	0%	0%	0%	1%	1%	0%	0%	
Mean	8.09	8.17	8.07	7.95	8.65	8.02	8.12	8.07	8.1	8.15	8	8.1	8.06	8.4	7.96	8	7.86	7.88	8.02	7.99	8.07	8.12	8.12	8.05	
N	371	152	140	79	7	136	230	88	283	219	152	249	122	116	71	44	28	28	76	8	134	67	113	57	

**Exhibit 4-8**  
**Rebate Through Contractor or Utility**

		GEN_POP																							
V35. There are two ways you can receive a rebate through this program: a check sent directly to you from your utility or an instant discount through your contractor. In the FUTURE, which would you prefer?		Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	OFFC	RETL	EATS	INST	IND	COTH	AG	PGE	SDGE	SCE/SCG	
Yes																									
No																									
Don't Know																									
N																									
		EXPRESS																							
V35. There are two ways you can receive a rebate through this program: a check sent directly to you from your utility or an instant discount through your contractor. In the FUTURE, which would you prefer?		Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	OFFC	RETL	EATS	INST	IND	COTH	AG	PGE	SDGE	SCE	SCG
Prefer rebate through utility		73%	76%	67%	79%	100%	71%	75%	76%	72%	68%	82%	74%	71%	73%	74%	79%	72%	79%	68%	100%	73%	49%	76%	93%
Prefer rebate through contractor		20%	20%	23%	17%	0%	23%	20%	18%	21%	26%	12%	20%	21%	19%	19%	18%	28%	9%	26%	0%	23%	35%	17%	5%
Don't Know		6%	4%	10%	4%	0%	6%	6%	6%	6%	6%	6%	5%	8%	8%	7%	3%	0%	12%	6%	0%	5%	16%	7%	2%
N		371	152	140	79	7	136	230	88	283	219	152	249	122	116	71	44	28	28	76	8	134	67	113	57

APPENDIX 5:  
HARD TO REACH ASSESSMENT  
DATA TABLES

# Guide to Process Assessment Data Tables (Appendix 5)

## ***General Population Customer Survey***

Customer population results are presented in the upper panel of data tables. Population-level data is segmented as follows:

- **Total:** overall self-report customer data.
- **Size:** Customers are segmented by very small (0-20kW), small (20-100kW), medium (100-500kW) and large (>500kW).
- **Renter/owner.** This information comes from customer's self-reported response to whether facilities are leased or owned.
- **Urban/rural.** This segment is based on urban/rural zip codes provided by the IOUs.
- **English/other language.** This segment is based on self-reported respondent data on primary language spoken at the business.
- **Any HTR/non-HTR:** the "any HTR" segment includes businesses where the primary language spoken is other than English, businesses located in areas other than the San Francisco Bay Area, San Diego area, Los Angeles Basin or the City of Sacramento, very small businesses using less than 20kW or less than 10 employees, and customers who lease rather than own their facilities. The non-HTR segment captures English-speaking, non-rural businesses who own their facilities and use more than 20kW or employ 10 or more employees. The non-HTR segment captures English-speaking, urban businesses that own their facilities and use more than 20kW.
- **Business Type.** survey responses are segmented by seven business types: office, retail, restaurant and grocery, institutional, industrial, miscellaneous commercial and agriculture.
- **IOUs:** 305 PG&E customers, 291 SCE/SCG customers and 145 SDG&E customers were interviewed. One sample represented both SCE and SCG because they serve much of the same territory.

### ***Express Participant Survey***

Express Efficiency participant results are presented in the lower panel of each exhibit from 584 customer participants surveyed in July 2003.

Participant data tables are segmented similarly to the general population (above), with a few differences.

- **All customers.**
- Hard-to-reach customers. Survey respondents and CIS data were used to classify each respondent into one or more of the HTR segments. The residential HTR definitions provided by the CPUC are:
  - **Urban/rural.** The IOUs define rural HTR customers by zip codes. For example, PG&E uses only geography to define HTR in their service territory, where zip codes outside the 9 Bay Area counties are considered HTR.
  - **English/other language.** Primary languages other than English include respondents who indicated they spoke a non-English language at their business.
  - **Tenant/building owner.** This information comes from customer's self-reported facility ownership.
  - **Size.** Customers are segmented by very small (0-20kW), small (20-100kW), medium (100-500kW) and large (>500kW). Large customers are moved from the segment totals because they are not considered eligible for the program, but we do at times report them separately because large customer data illustrate differences between large and small customers. Small customers are those with usage less than 100kW.
  - **Any HTR/Non-HTR:** this segment includes respondents whose businesses is located in a rural area, speak a language other than English at the business, lease a facility, or use less than 20kW.
- **IOU:** Participants are segmented by PG&E, SCE, SCG and SDG&E.
- **Business Type:** survey responses are segmented by seven business types: office, retail, restaurant and grocery, institutional, industrial, miscellaneous commercial and agriculture.



**Exhibit 5-1**  
**Awareness of Utility Programs and Resources**

General Population Survey Results																								
A25. Are you aware of programs or resources provided by [UTILITY] in 2002 that were designed to promote energy efficiency for businesses like yours? What types of programs can you recall?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Express Efficiency	5%	3%	3%	7%	8%	4%	6%	6%	5%	6%	4%	8%	6%	6%	6%	7%	13%	0%	3%	2%	4%	3%	7%	
SPC/Standard Performance Contract	3%	2%	2%	4%	3%	2%	3%	2%	4%	3%	3%	2%	6%	2%	5%	6%	6%	0%	1%	1%	1%	3%	4%	
Business Energy Audits	5%	5%	3%	6%	2%	3%	6%	3%	6%	5%	4%	3%	8%	6%	3%	9%	4%	2%	2%	2%	5%	7%	4%	
Distributor Incentives	3%	1%	2%	4%	0%	2%	3%	2%	3%	3%	2%	2%	4%	4%	0%	4%	4%	5%	1%	1%	2%	1%	4%	
Rebate (unspecified)	19%	15%	15%	22%	29%	11%	24%	22%	17%	19%	17%	17%	22%	21%	7%	23%	34%	15%	16%	20%	21%	15%	17%	
No, not aware of any programs	64%	69%	67%	60%	47%	72%	58%	63%	64%	63%	66%	67%	56%	59%	76%	57%	44%	72%	70%	63%	62%	65%	66%	
Other programs	3%	3%	4%	4%	4%	5%	2%	2%	4%	4%	3%	4%	3%	4%	4%	4%	3%	1%	4%	3%	6%	2%	2%	
Refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Don't know	6%	5%	9%	4%	1%	7%	5%	5%	7%	5%	8%	6%	6%	5%	2%	10%	8%	7%	3%	7%	5%	7%	6%	
N	740	297	225	218	67	333	398	269	471	451	289	585	155	113	113	111	97	101	115	90	305	144	291	
Express Participant Survey Results																								
A25. Besides Express Efficiency, are you aware of OTHER programs or resources provided by [UTILITY] in 2002 that were designed to promote energy efficiency for businesses like yours? What types of programs can you recall?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
SPC/Standard Performance Contract	1%	1%	0%	1%	5%	1%	1%	0%	1%	1%	0%	1%	0%	1%	2%	0%	3%	0%	0%	0%	1%	2%	1%	0%
Business Energy Audits	4%	4%	2%	7%	21%	5%	4%	6%	3%	4%	5%	5%	1%	6%	3%	5%	6%	8%	2%	0%	5%	2%	3%	3%
Distributor Incentives	1%	1%	0%	3%	0%	1%	1%	2%	1%	0%	2%	1%	0%	0%	0%	0%	0%	7%	1%	0%	1%	0%	1%	0%
Rebate (unspecified)	8%	9%	6%	10%	27%	8%	8%	6%	9%	9%	7%	8%	9%	7%	12%	3%	16%	11%	8%	0%	8%	7%	9%	4%
No, not aware of any programs	71%	77%	66%	63%	42%	73%	70%	68%	72%	71%	71%	72%	68%	71%	74%	77%	47%	70%	70%	74%	70%	78%	69%	76%
CTAC	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Seminars and classes	1%	1%	0%	2%	0%	0%	1%	0%	1%	0%	2%	1%	1%	0%	0%	1%	2%	1%	2%	0%	1%	1%	0%	3%
Off-peak energy rates/TOU/interruptible rates	1%	0%	1%	2%	0%	0%	1%	1%	1%	1%	1%	1%	1%	0%	0%	0%	4%	0%	2%	0%	0%	0%	1%	0%
Savings by Design	0%	0%	0%	1%	0%	0%	0%	0%	1%	1%	0%	0%	0%	1%	0%	0%	2%	0%	0%	0%	1%	0%	0%	0%
Lighting Rebates	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%	0%	0%	0%
Cooling rebates	0%	0%	0%	1%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	1%	0%	0%	2%	0%	0%	1%	0%	0%	0%
Equipment replacement	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	1%	1%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%
Other programs	4%	3%	6%	6%	5%	6%	4%	4%	5%	5%	4%	4%	5%	6%	3%	2%	9%	7%	3%	19%	4%	7%	4%	8%
Refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Don't know	11%	8%	19%	6%	10%	9%	12%	16%	10%	11%	11%	10%	14%	11%	8%	14%	19%	7%	13%	7%	12%	2%	13%	6%
N	584	255	209	120	16	198	377	148	436	349	235	391	193	166	97	69	41	49	146	16	208	110	194	72

**Exhibit 5-2**  
**Awareness of Express Efficiency-unaided**

General Population Survey Results																								
A1. Are you aware of the [UTILITY] Express Efficiency rebate program?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Yes	20%	15%	17%	24%	27%	20%	20%	19%	20%	20%	19%	21%	24%	18%	21%	23%	22%	14%	16%	14%	17%	26%		
No	80%	84%	83%	76%	70%	80%	80%	81%	79%	79%	80%	79%	75%	82%	79%	77%	76%	86%	83%	85%	82%	74%		
Refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
Don't Know	0%	1%	0%	0%	3%	1%	0%	0%	1%	0%	1%	0%	1%	0%	0%	0%	2%	0%	0%	1%	1%	0%		
N	740	296	225	219	67	332	399	269	471	451	289	584	156	113	112	111	97	101	115	90	305	145	290	
Express Participant Survey Results																								
A1. Are you aware of the [UTILITY] Express Efficiency rebate program?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Yes																								
No																								
Refused																								
Don't Know																								
N																								

**Exhibit 5-3  
Awareness of Express Efficiency-aided**

General Population Survey Results																								
A3. Express Efficiency is a program offered by your utility where businesses like yours receive a rebate for installing one or more energy-efficient products. Before this survey, had you ever heard of [UTILITY] Express Efficiency Program?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Yes	16%	12%	17%	17%	23%	20%	13%	17%	15%	14%	19%	17%	13%	15%	16%	26%	14%	8%	15%	8%	15%	22%	15%	
No	83%	84%	83%	82%	70%	79%	86%	82%	84%	85%	80%	82%	85%	84%	83%	72%	85%	89%	85%	92%	83%	76%	84%	
Refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Don't Know	1%	3%	0%	1%	7%	1%	1%	1%	1%	1%	1%	2%	2%	1%	1%	2%	0%	2%	0%	0%	2%	1%	0%	
N	614	253	188	173	46	286	320	217	397	383	231	488	126	92	96	94	78	83	100	70	263	122	229	
Express Participant Survey Results																								
A3. Express Efficiency is a program offered by your utility where businesses like yours receive a rebate for installing one or more energy-efficient products. Before this survey, had you ever heard of [UTILITY] Express Efficiency Program?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Yes																								
No																								
Refused																								
Don't Know																								
N																								

**Exhibit 5-4  
Source of Awareness**

		General Population Survey Results																					
A30. How did you first learn about the 2002 Express Efficiency Program?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG
Business Energy Audits	1%	6%	0%	0%	0%	2%	0%	2%	0%	1%	1%	1%	0%	0%	0%	3%	0%	0%	3%	0%	2%	3%	0%
Respondent approached contractor/ESCO/	8%	0%	3%	12%	0%	4%	11%	2%	11%	8%	7%	3%	18%	6%	12%	10%	0%	0%	22%	3%	7%	0%	10%
Respondent approached utility concerning	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Contacted by utility rep	21%	16%	10%	28%	36%	6%	32%	27%	18%	25%	15%	15%	34%	18%	4%	28%	44%	14%	30%	26%	13%	6%	28%
Contacted by contractor/ESCO/A&E firm/o	4%	0%	0%	8%	0%	4%	5%	4%	5%	2%	9%	2%	9%	11%	0%	0%	26%	0%	0%	1%	5%	15%	2%
Utility brochure in mail	25%	41%	35%	16%	20%	33%	19%	27%	24%	25%	25%	30%	12%	23%	39%	25%	4%	40%	7%	17%	30%	43%	19%
Bill insert	14%	20%	25%	7%	0%	18%	11%	21%	11%	9%	23%	20%	2%	6%	32%	12%	0%	8%	12%	45%	24%	2%	12%
Word-of-mouth from friend or co-workers	7%	4%	5%	8%	0%	4%	8%	1%	9%	8%	4%	3%	15%	0%	12%	7%	9%	16%	3%	0%	5%	5%	8%
Word-of-mouth from friends or other busin	2%	8%	3%	0%	0%	2%	2%	0%	3%	2%	3%	2%	3%	6%	0%	1%	1%	1%	0%	0%	0%	14%	1%
Television, radio, newspaper ad	16%	15%	19%	15%	10%	15%	17%	18%	15%	14%	19%	16%	17%	34%	16%	12%	3%	13%	3%	4%	17%	8%	17%
Magazine or trade journal	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Participation in previous years	3%	0%	5%	3%	9%	0%	6%	5%	2%	5%	0%	2%	5%	0%	12%	0%	0%	0%	0%	23%	5%	0%	3%
Manufacturer information/suggestion	2%	0%	0%	4%	3%	5%	0%	0%	3%	4%	0%	3%	0%	0%	0%	0%	0%	14%	0%	0%	0%	0%	4%
Community organization such as Chamber	0%	0%	0%	0%	8%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Church	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Trade association	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%
Utility website																							
Seminars																							
Other	3%	2%	2%	4%	12%	1%	5%	0%	4%	3%	2%	0%	9%	0%	0%	10%	0%	6%	0%	0%	0%	0%	5%
Refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Don't know	2%	3%	0%	4%	0%	6%	0%	0%	4%	4%	0%	4%	0%	0%	0%	10%	0%	2%	0%	0%	1%	0%	3%
N	118	42	35	41	21	43	74	49	69	66	52	91	27	19	15	17	16	18	14	19	40	23	55

		Express Participant Survey Results																						
A30. How did you first learn about the 2002 Express Efficiency Program?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Business Energy Audits	2%	1%	0%	6%	0%	2%	1%	1%	2%	2%	1%	1%	2%	3%	0%	5%	2%	0%	1%	0%	2%	4%	1%	0%
Respondent approached contractor/ESCO/	5%	7%	3%	1%	15%	5%	5%	6%	4%	6%	3%	7%	1%	7%	5%	5%	2%	5%	2%	15%	8%	7%	1%	4%
Respondent approached utility concerning	2%	1%	4%	0%	0%	3%	2%	5%	1%	2%	2%	3%	1%	3%	3%	1%	1%	1%	1%	0%	4%	1%	1%	3%
Contacted by utility rep	20%	18%	19%	26%	77%	19%	20%	22%	19%	21%	18%	19%	22%	19%	14%	27%	39%	16%	18%	7%	18%	13%	21%	36%
Contacted by contractor/ESCO/A&E firm/o	31%	29%	35%	30%	15%	27%	34%	28%	33%	32%	30%	30%	35%	30%	36%	31%	27%	26%	33%	21%	37%	41%	25%	14%
Utility brochure in mail	12%	15%	10%	9%	7%	12%	13%	10%	13%	12%	13%	13%	11%	15%	11%	10%	4%	17%	12%	2%	10%	10%	16%	11%
Bill insert	2%	1%	2%	1%	0%	2%	2%	0%	2%	1%	2%	1%	3%	1%	3%	0%	4%	0%	2%	0%	0%	2%	3%	3%
Word-of-mouth from friend or co-workers	8%	5%	9%	14%	0%	6%	9%	5%	9%	7%	9%	6%	12%	7%	8%	3%	7%	7%	12%	14%	4%	8%	13%	4%
Word-of-mouth from friends or other busin	5%	8%	4%	0%	15%	7%	4%	8%	4%	5%	6%	4%	6%	2%	7%	6%	0%	2%	8%	0%	6%	4%	4%	4%
Television, radio, newspaper ad	3%	4%	3%	3%	0%	5%	2%	1%	4%	2%	5%	4%	2%	3%	3%	3%	0%	8%	3%	10%	1%	2%	7%	0%
Magazine or trade journal	0%	0%	1%	0%	0%	1%	0%	1%	0%	0%	1%	0%	1%	1%	0%	0%	0%	3%	0%	0%	0%	0%	0%	0%
Participation in previous years	2%	2%	1%	2%	0%	1%	2%	2%	1%	1%	2%	1%	2%	1%	1%	3%	1%	2%	1%	7%	1%	4%	1%	1%
Manufacturer information/suggestion	2%	3%	2%	2%	0%	4%	2%	2%	3%	3%	2%	3%	2%	3%	4%	1%	7%	4%	1%	3%	3%	1%	1%	14%
Community organization such as Chamber	1%	2%	0%	2%	0%	1%	2%	2%	1%	1%	2%	2%	0%	3%	0%	0%	2%	0%	1%	12%	1%	0%	2%	0%
Church																								
Trade association	1%	1%	2%	0%	0%	1%	1%	1%	1%	1%	0%	1%	1%	0%	3%	0%	0%	0%	1%	14%	1%	0%	1%	0%
Utility website	2%	1%	3%	5%	5%	1%	3%	4%	2%	3%	2%	2%	2%	3%	1%	1%	4%	0%	3%	4%	3%	2%	1%	3%
Seminars	1%	0%	1%	1%	0%	0%	1%	1%	0%	1%	0%	1%	0%	0%	0%	0%	3%	0%	1%	0%	0%	0%	1%	3%
Other	15%	10%	22%	15%	21%	13%	17%	12%	16%	16%	14%	11%	23%	9%	20%	20%	14%	13%	16%	21%	12%	12%	19%	17%
Refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Don't know	4%	3%	3%	6%	0%	3%	4%	3%	4%	3%	5%	4%	4%	6%	1%	3%	3%	7%	3%	0%	3%	8%	3%	4%
N	584	255	209	120	16	198	377	148	436	349	235	391	193	166	97	69	41	49	146	16	208	110	194	72

**Exhibit 5-5  
Percentage of Renters in General Population**

General Population Survey Results																							
R5. Does your business own or lease the facility?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCC/SCG
Own	58%	46%	54%	66%	74%	0%	100%	70%	52%	62%	52%	41%	99%	75%	39%	40%	83%	55%	60%	76%	64%	48%	56%
Lease/rent	41%	53%	45%	33%	24%	100%	0%	29%	47%	37%	47%	58%	0%	25%	60%	60%	16%	44%	39%	20%	35%	51%	44%
Other	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Refused	0%	0%	1%	0%	1%	0%	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	3%	1%	0%	0%
Don't Know	1%	1%	1%	0%	1%	0%	0%	0%	1%	1%	0%	0%	1%	0%	1%	0%	1%	0%	1%	1%	1%	1%	0%
N	741	297	225	219	67	333	399	269	472	451	290	585	156	113	113	111	97	101	115	90	305	145	291

Express Participant Survey Results																								
R5. Does your business own or lease the facility?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCC	SCG
Own	66%	57%	74%	76%	81%	0%	100%	72%	64%	68%	63%	52%	98%	75%	38%	43%	75%	36%	87%	78%	68%	59%	66%	63%
Lease/rent	33%	43%	23%	23%	19%	100%	0%	26%	35%	31%	35%	47%	0%	23%	60%	55%	24%	63%	12%	22%	32%	36%	32%	38%
Other	1%	0%	1%	1%	0%	0%	0%	0%	1%	0%	1%	0%	2%	1%	0%	0%	2%	0%	1%	0%	0%	4%	0%	0%
Refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Don't Know	1%	0%	2%	0%	0%	0%	0%	2%	0%	1%	1%	1%	0%	0%	1%	3%	0%	1%	0%	0%	0%	2%	2%	0%
N	584	255	209	120	16	198	377	148	436	349	235	391	193	166	97	69	41	49	146	16	208	110	194	72

## Exhibit 5-6 Lighting Changes

		General Population Survey Results																							
		Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PCE	SDGE	SCE/SCC	
E10. What type of fixtures or ballasts were installed as part of the lighting retrofit? Did you install any other reflectors, lighting controls, or lighting fixtures?																									
T8 fluorescent fixtures (1" diameter bulbs)		44%	26%	43%	50%	44%	34%	47%	46%	43%	47%	41%	49%	57%	31%	49%	60%	17%	45%	21%	37%	59%	48%		
T10 fluorescent fixtures (1 1/4" diameter bulbs)		0%	0%	0%	0%	6%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%		
T12 fixtures (1.5" diameter bulbs)		8%	12%	5%	8%	7%	8%	7%	8%	7%	9%	7%	10%	5%	7%	8%	6%	9%	6%	5%	17%	12%	1%	10%	
HID (High Intensity Discharge) fixtures, compact		2%	0%	5%	1%	6%	2%	2%	2%	3%	1%	4%	2%	3%	5%	10%	0%	0%	0%	0%	2%	3%	0%	2%	
Compact fluorescent, screw-in modular		19%	19%	30%	12%	10%	13%	22%	23%	17%	21%	17%	16%	23%	19%	9%	21%	32%	0%	33%	2%	15%	23%	22%	
Compact fluorescent, hardwire		7%	5%	16%	2%	11%	6%	7%	9%	6%	6%	8%	9%	5%	5%	12%	7%	0%	4%	6%	21%	8%	2%	7%	
Incandescent		5%	9%	0%	7%	0%	1%	7%	5%	5%	5%	6%	5%	6%	0%	0%	5%	0%	24%	8%	0%	5%	2%	6%	
Exit signs, compact fluorescent		3%	0%	7%	2%	2%	0%	4%	4%	2%	4%	2%	3%	3%	0%	0%	8%	0%	0%	4%	0%	2%	0%	4%	
Exit signs, LED		3%	0%	0%	6%	0%	4%	3%	6%	2%	0%	7%	3%	3%	5%	10%	0%	9%	0%	0%	0%	5%	0%	3%	
Halogen		3%	4%	3%	3%	0%	5%	2%	0%	4%	2%	4%	0%	7%	0%	7%	7%	0%	1%	0%	1%	3%	1%	4%	
Install reflectors		2%	0%	5%	1%	11%	5%	1%	1%	3%	1%	3%	2%	2%	3%	8%	2%	0%	0%	0%	0%	0%	11%	2%	
Electronic ballast		6%	2%	3%	10%	20%	7%	6%	15%	1%	4%	9%	10%	2%	3%	10%	5%	23%	3%	5%	0%	10%	5%	3%	
Magnetic ballast		1%	1%	0%	1%	0%	2%	1%	0%	1%	0%	2%	2%	0%	0%	5%	0%	2%	0%	1%	0%	2%	0%	1%	
Lighting controls, time clock		1%	4%	0%	0%	29%	0%	1%	2%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	3%	0%	1%	0%	0%	
Lighting controls, occupancy sensor		8%	5%	1%	14%	17%	5%	10%	10%	7%	9%	8%	8%	10%	2%	0%	7%	28%	17%	11%	0%	5%	9%	11%	
Lighting controls, bypass/delay timers		1%	0%	0%	1%	18%	2%	0%	0%	1%	0%	1%	1%	0%	0%	5%	0%	0%	0%	0%	0%	2%	0%	0%	
Lighting controls, photocell		2%	0%	0%	3%	11%	0%	2%	2%	1%	0%	4%	1%	2%	0%	0%	0%	18%	0%	0%	0%	2%	0%	2%	
Other fluorescent		6%	5%	9%	5%	9%	16%	3%	3%	8%	8%	4%	8%	3%	2%	12%	15%	2%	0%	2%	2%	4%	0%	10%	
T5 fixtures (5/8" diameter)		0%	2%	0%	0%	7%	1%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	1%	
Other		3%	2%	3%	2%	2%	5%	2%	6%	1%	2%	4%	4%	1%	0%	2%	0%	0%	0%	0%	47%	5%	0%	1%	
Refused		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Don't know		7%	12%	6%	7%	19%	7%	8%	3%	10%	7%	8%	7%	8%	11%	3%	9%	2%	17%	2%	3%	10%	12%	4%	
N		162	58	49	55	23	51	108	61	101	94	68	112	50	24	21	32	25	16	31	13	71	29	62	
		Express Participant Survey Results																							
		Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PCE	SDGE	SCE	SCC
T8 fluorescent fixtures (1" diameter bulbs)																									
T10 fluorescent fixtures (1 1/4" diameter bulbs)																									
T12 fixtures (1.5" diameter bulbs)																									
HID (High Intensity Discharge) fixtures, compact																									
Compact fluorescent, screw-in modular																									
Compact fluorescent, hardwire																									
Incandescent																									
Exit signs, compact fluorescent																									
Exit signs, LED																									
Halogen																									
Install reflectors																									
Electronic ballast																									
Magnetic ballast																									
Lighting controls, time clock																									
Lighting controls, occupancy sensor																									
Lighting controls, bypass/delay timers																									
Lighting controls, photocell																									
Other fluorescent																									
T5 fixtures (5/8" diameter)																									
Other																									
Refused																									
Don't know																									
N																									

**Exhibit 5-7  
Cooling Changes**

General Population Survey Results																								
E30. Since January 2002, have you made any changes to cooling at your facility, including air conditioning units, programmable thermostats, or HVAC controls?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Yes	20%	13%	18%	25%	24%	13%	26%	20%	21%	23%	17%	17%	28%	31%	15%	20%	36%	15%	18%	6%	16%	20%	25%	
No	79%	87%	81%	74%	71%	85%	73%	80%	78%	76%	82%	82%	70%	68%	85%	80%	62%	84%	80%	94%	84%	79%	74%	
Don't know	1%	1%	1%	1%	5%	1%	1%	0%	2%	1%	2%	1%	2%	1%	0%	0%	3%	1%	3%	0%	0%	2%	1%	
N	741	297	225	219	67	333	399	269	472	451	290	585	156	113	113	111	97	101	115	90	305	145	291	
Express Participant Survey Results																								
E30. Since January 2002, have you made any changes to cooling at your facility, including air conditioning units, programmable thermostats, or HVAC controls?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Yes																								
No																								
Don't know																								
N																								

**Exhibit 5-8  
Familiarity With Lease Terms**

General Population Survey Results																								
R15. How familiar are you with the terms of your lease regarding energy costs and energy efficiency improvements to the facility you occupy? Would you say you are:	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Not at all familiar	44%	40%	52%	39%	16%	44%	0%	35%	47%	41%	47%	44%	100%	25%	51%	52%	58%	43%	36%	26%	44%	42%	44%	
Somewhat familiar	27%	35%	23%	26%	32%	27%	0%	36%	24%	29%	24%	27%	0%	59%	23%	17%	28%	29%	22%	35%	29%	28%	25%	
Very familiar	29%	25%	26%	35%	52%	29%	0%	29%	29%	30%	29%	29%	0%	16%	27%	31%	14%	28%	42%	39%	26%	30%	31%	
Refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Don't know	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
N	325	162	96	67	17	323	0	81	244	189	136	324	1	32	69	71	33	50	50	20	119	74	132	
Express Participant Survey Results																								
R15. How familiar are you with the terms of your lease regarding energy costs and energy efficiency improvements to the facility you occupy? Would you say you are:	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Not at all familiar	38%	42%	36%	22%	0%	38%	0%	27%	42%	35%	42%	38%	35%	36%	32%	36%	51%	46%	45%	55%	42%	15%	38%	52%
Somewhat familiar	27%	28%	27%	26%	19%	28%	0%	16%	31%	24%	32%	28%	0%	22%	24%	32%	0%	21%	50%	33%	22%	22%	34%	30%
Very familiar	28%	24%	29%	45%	81%	29%	0%	45%	23%	35%	19%	28%	0%	34%	35%	27%	28%	30%	4%	11%	31%	43%	23%	15%
Refused	1%	0%	2%	0%	0%	0%	0%	1%	1%	1%	1%	0%	17%	1%	1%	0%	7%	0%	0%	0%	0%	5%	0%	0%
Don't know	6%	5%	7%	7%	0%	4%	0%	11%	4%	6%	6%	5%	49%	7%	9%	5%	14%	3%	1%	0%	5%	15%	5%	4%
N	207	117	61	29	2	198	0	41	166	122	85	202	5	39	62	39	8	28	27	4	63	50	67	27



**Exhibit 5-9**  
**Renter Attitudes about Time Horizon and Equipment Improvements**

General Population Survey Results																								
R20. How much do you agree with the following statement: I may not be at this location long enough to make sense to do equipment improvements.	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Agree	11%	14%	13%	9%	3%	15%	8%	10%	12%	12%	10%	12%	9%	6%	12%	12%	6%	18%	12%	12%	11%	13%	10%	
Agree Somewhat	8%	12%	10%	6%	10%	13%	5%	7%	9%	8%	9%	10%	5%	7%	13%	9%	4%	5%	8%	14%	8%	10%	8%	
Don't Agree	81%	73%	77%	85%	88%	72%	87%	84%	79%	80%	82%	78%	86%	87%	75%	79%	90%	76%	80%	74%	81%	77%	81%	
Don't Know/Refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Mean	2.42	2.87	2.63	2.12	1.69	2.97	2.05	2.23	2.53	2.48	2.34	2.56	2.1	1.96	2.72	2.45	1.88	2.88	2.49	2.63	2.39	2.77	2.36	
N	730	291	222	217	66	330	393	264	466	441	289	575	155	113	111	111	97	98	113	86	300	142	288	
Note that ratings are based on a scale from 1=don't agree at all to 10=agree completely																								
Express Participant Survey Results																								
R20. How much do you agree with the following statement: I may not be at this location long enough to make sense to do equipment improvements.	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Agree	6%	7%	5%	2%	15%	6%	5%	4%	6%	7%	4%	6%	5%	5%	3%	8%	11%	6%	5%	7%	4%	8%	7%	4%
Agree Somewhat	15%	18%	15%	7%	9%	23%	11%	13%	16%	14%	16%	17%	11%	8%	19%	19%	6%	26%	16%	8%	15%	6%	17%	13%
Don't Agree	78%	74%	79%	89%	76%	69%	82%	82%	77%	77%	80%	76%	82%	85%	75%	74%	83%	66%	77%	83%	79%	84%	75%	83%
Don't Know/Refused	2%	2%	1%	2%	0%	2%	2%	1%	2%	2%	0%	1%	2%	1%	3%	0%	0%	2%	2%	2%	3%	2%	1%	0%
Mean	2.26	2.44	2.29	1.71	2.97	2.63	2.1	2	2.37	2.27	2.25	2.33	2.11	1.93	2.13	2.73	2.31	2.63	2.3	2.17	2.08	2.06	2.52	2.13
N	584	255	209	120	16	198	377	148	436	349	235	391	193	166	97	69	41	49	146	16	208	110	194	72

Note that ratings are based on a scale from 1=don't agree at all to 10=agree completely

**Exhibit 5-10**  
**Membership in Community-based Organization**

General Population Survey Results																												
A95. Is your organization part of a community-based organization, a trade organization, service group, or a faith-based organization?	Total	Very Small				Medium		Large		Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Yes	41%	42%	40%	42%	50%	32%	47%	39%	42%	42%	40%	37%	50%	55%	38%	36%	32%	45%	39%	35%	38%	40%	44%	38%	40%	44%		
No	52%	55%	52%	50%	45%	59%	47%	54%	50%	50%	53%	55%	42%	38%	57%	57%	51%	51%	55%	57%	55%	56%	47%	55%	56%	47%		
Refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%		
Don't know	7%	3%	8%	8%	6%	8%	6%	7%	7%	8%	6%	7%	7%	8%	7%	7%	7%	5%	8%	8%	6%	9%	7%	4%	9%	7%		
N	740	296	225	219	67	332	399	269	471	451	289	584	156	113	112	111	97	101	115	90	305	145	290					
Express Participant Survey Results																												
A95. Is your organization part of a community-based organization, a trade organization, service group, or a faith-based organization?	Total	Very Small				Medium		Large		Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Yes	52%	47%	57%	55%	55%	38%	59%	58%	50%	51%	53%	49%	59%	63%	31%	36%	54%	44%	61%	69%	54%	51%	51%	46%	54%	51%	46%	
No	45%	53%	37%	39%	40%	59%	38%	41%	47%	46%	43%	49%	36%	34%	67%	63%	36%	56%	35%	31%	44%	47%	45%	44%	44%	47%	44%	
Refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Don't know	3%	0%	5%	6%	5%	3%	3%	1%	4%	3%	4%	2%	5%	3%	2%	1%	10%	0%	4%	0%	1%	3%	4%	10%	4%	10%		
N	584	255	209	120	16	198	377	148	436	349	235	391	193	166	97	69	41	49	146	16	208	110	194	72				

**Exhibit 5-11**  
**Attendance at Community Meetings where Energy Efficiency was Discussed**

General Population Survey Results																								
A100. Did you attend any community, trade or faith-based meetings where energy efficiency was discussed?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Yes	15%	5%	9%	22%	37%	9%	18%	14%	15%	15%	15%	11%	22%	9%	14%	13%	20%	20%	14%	19%	11%	11%	19%	
No	85%	95%	90%	77%	61%	91%	81%	85%	85%	85%	85%	88%	78%	91%	85%	87%	80%	78%	84%	81%	88%	89%	80%	
Refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	
Don't know	1%	0%	1%	0%	3%	0%	1%	2%	0%	0%	1%	1%	0%	0%	1%	0%	0%	1%	1%	1%	1%	0%	0%	
N	740	296	225	219	67	332	399	269	471	451	289	584	156	113	112	111	97	101	115	90	305	145	290	
Express Participant Survey Results																								
A100. Did you attend any community, trade or faith-based meetings where energy efficiency was discussed?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Yes	11%	7%	13%	19%	29%	9%	12%	9%	12%	11%	12%	9%	15%	11%	10%	8%	26%	12%	10%	15%	9%	15%	11%	25%
No	88%	92%	86%	78%	71%	89%	87%	90%	86%	88%	87%	90%	83%	88%	88%	92%	66%	87%	89%	85%	90%	84%	88%	71%
Refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Don't know	1%	1%	0%	4%	0%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	0%	8%	1%	0%	0%	1%	1%	1%	4%
N	584	255	209	120	16	198	377	148	436	349	235	391	193	166	97	69	41	49	146	16	208	110	194	72

**Exhibit 5-12**  
**Were Energy Audits Discussed at Meetings?**

GEN_POP - Overall Population																								
A103. Were energy audits discussed at the meeting?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Yes	7%	2%	5%	10%	25%	3%	9%	8%	6%	7%	6%	6%	8%	4%	9%	8%	13%	1%	8%	4%	6%	4%	8%	
No	93%	97%	95%	89%	75%	96%	90%	91%	93%	92%	93%	93%	91%	96%	91%	92%	84%	98%	91%	92%	93%	95%	91%	
Don't know	1%	1%	0%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	0%	1%	0%	3%	1%	1%	4%	1%	2%	1%	
N	741	297	225	219	67	333	399	269	472	451	290	585	156	113	113	111	97	101	115	90	305	145	291	
GEN_POP - Those who attended a CBO meeting																								
A103. Were energy audits discussed at the meeting?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Yes	45%	49%	55%	43%	68%	36%	48%	59%	39%	49%	41%	52%	37%	44%	61%	62%	65%	6%	58%	23%	54%	33%	42%	
No	49%	37%	40%	52%	30%	57%	47%	32%	57%	45%	54%	40%	60%	56%	33%	38%	22%	89%	38%	58%	39%	52%	54%	
Don't know	6%	14%	5%	5%	2%	8%	5%	8%	5%	6%	6%	8%	3%	0%	5%	0%	13%	6%	4%	19%	7%	15%	4%	
N	83	16	20	47	24	23	59	33	50	48	35	55	28	8	13	8	16	12	12	14	27	14	42	
EXPRESS - Overall Population																								
A103. Were energy audits discussed at the meeting?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	OFFC	RETL	EATS	INST	IND	COTH	AG	PGE	SDGE	SCE	SCG
Yes	4%	1%	7%	4%	9%	2%	5%	2%	4%	3%	4%	2%	8%	4%	1%	4%	5%	4%	4%	3%	2%	5%	4%	7%
No	95%	97%	92%	95%	91%	96%	94%	97%	94%	95%	95%	97%	91%	95%	95%	95%	89%	96%	96%	97%	95%	92%	96%	93%
Don't know	1%	2%	1%	1%	0%	2%	1%	1%	2%	1%	1%	1%	1%	0%	4%	1%	6%	0%	0%	0%	2%	2%	0%	0%
N	576	252	208	116	15	195	372	146	430	345	231	385	191	162	96	69	40	49	144	16	205	108	192	71
EXPRESS - Those who attended a CBO meeting																								
A103. Were energy audits discussed at the meeting?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	OFFC	RETL	EATS	INST	IND	COTH	AG	PGE	SDGE	SCE	SCG
Yes	32%	16%	52%	19%	29%	21%	36%	27%	34%	31%	33%	19%	50%	38%	12%	46%	18%	33%	39%	21%	26%	35%	37%	28%
No	57%	62%	41%	73%	71%	57%	56%	66%	54%	57%	56%	67%	43%	58%	47%	44%	61%	67%	58%	79%	45%	49%	63%	72%
Don't know	12%	22%	7%	7%	0%	21%	8%	7%	13%	12%	11%	15%	7%	4%	40%	10%	22%	0%	4%	0%	29%	16%	0%	0%
N	83	23	32	28	4	25	58	14	69	46	37	45	38	24	12	9	11	8	17	2	23	18	24	18

**Exhibit 5-13**  
**Were Utility Rebates Discussed at Meetings?**

		GEN_POP - Overall Population																						
A105. Were utility rebates for energy efficient equipment discussed at the meeting?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Yes	5%	1%	2%	8%	18%	3%	6%	5%	5%	6%	3%	4%	7%	2%	6%	7%	6%	4%	5%	4%	1%	2%	9%	
No	95%	99%	98%	92%	81%	97%	94%	95%	95%	94%	97%	96%	93%	98%	94%	93%	94%	96%	95%	96%	99%	98%	91%	
Don't know	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
N	739	297	224	218	67	332	398	268	471	449	290	583	156	113	113	111	97	99	115	90	304	144	291	
		GEN_POP - Those who attended a CBO meeting																						
A105. Were utility rebates for energy efficient equipment discussed at the meeting?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Yes	34%	30%	24%	37%	49%	28%	37%	38%	33%	44%	20%	34%	34%	22%	42%	55%	41%	21%	33%	20%	14%	20%	48%	
No	66%	68%	76%	63%	49%	72%	63%	62%	67%	56%	80%	66%	66%	78%	58%	45%	59%	79%	67%	79%	86%	80%	52%	
Don't know	0%	1%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	
N	83	16	20	47	24	23	59	33	50	48	35	55	28	8	13	8	16	12	12	14	27	14	42	
		EXPRESS																						
A105. Were utility rebates for energy efficient equipment discussed at the meeting?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	OFFC	RETL	EATS	INST	IND	COTH	AG	PGE	SDGE	SCE	SCG
Yes	9%	5%	12%	12%	29%	7%	10%	6%	10%	9%	9%	7%	14%	9%	7%	6%	20%	11%	9%	3%	5%	12%	10%	19%
No	91%	94%	88%	88%	71%	93%	90%	93%	90%	91%	91%	93%	86%	91%	93%	93%	80%	89%	91%	85%	94%	88%	89%	81%
Don't know	0%	0%	1%	0%	0%	0%	1%	1%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	12%	1%	0%	0%	0%
N	584	255	209	120	16	198	377	148	436	349	235	391	193	166	97	69	41	49	146	16	208	110	194	72

**Exhibit 5-14**  
**Did a Representative Attend Meetings?**

GEN_POP - Overall Population																								
A107. Did a [UTILITY] representative attend the meeting?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Yes	3%	1%	1%	5%	15%	2%	4%	4%	2%	3%	2%	3%	2%	2%	1%	5%	2%	1%	4%	4%	1%	1%	5%	
No	97%	99%	99%	95%	85%	98%	96%	96%	98%	96%	98%	97%	97%	98%	99%	95%	96%	99%	96%	96%	99%	99%	95%	
Don't know	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	3%	0%	0%	0%	0%	0%	0%	
N	741	297	225	219	67	333	399	269	472	451	290	585	156	113	113	111	97	101	115	90	305	145	291	
GEN_POP - Those who attended a CBO meeting																								
A107. Did a [UTILITY] representative attend the meeting?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Yes	61%	60%	41%	66%	80%	62%	62%	59%	62%	63%	57%	59%	62%	79%	39%	76%	35%	59%	74%	55%	51%	37%	70%	
No	31%	33%	33%	31%	20%	28%	33%	26%	34%	32%	30%	29%	33%	21%	58%	24%	53%	28%	26%	6%	34%	55%	26%	
Don't know	8%	8%	26%	4%	0%	10%	5%	15%	5%	5%	13%	11%	5%	0%	3%	0%	13%	13%	0%	40%	15%	8%	5%	
N	83	16	20	47	24	23	59	33	50	48	35	55	28	8	13	8	16	12	12	14	27	14	42	
EXPRESS																								
A107. Did a [UTILITY] representative attend the meeting?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	OFFC	RETL	EATS	INST	IND	COTH	AG	PGE	SDGE	SCE	SCG
Yes	7%	4%	8%	10%	26%	7%	7%	7%	6%	6%	7%	6%	8%	5%	8%	4%	16%	8%	5%	15%	6%	13%	5%	10%
No	91%	95%	89%	87%	74%	93%	91%	92%	91%	91%	92%	93%	89%	93%	92%	93%	84%	88%	92%	85%	93%	86%	92%	85%
Don't know	2%	1%	3%	3%	0%	1%	3%	1%	2%	3%	1%	1%	4%	2%	1%	2%	0%	4%	3%	0%	1%	2%	2%	6%
N	584	255	209	120	16	198	377	148	436	349	235	391	193	166	97	69	41	49	146	16	208	110	194	72

**Exhibit 5-15**  
**Was a Contractor at Meeting?**

GEN_POP - Overall Population																								
A108. Was a contractor at the meeting?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Yes	3%	1%	2%	4%	14%	1%	4%	3%	2%	3%	2%	2%	4%	0%	2%	5%	1%	5%	2%	1%	0%	2%	5%	
No	97%	99%	98%	95%	84%	99%	96%	96%	97%	97%	97%	98%	96%	100%	98%	95%	97%	95%	98%	96%	99%	98%	95%	
Don't know	0%	0%	0%	1%	1%	1%	0%	1%	0%	0%	1%	0%	1%	0%	0%	0%	3%	0%	0%	3%	1%	0%	0%	
N	741	297	225	219	67	333	399	269	472	451	290	585	156	113	113	111	97	101	115	90	305	145	291	
GEN_POP - Those who attended a CBO meeting																								
A108. Was a contractor at the meeting?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Yes	46%	19%	78%	40%	72%	42%	46%	50%	44%	43%	49%	47%	44%	60%	36%	63%	28%	58%	25%	43%	47%	46%	45%	
No	40%	48%	9%	47%	22%	27%	45%	41%	39%	38%	41%	37%	42%	33%	50%	37%	60%	22%	43%	40%	38%	49%	39%	
Don't know	15%	33%	13%	14%	6%	31%	9%	9%	17%	18%	10%	15%	14%	7%	14%	0%	13%	20%	32%	16%	15%	4%	16%	
N	83	16	20	47	24	23	59	33	50	48	35	55	28	8	13	8	16	12	12	14	27	14	42	
EXPRESS																								
A108. Was a contractor at the meeting?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	OFFC	RETL	EATS	INST	IND	COTH	AG	PGE	SDGE	SCE	SCG
Yes	6%	4%	6%	11%	10%	4%	7%	5%	6%	6%	6%	5%	9%	5%	7%	3%	15%	9%	6%	0%	5%	8%	6%	11%
No	93%	95%	92%	88%	90%	95%	91%	94%	92%	93%	92%	94%	90%	92%	92%	97%	81%	91%	94%	88%	94%	90%	93%	86%
Don't know	1%	1%	2%	1%	0%	1%	2%	1%	1%	1%	2%	2%	1%	3%	1%	1%	4%	0%	0%	12%	1%	2%	1%	3%
N	584	255	209	120	16	198	377	148	436	349	235	391	193	166	97	69	41	49	146	16	208	110	194	72

**Exhibit 5-16**  
**Was Community Meeting Useful In Finding Contractor?**

GEN_POP - Attended meeting with contractor present																								
A120. Was the meeting or event useful in helping you find a contractor to install equipment?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Yes	23%	36%	18%	23%	37%	20%	24%	33%	17%	17%	32%	26%	20%	22%	29%	20%	7%	34%	5%	94%	33%	0%	22%	
No	77%	64%	82%	77%	63%	80%	76%	67%	83%	83%	68%	74%	80%	78%	71%	80%	93%	66%	95%	6%	67%	100%	78%	
Don't know	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
N	44	12	10	22	14	12	32	18	26	24	20	30	14	7	7	6	7	5	8	4	16	8	20	
GEN_POP - Attended CBO meeting																								
A120. Was the meeting or event useful in helping you find a contractor to install equipment?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Yes	12%	33%	11%	11%	24%	9%	14%	20%	8%	9%	17%	14%	9%	20%	12%	14%	3%	15%	3%	20%	18%	0%	11%	
No	88%	67%	89%	89%	76%	91%	86%	80%	92%	91%	83%	86%	91%	80%	88%	86%	97%	85%	97%	80%	82%	100%	89%	
Don't know	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
N	83	16	20	47	24	23	59	33	50	48	35	55	28	8	13	8	16	12	12	14	27	14	42	
EXPRESS - Attended meeting with contractor present																								
A120. Was the meeting or event useful in helping you find a contractor to install equipment?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	OFFC	RETL	EATS	INST	IND	COTH	AG	PGE	SDGE	SCE	SCG
Yes	40%	43%	41%	36%	53%	37%	41%	74%	30%	42%	37%	55%	23%	47%	27%	48%	49%	39%	38%	0%	39%	41%	45%	25%
No	59%	57%	56%	64%	47%	58%	59%	26%	69%	56%	63%	43%	77%	53%	67%	52%	51%	61%	62%	0%	61%	50%	55%	75%
Don't know	1%	0%	3%	0%	0%	5%	0%	0%	1%	2%	0%	2%	0%	0%	6%	0%	0%	0%	0%	0%	0%	9%	0%	0%
N	45	12	15	18	2	9	36	9	36	27	18	21	24	12	7	4	7	5	10	0	14	10	13	8
EXPRESS - Attended CBO meeting																								
A120. Was the meeting or event useful in helping you find a contractor to install equipment?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	OFFC	RETL	EATS	INST	IND	COTH	AG	PGE	SDGE	SCE	SCG
Yes	29%	31%	25%	33%	19%	26%	30%	40%	26%	34%	22%	33%	24%	27%	23%	35%	33%	28%	33%	0%	27%	26%	34%	22%
No	66%	58%	72%	67%	81%	69%	65%	60%	68%	65%	69%	59%	76%	60%	73%	65%	67%	62%	67%	100%	73%	69%	59%	72%
Don't know	5%	11%	3%	0%	0%	5%	4%	0%	6%	1%	10%	8%	0%	13%	4%	0%	0%	10%	0%	0%	0%	5%	8%	6%
N	83	23	32	28	4	25	58	14	69	46	37	45	38	24	12	9	11	8	17	2	23	18	24	18



**Exhibit 5-17**  
**Influence of Community Meeting on Equipment Purchase**

General Population Survey Results																								
A110. In thinking about your decision to purchase the equipment and deciding on the actual efficiency level of the equipment you selected, how influential was the event(s) you attended on your decision to purchase equipment? (scale from 1-10)	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Very (8-10)	9%	2%	22%	6%	7%	16%	7%	13%	6%	2%	18%	9%	9%	0%	0%	0%	47%	0%	9%	82%	15%	14%	5%	
Somewhat (4-7)	36%	55%	18%	40%	27%	37%	36%	22%	45%	33%	41%	33%	41%	29%	31%	53%	7%	50%	38%		41%	19%	37%	
Not at all (1-3)	55%	44%	60%	55%	66%	47%	57%	64%	49%	65%	41%	58%	50%	71%	69%	47%	46%	50%	54%	18%	45%	67%	58%	
Mean	3.82	3.6	3.56	3.93	2.79	3.72	3.84	3.48	4.02	3.28	4.54	3.42	4.34	3.38	2.63	3.5	5.23	4.04	3.88	6.99	3.94	3.73	3.76	
N	42	11	9	22	13	10	32	17	25	23	19	28	14	7	6	6	7	5	7	4	15	8	19	
Express Participant Survey Results																								
A110. In thinking about your decision to purchase the equipment and deciding on the actual efficiency level of the equipment you selected, how influential was the event(s) you attended on your decision to purchase equipment? (scale from 1-10)	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Very (8-10)																								
Somewhat (4-7)																								
Not at all (1-3)																								
Mean																								
N																								

**Exhibit 5-18**  
**Language Other Than English Spoken at Business**

		General Population Survey Results																																									
L5. Is a language other than English spoken at your business?	Total	Very Small				Renter		Owner		Rural		Urban		English		Other Language		Any HTR		Non HTR		Office		Retail		Restaurant/Grocery		Institutional		Industrial		Misc. Commercial		Agriculture		PGE		SDGE		SCE/SCG			
		Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG																			
Yes	41%	29%	42%	45%	39%	46%	37%	38%	42%	100%	42%	39%	27%	36%	47%	30%	48%	49%	54%	40%	36%	43%																					
No	59%	70%	58%	54%	61%	54%	62%	62%	57%	99%	0%	58%	60%	71%	64%	53%	70%	52%	51%	46%	60%	64%	56%																				
Refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%																				
Don't know	0%	0%	0%	1%	0%	0%	1%	0%	1%	1%	0%	1%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%																				
N	741	297	225	219	67	333	399	269	472	451	290	585	156	113	113	111	97	101	115	90	305	145	291																				
		Express Participant Survey Results																																									
L5. Is a language other than English spoken at your business?	Total	Very Small				Renter		Owner		Rural		Urban		English		Other Language		Any HTR		Non HTR		Office		Retail		Restaurant/Grocery		Institutional		Industrial		Misc. Commercial		Agriculture		PGE		SDGE		SCE		SCG	
		Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG																			
Yes	39%	34%	44%	43%	40%	42%	37%	31%	42%	0%	100%	37%	43%	31%	32%	58%	48%	46%	36%	73%	33%	47%	43%	50%																			
No	61%	66%	56%	57%	60%	58%	63%	69%	58%	100%	0%	63%	57%	69%	68%	42%	52%	54%	64%	27%	67%	53%	57%	50%																			
Refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%																			
Don't know	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%																			
N	584	255	209	120	16	198	377	148	436	349	235	391	193	166	97	69	41	49	146	16	208	110	194	72																			

**Exhibit 5-19**  
**Awareness of In-language Rebate Application**

General Population Survey Results																								
L15. Are you aware of rebate information (such as Express Efficiency rebate applications) in [LANGUAGE SPOKEN]?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Yes	23%	36%	17%	22%	45%	22%	22%	22%	23%	23%	22%	23%	21%	30%	15%	25%	29%	21%	21%	21%	21%	22%	24%	
No	75%	61%	82%	75%	55%	78%	74%	77%	74%	75%	77%	70%	74%	62%	85%	75%	71%	77%	77%	76%	78%	74%		
Refused	1%	0%	1%	0%	0%	0%	1%	0%	1%	1%	0%	2%	0%	0%	0%	0%	0%	2%	1%	0%	0%	1%		
Don't know	2%	2%	0%	3%	0%	1%	3%	1%	2%	2%	0%	5%	6%	7%	0%	0%	0%	0%	0%	2%	0%	2%		
N	262	80	86	96	25	122	137	86	176	262	201	61	27	36	50	25	40	42	41	100	42	120		
Express Participant Survey Results																								
L15. Are you aware of rebate information (such as Express Efficiency rebate applications) in [LANGUAGE SPOKEN]?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Yes	27%	28%	23%	34%	43%	27%	28%	24%	28%	0%	27%	26%	29%	30%	30%	15%	33%	33%	30%	18%	20%	22%	30%	50%
No	72%	70%	76%	66%	57%	73%	71%	76%	70%	0%	72%	72%	71%	70%	70%	80%	63%	67%	70%	82%	77%	76%	70%	50%
Refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Don't know	1%	2%	1%	0%	0%	0%	2%	0%	2%	0%	1%	1%	1%	0%	0%	5%	4%	0%	0%	3%	2%	0%	0%	
N	219	80	92	47	8	74	139	49	170	0	219	137	82	50	34	39	19	17	51	9	64	47	76	32

**Exhibit 5-20**  
**Participant That Used English versus in-language Express Program Material**

General Population Survey Results																								
L20. Did you use the English or other language Express Efficiency information?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
English	93%	92%	75%	100%	100%	89%	95%	91%	93%	93%	89%	100%	74%	82%	94%	100%	100%	100%	100%	100%	100%	100%	85%	
Spanish	4%	4%	12%	0%	0%	2%	5%	9%	1%	4%	5%	0%	0%	14%	6%	0%	0%	0%	0%	0%	0%	0%	7%	
Chinese	4%	3%	13%	0%	0%	9%	0%	0%	5%	4%	5%	0%	26%	3%	0%	0%	0%	0%	0%	0%	0%	0%	7%	
N	69	25	20	24	11	33	34	23	46	69	54	15	7	11	12	6	13	8	11	25	10	34		
Express Participant Survey Results																								
L20. Did you use the English or other language Express Efficiency information?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
English	96%	100%	88%	100%	100%	94%	97%	100%	95%	0%	96%	97%	94%	100%	86%	100%	100%	100%	93%	100%	100%	100%	92%	100%
Spanish	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Chinese	4%	0%	12%	0%	0%	6%	3%	0%	5%	0%	4%	3%	6%	0%	14%	0%	0%	0%	7%	0%	0%	0%	8%	0%
N	63	26	20	17	4	22	41	13	50	0	63	40	23	15	10	9	8	3	17	1	16	10	21	16

APPENDIX 6:  
BENCHMARKING DATA TABLES

# Guide to Process Assessment Data Tables (Appendix 6)

## *General Population Customer Survey*

Customer population results are presented in the upper panel of data tables. Population-level data is segmented as follows:

- **Total:** overall self-report customer data.
- **Size:** Customers are segmented by very small (0-20kW), small (20-100kW), medium (100-500kW) and large (>500kW).
- **Renter/owner.** This information comes from customer's self-reported response to whether facilities are leased or owned.
- **Urban/rural.** This segment is based on urban/rural zip codes provided by the IOUs.
- **English/other language.** This segment is based on self-reported respondent data on primary language spoken at the business.
- **Any HTR/non-HTR:** the "any HTR" segment includes businesses where the primary language spoken is other than English, businesses located in areas other than the San Francisco Bay Area, San Diego area, Los Angeles Basin or the City of Sacramento, very small businesses using less than 20kW or less than 10 employees, and customers who lease rather than own their facilities. The non-HTR segment captures English-speaking, non-rural businesses who own their facilities and use more than 20kW or employ 10 or more employees. The non-HTR segment captures English-speaking, urban businesses that own their facilities and use more than 20kW.
- **Business Type.** survey responses are segmented by seven business types: office, retail, restaurant and grocery, institutional, industrial, miscellaneous commercial and agriculture.
- **IOUs:** 305 PG&E customers, 291 SCE/SCG customers and 145 SDG&E customers were interviewed. One sample represented both SCE and SCG because they serve much of the same territory.

### ***Express Participant Survey***

Express Efficiency participant results are presented in the lower panel of each exhibit from 584 customer participants surveyed in July 2003.

Participant data tables are segmented similarly to the general population (above), with a few differences.

- **All customers.**
- Hard-to-reach customers. Survey respondents and CIS data were used to classify each respondent into one or more of the HTR segments. The residential HTR definitions provided by the CPUC are:
  - **Urban/rural.** The IOUs define rural HTR customers by zip codes. For example, PG&E uses only geography to define HTR in their service territory, where zip codes outside the 9 Bay Area counties are considered HTR.
  - **English/other language.** Primary languages other than English include respondents who indicated they spoke a non-English language at their business.
  - **Tenant/building owner.** This information comes from customer's self-reported facility ownership.
  - **Size.** Customers are segmented by very small (0-20kW), small (20-100kW), medium (100-500kW) and large (>500kW). Large customers are moved from the segment totals because they are not considered eligible for the program, but we do at times report them separately because large customer data illustrate differences between large and small customers. Small customers are those with usage less than 100kW.
  - **Any HTR/Non-HTR:** this segment includes respondents whose businesses is located in a rural area, speak a language other than English at the business, lease a facility, or use less than 20kW.
- **IOU:** Participants are segmented by PG&E, SCE, SCG and SDG&E.
- **Business Type:** survey responses are segmented by seven business types: office, retail, restaurant and grocery, institutional, industrial, miscellaneous commercial and agriculture.

**Exhibit 6-1  
Lighting Replacement**

General Population Survey Results																								
E1. Since January 2002, have you made any changes in indoor lighting equipment other than the routine replacement of burned out bulbs? This would include changes to fixtures or ballasts, and the addition of reflectors or lighting controls.	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Yes	24%	20%	24%	26%	35%	16%	30%	25%	24%	23%	26%	21%	34%	24%	19%	34%	28%	19%	26%	16%	24%	21%	26%	
No	74%	78%	75%	72%	63%	82%	68%	74%	74%	75%	72%	78%	63%	73%	80%	65%	69%	81%	71%	84%	75%	77%	72%	
Don't know	2%	1%	1%	2%	2%	1%	2%	1%	2%	2%	2%	1%	3%	3%	1%	2%	3%	0%	3%	0%	2%	2%	2%	
N	741	297	225	219	67	333	399	269	472	451	290	585	156	113	113	111	97	101	115	90	305	145	291	
Express Participant Survey Results																								
E1. Since January 2002, have you made any changes in indoor lighting equipment other than the routine replacement of burned out bulbs? This would include changes to fixtures or ballasts, and the addition of reflectors or lighting controls.	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Yes																								
No																								
Don't know																								
N																								



**Exhibit 6-2  
Cooling Replacement**

		General Population Survey Results																							
E30. Since January 2002, have you made any changes to cooling at your facility, including air conditioning units, programmable thermostats, or HVAC controls?		Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Yes		20%	13%	18%	25%	24%	13%	26%	20%	21%	23%	17%	17%	28%	31%	15%	20%	36%	15%	18%	6%	16%	20%	25%	
No		79%	87%	81%	74%	71%	85%	73%	80%	78%	76%	82%	82%	70%	68%	85%	80%	62%	84%	80%	94%	84%	79%	74%	
Don't know		1%	1%	1%	1%	5%	1%	1%	0%	2%	1%	2%	1%	2%	1%	0%	0%	3%	1%	3%	0%	0%	2%	1%	
N		741	297	225	219	67	333	399	269	472	451	290	585	156	113	113	111	97	101	115	90	305	145	291	
		Express Participant Survey Results																							
E30. Since January 2002, have you made any changes to cooling at your facility, including air conditioning units, programmable thermostats, or HVAC controls?		Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Yes																									
No																									
Don't know																									
N																									

**Exhibit 6-3  
Gas Changes**

		General Population Survey Results																							
		Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
E65. Since January 2002, did you install any gas appliances at your facility, such as a boiler, water heater, furnace, stove, gas booster for dishwasher?																									
Yes		11%	9%	7%	14%	22%	5%	15%	10%	12%	10%	13%	8%	18%	11%	3%	13%	23%	12%	13%	7%	11%	10%	11%	
No		88%	91%	93%	84%	78%	94%	84%	90%	87%	90%	85%	91%	80%	88%	96%	87%	75%	88%	85%	93%	89%	87%	87%	
Don't know		1%	0%	0%	2%	0%	1%	1%	0%	2%	1%	1%	0%	2%	1%	1%	1%	3%	0%	2%	0%	0%	3%	1%	
N		741	297	225	219	67	333	399	269	472	451	290	585	156	113	113	111	97	101	115	90	305	145	291	
		Express Participant Survey Results																							
		Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
E65. Since January 2002, did you install any gas appliances at your facility, such as a boiler, water heater, furnace, stove, gas booster for dishwasher?																									
Yes																									
No																									
Don't know																									
N																									

**Exhibit 6-4  
Other Changes**

General Population Survey Results																								
E85. Which of the following types of equipment were affected?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Food service equipment	23%	11%	20%	27%	24%	31%	17%	32%	20%	34%	13%	28%	16%	0%	0%	64%	1%	2%	15%	2%	20%	0%	31%	
Water heating	8%	7%	6%	10%	0%	4%	11%	14%	7%	7%	10%	8%	9%	3%	4%	16%	0%	0%	12%	11%	5%	13%	9%	
Outdoor lighting	3%	0%	9%	0%	9%	2%	3%	0%	3%	0%	5%	1%	4%	9%	0%	0%	0%	0%	4%	0%	0%	5%	3%	
Refrigeration	28%	23%	33%	27%	3%	25%	30%	25%	29%	30%	26%	26%	30%	24%	29%	34%	45%	0%	39%	0%	21%	10%	37%	
Motors	9%	0%	10%	10%	26%	4%	11%	6%	9%	11%	6%	5%	13%	10%	35%	0%	0%	13%	4%	19%	12%	15%	4%	
Office equipment	5%	26%	2%	1%	5%	10%	2%	0%	6%	5%	5%	7%	2%	12%	4%	0%	11%	3%	8%	0%	5%	12%	3%	
Production equipment	6%	0%	10%	6%	12%	7%	6%	7%	6%	3%	10%	7%	5%	5%	6%	3%	3%	20%	9%	0%	11%	16%	0%	
Appliances	3%	0%	1%	4%	0%	7%	0%	1%	3%	0%	5%	5%	0%	0%	0%	8%	0%	0%	0%	8%	0%	0%	5%	
Heating/cooling	10%	10%	17%	7%	18%	2%	15%	24%	6%	11%	9%	9%	11%	21%	10%	0%	1%	2%	15%	50%	17%	9%	6%	
Lighting	3%	12%	1%	2%	9%	2%	4%	5%	3%	5%	2%	3%	3%	9%	0%	0%	20%	2%	0%	0%	3%	5%	3%	
Other	13%	5%	6%	17%	10%	10%	14%	0%	16%	4%	20%	7%	21%	7%	22%	1%	0%	50%	16%	9%	9%	9%	16%	
Don't know	2%	5%	0%	2%	0%	0%	3%	0%	3%	3%	1%	1%	3%	0%	6%	0%	20%	0%	0%	0%	2%	0%	3%	
N	100	32	32	36	15	40	60	29	71	48	52	69	31	14	11	22	11	10	19	13	32	26	42	
Express Participant Survey Results																								
E85. Which of the following types of equipment were affected?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Food service equipment																								
Water heating																								
Outdoor lighting																								
Refrigeration																								
Motors																								
Office equipment																								
Production equipment																								
Appliances																								
Heating/cooling																								
Lighting																								
Other																								
Don't know																								
N																								

**Exhibit 6-5**  
**Percent of Population Taking Conservation Actions**

General Population Survey Results																								
CON1. Other than installing new equipment, have you taken any energy conservation actions since January 2002 to reduce your overall energy use, such as routinely turning off lights or setting the thermostat higher when using the air conditioner?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Yes	71%	71%	68%	74%	71%	73%	69%	65%	74%	69%	74%	70%	73%	76%	65%	69%	70%	82%	68%	61%	72%	76%	68%	
No	29%	28%	32%	25%	29%	27%	31%	33%	26%	31%	26%	30%	27%	23%	35%	31%	27%	18%	32%	39%	28%	24%	31%	
Refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Don't know	0%	1%	0%	1%	0%	1%	0%	1%	0%	1%	0%	1%	0%	1%	0%	0%	3%	0%	0%	0%	0%	0%	1%	
N	741	297	225	219	67	333	399	269	472	451	290	585	156	113	113	111	97	101	115	90	305	145	291	
Express Participant Survey Results																								
CON1. Other than installing new equipment, have you taken any energy conservation actions since January 2002 to reduce your overall energy use, such as routinely turning off lights or setting the thermostat higher when using the air conditioner?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Yes	72%	73%	67%	78%	94%	73%	71%	70%	72%	69%	76%	72%	71%	74%	67%	77%	78%	71%	66%	81%	71%	71%	73%	71%
No	27%	26%	31%	21%	6%	26%	26%	29%	26%	29%	23%	27%	26%	23%	30%	23%	22%	29%	32%	19%	27%	28%	26%	26%
Refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	1%
Don't know	2%	1%	2%	1%	0%	1%	2%	1%	2%	2%	0%	1%	3%	3%	2%	0%	0%	0%	1%	0%	2%	1%	1%	1%
N	584	255	209	120	16	198	377	148	436	349	235	391	193	166	97	69	41	49	146	16	208	110	194	72

**Exhibit 6-6**  
**Level of Conservation Activity**

General Population Survey Results																								
CON25. Of the things you mentioned doing to conserve since 2002, do you think you are conserving more/less/ or about the same as you did the year before (2001)?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
More	44%	44%	41%	51%	91%	38%	50%	43%	45%	43%	47%	44%	45%	49%	42%	42%	63%	40%	40%	45%	49%	45%	39%	
Less	6%	3%	8%	11%	0%	5%	8%	5%	7%	5%	9%	5%	10%	6%	4%	5%	13%	6%	7%	6%	5%	9%	7%	
About the same	44%	49%	43%	34%	9%	54%	37%	45%	44%	46%	41%	46%	38%	39%	52%	47%	21%	50%	48%	47%	43%	43%	47%	
Refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Don't know	5%	4%	7%	4%	0%	4%	6%	7%	3%	6%	3%	4%	8%	6%	2%	6%	3%	4%	5%	2%	3%	3%	7%	
N	551	217	165	169	53	252	292	189	362	325	226	424	127	89	78	81	78	84	80	60	221	111	219	
Express Participant Survey Results																								
CON25. Of the things you mentioned doing to conserve since 2002, do you think you are conserving more/less/ or about the same as you did the year before (2001)?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
More	61%	59%	60%	66%	73%	52%	65%	64%	60%	60%	61%	59%	64%	67%	48%	51%	72%	54%	65%	69%	60%	60%	62%	61%
Less	7%	5%	8%	7%	7%	10%	5%	4%	8%	7%	7%	7%	5%	7%	3%	11%	6%	6%	7%	0%	8%	5%	7%	4%
About the same	29%	32%	29%	24%	20%	34%	27%	27%	30%	30%	28%	30%	28%	23%	46%	38%	19%	34%	24%	23%	28%	29%	30%	31%
Refused	0%	1%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%	0%	0%	1%	0%	0%	0%
Don't know	3%	3%	4%	2%	0%	3%	3%	4%	3%	3%	4%	4%	2%	3%	3%	0%	3%	3%	4%	8%	3%	5%	1%	4%
N	418	185	139	94	15	145	269	103	315	240	178	281	137	123	65	53	32	35	97	13	147	78	142	51

**Exhibit 6-7**  
**Self-Reported Reduction in Usage**

General Population Survey Results																								
CON20. By roughly how much do you think the conservation actions you've taken have reduced your overall energy usage?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCES/CC	
0 to 5 percent	28%	26%	33%	28%	11%	25%	31%	37%	24%	28%	29%	29%	27%	18%	44%	24%	22%	27%	35%	29%	32%	31%	24%	
6 to 10 percent	24%	22%	26%	26%	51%	27%	21%	24%	24%	20%	30%	24%	22%	31%	13%	30%	34%	25%	17%	23%	19%	28%	28%	
11 to 15 percent	9%	10%	5%	13%	3%	13%	7%	3%	13%	8%	12%	10%	8%	5%	12%	14%	8%	9%	11%	7%	6%	12%	13%	
16 to 25 percent	19%	26%	5%	26%	24%	16%	23%	25%	17%	23%	13%	20%	17%	26%	30%	8%	17%	31%	11%	20%	25%	15%	14%	
26 to 50 percent	17%	15%	27%	6%	11%	19%	15%	11%	20%	19%	14%	17%	20%	17%	2%	24%	17%	8%	24%	14%	17%	14%	18%	
51 to 75 percent	1%	0%	2%	0%	0%	0%	1%	0%	1%	1%	0%	4%		2%	0%	0%	1%	0%	0%		0%	0%	2%	
Over 75 percent	1%	1%	1%	0%	0%	1%	1%	0%	1%		2%	1%	2%	1%	0%	0%	0%	0%	1%	7%	1%	1%	1%	
Refused	0%	0%	0%	0%	0%	0%	0%	0%	0%		0%	0%	0%	0%	0%	0%	0%	0%	0%		0%	0%	0%	
Don't know	0%	0%	0%	0%	0%	0%	0%	0%	0%		0%	0%	0%	0%	0%	0%	0%	0%	0%		0%	0%	0%	
N	404	159	121	124	43	181	220	138	266	237	167	310	94	68	57	58	58	64	57	41	164	86	154	
Express Participant Survey Results																								
CON20. By roughly how much do you think the conservation actions you've taken have reduced your overall energy usage?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
0 to 5 percent	15%	12%	17%	18%	33%	12%	17%	15%	15%	15%	16%	14%	18%	14%	14%	21%	6%	20%	16%	8%	15%	12%	15%	20%
6 to 10 percent	20%	22%	17%	22%	13%	26%	18%	17%	21%	23%	16%	22%	17%	21%	22%	19%	22%	29%	16%	15%	23%	22%	19%	14%
11 to 15 percent	12%	12%	13%	11%	7%	12%	12%	13%	12%	13%	11%	11%	15%	11%	12%	17%	13%	14%	10%	0%	10%	18%	11%	12%
16 to 25 percent	16%	12%	17%	19%	13%	14%	16%	14%	16%	15%	16%	14%	18%	14%	17%	9%	22%	3%	23%	15%	12%	18%	17%	18%
26 to 50 percent	8%	9%	6%	7%	7%	6%	9%	8%	8%	5%	11%	8%	7%	11%	8%	8%	6%	3%	7%	0%	7%	9%	8%	8%
51 to 75 percent	0%	1%	0%	0%	7%	1%	0%	2%	0%	1%	0%	1%	0%	0%	2%	0%	0%	0%	1%	0%	1%	0%	0%	0%
Over 75 percent	1%	0%	1%	1%	0%	0%	1%	1%	1%	0%	2%	0%	1%	2%	0%	2%	0%	0%	0%	0%	1%	0%	1%	0%
Refused	1%	1%	1%	1%	0%	1%	0%	1%	1%	1%	1%	1%	1%	0%	0%	2%	0%	6%	0%	0%	1%	1%	1%	0%
Don't know	28%	32%	27%	20%	20%	28%	27%	30%	27%	27%	28%	30%	23%	28%	26%	23%	31%	26%	26%	62%	30%	21%	28%	29%
N	418	185	139	94	15	145	269	103	315	240	178	281	137	123	65	53	32	35	97	13	147	78	142	51

## Exhibit 6-8 Types of Conservation Activities

General Population Survey Results																							
	Total	Very Small	Small	Medium	Large	Owner	Owner	Rural	Urban	Other Language	Avg HHR	Non HHR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PCE	SDCE	SC	SCFACG
CONS. What energy conservation actions have you taken since January 2002?	21%	21%	19%	21%	16%	22%	20%	21%	20%	21%	20%	21%	20%	27%	18%	11%	37%	18%	18%	15%	14%	31%	25%
Turn off office equipment such as PCs, monitors, printers and copiers when not in use at night and during the weekend	46%	42%	50%	48%	41%	56%	38%	46%	46%	47%	44%	47%	43%	47%	38%	49%	56%	49%	45%	43%	42%	44%	51%
Set thermostats lower when heating and higher when using the air conditioner	4%	3%	5%	4%	0%	6%	2%	4%	4%	4%	4%	4%	2%	3%	7%	7%	0%	6%	2%	6%	4%	3%	4%
Schedule high electrical energy-use processes during off-peak periods where feasible	76%	79%	73%	75%	68%	75%	77%	71%	79%	77%	74%	77%	73%	70%	75%	74%	80%	80%	82%	68%	80%	76%	72%
Turn off any lights that are not being used, for example, unused offices and conference rooms	14%	14%	13%	17%	8%	16%	13%	18%	12%	15%	13%	15%	10%	12%	18%	21%	16%	16%	11%	18%	13%	11%	16%
Turn down the remaining lighting levels if you can (if available) Use dimmer switches to lower lights	1%	1%	1%	2%	0%	2%	1%	2%	1%	1%	2%	1%	1%	3%	0%	3%	0%	0%	0%	1%	2%	0%	1%
Set air conditioning thermostats to pre-cool spaces at off-peak times	7%	9%	5%	6%	37%	2%	12%	7%	7%	7%	7%	9%	7%	10%	3%	1%	8%	8%	14%	10%	6%	5%	5%
Establish a system to alert employees of expected high demand days including, but not limited to e-mail, voice mail, or public address announcement to all employees	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Reprogram EMS schedule	1%	1%	0%	2%	22%	1%	1%	1%	1%	1%	1%	1%	2%	1%	2%	0%	0%	1%	1%	0%	0%	0%	2%
Turn off your computer if you are out of the office for more than a few minutes	3%	5%	1%	0%	0%	3%	3%	5%	2%	4%	0%	3%	0%	3%	3%	1%	1%	2%	4%	5%	4%	1%	2%
Set computer to low power stand by mode	0%	1%	0%	0%	0%	1%	0%	1%	1%	0%	1%	0%	0%	0%	0%	0%	5%	0%	4%	1%	1%	0%	2%
Turn off personal appliances, such as coffee pots and radios	2%	3%	1%	0%	0%	2%	2%	2%	2%	2%	2%	1%	2%	3%	0%	2%	4%	1%	2%	2%	2%	2%	2%
Use e-mail to distribute documents instead of faxes and copiers	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	1%	0%	0%	0%	1%	0%	0%
Make copies double-sided	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%	0%	1%	0%	0%
Wear comfortable business attire. Dress appropriately for warmer temperatures	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	2%	0%	1%	0%	0%	0%
Run backup generator at time of peak demand	0%	1%	0%	0%	0%	0%	1%	0%	1%	0%	0%	0%	0%	0%	0%	0%	1%	1%	0%	0%	0%	0%	1%
Use less AC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Use EE equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Timers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Open/shut windows and doors	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Delamping	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shut down equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Insulation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lighting occupancy sensors	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Office	1%	0%	2%	3%	1%	1%	1%	0%	2%	1%	0%	0%	4%	1%	0%	0%	4%	0%	1%	2%	0%	7%	1%
Refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Don't know	1%	1%	2%	2%	0%	0%	3%	1%	1%	2%	1%	2%	5%	0%	0%	0%	1%	0%	1%	1%	0%	2%	0%
N	512	197	165	150	14	233	272	170	342	307	205	391	121	89	78	71	67	84	80	43	221	110	181

Express Participant Survey Results																							
	Total	Very Small	Small	Medium	Large	Owner	Owner	Rural	Urban	Other Language	Avg HHR	Non HHR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PCE	SDCE	SC	SCFACG
CONS. What energy conservation actions have you taken since January 2002?	20%	18%	21%	20%	20%	17%	21%	21%	19%	21%	17%	19%	21%	25%	17%	15%	19%	23%	16%	15%	24%	8%	26%
Turn off office equipment such as PCs, monitors, printers and copiers when not in use at night and during the weekend	45%	42%	43%	53%	40%	46%	44%	40%	46%	47%	42%	43%	49%	56%	46%	38%	47%	43%	36%	23%	42%	54%	44%
Set thermostats lower when heating and higher when using the air conditioner	4%	5%	3%	3%	7%	4%	4%	5%	3%	3%	6%	5%	1%	2%	3%	4%	0%	11%	4%	15%	4%	3%	4%
Schedule high electrical energy-use processes during off-peak periods where feasible	63%	61%	63%	65%	60%	61%	64%	64%	62%	64%	61%	62%	64%	57%	58%	66%	72%	60%	72%	38%	67%	55%	68%
Turn off any lights that are not being used, for example, unused offices and conference rooms	13%	15%	15%	9%	13%	13%	13%	18%	12%	13%	14%	14%	12%	15%	11%	23%	6%	11%	11%	8%	16%	10%	14%
Turn down the remaining lighting levels if you can (if available) Use dimmer switches to lower lights	1%	1%	0%	3%	7%	0%	2%	1%	1%	0%	2%	1%	1%	2%	0%	2%	0%	6%	0%	0%	1%	1%	2%
Set air conditioning thermostats to pre-cool spaces at off-peak times	5%	5%	4%	5%	7%	6%	4%	7%	4%	5%	5%	5%	4%	2%	8%	2%	6%	9%	6%	0%	5%	5%	4%
Establish a system to alert employees of expected high demand days including, but not limited to e-mail, voice mail, or public address announcement to all employees	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	2%
Reprogram EMS schedule	5%	4%	7%	4%	7%	3%	6%	4%	6%	5%	6%	4%	7%	2%	6%	8%	6%	6%	6%	8%	5%	3%	4%
Turn off your computer if you are out of the office for more than a few minutes	3%	4%	1%	5%	0%	5%	3%	8%	2%	3%	4%	4%	2%	2%	5%	0%	13%	3%	3%	0%	5%	0%	4%
Set computer to low power stand by mode	1%	2%	0%	0%	0%	0%	1%	2%	0%	1%	0%	1%	0%	2%	0%	0%	0%	0%	1%	0%	1%	0%	2%
Turn off personal appliances, such as coffee pots and radios	4%	3%	6%	3%	7%	4%	4%	3%	4%	3%	5%	4%	4%	3%	2%	6%	6%	0%	5%	8%	5%	1%	5%
Use e-mail to distribute documents instead of faxes and copiers	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Make copies double-sided	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wear comfortable business attire. Dress appropriately for warmer temperatures	0%	0%	1%	0%	0%	1%	0%	0%	0%	1%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	1%
Run backup generator at time of peak demand	0%	0%	1%	1%	0%	1%	0%	0%	1%	0%	1%	0%	1%	0%	0%	3%	0%	1%	0%	1%	1%	0%	0%
Use less AC	5%	5%	6%	3%	0%	9%	3%	4%	6%	6%	4%	5%	6%	2%	14%	2%	0%	6%	7%	8%	3%	9%	6%
Use EE equipment	6%	6%	6%	7%	7%	4%	8%	7%	6%	6%	7%	5%	9%	10%	6%	4%	6%	5%	0%	0%	6%	6%	4%
Timers	3%	2%	1%	6%	0%	2%	3%	4%	3%	2%	4%	2%	4%	1%	2%	6%	3%	0%	3%	0%	5%	3%	2%
Open/shut windows and doors	1%	0%	1%	2%	7%	0%	1%	0%	1%	1%	0%	2%	1%	0%	0%	6%	0%	0%	0%	1%	3%	0%	0%
Delamping	1%	2%	0%	0%	0%	1%	1%	1%	1%	1%	1%	0%	2%	2%	0%	0%	0%	0%	0%	2%	0%	0%	0%
Shut down equipment	2%	2%	3%	3%	0%	3%	2%	1%	3%	2%	2%	2%	2%	1%	3%	4%	3%	6%	1%	8%	1%	1%	10%
Insulation	1%	2%	0%	1%	0%	1%	2%	1%	2%	0%	1%	1%	1%	0%	2%	0%	3%	2%	0%	2%	0%	1%	2%
Lighting occupancy sensors	3%	2%	3%	5%	13%	2%	3%	2%	3%	3%	2%	4%	3%	2%	0%	6%	6%	3%	0%	3%	8%	1%	0%
Office	8%	8%	12%	3%	13%	10%	7%	8%	8%	9%	6%	8%	7%	6%	11%	9%	9%	3%	7%	23%	7%	6%	16%
Refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Don't know	1%	2%	1%	1%	0%	0%	2%	3%	1%	1%	2%	1%	1%	3%	0%	2%	0%	0%	1%	0%	2%	1%	0%
N	418	185	139	94	15	145	269	103	315	240	178	281	137	123	65	53	32	35	97	13	147	78	142

**Exhibit 6-9  
Daytime Lighting Conservation**

General Population Survey Results																								
CON10. What percent of your lights that would normally be on during the daytime are you keeping off now?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
0 to 5 percent	24%	32%	25%	6%	0%	26%	21%	19%	27%	25%	21%	23%	30%	36%	47%	13%	12%	11%	10%	32%	21%	41%	25%	
6 to 10 percent	12%	4%	27%	1%	0%	9%	16%	12%	12%	9%	21%	10%	22%	6%	21%	34%	27%	6%	7%		8%	0%	19%	
11 to 15 percent	6%	0%	6%	22%	0%	9%	4%	6%	7%	7%	6%	7%	5%	5%	0%	17%	17%	0%	7%		7%	8%	6%	
16 to 25 percent	13%	21%	1%	17%	0%	9%	17%	12%	13%	15%	5%	13%	10%	11%	13%	1%	10%	11%	18%	12%	24%	16%	1%	
26 to 50 percent	19%	21%	11%	29%	0%	17%	20%	26%	14%	17%	23%	20%	15%	15%	5%	36%	24%	43%	16%	16%	23%	9%	16%	
51 to 75 percent	5%	3%	3%	12%	0%	2%	8%	4%	6%	5%	5%	3%	11%	4%	1%	0%	0%	2%	11%		5%	3%	6%	
Over 75 percent	10%	9%	13%	8%	0%	12%	9%	9%	11%	9%	15%	13%	2%	11%	0%	0%	6%	22%	16%	9%	7%	17%	12%	
Don't know	10%	9%	14%	6%	0%	16%	5%	12%	9%	12%	4%	11%	6%	11%	12%	0%	3%	5%	14%	32%	7%	6%	15%	
N	123	43	47	33	0	56	66	49	74	85	38	98	25	26	18	14	20	20	20	5	55	18	50	
Express Participant Survey Results																								
CON10. What percent of your lights that would normally be on during the daytime are you keeping off now?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
0 to 5 percent																								
6 to 10 percent																								
11 to 15 percent																								
16 to 25 percent																								
26 to 50 percent																								
51 to 75 percent																								
Over 75 percent																								
Don't know																								
N																								



**Exhibit 6-10**  
**Evening Lighting Conservation**

General Population Survey Results																							
CON15. What percent of your lights that would normally be on during evening and night-time hours are you keeping off now?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG
0 to 5 percent	34%	38%	34%	22%	0%	33%	35%	32%	34%	39%	20%	34%	30%	27%	42%	55%	14%	47%	29%	46%	28%	77%	32%
6 to 10 percent	8%	0%	15%	12%	0%	5%	10%	6%	9%	28%	4%	22%	10%	5%	18%	12%	0%	5%	6%	0%	12%		
11 to 15 percent	2%	0%	2%	7%	0%	4%	0%	0%	4%	3%	0%	3%	0%	2%	0%	0%	2%	0%	5%	0%	10%	3%	
16 to 25 percent	4%	5%	1%	11%	0%	4%	5%	7%	2%	6%	1%	4%	5%	8%	0%	0%	17%	7%	0%	24%	3%	2%	6%
26 to 50 percent	15%	16%	14%	16%	0%	7%	21%	16%	15%	16%	13%	15%	16%	10%	8%	22%	32%	9%	23%	21%	0%	12%	
51 to 75 percent	3%	4%	3%	3%	0%	0%	6%	5%	2%	4%	1%	3%	5%	6%	0%	0%	2%	2%	4%	3%	2%	4%	
Over 75 percent	33%	37%	31%	29%	0%	46%	23%	33%	34%	32%	37%	36%	21%	37%	45%	5%	21%	35%	34%	30%	38%	9%	32%
N	114	41	42	31	0	51	62	46	68	77	37	91	23	24	17	13	20	19	17	4	52	16	46

Express Participant Survey Results																								
CON15. What percent of your lights that would normally be on during evening and night-time hours are you keeping off now?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
0 to 5 percent																								
6 to 10 percent																								
11 to 15 percent																								
16 to 25 percent																								
26 to 50 percent																								
51 to 75 percent																								
Over 75 percent																								
Don't know																								
N																								

**Exhibit 6-11  
Influence of Audit**

General Population Survey Results																								
A59. On a scale of 1 to 10, what influence did the <b>audit</b> have on the conservation actions you mentioned, where 1 is NOT INFLUENTIAL, and 10 is VERY INFLUENTIAL?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Very	31%	44%	21%	30%	62%	27%	34%	38%	26%	26%	38%	34%	22%	13%	29%	53%	33%	3%	27%	17%	47%	15%	13%	
Somewhat	35%	48%	32%	22%	4%	40%	30%	43%	29%	32%	39%	35%	35%	32%	53%	32%	36%	41%	25%	44%	22%	58%	45%	
Not at all	34%	8%	48%	47%	35%	33%	36%	19%	45%	42%	23%	31%	43%	55%	18%	15%	31%	56%	47%	39%	31%	27%	42%	
Don't know/refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Mean	5.39	6.78	4.59	4.87	5.82	5.22	5.52	5.89	5.06	5.05	5.92	5.54	4.99	3.88	5.88	6.92	5.09	3.14	5.08	4.57	5.96	5.17	4.61	
N	81	21	28	32	26	24	56	30	51	48	33	51	30	9	13	12	15	6	13	12	34	19	28	
Express Participant Survey Results																								
A59. On a scale of 1 to 10, what influence did the <b>audit</b> have on the conservation actions you mentioned, where 1 is NOT INFLUENTIAL, and 10 is VERY INFLUENTIAL?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Very	7%	0%	17%	0%	0%	0%	8%	20%	0%	0%	20%	11%	0%	0%	0%	0%	0%	0%	14%	0%	14%	0%	0%	0%
Somewhat	13%	14%	17%	0%	0%	0%	15%	0%	20%	10%	20%	11%	17%	0%	0%	33%	0%	0%	14%	0%	0%	0%	25%	0%
Not at all	27%	14%	33%	50%	0%	50%	23%	0%	40%	40%	0%	11%	50%	0%	100%	0%	0%	0%	14%	0%	14%	0%	38%	0%
Don't know/refused	53%	71%	33%	50%	0%	50%	54%	80%	40%	50%	60%	67%	33%	100%	0%	67%	0%	0%	57%	0%	71%	0%	38%	0%
Mean	3.57	2.5	4.75	1		1	4	10	2.5	1.6	8.5	5	2.5		1	7			5		5.5		2.8	
N	15	7	6	2	0	2	13	5	10	10	5	9	6	2	3	3	0	0	7	0	7	0	8	0

**Exhibit 6-12  
Influence of Express Efficiency**

		General Population Survey Results																							
A42. On a scale of 1 to 10, what influence did your awareness of the <b>Express program</b> have on reducing your energy use through the conservation actions you mentioned, where 1 is NOT INFLUENTIAL, and 10 is VERY INFLUENTIAL?		Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Very		45%	53%	54%	14%	17%	49%	40%	45%	45%	43%	48%	48%	29%	37%	34%	65%	66%	38%	47%	28%	62%	36%	31%	
Somewhat		29%	25%	27%	39%	38%	28%	31%	23%	34%	28%	30%	25%	49%	47%	34%	20%	5%	4%	27%	39%	19%	32%	37%	
Not at all		26%	21%	18%	47%	45%	23%	29%	32%	21%	29%	21%	27%	22%	16%	32%	15%	29%	58%	25%	33%	19%	32%	31%	
Mean		6.08	6.63	6.79	4.00	3.76	6.23	5.91	5.86	6.26	5.98	6.25	6.13	5.86	6.51	5.25	7.23	6.73	4.47	5.99	5.55	7.03	5.71	5.30	
N		113	41	33	39	19	42	70	48	65	62	51	89	24	18	14	16	16	18	14	17	40	21	52	
		Express Participant Survey Results																							
A42. On a scale of 1 to 10, what influence did your awareness of the <b>Express program</b> have on reducing your energy use through the conservation actions you mentioned, where 1 is NOT INFLUENTIAL, and 10 is VERY INFLUENTIAL?		Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Very																									
Somewhat																									
Not at all																									
Mean																									
N																									

**Exhibit 6-13**  
**Influence of Flex Your Power Campaign**

		General Population Survey Results																							
A67. On a scale of 1 to 10, what influence did <b>Flex</b> have on reducing your energy use through the conservation actions you mentioned, where 1 is NOT INFLUENTIAL, and 10 is VERY INFLUENTIAL?		Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Very		22%	29%	14%	22%	20%	26%	19%	25%	21%	16%	32%	24%	14%	19%	22%	15%	34%	24%	25%	20%	28%	12%	19%	
Somewhat		31%	30%	31%	35%	26%	30%	33%	31%	32%	34%	29%	34%	23%	34%	32%	47%	38%	36%	22%	21%	33%	30%	30%	
Not at all		46%	41%	55%	43%	55%	45%	48%	44%	47%	51%	40%	42%	63%	48%	46%	37%	29%	40%	53%	59%	40%	58%	50%	
Mean		4.36	5.01	3.57	4.37	4.39	4.43	4.23	4.39	4.34	3.91	5.01	4.60	3.46	4.14	4.34	4.78	5.30	4.75	4.16	3.76	4.87	3.64	4.00	
N		303	108	91	104	39	138	160	108	195	170	133	236	67	44	44	44	48	41	47	34	118	61	124	
		Express Participant Survey Results																							
A67. On a scale of 1 to 10, what influence did <b>Flex</b> have on reducing your energy use through the conservation actions you mentioned, where 1 is NOT INFLUENTIAL, and 10 is VERY INFLUENTIAL?		Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Very																									
Somewhat																									
Not at all																									
Mean																									
N																									

**Exhibit 6-14**  
**Influence of 20/20 Rebate Program**

General Population Survey Results																								
A77. On a scale of 1 to 10, what influence did <b>20/20</b> have on reducing your energy use through the conservation actions you mentioned, where 1 is NOT INFLUENTIAL, and 10 is VERY INFLUENTIAL?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Very	24%	21%	37%	11%	42%	26%	23%	22%	25%	25%	22%	24%	26%	21%	28%	31%	30%	2%	26%	19%	27%	16%	23%	
Somewhat	24%	23%	19%	34%	16%	17%	30%	27%	23%	22%	27%	24%	26%	24%	13%	14%	17%	33%	33%	6%	29%	21%	21%	
Not at all	52%	56%	44%	55%	42%	57%	47%	51%	52%	52%	51%	53%	49%	56%	59%	55%	52%	65%	41%	76%	44%	63%	56%	
Mean	4.32	4.10	4.96	3.79	5.39	3.95	4.64	4.15	4.41	4.36	4.26	4.22	4.65	4.02	4.05	4.11	4.81	3.06	4.94	3.26	4.75	3.52	4.13	
N	254	85	72	97	40	108	142	91	163	140	114	189	65	40	39	32	32	35	42	33	94	52	108	
Express Participant Survey Results																								
A77. On a scale of 1 to 10, what influence did <b>20/20</b> have on reducing your energy use through the conservation actions you mentioned, where 1 is NOT INFLUENTIAL, and 10 is VERY INFLUENTIAL?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Very																								
Somewhat																								
Not at all																								
Mean																								
N																								

**Exhibit 6-15**  
**Influence of Utility Representative**

		General Population Survey Results																						
A90. On a scale of 1 to 10, what influence did your <b>[UTILITY] representative</b> have on reducing your energy use through the conservation actions you mentioned, where 1 is NOT INFLUENTIAL, and 10 is VERY INFLUENTIAL?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
	Very	29%	26%	24%	40%	68%	42%	23%	40%	19%	48%	12%	32%	17%	0%	7%	59%	74%	57%	16%	67%	40%	0%	21%
Somewhat	39%	49%	46%	6%	28%	11%	51%	29%	47%	28%	48%	32%	65%	71%	86%	0%	18%	43%	36%	33%	49%	100%	27%	
Not at all	33%	25%	31%	53%	4%	47%	26%	31%	34%	24%	40%	37%	18%	29%	7%	41%	8%	0%	48%	.	10%	0%	52%	
Mean	5.38	5.82	5.34	4.47	7.87	5.66	5.25	5.83	4.98	6.65	4.27	5.32	5.60	4.82	5.21	6.30	7.29	6.72	4.50	8.00	6.48	5.00	4.54	
N	32	10	10	12	17	8	24	14	18	16	16	22	10	3	4	4	9	2	6	4	9	1	22	
		Express Participant Survey Results																						
A90. On a scale of 1 to 10, what influence did your <b>[UTILITY] representative</b> have on reducing your energy use through the conservation actions you mentioned, where 1 is NOT INFLUENTIAL, and 10 is VERY INFLUENTIAL?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
	Very																							
Somewhat																								
Not at all																								
Mean																								
N																								

**Exhibit 6-16  
Influence of Community Event**

General Population Survey Results																								
A115. On a scale of 1 to 10, what influence did the <b>event(s)</b> you attended have on reducing your energy use through the conservation actions you mentioned, where 1 is NOT INFLUENTIAL, and 10 is VERY INFLUENTIAL?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Very	12%	0%	24%	18%	94%	2%	19%	11%	13%	8%	19%	4%	27%	0%	1%	0%	74%	0%	16%	23%	26%	9%	1%	
Somewhat	48%	67%	31%	39%	3%	65%	37%	23%	56%	42%	56%	58%	30%	77%	48%	0%	14%	38%	44%	15%	45%	32%	56%	
Not at all	40%	33%	46%	43%	3%	33%	44%	66%	31%	51%	25%	37%	44%	23%	51%	100%	12%	62%	40%	62%	29%	60%	43%	
Mean	4.38	3.93	4.81	4.60	9.15	3.88	4.71	3.13	4.80	3.96	4.93	3.93	5.17	4.79	3.06	1.00	7.59	3.34	4.58	4.20	5.30	3.86	3.73	
N	60	14	13	33	20	17	43	23	37	30	30	38	22	7	8	4	11	10	11	9	20	11	29	
Express Participant Survey Results																								
A115. On a scale of 1 to 10, what influence did the <b>event(s)</b> you attended have on reducing your energy use through the conservation actions you mentioned, where 1 is NOT INFLUENTIAL, and 10 is VERY INFLUENTIAL?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Very																								
Somewhat																								
Not at all																								
Mean																								
N																								

**Exhibit 6-17  
Equipment Purchase Due to Program**

General Population Survey Results																								
PE55. Did you buy more energy efficient equipment as a result of the program?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Yes																								
No																								
Don't know																								
N																								
Express Participant Survey Results																								
PE55. Did you buy more energy efficient equipment as a result of the program?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Yes	36%	35%	37%	36%	75%	28%	40%	44%	33%	34%	39%	36%	36%	32%	36%	33%	38%	22%	42%	51%	36%	37%	37%	32%
No	64%	64%	62%	64%	25%	71%	60%	56%	67%	65%	61%	63%	64%	67%	63%	67%	62%	78%	58%	49%	64%	61%	63%	67%
Don't know	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	1%	0%	0%	0%	0%	1%	0%	1%
N	584	255	209	120	16	198	377	148	436	349	235	391	193	166	97	69	41	49	146	16	208	110	194	72



**Exhibit 6-18**  
**Future Purchase Intentions**

General Population Survey Results																																							
PE15. How likely will you be to actively consider energy-efficient products when installing or replacing equipment in the future? Give a rating from 1 to 10, where 10 means you're EXTREMELY likely to consider energy-efficient products.	Total	Very Small				Renter		Owner		Rural		Urban		English		Other Language		Any HTR		Non HTR		Office		Retail		Restaurant/Grocery		Institutional		Industrial		Misc. Commercial		Agriculture		PGE	SDGE	SCGE	SCG
	Extremely	71%	70%	70%	78%	79%	64%	76%	79%	66%	75%	64%	71%	70%	67%	70%	77%	78%	66%	73%	59%	75%	71%	66%															
Somewhat	22%	21%	26%	16%	21%	26%	19%	15%	26%	18%	29%	21%	26%	27%	19%	16%	19%	25%	21%	26%	18%	20%	26%																
Not at all	7%	10%	4%	6%	0%	10%	5%	6%	8%	8%	7%	8%	4%	7%	11%	7%	3%	9%	6%	15%	6%	9%	7%																
Don't know/refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%																
Mean	8.11	7.89	8.25	8.41	8.84	7.69	8.41	8.45	7.90	8.27	7.81	8.07	8.23	7.99	7.92	8.27	8.44	7.76	8.26	7.53	8.29	8.04	7.92																
N	722	291	215	216	62	320	393	264	458	440	282	567	155	112	109	107	92	97	115	89	297	142	283																
Express Participant Survey Results																																							
PE15. How likely will you be to actively consider energy-efficient products when installing or replacing equipment in the future? Give a rating from 1 to 10, where 10 means you're EXTREMELY likely to consider energy-efficient products.	Total	Very Small				Renter		Owner		Rural		Urban		English		Other Language		Any HTR		Non HTR		Office		Retail		Restaurant/Grocery		Institutional		Industrial		Misc. Commercial		Agriculture		PGE	SDGE	SCGE	SCG
	Extremely	79%	80%	77%	84%	94%	76%	81%	82%	79%	80%	79%	80%	79%	83%	71%	75%	78%	76%	84%	94%	80%	79%	77%	86%														
Somewhat	16%	15%	20%	13%	6%	20%	15%	11%	18%	16%	17%	16%	18%	14%	23%	16%	22%	16%	15%	6%	15%	20%	17%	14%															
Not at all	3%	3%	2%	2%	0%	4%	2%	4%	2%	2%	3%	3%	2%	2%	4%	6%	0%	6%	0%	0%	3%	1%	4%	0%															
Don't know/refused	2%	2%	1%	2%	0%	1%	2%	3%	1%	3%	0%	2%	2%	1%	2%	3%	0%	2%	1%	0%	2%	0%	3%	0%															
Mean	8.75	8.78	8.61	8.94	9.19	8.57	8.87	8.97	8.68	8.77	8.73	8.76	8.74	8.93	8.34	8.49	8.71	8.33	9.02	9.44	8.80	8.74	8.63	8.96															
N	584	255	209	120	16	198	377	148	436	349	235	391	193	166	97	69	41	49	146	16	208	110	194	72															

**Exhibit 6-19**  
**Actions in Absence of Program**

General Population Survey Results																									
	Total	Very Small	Small	Medium	Large	Tenant	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG		
PE1. If the rebate program had NOT existed, would your company have:																									
Bought NO equipment																									
Bought the SAME HIGH efficiency equipment																									
Bought STANDARD or less efficient equipment																									
Bought the SAME, but at a LATER date																									
Other																									
Don't know																									
N																									
Express Participant Survey Results																									
	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG	
PE1. If the rebate program had NOT existed, would your company have:																									
Bought NO equipment	19%	21%	19%	17%	6%	23%	18%	21%	19%	21%	17%	20%	18%	19%	24%	14%	24%	22%	18%	13%	20%	27%	18%	8%	
Bought the SAME HIGH efficiency equipment	37%	35%	38%	39%	44%	35%	38%	37%	37%	38%	36%	36%	40%	41%	32%	45%	41%	35%	31%	44%	35%	28%	37%	58%	
Bought STANDARD or less efficient equipment	13%	14%	15%	10%	6%	12%	14%	14%	13%	14%	13%	15%	10%	12%	13%	13%	5%	14%	16%	25%	13%	9%	16%	11%	
Bought the SAME, but at a LATER date	27%	27%	23%	33%	38%	26%	27%	25%	27%	24%	30%	26%	28%	24%	27%	25%	29%	20%	33%	19%	28%	32%	25%	21%	
Other	1%	1%	0%	1%	6%	1%	1%	1%	0%	1%	0%	1%	1%	1%	0%	0%	0%	4%	0%	0%	0%	1%	0%	1%	
Don't know	3%	2%	5%	1%	0%	4%	3%	3%	3%	3%	3%	3%	4%	4%	4%	3%	0%	4%	3%	0%	3%	3%	4%	0%	
N	584	255	209	120	16	198	377	148	436	349	235	391	193	166	97	69	41	49	146	16	208	110	194	72	

**Exhibit 6-20  
Early Replacement - Lighting**

General Population Survey Results																								
E 15. Overall, which of the following statements best describes the performance and operating condition of the <b>lighting equipment</b> before you replaced it?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
OLD equipment had failed	12%	9%	14%	12%	2%	11%	13%	22%	7%	14%	10%	17%	5%	10%	5%	8%	13%	18%	13%	42%	19%	3%	8%	
New equipment-did NOT replace anything	4%	8%	0%	6%	14%	10%	2%	1%	6%	4%	4%	5%	4%	0%	7%	7%	9%	0%	4%	2%	3%	3%	6%	
OLD equipment was working fine	57%	63%	62%	51%	60%	52%	58%	56%	57%	56%	57%	55%	59%	66%	44%	64%	55%	44%	59%	30%	58%	75%	52%	
OLD equipment had problems	26%	19%	24%	29%	9%	27%	26%	21%	29%	24%	29%	23%	31%	20%	44%	21%	23%	38%	24%	26%	20%	11%	34%	
Don't Know	1%	0%	0%	2%	15%	0%	1%	0%	1%	1%	0%	0%	2%	4%	0%	0%	0%	0%	0%	0%	0%	8%	0%	
N	162	58	49	55	23	51	108	61	101	94	68	112	50	24	21	32	25	16	31	13	71	29	62	
Express Participant Survey Results																								
A140. What was the operating condition of [LIGHTING MEASURE] before you replaced it?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
OLD equipment had failed	6%	6%	5%	6%	0%	6%	6%	7%	6%	6%	6%	7%	4%	6%	4%	4%	3%	12%	7%	0%	8%	7%	4%	0%
New equipment-did NOT replace anything	5%	8%	2%	5%	26%	5%	5%	10%	3%	7%	3%	6%	3%	6%	5%	0%	0%	7%	7%	0%	5%	5%	5%	0%
OLD equipment was working fine	79%	76%	84%	80%	74%	82%	78%	74%	81%	78%	82%	77%	84%	78%	83%	84%	90%	79%	76%	93%	75%	80%	83%	0%
OLD equipment had problems	9%	9%	8%	9%	0%	7%	10%	9%	9%	10%	7%	9%	9%	7%	9%	12%	7%	1%	11%	7%	12%	7%	6%	0%
Don't Know	1%	1%	1%	0%	0%	0%	1%	0%	1%	0%	2%	1%	1%	3%	0%	0%	0%	0%	0%	0%	0%	2%	2%	0%
N*	364	173	122	69	3	135	222	91	273	209	155	249	115	105	60	41	19	28	104	7	132	82	150	0

\* N is for the total number of measures. One customer can have more than one measure.

**Exhibit 6-21**  
**Early Replacement - Cooling**

General Population Survey Results																								
E 50. Overall, which of the following statements best describes the performance and operating condition of the <b>cooling equipment</b> before you replaced it?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCF/SCG	
OLD equipment had failed	21%	19%	32%	16%	0%	21%	21%	22%	20%	21%	21%	23%	18%	16%	12%	23%	22%	16%	40%	11%	25%	38%	14%	
New equipment-did NOT replace anything	13%	27%	10%	11%	25%	14%	12%	10%	14%	12%	13%	14%	11%	15%	14%	20%	11%	4%	4%	4%	7%	13%	16%	
OLD equipment was working fine	20%	25%	18%	20%	20%	10%	23%	11%	24%	20%	19%	13%	29%	16%	11%	18%	39%	27%	13%	26%	21%	18%	19%	
OLD equipment had problems	45%	24%	36%	54%	56%	55%	42%	54%	41%	47%	42%	48%	42%	53%	53%	39%	28%	49%	43%	53%	46%	29%	48%	
Refused/Don't know	2%	5%	4%	0%	0%	0%	2%	4%	1%	1%	4%	3%	0%	0%	10%	0%	0%	5%	0%	5%	0%	2%	2%	
N	134	41	42	51	19	36	97	51	83	85	49	94	40	31	15	16	29	14	19	9	50	27	57	
Express Participant Survey Results																								
A140. What was the operating condition of [HVAC MEASURE] before you replaced it?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCF	SCG
OLD equipment had failed	17%	16%	16%	20%	22%	9%	20%	11%	22%	15%	21%	14%	28%	20%	20%	17%	12%	19%	15%	0%	9%	22%	31%	0%
New equipment-did NOT replace anything	22%	25%	13%	25%	22%	40%	15%	16%	26%	17%	29%	22%	20%	29%	37%	9%	3%	25%	12%	63%	21%	39%	17%	0%
OLD equipment was working fine	27%	21%	30%	34%	0%	21%	30%	29%	26%	29%	24%	26%	30%	21%	11%	46%	41%	19%	34%	15%	32%	9%	23%	0%
OLD equipment had problems	32%	36%	41%	20%	55%	27%	34%	41%	26%	37%	24%	36%	21%	26%	26%	28%	45%	36%	40%	22%	36%	30%	27%	0%
Don't Know	2%	2%	0%	2%	0%	2%	1%	2%	1%	2%	1%	2%	0%	3%	6%	0%	0%	0%	0%	0%	2%	0%	2%	0%
N*	143	53	48	42	5	40	102	46	97	93	50	98	45	52	16	8	16	12	35	4	56	23	64	0

\* N is for the total number of measures. One customer can have more than one measure.

**Exhibit 6-22**  
**Importance of Energy Efficiency to Decision Makers**

General Population Survey Results																								
PE25. In general, do the decision makers at your business find energy efficiency very important, somewhat important, not very important, or not at all important?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Very Important	61%	59%	63%	61%	65%	53%	67%	67%	58%	65%	56%	58%	68%	55%	53%	67%	76%	62%	62%	63%	66%	67%	56%	
Somewhat Important	34%	35%	32%	34%	34%	40%	30%	30%	36%	31%	37%	36%	27%	41%	41%	27%	24%	30%	33%	34%	31%	30%	37%	
Not very Important	3%	6%	2%	3%	1%	5%	3%	1%	5%	2%	5%	3%	3%	4%	4%	4%	0%	6%	3%	0%	2%	2%	5%	
Not at all Important	2%	1%	3%	1%	0%	2%	1%	2%	1%	1%	2%	2%	1%	0%	2%	2%	0%	3%	1%	3%	1%	0%	2%	
N	728	287	222	219	67	324	396	265	463	443	285	573	155	111	111	111	95	97	112	90	301	144	283	
Express Participant Survey Results																								
PE25. In general, do the decision makers at your business find energy efficiency very important, somewhat important, not very important, or not at all important?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Very Important																								
Somewhat Important																								
Not very Important																								
Not at all Important																								
N																								

**Exhibit 6-23**  
**Customer Knowledge of Energy Efficiency**

General Population Survey Results																								
PE 30. Please rate how knowledgeable you feel that you are about what energy efficiency products are available, and how they'll perform.	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Very	23%	20%	26%	24%	62%	22%	23%	23%	23%	26%	18%	22%	26%	20%	23%	32%	35%	14%	21%	30%	23%	22%	23%	
Somewhat	55%	58%	47%	60%	38%	52%	57%	55%	54%	53%	58%	55%	51%	56%	55%	43%	47%	66%	58%	41%	62%	48%	47%	
Not at all	23%	22%	27%	15%	1%	26%	19%	22%	23%	22%	24%	22%	23%	24%	22%	25%	18%	20%	21%	29%	14%	30%	30%	
Don't know/refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Mean	5.51	5.52	5.33	5.85	7.29	5.30	5.66	5.59	5.46	5.58	5.38	5.52	5.47	5.32	5.75	5.77	5.96	5.32	5.39	5.51	5.83	5.38	5.18	
N	732	290	223	219	67	328	395	266	466	446	286	576	156	113	110	110	97	98	115	88	302	145	285	
Note that ratings are based on a scale from 1=not knowledgeable at all to 10=fully knowledgeable																								
Express Participant Survey Results																								
PE 30. Please rate how knowledgeable you feel that you are about what energy efficiency products are available, and how they'll perform.	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Very	20%	20%	20%	21%	38%	21%	20%	18%	21%	19%	23%	21%	19%	19%	24%	20%	24%	20%	18%	31%	20%	26%	18%	21%
Somewhat	58%	56%	57%	65%	63%	59%	59%	63%	57%	58%	59%	57%	61%	57%	51%	61%	66%	63%	62%	44%	55%	53%	62%	64%
Not at all	21%	23%	22%	14%	0%	19%	20%	19%	21%	23%	17%	21%	19%	23%	25%	19%	10%	16%	19%	25%	25%	21%	18%	15%
Don't know/refused	1%	1%	1%	0%	0%	1%	1%	1%	1%	1%	1%	1%	2%	1%	1%	0%	0%	0%	1%	0%	0%	0%	2%	0%
Mean	5.47	5.38	5.34	5.89	6.81	5.58	5.45	5.38	5.50	5.32	5.71	5.45	5.52	5.23	5.56	5.55	6.37	5.57	5.38	5.44	5.27	5.62	5.45	5.92
N	584	255	209	120	16	198	377	148	436	349	235	391	193	166	97	69	41	49	146	16	208	110	194	72

Note that ratings are based on a scale from 1=not knowledgeable at all to 10=fully knowledgeable

**Exhibit 6-24**  
**Participant Knowledge of Energy Efficiency Before Participating in Program**

		General Population Survey Results																							
PE33. Please rate how knowledgeable you feel that you were BEFORE participating in the rebate program about what energy efficiency products are available, and how they'll perform.		Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Very																									
Somewhat																									
Not at all																									
Don't know/refused																									
Mean																									
N																									
Note that ratings are based on a scale from 1=not knowledgeable at all to 10=fully knowledgeable																									
		Express Participant Survey Results																							
PE33. Please rate how knowledgeable you feel that you were BEFORE participating in the rebate program about what energy efficiency products are available, and how they'll perform.		Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Very		12%	13%	11%	13%	8%	14%	11%	11%	13%	13%	12%	13%	11%	13%	19%	5%	18%	12%	10%	27%	13%	19%	10%	15%
Somewhat		45%	45%	42%	54%	59%	45%	46%	46%	45%	41%	52%	45%	46%	47%	35%	51%	53%	51%	44%	39%	42%	40%	49%	49%
Not at all		42%	42%	45%	33%	33%	40%	42%	43%	41%	46%	35%	42%	42%	40%	44%	43%	30%	37%	45%	34%	45%	41%	39%	36%
Don't know/refused		1%	1%	1%	0%	0%	1%	1%	0%	1%	1%	1%	1%	2%	0%	3%	0%	0%	0%	2%	0%	0%	0%	2%	0%
Mean		4.27	4.31	4.04	4.63	4.21	4.45	4.21	4.06	4.36	4.15	4.46	4.26	4.28	4.34	4.49	4.06	4.79	4.59	4.02	4.61	4.12	4.54	4.31	4.69
N		584	255	209	120	16	198	377	148	436	349	235	391	193	166	97	69	41	49	146	16	208	110	194	72

Note that ratings are based on a scale from 1=not knowledgeable at all to 10=fully knowledgeable

APPENDIX 7:  
CUSTOMER FIRMOGRAPHICS



# Guide to Process Assessment Data Tables (Appendix 7)

## *General Population Customer Survey*

Customer population results are presented in the upper panel of data tables. Population-level data is segmented as follows:

- **Total:** overall self-report customer data.
- **Size:** Customers are segmented by very small (0-20kW), small (20-100kW), medium (100-500kW) and large (>500kW).
- **Renter/owner.** This information comes from customer's self-reported response to whether facilities are leased or owned.
- **Urban/rural.** This segment is based on urban/rural zip codes provided by the IOUs.
- **English/other language.** This segment is based on self-reported respondent data on primary language spoken at the business.
- **Any HTR/non-HTR:** the "any HTR" segment includes businesses where the primary language spoken is other than English, businesses located in areas other than the San Francisco Bay Area, San Diego area, Los Angeles Basin or the City of Sacramento, very small businesses using less than 20kW or less than 10 employees, and customers who lease rather than own their facilities. The non-HTR segment captures English-speaking, non-rural businesses who own their facilities and use more than 20kW or employ 10 or more employees. The non-HTR segment captures English-speaking, urban businesses that own their facilities and use more than 20kW.
- **Business Type.** survey responses are segmented by seven business types: office, retail, restaurant and grocery, institutional, industrial, miscellaneous commercial and agriculture.
- **IOUs:** 305 PG&E customers, 291 SCE/SCG customers and 145 SDG&E customers were interviewed. One sample represented both SCE and SCG because they serve much of the same territory.

### ***Express Participant Survey***

Express Efficiency participant results are presented in the lower panel of each exhibit from 584 customer participants surveyed in July 2003.

Participant data tables are segmented similarly to the general population (above), with a few differences.

- **All customers.**
- Hard-to-reach customers. Survey respondents and CIS data were used to classify each respondent into one or more of the HTR segments. The residential HTR definitions provided by the CPUC are:
  - **Urban/rural.** The IOUs define rural HTR customers by zip codes. For example, PG&E uses only geography to define HTR in their service territory, where zip codes outside the 9 Bay Area counties are considered HTR.
  - **English/other language.** Primary languages other than English include respondents who indicated they spoke a non-English language at their business.
  - **Tenant/building owner.** This information comes from customer's self-reported facility ownership.
  - **Size.** Customers are segmented by very small (0-20kW), small (20-100kW), medium (100-500kW) and large (>500kW). Large customers are moved from the segment totals because they are not considered eligible for the program, but we do at times report them separately because large customer data illustrate differences between large and small customers. Small customers are those with usage less than 100kW.
  - **Any HTR/Non-HTR:** this segment includes respondents whose businesses is located in a rural area, speak a language other than English at the business, lease a facility, or use less than 20kW.
- **IOU:** Participants are segmented by PG&E, SCE, SCG and SDG&E.
- **Business Type:** survey responses are segmented by seven business types: office, retail, restaurant and grocery, institutional, industrial, miscellaneous commercial and agriculture.

**Exhibit 7-1**

General Population Survey Results																								
F1. Can you estimate the total square footage of your facility at this location?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Less than 2,500 square feet	19%	46%	23%	6%	11%	25%	14%	22%	18%	21%	18%	24%	7%	13%	27%	26%	8%	10%	14%	40%	24%	20%	15%	
2,500 but less than 5,000 square feet	14%	20%	22%	6%	1%	18%	10%	14%	14%	12%	17%	16%	9%	15%	13%	23%	5%	9%	11%	11%	11%	18%	15%	
5,000 but less than 10,000 square feet	14%	12%	17%	14%	3%	14%	14%	13%	15%	13%	15%	15%	13%	17%	11%	17%	6%	16%	16%	9%	17%	15%	12%	
10,000 but less than 20,000 square feet	13%	8%	18%	13%	2%	15%	13%	15%	13%	15%	12%	14%	13%	10%	10%	12%	19%	23%	15%	9%	13%	13%	14%	
20,000 but less than 50,000 square feet	21%	10%	11%	33%	10%	17%	25%	22%	21%	23%	19%	19%	28%	20%	28%	16%	18%	22%	30%	8%	18%	22%	25%	
50,000 but less than 100,000 square feet	11%	3%	4%	19%	41%	8%	13%	7%	13%	10%	13%	9%	18%	16%	9%	4%	24%	16%	10%	2%	12%	8%	12%	
Ag/Non-facility - Outdoors	1%	1%	3%	1%	6%	0%	2%	2%	1%	2%	1%	1%	2%	1%	0%	0%	0%	0%	1%	12%	1%	2%	1%	
Over 100,000 square feet	5%	0%	3%	9%	26%	2%	8%	5%	5%	5%	6%	3%	11%	8%	2%	2%	20%	3%	3%	9%	4%	2%	7%	
Don't know	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
N	668	272	202	194	61	308	354	243	425	408	260	533	135	105	105	100	80	94	102	81	271	134	263	
Express Participant Survey Results																								
F1. Can you estimate the total square footage of your facility at this location?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Less than 2,500 square feet	19%	31%	9%	4%	0%	38%	10%	17%	19%	16%	23%	26%	3%	15%	39%	37%	12%	20%	5%	4%	19%	16%	19%	18%
2,500 but less than 5,000 square feet	15%	17%	17%	9%	0%	19%	13%	21%	13%	17%	13%	18%	9%	10%	24%	26%	1%	14%	14%	0%	18%	11%	14%	4%
5,000 but less than 10,000 square feet	12%	14%	12%	8%	20%	13%	12%	14%	11%	13%	11%	14%	9%	14%	15%	13%	14%	11%	10%	0%	14%	8%	12%	7%
10,000 but less than 20,000 square feet	12%	10%	14%	11%	7%	8%	14%	9%	13%	13%	10%	10%	15%	11%	4%	3%	16%	11%	20%	15%	12%	10%	13%	4%
20,000 but less than 50,000 square feet	13%	8%	16%	23%	31%	11%	15%	13%	13%	11%	17%	11%	19%	21%	7%	4%	23%	21%	11%	28%	10%	18%	16%	11%
50,000 but less than 100,000 square feet	11%	6%	12%	20%	5%	4%	14%	11%	10%	13%	7%	8%	17%	15%	5%	3%	8%	11%	13%	14%	11%	9%	10%	11%
Ag/Non-facility - Outdoors	0%	0%	1%	0%	0%	0%	1%	0%	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	1%	10%	1%	0%	0%	0%
Over 100,000 square feet	6%	3%	5%	18%	33%	1%	8%	3%	7%	5%	8%	4%	11%	8%	2%	1%	13%	2%	9%	7%	4%	11%	3%	38%
Don't know	12%	10%	15%	8%	4%	6%	14%	10%	12%	12%	10%	10%	15%	7%	5%	12%	13%	9%	18%	22%	10%	17%	13%	7%
N	584	255	209	120	16	198	377	148	436	349	235	391	193	166	97	69	41	49	146	16	208	110	194	72

Exhibit 7-2

General Population Survey Results																								
F5. Which of the following categories describes the number of employees your firm has at this location?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
1 to 5	22%	57%	25%	6%	7%	26%	19%	26%	20%	24%	19%	27%	11%	26%	30%	18%	10%	13%	19%	39%	28%	29%	14%	
6 to 10	15%	22%	23%	7%	10%	14%	16%	16%	14%	18%	11%	16%	14%	22%	23%	9%	2%	13%	16%	13%	15%	14%	15%	
11 to 20	16%	13%	27%	11%	0%	20%	13%	19%	15%	14%	18%	18%	12%	10%	11%	24%	4%	18%	24%	11%	14%	19%	17%	
21 to 50	23%	5%	18%	34%	5%	24%	23%	18%	26%	22%	25%	21%	29%	17%	20%	25%	31%	31%	26%	15%	19%	15%	29%	
51 to 100	12%	1%	4%	21%	15%	10%	14%	10%	13%	11%	14%	9%	18%	12%	12%	16%	17%	13%	5%	11%	12%	11%	12%	
Over 100	12%	1%	3%	21%	63%	8%	14%	11%	12%	11%	12%	10%	17%	13%	4%	8%	36%	12%	11%	10%	12%	13%	12%	
Don't know/refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
N	718	284	218	216	64	325	386	259	459	434	284	565	153	108	108	111	96	98	111	85	292	142	284	
Express Participant Survey Results																								
F5. Which of the following categories describes the number of employees your firm has at this location?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
1 to 5	37%	56%	25%	7%	5%	39%	35%	34%	38%	42%	28%	43%	22%	40%	50%	29%	0%	26%	40%	28%	37%	29%	39%	29%
6 to 10	16%	19%	17%	7%	0%	22%	14%	23%	13%	14%	20%	19%	9%	14%	18%	24%	6%	22%	14%	34%	15%	12%	20%	4%
11 to 20	16%	16%	18%	11%	20%	13%	17%	19%	14%	13%	19%	15%	17%	16%	15%	7%	14%	14%	21%	3%	18%	20%	13%	4%
21 to 50	17%	5%	27%	31%	19%	17%	17%	13%	19%	15%	20%	13%	27%	15%	11%	26%	21%	21%	16%	22%	16%	19%	19%	14%
51 to 100	6%	1%	3%	25%	4%	5%	7%	5%	6%	7%	4%	4%	11%	6%	2%	6%	26%	8%	5%	0%	6%	8%	6%	3%
Over 100	6%	1%	7%	19%	52%	4%	8%	4%	7%	6%	8%	4%	12%	7%	3%	1%	32%	9%	5%	6%	6%	7%	2%	43%
Don't know/refused	2%	2%	3%	0%	0%	0%	2%	3%	2%	2%	1%	2%	2%	3%	1%	5%	1%	0%	1%	7%	2%	4%	1%	3%
N	584	255	209	120	16	198	377	148	436	349	235	391	193	166	97	69	41	49	146	16	208	110	194	72

Exhibit 7-3

General Population Survey Results																								
F10. How many locations does your firm have?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
1	51%	71%	60%	36%	37%	52%	50%	50%	51%	52%	48%	53%	44%	52%	51%	50%	22%	67%	48%	56%	53%	50%	48%	
2 to 4	21%	16%	19%	24%	17%	22%	20%	23%	20%	19%	23%	22%	17%	21%	16%	20%	21%	22%	25%	21%	21%	20%	21%	
5 to 10	8%	7%	4%	11%	12%	8%	8%	10%	7%	8%	9%	8%	8%	7%	9%	7%	19%	5%	7%	10%	7%	9%	9%	
11 to 25	8%	2%	4%	13%	8%	4%	10%	4%	10%	8%	7%	4%	16%	9%	2%	8%	17%	6%	8%	9%	5%	9%	10%	
Over 25	13%	4%	12%	16%	26%	13%	12%	13%	13%	13%	13%	12%	14%	11%	22%	15%	21%	0%	13%	4%	14%	13%	12%	
Don't know/refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
N	730	291	222	217	64	330	393	264	466	445	285	576	154	113	111	111	95	99	113	87	300	142	288	
Express Participant Survey Results																								
F10. How many locations does your firm have in California?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
1	63%	72%	59%	47%	23%	70%	60%	63%	63%	61%	66%	67%	53%	62%	68%	60%	40%	85%	62%	62%	62%	56%	69%	38%
2 to 4	17%	17%	19%	16%	15%	18%	17%	16%	18%	16%	19%	17%	18%	10%	21%	25%	11%	10%	21%	7%	18%	20%	17%	15%
5 to 10	7%	4%	6%	16%	18%	8%	6%	11%	5%	8%	5%	8%	5%	7%	9%	5%	17%	4%	5%	12%	8%	11%	5%	10%
11 to 25	5%	2%	6%	9%	29%	1%	6%	4%	5%	5%	4%	2%	10%	7%	0%	1%	23%	0%	4%	7%	5%	9%	4%	7%
Over 25	7%	4%	8%	11%	16%	3%	9%	5%	8%	7%	6%	4%	12%	12%	1%	5%	9%	1%	8%	12%	7%	4%	5%	26%
Don't know/refused	1%	1%	2%	1%	0%	0%	1%	2%	1%	2%	0%	1%	1%	1%	2%	3%	0%	0%	0%	0%	1%	0%	1%	4%
N	584	255	209	120	16	198	377	148	436	349	235	391	193	166	97	69	41	49	146	16	208	110	194	72

Exhibit 7-4

		General Population Survey Results																						
F15. What is the main activity at your business?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCES/CC	
Office	7%	9%	7%	7%	10%	8%	8%	5%	9%	10%	3%	7%	9%	23%	3%	0%	1%	8%	5%	6%	6%	6%	9%	
Retail (non-food)	11%	17%	11%	8%	4%	16%	7%	10%	12%	12%	9%	13%	6%	3%	47%	7%	1%	1%	7%	3%	11%	11%	10%	
College/university	0%	0%	0%	1%	1%	0%	1%	0%	0%	1%	0%	0%	1%	0%	0%	0%	5%	0%	0%	1%	1%	0%	0%	
School	4%	2%	2%	6%	8%	1%	6%	4%	4%	5%	2%	3%	6%	2%	0%	1%	44%	0%	0%	4%	3%	4%	4%	
Grocery store	3%	1%	4%	4%	1%	3%	4%	3%	3%	4%	2%	3%	4%	0%	0%	16%	0%	1%	1%	2%	5%	4%	4%	
Convenience store	2%	0%	6%	1%	0%	3%	2%	3%	2%	2%	3%	3%	1%	0%	11%	3%	0%	0%	0%	1%	1%	4%	4%	
Restaurant	12%	10%	18%	8%	0%	20%	6%	10%	13%	8%	16%	14%	6%	0%	3%	57%	0%	0%	1%	10%	11%	13%	13%	
Health care/hospital	4%	3%	4%	5%	4%	5%	4%	3%	5%	3%	6%	4%	4%	6%	3%	0%	19%	1%	5%	3%	7%	4%	4%	
Hotel or motel	2%	3%	2%	2%	1%	0%	3%	3%	2%	2%	3%	2%	3%	0%	0%	0%	0%	0%	13%	3%	1%	2%	2%	
Warehouse	2%	4%	2%	1%	1%	3%	1%	1%	2%	1%	3%	2%	1%	1%	0%	0%	0%	2%	9%	2%	0%	2%	2%	
Personal service	2%	7%	2%	0%	1%	5%	0%	1%	3%	3%	1%	3%	1%	1%	7%	2%	0%	3%	1%	2%	4%	2%	2%	
Community service/church/temple/municipality	9%	11%	7%	11%	3%	3%	14%	12%	8%	11%	7%	7%	14%	25%	1%	4%	21%	0%	11%	8%	7%	11%	11%	
Industrial process/manufacturing/assembly	11%	5%	7%	17%	33%	12%	11%	7%	14%	9%	15%	10%	16%	5%	9%	0%	1%	51%	12%	7%	13%	16%	16%	
Condo assoc/apartment mgmt	1%	1%	0%	1%	1%	0%	1%	1%	1%	1%	1%	2%	0%	0%	0%	1%	0%	1%	1%	1%	1%	0%	0%	
Agriculture	5%	1%	8%	4%	0%	1%	7%	11%	1%	4%	5%	5%	3%	1%	0%	0%	0%	1%	0%	10%	1%	1%	1%	
Other	24%	26%	20%	25%	33%	22%	24%	25%	23%	23%	24%	24%	23%	33%	17%	10%	7%	31%	35%	29%	28%	17%	17%	
Don't know/refused	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	
N	741	297	225	219	67	333	399	269	472	451	290	585	156	113	113	111	97	101	115	90	305	145	291	
		Express Participant Survey Results																						
F15. What is the main activity at your business?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCGE	SCG
Office	5%	6%	3%	5%	0%	4%	5%	6%	4%	5%	4%	5%	5%	15%	2%	0%	4%	3%	2%	4%	7%	5%	8%	
Retail (non-food)	12%	20%	6%	2%	4%	27%	5%	16%	10%	15%	8%	17%	2%	6%	56%	6%	2%	9%	1%	14%	8%	12%	3%	
College/university	0%	0%	1%	1%	4%	0%	1%	1%	0%	0%	1%	0%	1%	0%	0%	0%	8%	0%	0%	1%	0%	0%	1%	
School	3%	1%	2%	11%	16%	2%	3%	2%	3%	2%	5%	2%	5%	5%	0%	0%	35%	0%	0%	3%	4%	2%	8%	
Grocery store	2%	2%	2%	2%	5%	3%	1%	3%	1%	2%	2%	3%	0%	0%	1%	12%	0%	0%	0%	3%	1%	1%	0%	
Convenience store	2%	1%	3%	0%	0%	1%	2%	0%	2%	0%	4%	1%	2%	0%	3%	8%	0%	0%	0%	2%	0%	1%	0%	
Restaurant	10%	7%	15%	4%	0%	18%	5%	7%	11%	7%	14%	10%	9%	0%	0%	66%	0%	0%	1%	11%	4%	10%	7%	
Health care/hospital	5%	3%	5%	7%	0%	7%	4%	2%	6%	5%	4%	4%	5%	6%	0%	0%	34%	0%	4%	4%	6%	5%	1%	
Hotel or motel	24%	20%	28%	28%	26%	2%	36%	27%	23%	26%	22%	19%	36%	4%	2%	4%	0%	0%	71%	23%	28%	27%	8%	
Warehouse	2%	1%	2%	1%	0%	2%	1%	1%	2%	1%	2%	2%	1%	1%	3%	0%	0%	0%	3%	2%	0%	1%	0%	
Personal service	4%	6%	3%	0%	4%	5%	3%	1%	5%	3%	5%	5%	2%	2%	11%	3%	2%	0%	3%	3%	4%	3%	14%	
Community service/church/temple/municipality	8%	11%	3%	7%	13%	2%	10%	11%	6%	9%	6%	8%	6%	27%	0%	0%	7%	0%	1%	11%	6%	5%	1%	
Industrial process/manufacturing/assembly	7%	6%	6%	13%	0%	12%	5%	6%	8%	7%	8%	7%	7%	2%	9%	0%	0%	58%	4%	5%	4%	10%	14%	
Condo assoc/apartment mgmt	3%	4%	2%	3%	0%	0%	4%	1%	3%	3%	3%	3%	2%	9%	0%	1%	0%	0%	1%	1%	3%	3%	10%	
Agriculture	1%	0%	2%	1%	4%	0%	1%	2%	0%	0%	1%	1%	0%	0%	0%	0%	0%	0%	46%	1%	3%	0%	0%	
Other	14%	11%	16%	15%	26%	15%	13%	14%	14%	15%	11%	13%	16%	23%	13%	1%	8%	30%	8%	12%	22%	12%	22%	
Don't know/refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	1%	
N	584	255	209	120	16	198	377	148	436	349	235	391	193	166	97	69	41	49	146	16	208	110	194	72

Exhibit 7-5

General Population Survey Results																								
F20. In the last two years, have there been any changes at your facility that increased or decreased your energy consumption by 10% or more?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Yes	22%	13%	22%	26%	45%	15%	27%	20%	24%	24%	20%	18%	33%	26%	19%	27%	46%	14%	17%	7%	22%	25%	21%	
No	77%	86%	76%	74%	54%	85%	73%	80%	76%	76%	79%	81%	67%	74%	81%	71%	54%	85%	83%	90%	76%	75%	78%	
Refused	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Don't know	1%	0%	2%	0%	1%	1%	0%	1%	0%	0%	1%	1%	0%	0%	0%	1%	0%	0%	0%	3%	1%	0%	0%	
N	741	297	225	219	67	333	399	269	472	451	290	585	156	113	113	111	97	101	115	90	305	145	291	
Express Participant Survey Results																								
F20. In the last two years, have there been any changes at your facility that increased or decreased your energy consumption by 10% or more?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Yes	29%	27%	31%	32%	63%	26%	31%	28%	30%	29%	30%	27%	33%	38%	21%	23%	55%	16%	28%	20%	26%	39%	27%	50%
No	70%	73%	67%	68%	37%	74%	68%	71%	70%	70%	70%	72%	65%	62%	79%	77%	45%	84%	71%	73%	73%	60%	72%	49%
Refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	1%
Don't know	1%	0%	1%	0%	0%	0%	1%	0%	1%	1%	0%	0%	1%	0%	0%	0%	0%	0%	1%	7%	0%	1%	1%	0%
N	584	255	209	120	16	198	377	148	436	349	235	391	193	166	97	69	41	49	146	16	208	110	194	72

Exhibit 7-6

General Population Survey Results																								
F25. Has the square footage changed?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG	
Yes - it increased	6%	5%	4%	7%	14%	2%	9%	6%	6%	6%	5%	4%	10%	4%	4%	6%	19%	2%	8%	1%	5%	4%	7%	
Yes - it decreased	1%	2%	2%	0%	0%	1%	0%	1%	1%	1%	1%	1%	0%	2%	0%	0%	1%	2%	0%	1%	0%	1%		
No change	93%	93%	94%	92%	85%	97%	90%	91%	93%	93%	93%	94%	90%	94%	96%	92%	80%	95%	92%	96%	93%	96%	91%	
Refused	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Don't know	1%	0%	1%	0%	1%	0%	0%	2%	0%	0%	1%	1%	0%	0%	0%	1%	1%	1%	0%	3%	1%	0%	0%	
N	741	297	225	219	67	333	399	269	472	451	290	585	156	113	113	111	97	101	115	90	305	145	291	
Express Participant Survey Results																								
F25. Has the square footage changed?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Yes - it increased	5%	5%	5%	5%	26%	4%	6%	6%	5%	5%	6%	5%	5%	9%	3%	7%	11%	4%	1%	11%	6%	9%	4%	6%
Yes - it decreased	2%	1%	3%	0%	0%	2%	1%	3%	1%	1%	3%	2%	1%	2%	2%	4%	7%	0%	0%	0%	1%	2%	2%	4%
No change	93%	93%	91%	95%	74%	93%	93%	91%	93%	94%	91%	92%	93%	88%	95%	89%	81%	96%	99%	82%	93%	89%	94%	88%
Refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	1%
Don't know	0%	0%	1%	0%	0%	0%	1%	0%	0%	0%	1%	0%	1%	1%	0%	0%	1%	0%	0%	7%	0%	0%	0%	1%
N	584	255	209	120	16	198	377	148	436	349	235	391	193	166	97	69	41	49	146	16	208	110	194	72



**Exhibit 7-7**

General Population Survey Results																							
F30. Has the number of employees changed?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE/SCG
Yes - it increased	12%	11%	9%	14%	24%	12%	12%	14%	11%	10%	15%	13%	11%	13%	8%	16%	15%	13%	10%	8%	11%	11%	14%
Yes - it decreased	16%	11%	16%	18%	11%	22%	12%	13%	17%	14%	19%	17%	13%	13%	11%	20%	15%	36%	9%	8%	14%	21%	17%
No change	70%	76%	73%	65%	63%	63%	74%	71%	69%	73%	65%	68%	74%	73%	79%	63%	70%	46%	79%	77%	73%	67%	68%
Refused	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Don't know	2%	1%	2%	3%	3%	2%	2%	2%	2%	3%	1%	2%	2%	1%	1%	1%	0%	3%	2%	7%	2%	2%	2%
N	741	297	225	219	67	333	399	269	472	451	290	585	156	113	113	111	97	101	115	90	305	145	291

Express Participant Survey Results																								
F30. Has the number of employees changed?	Total	Very Small	Small	Medium	Large	Renter	Owner	Rural	Urban	English	Other Language	Any HTR	Non HTR	Office	Retail	Restaurant/Grocery	Institutional	Industrial	Misc. Commercial	Agriculture	PGE	SDGE	SCE	SCG
Yes - it increased	10%	9%	8%	17%	14%	11%	9%	10%	10%	8%	13%	9%	12%	11%	11%	1%	22%	15%	9%	11%	9%	16%	10%	8%
Yes - it decreased	8%	7%	8%	9%	24%	10%	7%	9%	7%	7%	8%	7%	9%	7%	6%	11%	8%	14%	6%	17%	8%	4%	8%	10%
No change	81%	84%	82%	74%	62%	78%	83%	80%	82%	83%	79%	83%	78%	80%	82%	85%	71%	70%	85%	72%	82%	79%	81%	79%
Refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	1%
Don't know	1%	0%	2%	0%	0%	0%	1%	2%	1%	1%	0%	1%	1%	2%	0%	3%	0%	0%	0%	0%	1%	1%	1%	1%
N	584	255	209	120	16	198	377	148	436	349	235	391	193	166	97	69	41	49	146	16	208	110	194	72

APPENDIX 8:  
SURVEY INSTRUMENTS

## NONRESIDENTIAL GENERAL POPULATION SURVEY

### NONPARTICIPANT INTRODUCTION

Q1. Hello, this is <INTERVIEWER NAME> calling from Quantum Consulting on behalf of [&UTILITY]. May I please speak with [&PROGRAM\_CONTACT]?

May I please speak with the person at this location who is most knowledgeable about decisions affecting your energy using equipment such as cooling and lighting systems?

1	No, this person no longer works here	Q2
2	No, this person is not available right now	appoint
4	Yes	A5
77	No, Other reason (specify)	T&T
88	Refused	T&T
99	Don't know	T&T

[IF NEEDED:] This is a fact-finding survey only – we are NOT interested in selling anything, and responses will not be connected with your firm in any way. Your regulated electric utility, wants to better understand how businesses think about and manage their energy consumption.

[IF NEEDED:] The four investor-owned utilities in California are cooperating on this important study, authorized by the California Public Utilities Commission, to better understand how businesses like yours think about and manage their energy consumption. Your input is very important to the utilities and to the Commission.[DO NOT RECORD INFORMATION FOR INDIVIDUAL AT SOME OTHER BUILDING OR LOCATION. WE WANT THE INDIVIDUAL MOST KNOWLEDGEABLE ABOUT THIS LOCATION, EVEN IF BUILDING IS OWNED BY OFF-SITE MANAGER.]

[WHEN CORRECT RESPONDENT IS ON-LINE (REPEAT AS NEEDED WHEN CURRENT INDIVIDUAL IS BEST CONTACT):]

Q2. Hello, this is <INTERVIEWER NAME> calling from Quantum Consulting on behalf of [UTILITY]. I understand you are the person at this location who is most knowledgeable about decisions affecting the energy using equipment, such as cooling and lighting, at this location.

Today we're conducting a very important study on the needs and perceptions of firms like yours, how businesses like yours think about and manage their energy consumption. This survey should take no more than about 15 or 20 minutes, and it's an important opportunity to make sure your views are represented. We believe you'll find it quite interesting.

Our records show that the address for this business is [ADDRESS.] Is this correct?

IF NOT CORRECT: Could you please tell me the correct address for this business?

[IF NEEDED:] Can I confirm that you're responsible for making energy-related decisions for your firm at [ADDRESS]??

[IF NEEDED:] This is a fact-finding survey only – we are NOT interested in selling anything, and responses will not be connected with your firm in any way. [UTILITY] wants to better understand how businesses think about and manage their energy consumption.

[IF NEEDED:] The four investor-owned utilities in California are cooperating on this important study, authorized by the California Public Utilities Commission, to better understand how businesses like yours think about and manage their energy consumption. Your input is very important to the utilities and to the Commission.

1	Current individual is best contact	S1
2	Transferred to best contact	Repeat Q2 w/best contact
3	Given best contact's name and number	Record for future contact
99	Don't know/refused	Thank & terminate

[IF NEEDED] The four investor-owned utilities in California are cooperating on this important study, authorized by the California Public Utilities Commission, to better understand how businesses like yours think about and manage their energy consumption. Your input is very important to the utilities and to the Commission.

77	There is no one here with information on that address/wrong address	T&T
1	Address correct/Continue	S1

CALLBACK INTRODUCTION

Q1. Hello, this is <INTERVIEWER NAME> calling from Quantum Consulting on behalf of [UTILITY]. May I please speak [P923 RESPONDENT NAME]

We interviewed [NAME] last year about how businesses like yours think about and manage their energy consumption. We'd like to follow up on that interview to find out what has changed for your business in the past year concerning energy matters.

[If NAME is not available] Who is most knowledgeable about decisions affecting your energy using equipment such as cooling and lighting systems?

[IF NEEDED:] This is a fact-finding survey only – we are NOT interested in selling anything, and responses will not be connected with your firm in any way. Your regulated electric utility, wants to better understand how businesses think about and manage their energy consumption.

[IF NEEDED:] The four investor-owned utilities in California are working together on this important study, authorized by the California Public Utilities Commission, to better understand how businesses like yours think about and manage their energy consumption. Your input is very important to the utilities and to the Commission.[DO NOT RECORD INFORMATION FOR INDIVIDUAL AT SOME OTHER BUILDING OR LOCATION. WE WANT THE INDIVIDUAL MOST KNOWLEDGEABLE ABOUT THIS LOCATION, EVEN IF BUILDING IS OWNED BY OFF-SITE MANAGER.]

1	Current individual is best contact	Q45
2	Transferred to best contact	Q45
3	Given best contact's name and number	Record for future contact
99	Don't know/refused	Thank & terminate

[WHEN CORRECT RESPONDENT IS ON-LINE (REPEAT **AS NEEDED** WHEN CURRENT INDIVIDUAL IS BEST CONTACT):]

Q2. Hello, this is <INTERVIEWER NAME> calling from Quantum Consulting on behalf of [UTILITY]. I understand you are the person at this location who is most knowledgeable about decisions affecting the energy using equipment, such as cooling and lighting, at this location.

We interviewed your company last year and inquired about how businesses like yours responded to and manage their energy consumption. We'd like to follow up on that interview to find out what's changed for your business in the past year. This survey should take no more than about 15 or 20 minutes, and this is an important opportunity to make sure your views are represented. We believe you'll find it quite interesting.

## HE Equipment

One way that businesses can reduce their energy use is to install more energy efficient equipment. Since one of the factors that influences energy use is the kind of lighting, cooling, and other equipment a business uses, we would now like to ask you about what kinds of equipment purchases you have made since January 2002.

E1. Since January 2002, have you made any changes in indoor lighting equipment at &SERV\_ADDR other than the routine replacement of burned out bulbs? This would include changes to fixtures or ballasts, and the addition of reflectors or lighting controls.

[BR020-P923]

[2002 : NP]

1	Yes		E10
2	No Change		E30
88	Refused		E30
99	Don't Know		E30

**IF E1 = 1**

E10. What type of fixtures or ballasts were installed as part of the lighting retrofit? [SELECT ALL THAT APPLY, AFTER EACH RESPONSE, PROMPT WITH,] Did you install any other reflectors, lighting controls, or lighting fixtures?" [ **SELECT ALL THAT APPLY** ]

[BR099-P923]

[2002 : NP]

1	T8 fluorescent fixtures (1" diameter bulbs)		E10a
2	T10 fluorescent fixtures (1 1/4" diameter bulbs)		E10a
3	T12 Fixtures (1.5" diameter bulbs)		E10a
4	HID (High Density Discharge) Fixtures, Compact		E10b
5	Compact Fluorescent, Screw-in Modular		E10b
6	Compact Fluorescent, Hardwire		E10b
7	Incandescent		E10b
8	Exit Signs, Compact Fluorescent		E10b
9	Exit Signs, LED		E10b
10	Halogen		E10b
11	Install Reflectors		E10b
12	Electronic Ballast		E10b
13	Magnetic Ballast		E10b
14	Lighting Controls, Time Clock		E10b
15	Lighting Controls, Occupancy Sensor		E10b
16	Lighting Controls, Bypass/Delay Timers		E10b
17	Lighting Controls, Photocell		E10b
18	Other (PLEASE SPECIFY)		E10b
65	Other Fluorescent		E10a
66	Fat/Thick Tubes		E10a
77	Skinny/Thin Tubes		E10a
28	T5 Fixtures (5/8" diameter)		E10b

**IF E10 in (1,2,3,65,66,77)**

E10a. How many [Lighting\_Tech\_1] fixtures did you install?  
 PROBE for customer's best Guess.

&num	Number		E12
88	Refused		E12
99	Don't Know		E12

**IF E10 not in (1,2,3,65,66,77)**

E10b. How many [Lighting\_Tech\_1] did you install?  
 PROBE for customer's best Guess.

&num	Number		E12
88	Refused		E12
99	Don't Know		E12

**IF E10 = 5 OR 6**

E12. Did you buy the CFL(s) from a retailer?

1	Yes		E13
2	No		E13
88	Refused		E13
99	Don't Know		E13

E13. Which retailer?

1	Home Depot		E14
2	Costco		E14
3	Orchard Supply Hardware		E14
4	ACE Hardware		E14
4	Lowe's		E14
5	Long's		E14
6	OTHER [Specify:]		E14
99	[DO NOT READ:] DK/NA		E14

E14. Did you buy your CFLs between September and December 2002?

1	Yes		E15
2	No		E15
88	Refused		E15
99	Don't Know		E15

**IF E1 = 1**

E15. Overall, which of the following statements best describes the performance and operating condition of the lighting equipment before you replaced it?  
 [BR31-P923]  
 [2002 : NP]

1	New equipment installed did NOT replace pre-existing		E20
2	Existing equipment was fully functional		E20

3	Existing equipment was functioning, but with significant problems	E20
4	Or, existing equipment had failed or did not function	E20
99	[DO NOT READ:] DK/NA	E20

**IF E1 = 1**

E25. Who was most influential in helping you make the decision to change lighting equipment? [Accept multiples]  
 [BR40-P923]  
 [2002 : NP]

1	Energy Equipment Contractors and Installers (e.g., lighting, HVAC)	E25
2	Energy Service Companies, often referred to as ESCOs	E25
3	Your electric utility (e.g., PG&E, SCE, SDG&E)	E25
4	Equipment manufacturers	E25
5	Corporate decision	E25
6	Corporate management	E25
7	Made decision on my own	E25
8	In-house staff	E25
9	TV /radio/newspaper advertising	E25
77	Other _____	E25
99	[DON'T READ] Don't Know / Refused	E25

E30. Since January 2002, did you make any changes related to cooling at your facility, including air conditioning units, programmable thermostats, or HVAC controls?  
 [CR020-P923]  
 [2002 : NP]

1	Yes	E40
2	No Change	E65
88	Refused	E65
99	Don't Know	E65

E40. What types of equipment were installed as part of the cooling retrofit?  
 [CR099-P923] [ SELECT ALL THAT APPLY ]  
 [2002 : NP]

1	<b>Split system</b> (two components; compressor is separate from the supply air fan)	E45
2	<b>Packaged systems</b> (one component)	E45
3	<b>Package Terminal A/C</b> (e.g., Hotel/Motel units)	E45
4	<b>Remote Condensing Unit</b>	E50
5	<b>Evaporative coolers</b> (swamp coolers)	E50
6	<b>Water Chiller</b>	E50
7	<b>Evaporative Condenser</b>	E50
8	<b>Cooling Tower</b>	E50
9	<b>Adjustable Speed Drives</b>	E50
10	<b>Energy Management System</b>	E50
11	<b>Reflective Window Film</b>	E50
12	<b>HVAC Controls: Bypass Timer</b>	E50



13	<b>HVAC Controls: Time Clock</b>		E50
14	<b>HVAC Controls: Set-Back Programmable Thermostat</b>		E50
15	<b>Thermal Energy Storage</b> (Ice Storage, Chilled Water Storage) System		E50
16	<b>OTHER (specify)</b>		
71	<b>Individual A/C or Heat Pump Units</b> (e.g., Rooftop units, Unitary Equipment, Central A/C with multiple/single unit) <b>NOTE:(ask if split or package system)</b>		E45
72	<b>Window/Wall Units</b>		E50

**IF E40 not equal to 10**

E41. How many [Cooling\_Tech\_1] did you install?

&num	Number		E42
88	Refused		E42
99	Don't Know		E42

**IF E40 = 1, 2, 3 or 71**

E45. Was the AC unit that you installed standard or high efficiency?

[CR080-P923]

[2002 : NP]

1	Standard efficiency		E47
2	High efficiency		E47
88	Refused		E47
99	Don't know		E47

E47. How do you distinguish between an energy efficient central air conditioner and a standard efficiency central air conditioner? [DON'T READ]

1	Contractor		E50
2	SEER/ Seasonal Energy Efficiency Rating		E50
3	Utility recommendation, rebate		E50
77	Other		E50
88	Refused		E50
99	Don't know		E50

**IF E30 = 1, THEN E50**

E50. Overall, which of the following statements best describes the performance and operating condition of the cooling equipment before you replaced it? [READ LIST]

[CR31-P923]

[2002 : NP]

1	New equipment installed did NOT replace pre-existing equipment		E60
2	Existing equipment was fully functional		E60
3	Existing equipment was functioning, but with significant problems		E60
4	Or, existing equipment had failed or did not function		E06
99	[DO NOT READ:] DK/NA		E60

E60. Who was influential in helping you make the decision to change cooling equipment?

[CR40-P923]

[2002 : NP]

1	Energy Equipment Contractors and Installers (e.g., lighting, HVAC)	E65
2	Energy Service Companies, often referred to as ESCOs	E65
3	Your electric utility (e.g., PG&E, SCE, SDG&E)	E65
4	Equipment manufacturers	E65
5	Corporate technical staff	E65
6	Corporate management	E65
7	Made decision on my own	E65
8	In-house staff	E65
8	Other _____	E65
99	[DON'T READ] Don't Know/ Refused	E65

E65. Since January 2002, did you install any gas appliances at your facility, such as a boiler, water heater, furnace, stove, gas booster for dishwasher?

[GS020-P923]

[2002 : NP]

1	Yes	E70
2	No Change	E80
88	Refused	E80
99	Don't Know	E80

**IF E65 = 1**

E70. What types of gas appliances were installed?

[GS099-P923]

[2002 : NP]

[ SELECT ALL THAT APPLY ]

1	Boiler	E71
2	Water heater	E71
3	Furnace	E71
4	Stove	E71
5	Gas booster for dishwasher	E71
77	Other (specify)	E71
99	Don't know/refused	E71

**IF E70 > 1**

E71. How many [Gas\_Appliance\_1] did you install?

PROBE for customer's best Guess.

&num	Number	E75
88	Refused	E75
99	Don't Know	E75

**IF E70 > 1**

E75. Was the gas appliance that you installed standard or high efficiency?  
 [GS080-P923]  
 [2002 : NP]

1	Standard efficiency	E80
2	High efficiency	E80
88	Refused	E80
99	Don't know	E80

E80. Since January 2002, have you added or replaced other equipment that that is expected to significantly affect overall energy consumption?  
 [OTH20-P923]  
 [2002 : NP]

1	Yes	E85
2	No	E90
88	Refused	E90
99	Don't know	E90

**IF E80 = 1**

E85. Which of the following types of equipment were affected? (READ FIRST FIVE THEN ASK FOR OTHER)  
 [OTH5-P923]  
 [2002 : NP]

1	Food Service Equipment	E90
2	Water Heating	E90
3	Outdoor Lighting	E90
4	Refrigeration	E90
5	Motors	E90
77	Other (SPECIFY)	E90
88	Refused	E90
99	Don't Know	E90

E90. Since January 2002, were there any opportunities to improve energy efficiency by installing energy saving equipment or reduce energy use through conservation at your facility that were identified but not undertaken?  
 [Q54-P923]  
 [2002 : NP]

1	Yes	E105
2	No	E105
88	Refused	E105
99	Don't know	E105

E105. What do you plan to do? [RECORD VERBATIM]

1	Lighting	E70
2	Heating cooling	E80
3	Gas equipment	E80
77	Other (Specify)	E80
88	Refused	E80
99	Don't Know	E80

**IF E1, E30, E65 OR E80 = 1 THEN SAT55**

SAT55. Overall, how satisfied are you with the equipment you purchased and its performance?  
[2002 : PART, NP]

#		V1
---	--	----

**IF E1, E30, E65 OR E80 = 1 THEN V1**

V1. Did you use a contractor, engineering firm or other service provider to design or install the equipment you installed?  
[Q32-1999 PART survey]  
[2002 : PART, NP]

1	Contractor	SAT40
2	Engineering firm	SAT40
3	Energy services firm	SAT40
4	General/other [SPECIFY:] _____	SAT40
5	DID NOT USE external service provider	SAT40
99	[DO NOT READ:] DK/NA	SAT40

**IF V1 = 1 THEN SAT 40**

SAT40. Overall, how satisfied are you with your contractor?

#		CON1
---	--	------

## Conservation

Next, I'm going to ask you about actions that your business may have taken to reduce or manage your energy use.

CON1. Other than installing new equipment, have you taken any energy conservation actions since January 2002 to reduce your overall energy use, such as routinely turning off lights or setting the thermostat higher when using the air conditioning?  
[CON10-P923]  
[2002 : PART, NP]

1	Yes	CON5
2	No	CON40
88	Refused	CON40
99	Don't know	CON40

CON5. What energy conservation actions have you taken since January 2002? [SELECT ALL THAT APPLY]  
 [DO NOT READ]  
 [CON20-P923]  
 [2002 : PART, NP]

1	Turn off office equipment such as PCs, monitors, printers and copiers when not in not in night and during the weekend	CON7
2	Set thermostats lower when heating and higher when using the air conditioning	CON7
3	Schedule high electrical energy-use processes during off-peak periods where feasible.	CON7
4	Turn off any lights that are not being used, for example, unused offices and conference r	CON7
5	Turn down the remaining lighting levels if you can	CON7
6	(If available) Use dimmer switches to lower lights	CON7
7	Set air conditioning thermostats to pre-cool spaces at off-peak times	CON7
8	Establish a system to alert employees of expected high demand days including, but not limited to E-mail, voice mail, or public address announcement to all employees	CON7
9	Reprogram EMS schedule	CON7
10	Turn off your computer if you are out of the office for more than a few minutes	CON7
11	Set computer to low power stand by mode	CON7
12	Turn off personal appliances, such as coffee pots and radios	CON7
13	Use e-mail to distribute documents instead of faxes and copiers	CON7
14	Make copies double-sided	CON7
15	Wear comfortable business attire. Dress appropriately for warmer temperatures	CON7
16	Run backup generator at times of peak demand	CON7
17	Other (SPECIFY)	CON7

CON7. When did you start conserving energy in these ways? Would you say:

1	I've always tried to conserve energy in these ways	CON10
2	I started conserving a year or two ago	CON10
3	I just recently started conserving in the past few months	CON10

[PGE 040-123]  
 [2002 : PART, NP]

**IF CALLBACK = 1 AND IF CON5=4 OR 5, then CON10. Else skip to CON20**

CON10. What percent of your lights that would normally be on during the daytime are you keeping off now?

[CON21-P923]  
 [2002 : PART, NP]

1	0 to 5 percent	CON15
2	6 to 10 percent	CON15
3	11 to 15 percent	CON15
4	16 to 25 percent	CON15
5	26 to 50 percent	CON15
6	51 to 75 percent	CON15
7	Over 75 percent	CON15
88	Refused	CON15
99	Don't know	CON15

**If CON5 = 4 or 5  
 IF CALLBACK = 1**

CON15. And what percent of your lights that would normally be on during evening and night-time hours are you keeping off now?

[CON22-P923]

[2002 : PART, NP]

1	0 to 5 percent	CON20
2	6 to 10 percent	CON20
3	11 to 15 percent	CON20
4	16 to 25 percent	CON20
5	26 to 50 percent	CON20
6	51 to 75 percent	CON20
7	Over 75 percent	CON20
88	Refused	CON20
99	Don't know	CON20

CON20. By roughly how much do you think the conservation actions you've taken have reduced your overall energy usage?

[CON25-P923]

[2002 : PART, NP]

1	0 to 5 percent	CON25
2	6 to 10 percent	CON25
3	11 to 15 percent	CON25
4	16 to 20 percent	CON25
5	21 to 30 percent	CON25
6	More than 30 percent	CON25
88F	Refused	CON25
99	Don't know	CON25

CON25. Of the things that you mentioned doing to conserve since 2002, do you think you are conserving more/less/or about the same as you did the year before (2001)?

[2002 : PART, NP]

1	More	CON30
2	Less	CON30
3	About the same	CON30
88	Refused	CON30
99	Don't know	CON30

CON30. What were the most important reasons that you took energy conservation actions to reduce your energy use? [ACCEPT MULTIPLES]

[CON30-P923]

[2002 : PART, NP]

1	Lower energy (operating) cost	R1
2	Shift load to off-peak ours	R1
3	Help avoid blackouts	R1
4	None	R1
66	Energy crisis (general, including "civic duty" type responses)	R1
5	Other (Specify) ____	R1
88	Don't Know	R1
99	Proceed to next question	R1

## Renter Battery

R1. How active a role does your business take in making lighting and climate control equipment purchase decisions at this facility? [READ LIST.]

[Q7-P923]

[2002 : PART, NP]

1	Very active – involved in all phases and have veto power	R5
2	Somewhat active – we approve decisions and provide some input And review	R5
3	Slightly active – we have a voice but it's not the dominant voice	R5
4	Not active at all – we're part of a larger firm	R5
5	Or, not active at all – our firm doesn't get involved in these issues	R5
99	DK/NA/refused	R5

R5. Does your business own or lease the facility?

[Q3-P923]

[2002 : PART, NP]

1	Own	R20
2	Lease/rent	R10
99	DK/NA/refused	R10

**IF R5 = 2**

R10. How long is the term of your lease?

[R15-P923]

[2002 : PART, NP]

1	1 year	R15
2	2 years	R15
3	3 years	R15
4	4 years	R15
5	5 years	R15
6	6 years	R15
7	7 years	R15
8	8 years	R15
9	9 years	R15
10	10 years	R15
11	Greater than 10 years	R15
12	Month to month	R15
13	Other (Specify)	R15
99	DK/Refused	R15

**IF R5 = 2**

R15. How familiar are you with the terms of your lease regarding energy costs and energy efficiency improvements to the facility you occupy? Would you say you are:

[R20-P923]

[2002 : PART, NP]

1	Not at all familiar	R20
2	Somewhat familiar	R20
3	Very familiar	R20
99	DK/Refused	R20

R20. Now I'd like to read a brief series of statements and I'd like you to tell me how much you agree with each statement, using a 1-to-10 scale, where 1 means you DON'T AGREE AT ALL with the statement, and 10 means you AGREE COMPLETELY with the statement. The first/next one is ...  
[2002 : PART, NP]

1	It's not worth investing in energy efficiency because I may not be in business next year	L5
2	I don't have the time to deal with energy efficiency issues.	L5
3	Getting a utility rebate is too much hassle.	L5
4	<b>I need the owner's consent to make equipment improvements.</b>	<b>IF R5 = 2</b>
5	I may not be at this location long enough to make sense to do equipment improvements.	L5
6	<b>I can't make equipment improvements under the lease provisions</b>	<b>IF R5 = 2</b>
7	It's not my building, so it doesn't make sense to make equipment improvements.	<b>IF R5 = 2</b>
99	DK/Refused	L5

### Program Awareness, Sources of Awareness, and Participation

A25. Are you aware of programs or resources provided by [UTILITY] in 2002 that were designed to promote energy efficiency for businesses like yours. [IF YES] What types of programs can you recall?  
[RECALL ALL MENTIONS]  
[Q5a-1999 Part Survey]  
[2002 : Part, NP]

1	Express Efficiency	A5
2	SPC / Stanford Performance Contracting	A1
3	Business energy audits	A1
4	Distributor incentives	A1
5	Rebate (unspecified)	A1
6	No, not aware of any programs	A1
77	Other programs (SPECIFY) _____	A1
88	Refused	A1
99	Don't know	A1

A1. Are you aware of the [UTILITY] Express Efficiency rebate program?

1	Yes	A3
2	No	A3
88	Refused	A3
99	Don't know	A3

A3. Express Efficiency is a program offered by your utility where business like yours receive a rebate for installing one or more energy-efficient products. Before this survey, had you ever heard of [UTILITY] Express Efficiency Program?

1	Yes	A5
---	-----	----



2	No	A53
88	Refused	A53
99	Don't know	A53

A5. In 2002 did your firm participate in the [UTILITY] Express Efficiency rebate program at this location? [IF NEEDED]. Express Efficiency pays customers rebates for installing energy efficient measures.  
[Q3-1999 Part Survey, A-5]  
[2002 : Part, NP]

1	Yes, participated in Express Efficiency as described	A30
2	Yes, participated in Express Efficiency, but at other location	A30
3	Yes, participated in [UTILITY] program, but don't recall that as the name	A30
4	NO, did NOT participate in Express Efficiency program	A30
5	NO, did NOT receive rebate (but did participate in program)	A30
77	Other (specify)	A30
88	Refused	A30
99	Don't know	A30

**IF A1 = 1**

A30. How did you first learn about the 2002 Express Efficiency Program? [ACCEPT MULTIPLES]  
[Q15-1999 Part Survey]  
[2002 : Part, NP]

1	Business energy audits	A40
2	Respondent approached contractor/ESCO/A&E firm/other 3 <sup>rd</sup> party	A40
3	Respondent approached utility concerning another matter and learned about the program	A40
4	Contacted by utility rep	A40
5	Contacted by contractor/ESCO/A&E firm/other 3 <sup>rd</sup> party	A40
6	Utility brochure in mail	A40
7	Bill insert	A40
8	Word-of-mouth from friend or co-workers within the company	A40
9	Word-of-mouth from friends or other business associates outside the company	A40
10	Television, radio, newspaper ad	A40
11	Magazine or trade journal	A40
12	Participation in previous years	A40
13	Manufacturer information/suggestion	A40
14	Community organization such as Chamber of Commerce	A40
15	church	A40
16	Trade association	A40
77	Other (SPECIFY) _____	A40
88	Refused	A40
99	Don't know	A40

**IF A1 = 1**

A40. What would you say were the main messages of the advertising or information materials for the Express Efficiency Program?  
[2002 : Part]

1	Save Energy & Money	A41
2	Fall/summer sales/ year end specials	A41
3	Cut your energy costs	A41
4	Improve your bottom line	A41
5	Cash rebates for small and medium-sized business customers	A41

6	Helping business customers make smart choices	A41
7	Save energy / conservation	A41
8	Off-peak energy usage	A41
9	Tips on conserving energy	A41
10	Buy EE appliances	A41
11	Appliance Rebates	A41
77	Other (SPECIFY) _____	A41
88	Refused	A41
99	Don't know	A41

**IF A1 = 1 THEN A41**

A41. On a scale of 1 to 10, what influence did your awareness of the Express program have in your decision to purchase new equipment? We'll use a 1-to-10 scale, where 1 means NOT INFLUENTIAL with the statement, and 10 means VERY INFLUENTIAL.

#		A42
---	--	-----

**IF A1 = 1 THEN A41**

A42. On a scale of 1 to 10, what influence did your awareness of the Express program have on reducing your energy use through the conservation actions you mentioned, where 1 is NOT INFLUENTIAL, and 10 is VERY INFLUENTIAL?

#		A53
---	--	-----

**IF A25 = 3 SKIP TO A54**

A53. Are you aware of [UTILITY]-sponsored energy audits? [IF NEEDED] An audit involves answering questions about your business and its energy use, then receiving a set of recommendations.  
[2002 : Part, NP]

1	Yes	A54
2	No	A60
88	Refused	A55
99	Don't know	A55

A54. How did you first learn about the [UTILITY] audits? [ACCEPT MULTIPLES]  
[2002 : Part, NP]

1	Respondent approached contractor/ESCO/A&E firm/other 3 <sup>rd</sup> party	A55
2	Respondent approached utility concerning another matter and learned about the program	A55
3	Contacted by utility rep	A55
4	Contacted by contractor/ESCO/A&E firm/other 3 <sup>rd</sup> party	A55
5	Utility brochure in mail	A55
6	Bill insert	A55
7	Word-of-mouth from friend or co-workers within the company	A55
8	Word-of-mouth from friends or other business associates outside the company	A55
9	Television, radio, newspaper ad	A55
10	Magazine or trade journal	A55
11	Participation in previous years	A55
12	Manufacturer information/suggestion	A55

77	Other (SPECIFY) _____	A55
88	Refused	A55
99	Don't know	A55

A55. Did you ever have an energy audit conducted for your business?

[2002 : PART, NP]

1	Yes	A55a
2	No	A60
88	Refused	A60
99	Don't know	A60

A55a. Who conducted the audit?

1	UTILITY	A58
2	Other (specify)	A58
88	Refused	A60
99	Don't know	A60

**IF E1, E30, E65 OR E80 = 1 THEN A58**

A58. On a scale of 1 to 10, what influence did the audit have in your decision to purchase new equipment? We'll use a 1-to-10 scale, where 1 means NOT INFLUENTIAL with the statement, and 10 means VERY INFLUENTIAL.

[2002 : PART]

#		A59
---	--	-----

**IF CON1 = 1 THEN A57**

A59. On a scale of 1 to 10, what influence did the audit have on the conservation actions you mentioned, where 1 is NOT INFLUENTIAL, and 10 is VERY INFLUENTIAL?

#		A60
---	--	-----

A60. Are you aware of the Flex Your Power advertising campaign?

1	Yes	A65
2	No	A61
88	Refused	A61
99	Don't know	A61

A61. Flex Your Power is a energy conservation campaign conducted by the state of California during the energy crisis. Before this survey, had you ever heard of Flex Your Power?

[2002 : PART, NP]

1	Yes	A65
2	No	A70
88	Refused	A70
99	Don't know	A70

**(IF A60 = 1 or A61 = 1) AND IF E1, E30, E65 OR E80 = 1 THEN A65**

A65. On a scale of 1 to 10, what influence did Flex have in your decision to purchase new equipment? We'll use a 1-to-10 scale, where 1 means NOT INFLUENTIAL with the statement, and 10 means VERY INFLUENTIAL.  
[2002 : PART]

#		A67
---	--	-----

**(IF A60 = 1 or A61 = 1) AND CON1 = 1 THEN A67**

A67. On a scale of 1 to 10, what influence did Flex have on reducing your energy use through the conservation actions you mentioned, where 1 is NOT INFLUENTIAL, and 10 is VERY INFLUENTIAL?

#		A70
---	--	-----

A70. The governor of California promoted an energy conservation and efficiency program called the "20/20 Rebate program," Businesses that saved 20% off their electricity bill in the summer months as compared to last year's bill qualified for a 20% rebate on their bill. Have you ever heard of the 20/20 Rebate Program?  
[123 survey]  
[2002 : PART, NP,]

1	Yes	A75
2	No	A80
88	Refused	A80
99	Don't know	A80

**IF A70 = 1 AND IF E1, E30, E65 OR E80 = 1 THEN A75**

A75. On a scale of 1 to 10, what influence did the 20/20 rebate program have in your decision to purchase new equipment? We'll use a 1-to-10 scale, where 1 means NOT INFLUENTIAL with the statement, and 10 means VERY INFLUENTIAL.  
[2002 : PART]

#		A77
---	--	-----

**IF A70 = 1 AND CON1 = 1 THEN A77**

A77. On a scale of 1 to 10, what influence did 20/20 have on reducing your energy use through the conservation actions you mentioned, where 1 is NOT INFLUENTIAL, and 10 is VERY INFLUENTIAL?

#		A80
---	--	-----

**IF A1 = 1 or A25 = 1**

A80. Did your [UTILITY] representative discuss or inform you about Express Efficiency rebates?  
[2002 : PART, NP]

1	Yes	A85
2	No	A95
88	Refused	A95
99	Don't know	A95

**IF A80 = 1 AND IF E1, E30, E65 OR E80 = 1 THEN A85**

A85. On a scale of 1 to 10, what influence did your [UTILITY] representative have in your decision to purchase new equipment? We'll use a 1-to-10 scale, where 1 means NOT INFLUENTIAL with the statement, and 10 means VERY INFLUENTIAL.

[2002 : PART]

#		A90
---	--	-----

**IF A80 = 1 AND CON1 = 1 THEN A90**

A90. On a scale of 1 to 10, what influence did your [UTILITY] representative have on reducing your energy use through the conservation actions you mentioned, where 1 is NOT INFLUENTIAL, and 10 is VERY INFLUENTIAL?

#		A95
---	--	-----

A95. Is your business a member of a community-based organization, a trade organization, service group, or a faith-based organization?

[CB1&2-P923]

[2002 : PART, NP,]

1	Yes	A100
2	No	A100
88	Refused	A100
99	Don't know	A100

A100. Did you attend any community, trade or faith-based meetings where energy efficiency was discussed?

[2002 : PART, NP]

1	Yes	A103
2	No	PE15
88	Refused	PE15
99	Don't know	PE15

**IF A53 = 1**

A103. Were energy audits discussed at the meeting?

1	Yes	A105
2	No	A105
88	Refused	A105
99	Don't know	A105

**IF A1 = 1**

A105. Were utility rebates for energy efficient equipment discussed at the meeting?

1	Yes	A107
2	No	A107
88	Refused	A107

99	Don't know	A107
----	------------	------

A107. Did a [UTILITY] representative attend the meeting?

1	Yes	A108
2	No	A108
88	Refused	A108
99	Don't know	A108

A108. Was a contractor at the meeting?

1	Yes	A120
2	No	A109
88	Refused	A109
99	Don't know	A109

**IF E1, E30, E65, OR E80 = 1 AND A100 = 1 THEN A120 = 1**

A120. Was the meeting or event useful in helping you find a service provider to install equipment?  
[2002 : PART, NP]

1	Yes	A109
2	No	A109
88	Refused	A109
99	Don't know	A109

**IF A100 = 1**

A109. What were the main messages of the meeting with respect to energy efficiency? What did you take away from the meeting?[RECORD VERBATIM]  
[2002 : PART, NP]

1	Save Energy & Money	A110
2	Fall/summer sales/ year end specials	A110
3	Cut your energy costs	A110
4	Improve your bottom line	A110
5	Cash rebates for small and medium-sized business customers	A110
6	Helping business customers make smart choices	A110
7	Save energy / conservation	A110
8	Off-peak energy usage	A110
9	Tips on conserving energy	A110
10	Buy EE appliances	A110
11	Appliance Rebates	A110
77	Other (SPECIFY) _____	A110
88	Refused	A110
99	Don't know	A110

**IF E1, E30, E65, E80 AND A100 = 1 THEN A110**

A110. In thinking about your decision to purchase the equipment and deciding on the actual efficiency level of the equipment you selected, how influential was the event(s) you attended on your decision to purchase

equipment? We'll again use a 1-to-10 scale, where 1 means NOT INFLUENTIAL with the statement, and 10 means VERY INFLUENTIAL.  
[2002 : PART]

#		A115
---	--	------

**IF CON1 = 1 THEN A90**

A115. How influential was the event(s) you attended in reducing your energy use through the conservation actions you mentioned? We'll again use a 1-to-10 scale, where 1 means NOT INFLUENTIAL with the statement, and 10 means VERY INFLUENTIAL.  
[2002 : PART]

#		A120
---	--	------

## PROGRAM EFFECTS

Next, I'd like to ask you about your knowledge and attitudes toward on energy efficiency and various sources of energy efficiency information.

PE15. How likely will you be to actively consider energy-efficient products when installing or replacing energy-using products for your business in the future? Please give me a rating from 1 to 10, where 10 means you're EXTREMELY likely to consider energy-using products.  
[Q49-1999 Part survey]  
[2002 : PART, NP]

#		PE25
---	--	------

PE25. In general, do the decision-makers at your business find energy efficiency very important, somewhat important, not very important, or not at all important?  
[DM101-P861]  
[2002 : PART, NP]

1	Very important	PE30
2	Somewhat important	PE30
3	Not very important	PE30
4	Not at all important	PE30
88	Refused	PE30
99	Don't know	PE30

PE30. Using a scale from 1 to 10, where 1 means you aren't knowledgeable at all, and 10 means you are fully knowledgeable, please rate how knowledgeable you feel that you are about what energy efficiency products are available, and how they'll perform?  
[DM108-P861]  
[2002 : PART, NP]

#		PE35
---	--	------

PE35. Now I'd like to read a brief series of statements and I'd like you to tell me how well each statement describes your beliefs about energy efficient investments. We'll again use a 1-to-10 scale, where 1 means you DON'T AGREE AT ALL with the statement, and 10 means you AGREE COMPLETELY with the statement. The first/next one is ...

[T1-P923]

[2002 : PART, NP]

1	When considering a new energy efficiency investment, I am concerned that the actual bill savings will be less than what was estimated.	PE40
3	I don't have the information I need to make an informed decision about energy efficient investments.	PE40
5	I feel uncertain about the reliability of information provided by non-utility firms proposing energy-efficient investments for my business.	PE40
6	I am satisfied with the energy conservation decisions I have made in my business.	PE40
7	There is too much time and hassle involved in selecting a qualified energy efficiency contractor.	PE40
8	Lack of financing is a barrier to our organization making energy efficiency investments that we want to make.	PE40
9	I don't see benefits to energy efficiency because I am a leaseholder	<b>IF R5 = 2</b>

PE40. Information on energy efficiency can come from a number of different sources. How would you prefer to receive energy-related information? Please rate the following sources on a 1 to 10 scale, where 1 means NOT DESIRABLE and 10 means HIGHLY DESIRABLE.

[2002 : PART, NP]

#	Internet	V45
#	Directly from contractor	V45
#	At a community event or trade organization meeting	V45
#	As part of an audit recommendation	PE46
#	Printed materials from [UTILITY]	V45

**IF AUDIT > 5 FOR PE40 THEN P46**

PE46. How would you prefer to receive energy audit information? [READ RESPONSES]

1	On-site audit by utility representative	V45
2	Do it yourself using printed materials from utility	V45
3	Via phone with utility representative	V45
4	Do it yourself using Internet audit tool	V45
88/99	DK/Refused	V45

V45. On a scale from 1 to 10 where 1 is NOT AT ALL CREDIBLE and 10 is EXTREMELY CREDIBLE, please rate each of the following types of companies with respect to how credible you think they are as a source of energy-efficiency related information.

#	[UTILITY]	PE46
#	A contractor referred to you by your utility	PE46
#	Community organization or trade association	PE46
#	Contractor referred by your community organization	PE46
#	A contractor you've used in the past	PE46
#	A contractor who's approached you	PE46



PE46\_INT. Do you have Internet access at your business?

1	Yes	PE47
2	No	PE47
88	Refused	PE47
99	Don't know	PE47

**IF A1 = 1 OR A25 = 1**

PE47. Rebate applications are online at your [UTILITY] website. Do you see yourself downloading an application and submitting it online?  
[2002 : PART, aware NP]

1	Yes	R1
2	No	R1
88	Refused	R1
99	Don't know	R1

### Other Languages

L5. Is a language other than English spoken at your business?  
[2002 : PART, NP]

1	Yes	L10
2	No	F1
88	Refused	F1
99	Don't know	F1

L10. Other than English, what language is primarily spoken at your business? [ACCEPT ONE ANSWER]  
[2002 : PART, NP]

1	Spanish	L15
2	Chinese	L15
3	Korean	L15
4	Vietnamese	L15
5	Japanese	L25
6	Indian	L25
77	Other (SPECIFY)	L25
88	Refused	L25
99	Don't know	L25

**IF L10 = 1,2, 3, or 4**

L15. Are you aware of rebate information from your utility in [LANGUAGE SPOKEN]?  
[2002 : PART, aware NP]

1	Yes	L20
2	No	L25
88	Refused	L25
99	Don't know	L25

**IF L15 = 1**

L20. Did you use the English or [L10 = 1,2, 3, or 4] language Express Efficiency information?  
[2002 : PART, aware NP]

1	English	L25
2	Spanish	L25
3	Chinese	L25
4	Korean	L25
5	Vietnamese	L25
88	Refused	L25
99	Don't know	L25

**IF L10 = 1,2,3 or 4 THEN L25**

L25. How useful are [LANGUAGE] materials to you in learning about the program? Please give me a rating from 1 to 10, where 1 means EXREMELY useful, and 10 means NOT AT ALL useful.  
[2002 : PART, aware NP]

#		F1
---	--	----

## FIRMOGRAPHICS

F1. Can you estimate the total indoor square footage of your facility at this location to be ...?  
[Q84-P923]  
[2002 : PART, NP]

1	Less than 2,500 square feet	F5
2	2,500 but less than 5,000 square feet	F5
3	5,000 but less than 10,000 square feet	F5
4	10,000 but less than 20,000 square feet	F5
5	20,000 but less than 50,000 square feet	F5
6	50,000 but less than 100,000 square feet	F5
7	Ag/Non-facility – Outdoors	F5
99	Don't know	F5

F5. Which of the following categories describes the number of employees your firm has at this location?  
[Q83-P923]  
[2002 : PART, NP]

1	1 to 5	F10
2	6 to 10	F10
3	11 to 20	F10
4	21 to 50	F10
5	51 to 100	F10
6	Or, over 100	F10
9	[DO NOT READ:] DK/NA/refused	F10

F10. How many locations does your firm have?

[Q91-P923]  
 [2002 : PART, NP]

1	1	F15
2	2 to 4	F15
3	5 to 10	F15
4	11 to 25	F15
5	Over 25	F15
9	[DO NOT READ:] DK/NA/refused	F15

F15. What is the main activity at your business?

[Q0-P923]  
 [2002 : PART, NP]

1	Office	
2	Retail (non-food)	
3	College/university	
4	School	
5	Grocery store	
6	Convenience store	
7	Restaurant	
8	Health care/hospital	
9	Hotel or motel	
10	Warehouse	
11	Personal Service	
12	Community Service/Church/Temple/Municipality	
13	Industrial Process/Manufacturing/Assembly	
14	Condo Assoc/Apartment Mgmt	
77	Other (SPECIFY)	
99	DK/Refused	

F20. In the last two years, have there been any changes at your facility that increased or decreased your energy consumption by 10% or more, such as a remodel, change in square footage or number of employees.

1	Yes	
2	No	
88	Refused	
99	Don't know	

F25. Has the square footage changed?

1	Yes	
2	No	
88	Refused	
99	Don't know	

F30. Has the number of employees changed?

1	Yes	
2	No	
88	Refused	
99	Don't know	



## PG&E Energy Training Center- Target Market Survey

### PG&E CUSTOMERS ONLY

KPGE1. How often do you or others in your company attend seminars, workshops or other training courses that address energy efficiency – such as the specification or ordering decisions related to lighting, HVAC, refrigeration, motors, food service equipment, or agricultural equipment?

Would you say you attend energy efficiency seminars or training courses...[READ LIST]

- 1        Very frequently, i.e., once a month
- 2        Somewhat frequently, i.e., once a season/year
- 3        Infrequently, i.e., once every other year or less
- 4        Not at all

KPGE2. Have you heard of Pacific Gas and Electric Company’s Energy Training Center, located in Stockton?

1	Yes	KPGE5
2	No	KPGE7
88	Refused	KPGE7
99	Don’t know	KPGE7

[Questions 3 and 4 intentionally left blank]

KPGE5. What types of services do you recall being offered by PG&E’s Energy Training Center? [PROBE] Any others? [DO NOT READ. CHECK ALL THAT APPLY]

- a. Seminars, workshops, classes
- b. Special exhibits and product displays
- c. Hands-on product demonstrations and showcases
- d. Computer lab, specialized energy-related software
- e. Guided tours of the facility and its exhibits/displays
- f. Expert advise from PG&E energy specialists
- g. Other (SPECIFY)

KPGE6. Which if any of these services have you used or participated in? [PROBE] Any others? [DO NOT READ. CHECK ALL THAT APPLY]

- a. Seminars, workshops, classes
- b. Special exhibits and product displays
- c. Hands-on product demonstrations and showcases
- d. Computer lab, specialized energy-related software
- e. Guided tours of the facility and its exhibits/displays
- f. Expert advise from PG&E energy specialists
- g. Other [SPECIFY]
- h. None [ASK 6a: Why not? \_\_\_\_\_]

KPGE7. [READ ONLY IF NO TO 2. OTHERWISE GO TO 8] PG&E operates the Energy Training Center-located in Stockton. It is designed to share information about the benefits of energy efficient technologies and building design practices. PG&E’s Energy Training Center offers seminars for their commercial and industrial customers. Hearing about this energy center now,

**[ASK ALL RESPONDENTS]**

KPGE8. Which if any of the following services would you want to use in the future from PG&E’s Energy Training Center:

- a. Seminars, workshops, and classes \_\_\_\_\_
- b. Special exhibits and product displays \_\_\_\_\_
- c. Hands-on product demonstrations and showcases \_\_\_\_\_
- d. Computer lab with specialized energy-related software \_\_\_\_\_
- e. Guided tours of the facility and its exhibits & displays \_\_\_\_\_
- f. Expert advise from PG&E energy specialists \_\_\_\_\_

[IF YES TO ALL ITEMS IN 8 SKIP TO END]

KPGE9. [IF NO TO AT LEAST ONE SERVICE IN 8 ASK] Why wouldn’t you be interested in using some of these services?

\_\_\_\_\_

**SCE/SCG ONLY**

KLA1. How often do you or others in your company attend seminars, workshops or other training courses that address energy efficiency – such as the specification or ordering decisions related to lighting, HVAC, refrigeration, motors, food service equipment, or agricultural equipment?

Would you say you attend energy efficiency seminars or training courses...[READ LIST]

- 1 Very frequently, i.e., once a month
- 2 Somewhat frequently, i.e., once a season/year
- 3 Infrequently, i.e., once every other year or less
- 4 Not at all

KLA2. Have you heard of Southern California Edison’s Customer Technology Application Center located in Irwindale? You may know it better as “C-TAC”? [Interviewer instructions: pronounce “See-tac”.] [CENTER=CTAC; UTILITY=SCE]

- 1 Yes
- 2 No

KLA3. Have you heard of Southern California Edison’s Agricultural Technology Application Center, or “AG-TAC,” located in Tulare? [Interview instructions: pronounce “Ag-tac”.] [CENTER=AGTAC; UTILITY=SCE]

- 1 Yes
- 2 No

KLA4. Have you heard of Southern California Gas Company’s Energy Resource Center, located in Downey? [CENTER=The Gas Company’s Energy Resource Center; UTILITY=The Gas Company]

- 1 Yes
- 2 No

[IF NO TO 2, 3 AND 4, SKIP TO 7.]

[ASK 5-6 FOR EACH CENTER THAT THEY HAVE HEARD OF IN 2-4. OTHERWISE SKIP TO 7]

KLA5. What types of services do you recall being offered by [CENTER]? [PROBE] Any others? [DO NOT READ. CHECK ALL THAT APPLY]

- h. Seminars, workshops, classes
- i. Special exhibits and product displays
- j. Hands-on product demonstrations and showcases
- k. Computer lab, specialized energy-related software
- l. Guided tours of the facility and its exhibits/displays
- m. Expert advise from [UTILITY] energy specialists
- n. Other (SPECIFY)

KLA6. Which if any of these services have you used or participated in? [PROBE] Any others? [DO NOT READ. CHECK ALL THAT APPLY]

- i. Seminars, workshops, classes
- j. Special exhibits and product displays
- k. Hands-on product demonstrations and showcases
- l. Computer lab, specialized energy-related software
- m. Guided tours of the facility and its exhibits/displays
- n. Expert advise from [UTILITY] energy specialists
- o. Other [SPECIFY]
- p. None [ASK 6a: Why not? \_\_\_\_\_]

KLA7. [READ ONLY IF NO TO 2 or 3 or 4. OTHERWISE GO TO 8] Southern California Edison operates two energy centers – CTAC is centrally located in Irwindale, and the other, AgTAC, is located in the heart of the agricultural community in Tulare. Southern California Gas Company also operates an Energy Resource Center- located in Downey. These energy centers are designed to share information about the benefits of energy efficient technologies and building design practices. Each of the energy centers offers seminars for their non-residential customers. Hearing about these energy centers now,

[ASK ALL RESPONDENTS]

KLA8. Which if any of the following CTAC services would you want to use in the future:

- |   | CTAC  |
|---|-------|
| g. Seminars, workshops, and classes                         | _____ |
| h. Special exhibits and product displays                    | _____ |
| i. Hands-on product demonstrations and showcases            | _____ |
| j. Computer lab with specialized energy-related software    | _____ |
| k. Guided tours of the facility and its exhibits & displays | _____ |
| l. Expert advise from SCE energy specialists                | _____ |

[IF YES TO ALL ITEMS IN 8 SKIP TO 10]

KLA9. [IF NO TO AT LEAST ONE CTAC SERVICE IN 8 ASK] Why wouldn't you be interested in using some of these CTAC services?

---

KLA10. Which if any AgTAC services would you want to use in the future:

[READ LIST. CHECK ALL THAT APPLY]

- |   | AgTAC |
|---|-------|
| a. Seminars, workshops, and classes                         | _____ |
| b. Hands-on product demonstrations and showcases            | _____ |
| c. Guided tours of the facility and its exhibits & displays | _____ |
| d. Expert advise from SCE energy specialists                | _____ |
| e. Agricultural seminars, displays, and demonstrations      | _____ |

[IF YES TO ALL ITEMS IN 10 SKIP TO 12]

KLA11. [IF NO TO AT LEAST ONE AgTAC SERVICE IN 10 ASK] Why wouldn't you be interested in using some of these AgTAC services?

---

KLA12. Which if any of The Gas Company's Energy Resource Center services would you want to use in the future:

[READ LIST. CHECK ALL THAT APPLY]

- |   | SCG ERC |
|---|---------|
| a. Seminars, workshops, and classes                         | _____   |
| b. Special exhibits and product displays                    | _____   |
| c. Hands-on product demonstrations and showcases            | _____   |
| d. Computer lab with specialized energy-related software    | _____   |
| e. Guided tours of the facility and its exhibits & displays | _____   |
| f. Expert advise from the Gas Company's energy specialists  | _____   |
| g. Food service seminars, displays, and demonstrations      | _____   |

[IF YES TO ALL ITEMS IN 12 SKIP TO END]

KLA13. [IF NO TO AT LEAST ONE ERC SERVICE IN 12 ASK] Why wouldn't you be interested in using some of these Energy Resource Center services?

---

**SDG&E ONLY**

KSD1. How often do you or others in your company attend seminars, workshops or other training courses that address energy efficiency – such as the specification or ordering decisions related to lighting, HVAC, refrigeration, motors, food service equipment, or agricultural equipment?

Would you say you attend energy efficiency seminars or training courses...[READ LIST]

- 1 Very frequently, i.e., once a month
- 2 Somewhat frequently, i.e., once a season/year
- 3 Infrequently, i.e., once every other year or less
- 4 Not at all



KSD2. Did you know that San Diego Gas and Electric Company conducts seminars for their commercial and industrial customers on energy efficiency? [If needed: these seminars are usually held at hotels throughout San Diego and Orange Counties.]

- 1 Yes
- 2 No

[IF NO TO 2, SKIP TO 7.]

[Questions 3, 4 and 5 intentionally left blank]

KSD6. Have you ever attended any of these seminars offered by SDG&E?

- 1 Yes
- 2 No [ask 6a: Why not? \_\_\_\_\_]

KSD7. [READ ONLY IF NO TO 2. OTHERWISE GO TO 8] San Diego Gas and Electric Company conducts seminars for its commercial and industrial customers. These seminars are held throughout San Diego and Orange Counties. These seminars are designed to share information about the benefits of energy efficient technologies and building design practices. Hearing about these seminars now,

[ASK ALL RESPONDENTS]

KSD8. Would you be interested in attending seminars offered by SDG&E in the future?:

- 1 Yes [SKIP TO END]
- 2 No

KSD9. Why wouldn't you be interested in attending seminars offered by SDG&E?

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## EXPRESS EFFICIENCY PARTICIPANT SURVEY

### PARTICIPANT INTRODUCTION

Q1. Hello, this is <INTERVIEWER NAME> calling from Quantum Consulting on behalf of [UTILITY]. This is not a sales call. May I please speak with [PROGRAM CONTACT]?

Our records show that your company purchased <MEASURE> last year and received a rebate from < UTILITY >. We are calling to do a follow-up study about your firm’s participation in this program, which is called the EXPRESS EFFICIENCY REBATE PROGRAM. I was told you’re the person most knowledgeable about this rebated purchase.

Is this correct?

[IF NO PROGRAM CONTACT]

Hello, this is <INTERVIEWER NAME> calling from Quantum Consulting on behalf of [UTILITY]. I need to speak with the person most knowledgeable about recent changes of cooling, lighting, or other energy-related equipment for your firm at this location.

[IF NEEDED] Our records show that your company purchased <MEASURE> last year and received a rebate from < UTILITY >. We are calling to do a follow-up study about your firm’s participation in this program, which is called the EXPRESS EFFICIENCY REBATE PROGRAM. I was told you’re the person most knowledgeable about this rebated purchase.

<b> Screener </b>
-------------------

### SAMPLE VARIABLES:

**CFL\_FLAG**  
**MEAS1-n**

A5. Just to check in 2002 did you firm participate in the [UTILITY] Express Efficiency rebate program at this location? [IF NEEDED] This is a program where your business received a rebate for installing one or more energy-efficient products covered under the program  
[Q3-1999 Part Survey, A-5]  
[2002 : Part, NP]

1	Yes, participated in Express Efficiency as described	A20
2	Yes, participated in Express Efficiency, but at other location	A20
3	Yes, participated in [UTILITY] program, but don’t recall that as the name	A15
4	NO, did NOT participate in Express Efficiency program	A10
5	NO, did NOT receive rebate (but did participate in program)	A10
77	Other (specify)	A10
88	Refused	A10
99	Don’t know	A10

A10. Is it possible that someone else at your [SERV\_ADDR] actually dealt with the energy-efficient product installation? Or maybe you installed an energy-efficient product at your location in 2002, but the contractor you hired dealt with the rebate paperwork?  
[Q3a-1999 Part Survey]  
[2002 : Part, NP]

1	Someone else dealt with it	Q1
2	Installed EE measures (but recall rebate or program)	T&T
3	Applied for program/have not installed EE measures yet	T&T
77	Other (SPECIFY) _____	T&T
88	Refused	T&T
99	Don't know	T&T

**IF CFL\_FLAG = 1**

A15. OK, for the rest of the survey I'll be referring to your participation in rebate program called Express Efficiency.

[Q3b-1999 Part Survey]

[2002 : Part]

A20. I'd like to confirm some information in [UTILITY's] database. Our records show that you had the following equipment installed through the Express Efficiency Program. Is this correct?

Quantity	Measure	
&M1	&MEAS1	
&M2	&MEAS2	
&M3	&MEAS3	
&M4	&MEAS4	
&M5	&MEAS5	
&M6	&MEAS6	
&M7	&MEAS7	
&M8	&MEAS8	
&M9	&MEAS9	
&M10	&MEAS10	

[ENTER IN NOTES IF THERE ARE DIFFERENCES]

Measure	
&DIFMEAS1	
&DIFMEAS2	
&DIFMEAS3	
&DIFMEAS4	
&DIFMEAS5	
&DIFMEAS6	
&DIFMEAS7	
&DIFMEAS8	
&DIFMEAS9	
&DIFMEAS10	

**IF A20 = 3**

A3. Where did you purchase the CFL(s)?

1	Home Depot	A140
2	Costco	A140
3	Orchard Supply Hardware	A140
4	ACE Hardware	A140
4	Lowe's	A140

5	Long's	A140
6	SaveMart	A140
7	K-Mart	A140
8	Sam's Club	A140
9	Long's	A140
10	Smart & Final	A140
11	Albertson's	A140
12	Yardbirds Home Center	A140
13	Fry's Electronics	A140
14	True Value	A140
15	Willits	A140
16	Food/Maxx	A140
17	Dollar Tree	A140
18	Home Depot	A140
19	Lamps Plus	A140
20	Dixieline Lumber	A140
21	CAL DO IT Center	A140
22	99 Cent Store	A140
23	Valley Supermarket	A140
24	Contractors' Warehouse	A140
25	99 Ranch Markets	A140
26	CONTRACTOR INSTALLED	A140
6	OTHER [Specify:]	A140
99	[DO NOT READ:] DK/NA	A140

A140. What was the operating condition of [MEASURE before you replaced it? [READ LIST] [REPEAT FOR MULTIPLE MEASURES]  
[Q31-1999 PART survey]  
[2002 : PART]

1	Old equipment had failed	CON1
2	New equipment did NOT replace anything	CON1
3	OLD equipment was working fine	CON1
4	OLD equipment had problems	CON1
99	[DO NOT READ:] DK/NA	CON1

## Conservation

I'm going start with actions your business may have taken to reduce or manage your energy use.

CON1. Other than installing new equipment, have you taken any energy conservation actions since January 2002 to reduce your overall energy use [IF NEEDED:, such as routinely turning off lights or setting the thermostat higher when using the air conditioning]

[CON10-P923]  
[2002 : PART, NP]

1	Yes	CON5
2	No	CON40
88	Refused	CON40
99	Don't know	CON40

CON5. What energy conservation actions have you taken? [SELECT ALL THAT APPLY] [DO NOT READ]  
 [CON20-P923]  
 [2002 : PART, NP]

1	Turn off office equipment such as PCs, monitors, printers and copiers when not in use at night and during the weekend	CON7
2	Set thermostats lower when heating and higher when using the air conditioning	CON7
3	Schedule high electrical energy-use processes during off-peak periods where feasible.	CON7
4	Turn off any lights that are not being used, for example, unused offices and conference rooms	CON7
5	Turn down the remaining lighting levels if you can	CON7
6	(If available) Use dimmer switches to lower lights	CON7
7	Set air conditioning thermostats to pre-cool spaces at off-peak times	CON7
8	Establish a system to alert employees of expected high demand days including, but not limited to E-mail, voice mail, or public address announcement to all employees	CON7
9	Reprogram EMS schedule	CON7
10	Turn off your computer if you are out of the office for more than a few minutes	CON7
11	Set computer to low power stand by mode	CON7
12	Turn off personal appliances, such as coffee pots and radios	CON7
13	Use e-mail to distribute documents instead of faxes and copiers	CON7
14	Make copies double-sided	CON7
15	Wear comfortable business attire. Dress appropriately for warmer temperatures	CON7
16	Run backup generator at times of peak demand	CON7
17	Other (SPECIFY)	CON7

CON7. When did you start conserving energy in these ways? Would you say:  
 [PGE 040-123]  
 [2002 : PART, NP]

1	I've always tried to conserve energy in these ways	CON8
2	I started conserving a year or two ago	CON8
3	I just recently started conserving in the past few months	CON8

CON20. By roughly how much do you think the conservation actions you've taken have reduced your overall energy usage?  
 [CON25-P923]  
 [2002 : PART, NP]

1	0 to 5 percent	CON25
2	6 to 10 percent	CON25
3	11 to 15 percent	CON25
4	16 to 20 percent	CON25
5	21 to 30 percent	CON25
6	More than 30 percent	CON25
88	Refused	CON25
99	Don't know	CON25

CON25. Of the things that you mentioned doing to conserve since 2002, do you think you are conserving more/less/or about the same as you did the year before (2001)?  
 [2002 : PART, NP]

1	More	CON30
2	Less	CON30
3	About the same	CON30
88	Refused	CON30
99	Don't know	CON30

**Program Awareness and Participation**

Let's talk about your participation in the program and what influenced you to purchase high efficiency equipment.

A25. Besides the Express Efficiency rebate program, are you aware of OTHER programs or resources provided by [UTILITY] in 2002 that were designed to promote energy efficiency for businesses like yours: [IF YES] What types of programs can you recall? [RECALL ALL MENTIONS]  
[Q5a-1999 Part Survey]  
[2002 : Part, NP]

1	[INTENTIONALLY BLANK]	
2	SPC / Stanford Performance Contracting	A30
3	Business energy audits	A30
4	Distributor incentives	A30
5	Rebate (unspecified)	A30
6	No, not aware of any programs	A30
77	Other programs (SPECIFY) _____	A30
88	Refused	A30
99	Don't know	A30

A30. How did you first learn about the 2002 Express Efficiency Program? [ACCEPT MULTIPLES]  
[Q15-1999 Part Survey]  
[2002 : Part, NP]

1	Business energy audits	A35
2	Respondent approached contractor/ESCO/A&E firm/other 3 <sup>rd</sup> party	A35
3	Respondent approached utility concerning another matter and learned about the program	A35
4	Contacted by utility rep	A35
5	Contacted by contractor/ESCO/A&E firm/other 3 <sup>rd</sup> party	A35
6	Utility brochure in mail	A35
7	Bill insert	A35
8	Word-of-mouth from friend or co-workers within the company	A35
9	Word-of-mouth from friends or other business associates outside the company	A35
10	Television, radio, newspaper ad	A35
11	Magazine or trade journal	A35
12	Participation in previous years	A35
13	Manufacturer information/suggestion	A35
14	Community organization such as Chamber of Commerce	A35
77	Other (SPECIFY) _____	A35
88	Refused	A35
99	Don't know	A35

A40. What would you say were the main messages of the advertising or information materials for the Express Efficiency Program? [DO NOT READ]  
[2002 : Part, NP]

1	Save Energy & Money	A45
2	Fall/summer sales/ year end specials	A45
3	Cut your energy costs	A45
4	Improve your bottom line	A45
5	Cash rebates for small and medium-sized business customers	A45
6	Helping business customers make smart choices	A45
7	Save energy / conservation	A45
8	Off-peak energy usage	A45
9	Tips on conserving energy	A45
10	Buy EE appliances	A45
11	Appliance Rebates	A45
77	Other (SPECIFY) _____	A45
88	Refused	A45
99	Don't know	A45

A45. Why did your company participate in the 2002 Express Efficiency program? [DO NOT READ CATEGORIES; ACCEPT MULTIPLE S]  
[Q17-1999 Part Survey]  
[2002 : PART]

1	Acquiring the latest technology	A50
2	Saving money on electric bills	A50
3	Obtaining a rebate	A50
4	Replacing old or broken equipment	A50
5	Because the program was sponsored by a utility	A50
6	Energy crisis	A50
7	Helping protect the environment	A50
8	Previous experience with other utility programs	A50
9	Recommended by utility account reps	A50
10	Recommended by contractors	A50
11	Participation in previous years	A50
12	Part of a broader facility remodeling/renovation	A50
77	Other (SPECIFY) _____	A50
88	Refused	A53
99	Don't know	A53

**IF A25 = 3 SKIP TO A54**

A53. Are you aware of [UTILITY]-sponsored energy audits? [IF NEEDED] An audit involves answering questions about your business and its energy use, then receiving a set of recommendations.

1	Yes	A54
2	No	A55
88	Refused	A55
99	Don't know	A55

A54. How did you first learn about the [UTILITY] audits? [ACCEPT MULTIPLES]

[2002 : Part, NP]

1	Respondent approached contractor/ESCO/A&E firm/other 3 <sup>rd</sup> party	A55
2	Respondent approached utility concerning another matter and learned about the program	A55
3	Contacted by utility rep	A55
4	Contacted by contractor/ESCO/A&E firm/other 3 <sup>rd</sup> party	A55
5	Utility brochure in mail	A55
6	Bill insert	A55
7	Word-of-mouth from friend or co-workers within the company	A55
8	Word-of-mouth from friends or other business associates outside the company	A55
9	Television, radio, newspaper ad	A55
10	Magazine or trade journal	A55
11	Participation in previous years	A55
12	Manufacturer information/suggestion	A55
77	Other (SPECIFY) _____	A55
88	Refused	A55
99	Don't know	A55

A55. Did you ever have an energy audit conducted for your business?

[2002 : PART, NP]

1	Yes	A55a
2	No	A60
88	Refused	A60
99	Don't know	A60

A55a. Who sponsored the audit?

1	UTILITY	A56
2	Other (specify)	A56
88	Refused	A56
99	Don't know	A56

A57. Did the audit refer you to the Express Efficiency program?

1	Yes	A59
2	No	A59
88	Refused	A59
99	Don't know	A59

A56. Was the audit conducted before or after you bought rebated equipment through the Express program?

1	Audit BEFORE equipment purchase	A57
2	Audit AFTER equipment purchase	A57
88	Refused	A57
99	Don't know	A57

A60. Are you aware of the Flex Your Power advertising campaign?

[2002 : PART, NP]

1	Yes	A67
2	No	A70



88	Refused	A70
99	Don't know	A70

A70. The governor of California promoted an energy conservation and efficiency program called the "20/20 Rebate program," Businesses that saved 20% off their electricity bill in the summer months as compared to last year's bill qualified for a 20% rebate on their bill. Have you ever heard of the 20/20 Rebate Program?  
 [123 survey]  
 [2002 : PART, NP]

1	Yes	A77
2	No	A80
88	Refused	A80
99	Don't know	A80

**IF A1 = 1**

A80. Did your [UTILITY] representative discuss Express Efficiency rebates with you?  
 [2002 : PART, NP]

1	Yes	A90
2	No	A95
88	Refused	A95
99	Don't know	A95

A95. Is your business a member of a community-based organization, a trade organization, service group, or a faith-based organization [IF NEEDED: such as Chamber of Commerce]?  
 [CB1&2-P923]  
 [2002 : PART, NP]

1	Yes	A100
2	No	A100
88	Refused	A100
99	Don't know	A100

A100. Did you attend any community, trade or faith-based meetings where energy efficiency was discussed?  
 [2002 : PART, NP]

1	Yes	A103
2	No	A130
88	Refused	A130
99	Don't know	A130

**IF A53 = 1**

A103. Were energy audits discussed at the meeting?

1	Yes	A105
2	No	A105
88	Refused	A105

99	Don't know	A105
----	------------	------

**IF A1 = 1**

A105. Were utility rebates for energy efficient equipment discussed at the meeting?

1	Yes	A107
2	No	A107
88	Refused	A107
99	Don't know	A107

A107. Did a [UTILITY] representative attend the meeting?

1	Yes	A108
2	No	A108
88	Refused	A108
99	Don't know	A108

A108. Was a contractor at the meeting?

1	Yes	A109
2	No	A109
88	Refused	A109
99	Don't know	A109

A109. What were the main messages of the meeting with respect to energy efficiency? [IF NEEDED: What did you take away from the meeting?][RECORD VERBATIM]  
[2002 : PART, NP]

1	Save Energy & Money	A115
2	Fall/summer sales/ year end specials	A115
3	Cut your energy costs	A115
4	Improve your bottom line	A115
5	Cash rebates for small and medium-sized business customers	A115
6	Helping business customers make smart choices	A115
7	Save energy / conservation	A115
8	Off-peak energy usage	A115
9	Tips on conserving energy	A115
10	Buy EE appliances	A115
11	Appliance Rebates	A115
77	Other (SPECIFY) _____	A115
88	Refused	A115
99	Don't know	A115

A120. Was the meeting or event useful in helping you find a contractor to install equipment?  
[2002 : PART, NP]

1	Yes	A130
2	No	A130
88	Refused	A130
99	Don't know	A130

A130. When considering your decision to purchase the equipment and deciding on the actual efficiency level of the equipment you selected, please rate the following factors on your decision to purchase rebated equipment. We'll again use a 1-to-10 scale, where 1 means NOT INFLUENTIAL with the statement, and 10 means VERY INFLUENTIAL. The first/next one is ...

[2002 : PART]

#	Express Efficiency		SAT10
#	Audit	IF A55 = 1	SAT10
#	Contractor		SAT10
#	Your [UTILITY] representative	IF A80 = 1	SAT10
#	Rising energy bills		SAT10
#	Community event you attended	A100 = 1	SAT10

## Role of Contractors

V1. Did you use a contractor to install the measures rebated through the 2002 Express Efficiency program?

[Q32-1999 PART survey]

[2002 : PART, NP]

1	Contractor	V30
4	General/other [SPECIFY:] _____	V30
5	in house	V50
99	[DO NOT READ:] DK/NA	V50

V35. There are two ways you can receive a rebate through this program: a check sent directly to you from your utility or an instant discount through your contractor. In the FUTURE, which would you prefer?

[2002 : PART]

1	Prefer rebate through utility	V5
2	Prefer rebate through contractor	V5
99	[DO NOT READ:] DK/NA	V5

V5. Had you worked with this contractor before participating in the 2002 Express Efficiency program?

[Q34-1999 PART survey]

[2002 : PART]

1	Yes	V10
2	No	V10
99	[DO NOT READ:] DK/NA	V10

V10. Why did you select this contractor?

[2002 : PART]

1	Needed immediate replacement/turnaround time	V12
2	Lower price	V12
3	Worked with contractor before/prior experience	V12

4	Contractor reputation/referral	V12
5	Service/maintenance offerings	V12
6	Other [SPECIFY:]	V12
99	[DO NOT READ:] DK/NA	V12

V12. Did the contractor approach you about the retrofit or did you contact the contractor?

1	Contractor approached me	V25
2	I approached contractor	V25
6	Other [SPECIFY:]	V2
99	[DO NOT READ:] DK/NA	V25

V25. How important would a list of qualified contractors FROM YOUR UTILITY be in selecting a contractor? Please give me a rating from 1 to 10, where 10 means EXREMELY important, and 1 means NOT AT ALL important.  
[2002 : PART]

#		V40
---	--	-----

V40. How important was the input from the contractor you worked with in deciding which specific equipment to install? Please give me a rating from 1 to 10, where 1 means EXREMELY important, and 10 means NOT AT ALL important.  
[Q38-1999 Part survey]  
[2002 : PART]

#		SAT40
---	--	-------

**IF V1 = 1 OR 2 THEN SAT40**

SAT40. Overall, how satisfied are you with your contractor using a scale from 1 to 10, where 10 means you're extremely satisfied and 1 means you're extremely dissatisfied.

#		PE1
---	--	-----

## PROGRAM EFFECTS

PE1. if the rebate program had NOT existed, would your company have:  
[Q58-1999 Part Survey]  
[2002 : PART, NP]

1	Bought NO equipment	PE5
2	Bought the SAME HIGH efficiency equipment	PE5
3	Bought STANDRD or less efficient equipment	PE5
4	Bought the SAME, but at a LATER date	PE5
77	Other (SPECIFY)	PE5
88	Refused	PE5
99	Don't know	PE5

IF A55 = 1

PE5. Comparing the rebate to the audit you received, which was most important in persuading you to make an energy efficient investment?

[CH082-P812]  
[2002 : PART]

1	Rebate	PE15
2	Audit	PE15
3	Same	PE15
88	Refused	PE15
99	Don't know	PE15

PE15. How likely will you be to actively consider energy-efficient products when installing or replacing equipment for your business in the future? Please give me a rating from 1 to 10, where 10 means you're EXTREMELY likely to consider energy-efficient products.

[Q49-1999 Part survey]  
[2002 : PART, NP]

#		PE30
---	--	------

PE30. Using a scale from 1 to 10, where 1 means you aren't knowledgeable at all, and 10 means you are fully knowledgeable, how knowledgeable are you about energy efficiency products and how they'll perform?

[DM108-P861]  
[2002 : PART, NP]

#		PE33
---	--	------

PE33. How about your knowledge BEFORE participating the rebate program, using the same scale

#		PE35
---	--	------

PE35. Now I'd like to read a brief series of statements and I'd like you to tell me how well each statement describes your beliefs about energy efficient investments. We'll again use a 1-to-10 scale, where 1 means you DISAGREE with the statement, and 10 means you AGREE COMPLETELY with the statement. The first/next one is ... [RANDOMIZE, READ AND OBTAIN A RATING FOR EACH. WHEN SEQUENCE COMPLETE, GO TO T5.]

[T1-P923]  
[2002 : PART, NP]

1	When considering a new energy efficiency investment, I am concerned that the actual bill savings will be less than what was estimated.	PE40
3	I don't have the information I need to make an informed decision about energy efficient investments.	PE40
5	I feel uncertain about the reliability of information provided by non-utility firms proposing energy-efficient investments for my business.	PE40
6	I am satisfied with the energy conservation decisions I have made in my business.	PE40
7	There is too much time and hassle involved in selecting a qualified energy efficiency contractor.	PE40
8	Lack of financing is a barrier to our organization making energy efficiency investments that we want to make.	PE40
9	I don't see benefits to energy efficiency because I am a leaseholder.	PE40

PE47. Were you aware that rebate applications are online at your [UTILITY] website?  
 [2002 : PART, aware NP]

1	Yes	PE50
2	No	PE55
88	Refused	PE55
99	Don't know	PE55

PE50. Did you download a rebate application off your utility's website?  
 [2002 : PART, aware NP]

1	Yes	PE55
2	No	PE55
88	Refused	PE55
99	Don't know	PE55

PE55. Did you buy more energy efficient equipment as a result of the program?

1	Yes	PE60
2	No	PE60
88	Refused	PE60
99	Don't know	PE60

PE60. What did you purchase? [PROBE FOR SPECIFICS] (RECORD VERBATIM)

77	Other (specify)		SAT1
99	Don't know /refused		SAT1

## SATISFACTION

We'd like to get a sense of your satisfaction with the program. Please use 1 to 10 scale, where 10 means EXTREMELY SATISFIED and 1 means EXTREMELY DISSATISFIED.

SAT1	Overall satisfaction with the 2002 Express Efficiency program experience	
SAT15	satisfaction with the <b>application process</b>	
SAT30	satisfaction with the <b>bill savings</b>	
SAT55	Satisfaction with the equipment you purchased and its performance	

SAT45. Were you at all dissatisfied with the program?

#		SAT50
---	--	-------

SAT50. If yes: why? [RECORD VERBATIM.]

**Renter Battery**

R1. How active a role does your business take in making lighting and climate control equipment purchase decisions at this facility? [READ LIST.]

[Q7-P923]  
[2002 : PART, NP]

1	Very active	R5
2	Somewhat active	R5
3	Slightly active	R5
4	Not active at all	R5
99	DK/NA/refused	R5

R5. Does your business own or lease the facility?

[Q3-P923]  
[2002 : PART, NP]

1	Own	R20
2	Lease/rent	R10
99	DK/NA/refused	R10

R10. How long is the term of your lease?

[R15-P923]  
[2002 : PART, NP]

1	1 year	R15
2	2 years	R15
3	3 years	R15
4	4 years	R15
5	5 years	R15
6	6 years	R15
7	7 years	R15
8	8 years	R15
9	9 years	R15
10	10 years	R15
11	Greater than 10 years	R15
12	Month to month	R15
13	Other (Specify)	R15
99	DK/Refused	R15

R15. How familiar are you with the terms of your lease regarding energy costs and energy efficiency improvements to the facility you occupy? Would you say you are:

[R20-P923]  
[2002 : PART, NP]

1	Not at all familiar	R20
2	Somewhat familiar	R20
3	Very familiar	R20

99	DK/Refused	R20
----	------------	-----

R20. Now I'd like to read a brief series of statements and I'd like you to tell me how much you agree with each statement, using a 1-to-10 scale, where 1 means you DON'T AGREE AT ALL with the statement, and 10 means you AGREE COMPLETELY with the statement. The first/next one is ...  
[2002 : PART, NP]

1	It's not worth investing in energy efficiency because I may not be in business next year	F1
2	I don't have the time to deal with energy efficiency issues.	F1
3	Getting a utility rebate is too much hassle.	F1
4	I need the owner's consent to make improvements.	<b>IF R5 = 2</b>
5	I'm not at this location for long	F1
6	I can't make improvements under the lease provisions	<b>IF R5 = 2</b>
7	It's not worth investing because it's not my building	F1
99	DK/Refused	F1

### Other Languages

L5. Is a language other than English spoken at your business?  
[2002 : PART, NP]

1	Yes	L10
2	No	F1
88	Refused	F1
99	Don't know	F1

L10. Other than English, what language is primarily spoken at your business? [ACCEPT ONE ANSWER]  
[2002 : PART, NP]

1	Spanish	F30
2	Chinese	F30
3	Korean	F30
4	Vietnamese	F30
5	Japanese	F30
6	Indian	F30
77	Other (SPECIFY)	F30
88	Refused	F30
99	Don't know	F30

**IF L10 = 1,2, 3, or 4 AND A1 = 1**

L15. Are you aware of rebate information (such as Express Efficiency rebate applications) in [LANGUAGE SPOKEN]?  
[2002 : PART, aware NP]

1	Yes	L20
2	No	L25
88	Refused	L25
99	Don't know	L25



**IF L15 = 1**

L20. Did you use the English or [L10 = 1,2, 3, or 4] language Express Efficiency information?  
 [2002 : PART, aware NP]

1	English	L25
2	Spanish	L25
3	Chinese	L25
4	Korean	L25
5	Vietnamese	L25
88	Refused	L25
99	Don't know	L25

**IF L20 = 2,3,4, or 5 THEN L25**

L25. How useful are [L20]-language materials to you in learning about the program? Please give me rating from 1 to 10, where 1 means NOT AT ALL important, and 10 means EXTREMELY important.  
 [2002 : PART, aware NP]

#		F1
---	--	----

**FIRMOGRAPHICS**

F1. Can you estimate the total square footage of your facility at this [SERV\_ADDR] to be ...?  
 [Q84-P923]  
 [2002 : PART, NP]

1	Less than 2,500 square feet	F5
2	2,500 but less than 5,000 square feet	F5
3	5,000 but less than 10,000 square feet	F5
4	10,000 but less than 20,000 square feet	F5
5	20,000 but less than 50,000 square feet	F5
6	50,000 but less than 100,000 square feet	F5
7	Ag/Non-facility – Outdoors	F5
99	Don't know	F5

F5. Which of the following categories describes the number of employees your firm has at this [SERV\_ADDR]?  
 [Q83-P923]  
 [2002 : PART]

1	1 to 5	F10
2	6 to 10	F10
3	11 to 20	F10
4	21 to 50	F10
5	51 to 100	F10
6	Or, over 100	F10
9	[DO NOT READ:] DK/NA/refused	F10

F10. How many locations does your firm have in California?  
 [Q91-P923]

[2002 : PART, NP]

1	1	F20
2	2 to 4	F20
3	5 to 10	F20
4	11 to 25	F20
5	Over 25	F20
9	[DO NOT READ:] DK/NA/refused	F20

F15. What is the main activity at your business?

[Q0-P923]

[2002 : PART]

1	Office	F20
2	Retail (non-food)	F20
3	College/university	F20
4	School	F20
5	Grocery store	F20
6	Convenience store	F20
7	Restaurant	F20
8	Health care/hospital	F20
9	Hotel or motel	F20
10	Warehouse	F20
11	Personal Service	F20
12	Community Service/Church/Temple/Municipality	F20
13	Industrial Process/Manufacturing/Assembly	F20
14	Condo Assoc/Apartment Mgmt	F20
15	Agriculture	F20
77	Other (SPECIFY)	F20
99	DK/Refused	F20

F20. In the last two years, have there been any changes at your facility that increased or decreased your energy consumption by 10% or more?

1	Yes	
2	No	
88	Refused	
99	Don't know	

F25. Has the square footage changed?

1	Yes	
2	No	
88	Refused	
99	Don't know	

F30. Has the number of employees changed?

1	Yes	
2	No	
88	Refused	
99	Don't know	

# EXPRESS LIGHTING CONTRACTOR SURVEY

## SCREENER

Hello, my name is \_\_\_\_\_ and I am calling on behalf of [UTILITY]. We are contacting lighting contractors to learn about their experience with the Express Efficiency rebate program.

S1. What do you sell and/or install?

[4 foot fluorescent lamps/fixtures, CFLs, HID lamps /fixtures, dimmable ballasts]

---

**[T&T IF NOT LIGHTING RELATED]**

S2. What percent of your overall sales in 2002 was from either selling or installing lighting equipment to commercial/industrial customers?

**[If C/I SALES LESS THAN 20%, THEN T&T]**

S3. What percent of the full-sized fluorescent lamps and ballasts that your company installed in 2002 were part of retrofit projects? [IF NEEDED: % installed on projects where you replaced existing lighting equipment with new lighting equipment]

\_\_\_\_\_ % retrofit  
**[If LESS THAN 50%, THEN T&T]**

S4. Are you familiar with [UTILITY's] Express Efficiency program?

**[If NO, THEN T&T]**

S5. What percent of the **compact fluorescents** that your company installed in 2002 were through the Express Efficiency Program?

Through Program	_____ %
Outside Program	_____ %
	<b>100%</b>

S6. What percent of the **T-8 retrofits** that your company did in **2002** were through the Express Efficiency Program?

Through Program	_____ %
Outside Program	_____ %
	<b>100%</b>

## **“Ex-Parts”**

D1. Did you do more jobs through the program in 2002 or 2001?

[IF 2001 > 2002]

D2. Why did you do fewer rebated projects in 2002?

**Awareness**

[IF S5 < 20% AND S6 < 20%]

A1. You indicated that you are aware of Express, but do very little work through the Express program. Why is that?

A3. How do you learn about changes to the program from year to year?

A4. How would you like to learn about changes to the program?

(PROBE: email, letter, presentation)

We would like your opinions on some features of the program, such as sales and reservations.

**Start and Stop of Program Cycles**

B1. In the past few years, there have been delays in starting the program. Have these delays affected your business? How?

**Reservation System**

C1. Are you aware that you can reserve funds now for jobs you plan to do in the months ahead?

C2. Do you typically make the reservation for funds?

C3. How useful do you find the reservation process?

- Not at all useful
- Somewhat useful
- Very useful

C4. Would you make any changes?

**Sales**

E1. Are you aware that the utilities have sales where rebate amounts increase?

[IF E1 = YES]

E2. How do you become aware of sales?

E3. How important are sales in your decision to participate in the program?

- Not at all important
- Somewhat important
- Very important

E4. Do you do more rebated lighting projects during sale periods?

E4a. Why or why not?

- E5. Do you staff up during sales?  
E5a. Why or why not?
- E6. Would you prefer to see slightly higher rebate levels that are constant throughout the year and do not change, or continue with periodic sales?
- E7. What rebate level is necessary for you to take the time to participate?
- E8. If the program was offering a sales promotion, would you prefer increased customer rebates or a bonus paid directly to the vendor?

**Eligibility**

- F1. If you want to figure out if a customer is eligible for a rebate, how do you do that?
- F2. How easy is it for you to determine if a customer is eligible?

**Program Process**

- G1. Do you typically have the customer sign the rebate over to you?  
G1a. [if not] What are advantages of doing that?
- G2. Do you tend to fill out the application on behalf of the customer?
- [IF G2 = YES]
- G3. Would you make any changes in the application process?
- [IF G2 = YES]
- G4. Would you prefer to submit applications electronically (paperless) or in the mail, on paper.
- G5. How satisfied are you with rebate process?  
       \_\_\_\_\_ Very satisfied  
       \_\_\_\_\_ Somewhat satisfied  
       \_\_\_\_\_ Not at all satisfied
- G6. Would you make any changes?

**Small Customers**

The utilities are very focused on encouraging smaller customers to participate.

- H1. Is it more expensive for you to do business with small customers? How so?  
[PROBE marketing cost, materials cost, labor cost?]

H2. What could the utilities do to get you to place more emphasis on smaller customers?

H2a. [IF G2 = rebate] how much higher would a rebate need to be  
(% of project cost)

**Contractor Opinions on Program Concepts**

The utilities are considering some of the following changes to help you promote the program to customers. Please rate these ideas as **very**, **somewhat** or **not at all useful**:

I1. Making customers' energy audit data available to you to generate sales leads

[IF NEEDED: The utilities conduct energy audits, where customers answer questions about their business and its energy use, then receive a set of recommendations efficiency improvements. Would you find it useful to have access to energy audits?]

I2. Meetings with community organizations to promote the program:

The IOUs are looking for ways to help bring together prospective customers with vendors such as yourself. Some are holding meetings with Chambers and other community groups to promote energy efficiency programs to small businesses. Would you be interested in attending such meetings the utilities in order to market to small businesses?

I4. Providing a list of utility-approved contractors to interested customers

[IF NEEDED: What if utilities provided lists of approved contractors, who had been through a certification process, to their customers? Would that be valuable to you? Please rate how valuable an approved contractor list would be on a 1 to 10 point scale, where 10 is very valuable, and 1 is not at all valuable? ]

**Vendor Migration**

J1. Does your firm do business in both Northern and Southern California? \_\_\_\_\_ Y/N

J2. Where are your company headquarters?

\_\_\_\_\_ city

\_\_\_\_\_ IOU service territory (SCE, SDG&E, PGE)

[IF J1 = YES]

J3. What percentage of your lighting equipment installations were done in:

\_\_\_\_\_ % Northern California

\_\_\_\_\_ % Southern California

[IF J1 = YES]

J4. What percentage of your staff is based in:

\_\_\_\_\_ % Northern California

\_\_\_\_\_ % Southern California

[IF J3: SoCal > NorCal]

J5. You mentioned your firm does business statewide, but the majority of your lighting projects are in Southern California. Why don't you do more work in northern California? [PROBE if they say, we aren't located in NorCal – why not? is it travel costs? Marketing? Hard to acquire customers?]

J6. SCE and SDG&E occasionally stop rebating lighting products due to budget constraints. When rebates stop in southern California, do you do more lighting projects in northern California?

J6a. Why or why not?

Do you agree strongly/somewhat/not at all with the following statements:

[IF J1 = YES] **J7.** We tend to do all our work in one part of the state at a time

[IF J1 = YES] **J8.** It's more expensive to operate in northern California.

[IF J1 = YES] **J9.** The customer base in Northern California is not as dense as Southern California, so it is harder to market to customers in northern California.

[IF J3: SoCal > NorCal]

[IF J1 = YES] **J10.** To do more business in Northern California, rebates would need to be larger

[IF J3: SoCal > NorCal]

[IF J1 = YES] **J12.** If there was going to be program sales with increased rebates, I would rather see the sale occur first in Southern California and then in Northern California rather than at the same time

### **Statewide Coordination**

[IF J1 = YES]

K1. Rebates are currently set the same across the state for a piece of equipment. The utilities are considering higher rebates in areas where energy efficient products are more difficult to find or are rarely installed. Do you think rebate levels should be the same or allowed to vary to encourage installation of high efficiency equipment?

[IF K3 = REBATES SHOULD VARY]

K2. How should rebate levels change? [PROBE: higher in certain regions/In rural areas/For smaller customers?]

**Program Effect**

[if CFL vendor] PE1. If lighting rebate programs terminated today, do you think you would be promoting and selling as many CFLs?

**Improvements**

P1. How do you think Express could be improved to more effectively promote the specification and use of high efficiency equipment?

**FIRMOGRAPHICS**

We'd like to wrap up with a few questions about your firm's sales.

F1. About how many full time workers do you employ at this location?

\_\_\_\_\_ #

F2. Approximately what were the total sales of all products and services for your company in 2002 at this location?

\_\_\_\_\_ \$

F3. Approximately how many CFLs did your company sell in 2002?

\_\_\_\_\_ # of CFLs

F4. Approximately how many T-8 ballasts did your company sell in 2002?

\_\_\_\_\_ # of T-8's

F8. What percent of your lighting projects are provided to each of the following [Q2.1; 1999 Exp]

\_\_\_\_\_ % Other contractors

\_\_\_\_\_ % Direct to end users

\_\_\_\_\_ % Developers

\_\_\_\_\_ % Other [IF NEEDED]

F9. Which of the following best describes your firm [Q1.1, 1999 Exp]:

\_\_\_\_\_ Electrical contractor

\_\_\_\_\_ Energy service company

\_\_\_\_\_ Lighting management company

\_\_\_\_\_ Other [IF NEEDED]