

Final Report

Measurement and Evaluation of SDG&E's 2003 Programs:

**Nonresidential Small Business Energy Assessment
Nonresidential Retrofit EZ Turnkey**

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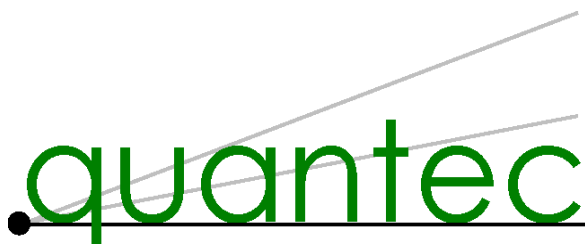


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Executive Summary

In May 2002, the California Public Utilities Commission (CPUC) authorized funding from the Public Goods Charge for selected “Local Programs” and stipulated program Evaluation, Measurement and Verification (EM&V) studies for each. This report provides the EM&V results, both process and impact analysis, of San Diego Gas & Electric’s (SDG&E) 2003 Small Business Energy Assessment and EZ Turnkey Programs. These programs provide energy savings opportunities to economically disadvantaged, small, hard-to-reach customers through energy assessments and installation of free energy-saving measures, primarily lighting.

The evaluation goals are to:

- Verify the number of measures installed and calculation of estimates of energy savings and demand reduction for 2003
- Assess the success in implementing the programs as designed
- Assess participants’ satisfaction and the degree to which the programs influenced their businesses’ energy efficiency

Using interviews with utility staff and contractors, customer surveys conducted on-site and by telephone, and site visits to verify installations, Quantec conducted both a process and impact evaluation of these programs. Where comparisons of EM&V results from the 2002 evaluation are appropriate, these are provided to highlight changes in delivery over time.

Key Results: Process

Customer Response and Profiles. The evaluation data indicate that the SBEA and EZ Turnkey Programs continued to provide effective outreach, education, and installation of measures to targeted small business customers in 2003.

- The majority of participants – 85% in 2003 – continue to learn about the Programs through the door-to-door outreach conducted by the energy assessment contractor.
- A greater percentage of 2003 participants rated usefulness and clarity of the energy assessment very positively than those surveyed for 2002. Twenty-five percent more participants in 2003 than in 2002 also rated utility sponsorship of the Programs as very important to the decision to participate.
- Almost 100% of participants were satisfied with the scheduling and conducting of the energy assessments and the installations.

- While almost all participants were very satisfied with installed exit signs and fluorescent tube lighting, issues such as burn outs, reduced lighting, and slow warm ups led to less satisfaction with CFLs.
- Participants in both Programs reported an increase in their knowledge of energy efficiency in their business as a result of participation, as did 2002 surveyed participants. 2003 non-participants surveyed, however, were more likely than their 2002 counterparts to rate their knowledge of energy efficiency as very high and to have taken energy efficiency actions in their business.

Delivery. SDG&E continued to use one contractor for energy assessments and another for the installation of lighting measures. SDG&E stakeholders felt that having two different contractors is still necessary. As one staff member noted, the split results in better customer service overall. The energy assessment contractor keeps Program goals in mind and the customer benefits from knowing “everything that will help them save energy,” not just about lighting. Another noted that it helps to have the assessment contractor on board, as they are not salespeople, but focus more on education and the overall intent of the Program.

The lighting contractor has also continued efforts to improve service, including follow-up calls to assess satisfaction and identify batch issues with lighting products. Further policy changes planned for 2004, such as contractual penalties for no-shows and late arrivals, should contribute to continuing improvement in customer satisfaction with installations.

Cost reductions resulted in the Programs having met their participation goals and savings goals with budget remaining, by May 2003. The Program goals were thus revised, and ultimately energy assessments were provided to 1,158 customers, 208 beyond the original goal.

Best Practices. Program attributes cited by stakeholders as best practices were:

- Staff and contractors found that continuing to deliver the Programs using the same two, seasoned contractors, making minor adjustments to contractual requirements and the basis of payment, has contributed to the Programs’ ongoing success in reaching goals.
- SDG&E has increased the quality of lighting products eligible for the Programs by restricting purchase to only those that meet a given level of lumen output. And, for these products, SDG&E has continued to seek additional price reduction.
- The choice of contractors with experience, and working with them in the second year of the program to continually improve service, has been important to the Programs’ success. Current contractors have

history in the industry, history with the Program, and SDG&E staff closely monitor their performance.

- Customer service must remain the top priority.
- Targeting geographic areas, often at the street level, drives down the price for installation, and therefore overall Program costs. This approach also supports word-of-mouth, neighborhood marketing.
- Providing free measures is essential with these very small business customers.
- SDG&E’s sponsorship – use of name, shirts, badges – is a big factor in Program success.

Key Results: Energy and Demand and Impacts

Using the stipulated values for wattage reduction and hours of use, original saving estimates for the visited sites were reassessed based on the verified installation. Realization rates – ratio of verified to reported savings – were then estimated for each visited site and then extrapolated, by measure type, to the population of participants.

Based on site visit data, the verified rate of installation for all measures was 98.5%. Accounting for each measure’s realization rate, the Program realized an energy savings of 4,763,948 kWh and total net demand reduction of 903 kW. These figures are compared to the Program estimated energy and demand goals in Table ES.1.

Table ES.1: Energy and Demand – Goals and Realized*

	Goal	Realized	Realized vs. Goal
Energy Savings	4,763,948 kWh	4,889,057 kWh	103%
Demand Savings	895 kW	903 KW	101%

* Based on Revised Program Goals, approved by CPUC on June 17, 2003

Summary

The evaluation results, from both surveys and site visits, indicate that these two Programs, while successful in 2002, showed continued improvement in 2003. SDG&E made minor modifications in the outreach and implementation materials, resulting in higher ratings on clarity and usefulness by customers. Fewer issues arose with customers regarding installation, and SDG&E staff continue to use Program policies to improve service, e.g., using contractual requirements with contractors to reduce the number of customers not

completing installation after the audits and the number of no-shows and late installations.

Participants express high levels of satisfaction with both the educational aspects of the Programs and with the free measures. Energy and demand savings goals were exceeded. This was accomplished through serving a greater number of customers, more effectively and at lower cost, and through higher quality installation products and processes.

I. Introduction

In December 2001, the California utilities (the Utilities) filed their Energy Efficiency Proposals for 2002 with the California Public Utilities Commission (CPUC). Part of the filing included plans for “Local Programs,” (i.e., programs to be implemented only in their service territories rather than statewide). In May 2002, the CPUC authorized funding for selected programs and stipulated the requirements for program Evaluation, Measurement and Verification (EM&V) studies for funded programs. In this funding cycle, San Diego Gas & Electric (SDG&E) received funding for two programs – Small Business Energy Assessment and EZ Turnkey (the Programs) - for 2002 and 2003. Quantec previously completed an EM&V report for 2002, submitted in July 2003.

This report provides the EM&V results, both process and impact analysis, for the Programs’ continuation in 2003.

The Programs

Small Business Energy Assessment Program

The Small Business Energy Assessment (SBEA) program provides energy audits to very small (less than 20 kW) hard-to-reach nonresidential customers. In 2003, customers were referred to the Programs through both of the contractors and through other of SDG&E’s Non-Residential programs. The energy audits, performed by the contractor, Power Logic, provide an assessment of energy consumption and result in proposals of energy-saving opportunities. During the audit, some low- and no-cost measures are installed. Customers interested in additional measures are scheduled through the EZ Turnkey Program. In 2003, SBEA contractor payment was based on pre-established, fee-per-audit basis.

EZ Turnkey Program

The EZ Turnkey program is designed to increase adoption of energy-efficient measures identified in the SBEA program. Only SBEA participants are eligible to receive Program benefits. SBEA customers are given a list of free program-eligible measures, Power Logic enters the authorized measures into the program database, and the EZ Turnkey contractor, American Lighting, contacts the customer to set up installation appointments. The Program database, to which the EZ Turnkey lighting contractor has access, is updated daily. As soon as the measures are installed, the contractor updates the database to reflect actual installation. SDG&E conducts quality control audits on 20% of the participating sites.

Evaluation Goals

The evaluation goals are:

- Verification of the number of measures installed and calculation of estimates of energy savings and demand reduction for 2003
- Assessment of the success in implementing the Programs as designed
- Assessment of participants' satisfaction and the degree to which the Programs influenced their businesses' energy efficiency

Report Format

Chapter II of this report outlines the evaluation methodology. Chapter III presents the results of the process evaluation components, including the views of Program stakeholders, and participant and nonparticipant survey responses. Chapter IV presents the results of the impact analysis, and conclusions from all data sources are discussed in Chapter V.

II. Methodology

Summary of Approach

For each program, the Quantec team reviewed appropriate Program materials and design documentation, performed interviews with key stakeholders, conducted telephone and on-site surveys with participating customers, and completed site visits to verify measure installation and retention. The process evaluation focused on an assessment of Program delivery and customer response and on changes in the second year of implementation. Data were collected through telephone and on-site surveys. The critical values for estimating Program impacts on energy usage and demand have already been stipulated in the Program Implementation Plans. As a result, the impact evaluation was limited to a review of the original assumptions and calculations and making adjustments to Program realization rates based on measure installations verified through the on-site visits.

Stakeholder Interviews

Quantec staff conducted in-depth, in-person interviews with the Program manager and with the Program implementation contractors. In all, we conducted four in-person interviews with stakeholders in January 2004.

Customer Surveys

In February and March, Quantec staff conducted 70 customer surveys with SBEA/EZ Turnkey participants. Table II.1 displays the completed surveys. Fifty of the 70 participant surveys were completed on site, while the remaining 20 were conducted by telephone. We also conducted 74 interviews with nonparticipating customers, categorized into three distinct populations.

- **Type 1.** Those who received Program promotional materials but chose not to participate
- **Type 2.** Those with no exposure to the Program
- **Type 3.** Those who received an audit but declined installation of any measures

For Type 1 nonparticipants, calls were made to the entire population, with only four completions after more than five call-backs to each number. Reasons for non-response included changes in businesses, refusals, and non-availability of contact. For Type 2 and 3 nonparticipants, random samples were selected from the populations.

See Appendix A for copies of stakeholder interview guide and customer surveys.

Table II.1: Survey Completions

Population	Surveys Planned	Surveys Complete
Program Participants	70	70
Non-participants		
Type 1 (n=18)	30	4
Type 2 (n=103,955)*	30	60
Type 3 (n=60)	10	10
Overall	140	170

* Population of "A" rate customers, minus 2002 and 2003 Participants

Site Visits

Quantec staff completed 50 site visits with participating customers (4% of the population), as shown in Table II.2.

Table II.2: Site Visit Summary

Program Year	Population	Sample
PY 2002	619	37
PY 2003	1,158	50

From the participant population, we chose a random sample using the following three-stage approach:

1. First, we organized the sites by zip code and alphabetically to ensure as complete a distribution of sites as possible.
2. Next, we extracted 149 sites by taking approximately every sixth site. This ensured random samplings from almost all zip codes.
3. The 149 sites were then organized to provide 50 primary site selections, with two alternates for each site visit completion needed.

During the unannounced site visits, staff conducted a comprehensive count, using data from the Program tracking system on the number and location of the measures, of all the measures installed. While on site, Quantec staff also conducted a survey of participants. In some cases, the visit was terminated and an alternate site chosen for the following reasons:

- The appropriate contact for the survey was not available
- The business had been discontinued or moved

The types of businesses visited are shown in Table II.3.¹

Table II.3: Participant Business Types: Site Visits

Business Types	PY 2002		PY 2003	
	Frequency	Percent	Frequency	Percent
Service	9	24%	7	14%
Restaurant	6	16%	7	14%
Office	7	19%	8	16%
Automotive	0	0%	1	2%
Retail	12	32%	18	36%
Medical	1	3%	4	8%
Barber/Beauty Salon	2	5%	5	10%
	37	100%	50	100%

Analysis

Analysis of the stakeholder interviews was conducted to identify emerging concepts and trends. We conducted statistical analysis of customer survey data, primarily calculation of frequency of response categories.

Using the stipulated values for wattage reduction and hours of use, original saving estimates for the visited sites were reassessed based solely on the verified installation. Realization rates – ratio of verified to reported savings – were then estimated for each measure in the sample and extrapolated to the entire population of participants.

In order to assess Program change over time, where appropriate, the evaluation team also compared the 2002 evaluation results with those found in 2003.

¹ These categories are not formal designations used by the utility, but reflect Quantec staff's assessment of the business type during the site visit.

III. Process Evaluation Results

Stakeholder Views

Program Development & Administration

The SBEA and EZ Turnkey Programs were envisioned as a unique approach, providing very small business customers with free measures accompanied by energy education. In the past, audit and measure installation programs of this type required a co-payment, which was a significant barrier to participation for such small customers.

Two contractors, one each for assessment and lighting installation, deliver the Programs. SDG&E stakeholders felt that having two different contractors was still necessary. As one staff member noted, the split results in better customer service. The energy assessment contractor keeps Program goals in mind, and the customer benefits from knowing “everything that will help them save energy,” not just about lighting. Another noted that it helps to have the assessment contractor on board as their staff are not salespeople, but focus more on education and the overall intent of the Program.

Key to the success of coordinating delivery using two contractors is the Track-It-Fast Database (the Database). The Database allows the two firms to closely and effectively work together, and, as one contractor noted, “there is now a pretty high correlation between what is recommended and what is installed.” Another noted that, in the first year of implementation, they probably relied more on e-mail and phone communication, while in 2003 they relied more heavily on the Database. Communication between all Program actors was rated as generally very effective.

The Programs’ goals were increased in May 2003 (based on having reached original goals by May with \$75,000 remaining) and approved on by the CPUC on June 17, 2003. The staff and contractors felt the Programs’ goals were more reasonable than in 2002. The more reasonable goals, as well as a change in reimbursement allowing payment to the assessment contractor on the basis of the number of audits completed, made it easier to include very small businesses (where per-site savings were quite low). Still, one contractor noted that some businesses, such as bars and restaurants with many 8-ft T8s and 12-ft T10s, could not be served as the savings on these measures are too low to make them cost-effective interventions.

The bridge funding provided by the CPUC for the first quarter of 2003 allowed the Programs to obtain some of the savings early in the year, and ultimately, the Programs’ goals were obtained with \$75,000 of incentive monies remaining. As noted above, these remaining funds were used to

expand the number of participants. The Programs' goals were to provide 950 energy assessments and 1,158 were completed.

The types of businesses in the Programs did not change significantly in 2003, with many retail businesses and offices represented. One contractor noted, however, that, having completed implementation in 2002, they were more knowledgeable about the concerns of specific businesses and how to approach them, making it much easier to solicit participation in 2003.

Two stakeholders mentioned that the Programs had a higher-than-expected rate of withdrawal in 2003. The customer withdrawal rate also increased from 4% during the bridge-funding period (1st quarter 2003) to 8% for the remainder of the year. One staff member thought that paying the assessment contractor based on the number of audits completed might have contributed to the withdrawal rate. As a result, the payment basis in 2004 will be on kWh saved, rather than on the number of audits the contractor completes.

Outreach & Marketing

As in 2002, "A rate" customers were identified by zip codes, and the assessment contractors, with badges, a ladder, and sample bulbs, went door to door telling customers about the Program. While the South Bay area was a key focus in 2002, target areas in 2003 were the coastal and eastern sections of the service territory. All of those interviewed agreed that the door-to-door approach is still the most effective approach for reaching these small customers.

A few simple changes in the Program materials were made in 2003, including substituting a brightly colored file folder holding the marketing materials and contract documentation for the thick "Power to Save" booklet. Staff and contractors said that the folder was easier for customers to file and that the bright color helps them to remember it if they call with a question. Staff can easily refer them back to the contract documentation in the folder.

In 2003, a policy change allowed customer leads to come not only from the Energy Assessment Contractor, but also from SDG&E's Non-Residential Energy Audit Program, the EZ Turnkey contractor, and Program staff. This change resulted in the inclusion of 25 additional referrals, most (18) coming from American Lighting. The EZ Turnkey contractor believes their firm could make many more referrals than were allowed by SDG&E if they included all customers to whom they have proposed lighting projects to in the past, but who, at that time, could not afford the installation.

Program Delivery

Delivery of the Programs was essentially the same in 2003 as in the first year of implementation. Once the business owners agreed to the audit, the contractor would conduct the assessment and review the findings with them.

Once the customer agreed to install the measures, they would sign an agreement, and the assessment contractor would refer the project to the installation contractor. If the customer did not sign the agreement during the audit, the contractor would leave a self-addressed, stamped envelope for them to return the agreement to SDG&E. Installation contractor staff would call the customer to schedule a convenient time for installation, with the goal to complete the installations within two weeks of the referral.

Program changes in 2003 included:

- Addition of mechanical time clocks for outdoor lighting
- Addition of more styles of spring lamps
- A one-year warranty on measures included in the customer agreement

Starting mid-year, American Lighting also began to leave a warranty sheet and business card with each customer. This practice seemed to reduce questions and provide assurance to customers that the products would last.

Customer Response

Program Issues. Staff and contractors reported that very few issues surfaced in 2003. Only a few late arrivals or no shows by installers were reported, and SDG&E staff noted that these would be addressed in 2004, with new contract clauses imposing penalties for these occurrences. In addition to striving to improve customer service by working on late arrivals or no shows by installers, American Lighting completes follow-up calls six months after installation to assess customer satisfaction and to “better identify batch problems with bulbs.”

SDG&E also took a greater role in specifying those lighting manufacturers whose products would be accepted for the Program. Only those manufacturers whose bulbs meet specific Kelvin ratings or provide better lumens per Watt are accepted. Staff noted that SDG&E also continues to demand lower prices on those bulbs installed most frequently.

Lessons Learned. Staff and contractors identified key elements in the Program’s success in 2003. These included:

- The choice of contractors with experience in the industry, and a history of dependable performance, has been important to the Programs’ second year success. While some issues have arisen regarding the contractors’ implementation of the Programs, SDG&E staff, by monitoring them closely and using contractual requirements to improve performance, have maintained high quality in Program delivery.
- Customer service is the top priority.

- Continued reduction in prices on bulbs and delivery should be expected.
- Targeting geographic areas, often at the street level, drives down the price for installation, and thus overall Program costs. This approach also supports word-of-mouth, neighborhood marketing.
- Providing free measures is essential with these very small business customers.
- SDG&E's sponsorship – use of name, shirts, badges – is a big factor in Program success.

Survey Results

Participants

The first series of questions posed to customers were designed to explore how they learned about the Programs and their reasons for participating. As shown in Figure III.1, most of the participants learned about the Programs when the contractor, going door to door, approached them. Also, as evident in Table III.1, potential participants were motivated to complete the energy survey by the free nature of the energy assessment and the opportunity to learn more about how to reduce their energy costs. Reasons for participation were similar to those identified in the 2002 evaluation.

Figure III.1: How 2003 Participants Learned about Program

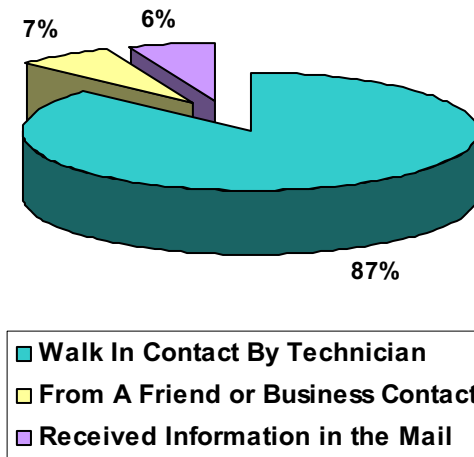


Table III.1: Reason(s) 2003 Customers Participated in Energy Survey

Reason	Frequency	Percent
To Get Free Lighting and Other Equipment	44	51%
To Learn More about Ways to Reduce Energy Costs	38	44%
Had Previously Participated in SDG&E Program	2	2%
Help the Environment	1	1%
A Neighboring Business Participated	1	1%
Total*	86	100%

* Multiple responses possible.

We also asked customers how important SDG&E’s Program sponsorship was to their decision to participate. As shown in Table III.2, 95% said it was “very important” or “somewhat important.” Indeed, numerous participants commented that they would not have even considered participating had the person approaching them not been associated with SDG&E. The majority of these customers further commented that utility sponsorship gave the Programs credibility and helped ease any fears of hidden or delayed costs. There was no significant difference in customer response to utility sponsorship in the 2002 and 2003 survey results.

Table III.2: Importance of Utility Sponsorship of Programs in 2003 Customer’s Participation Decision

Rating	Frequency	Percent
Very Important	50	71%
Somewhat Important	17	24%
Not At All Important	2	3%
Don't Know/Not Sure	1	1%
Total	70	100%

The next series of questions addressed the clarity and usefulness of the information that the audit participants received from the energy survey, the usefulness of the form used to show them potential savings from measure installation, and the overall clarity of the information they received from the energy assessment. As shown in Table III.3, more than three quarters of surveyed customers (76% - an almost 25% increase over 2002) remembered the specific information on the energy savings calculation form and said that they found it “very clear.” Approximately 60% of 2003 participants (versus 36% of those surveyed in 2002) rated the information provided on the form as “very useful” and as a “very important” factor in their decision to install the EZ Turnkey measures (see Figures III.2 & III.3). Eighty-three percent (compared to 67% in 2002) of participants rated the information provided to them, overall, as “very clear.”

This increase in customer ratings of the clarity and usefulness of the form may reflect the simplification of the form and the materials package in the 2003 Program year, as well as the experience of the energy assessment contractor in delivering the message. The increased effectiveness of the delivery of the energy assessment information is also reflected in the decreased number of participants in 2003 who said they did not remember (and thus could not rate the information).

Table III.3: Ratings of Clarity of Energy Savings Calculation Form

Rating	PY 2002		PY 2003	
	Frequency	Percent	Frequency	Percent
Very Clear	37	53%	53	76%
Somewhat Clear	1	1%	6	9%
Don't Know/Don't Remember	32	46%	11	16%
Total	70	100%	70	100%

Figure III.2: Ratings of Usefulness of Information

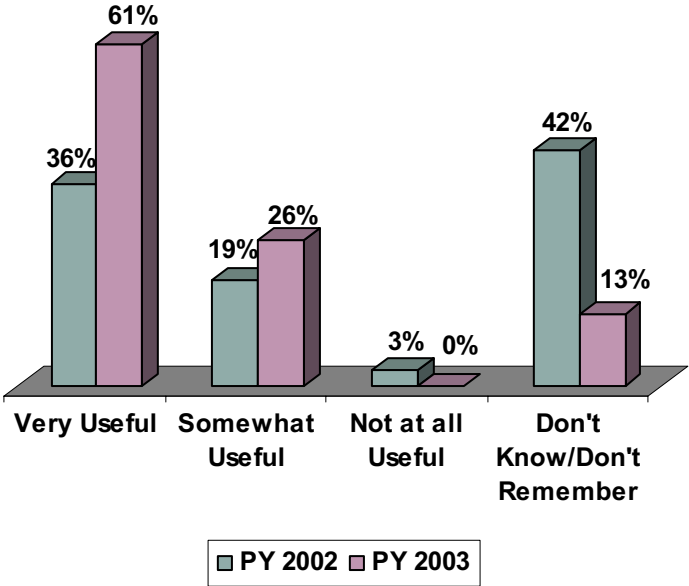


Figure III.3: Ratings of Importance of Energy Calculation Information

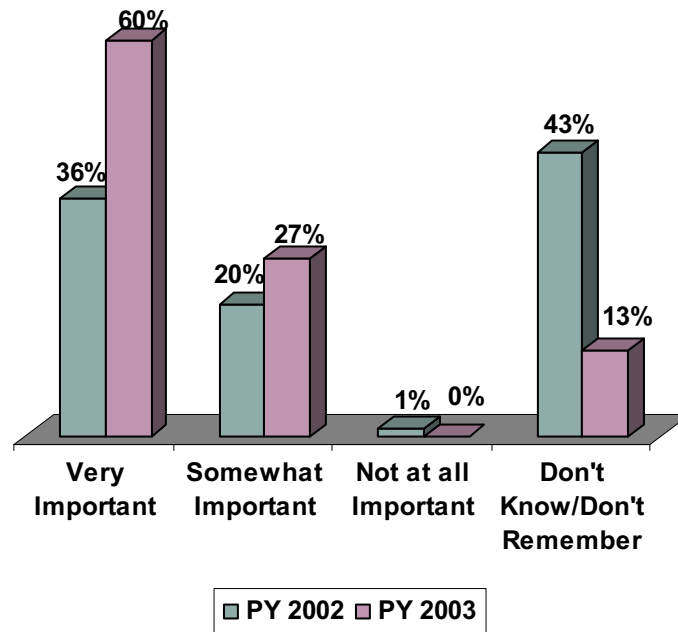


Table III.4: Ratings of Clarity of Overall Program Information

Rating	PY 2002		PY 2003	
	Frequency	Percent	Frequency	Percent
Very Clear	47	67%	58	83%
Somewhat Clear	1	1%	3	4%
Not at all clear	2	3%	0	0%
Don't Know/Don't Remember	20	29%	9	13%
Total	70	100%	70	100%

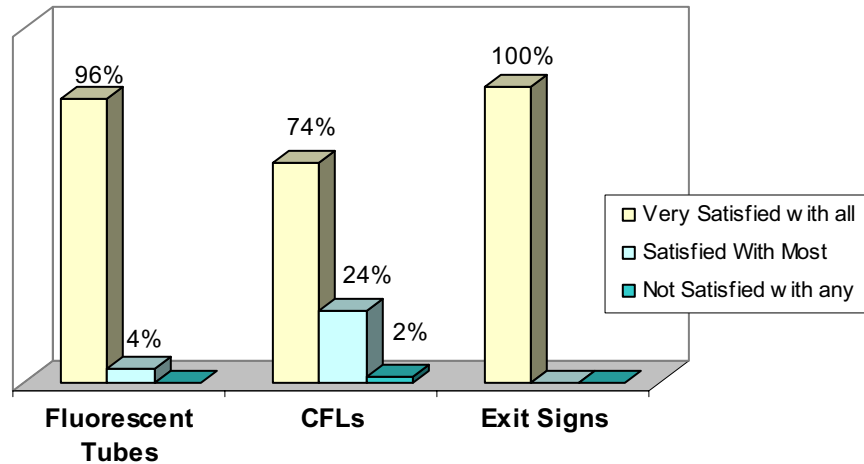
We also asked participants to rate various aspects of delivery of both the energy assessment and measure installation(s) (Table III.5). The majority of participants reported that both the energy assessment and subsequent installation were scheduled at a convenient time and completed in a reasonable amount of time. Only three customers said the installer did not arrive on time, and one of these said that the installer called to inform him of the change in schedule. No participants expressed concerns with the energy assessment component. There was no significant difference between the responses given by the 2003 participants and those provided by the 2002 participants.

Table III.5: Evaluation of Aspects of Energy Assessment & Installation

Evaluation Component	Yes	No	Don't Know/ Don't Remember
Energy Assessment			
Completed at a convenient time	97%	0%	3%
Completed in reasonable length of time	100%	0%	0%
Had concerns/issues with assessment	0%	100%	0%
Installation			
Scheduled at a convenient time	100%	0%	0%
Installer arrived on time	95%	4%	1%
Completed in a reasonable length of time	99%	0%	1%

Overall, the majority of participants surveyed were “very satisfied” with the measures installed. Reported satisfaction varied, however, by measure. While 96% and 100% of those who received fluorescent tubes and exit signs, respectively, were “very satisfied,” only 74% receiving CFLs rated their satisfaction as high. The common reasons given for the dissatisfaction with some of the compact fluorescent lighting included burn out issues, slow start-ups, and lack of light provided. Several participants specifically mentioned the CFLs installed in their restrooms, noting that the bulbs took a while to warm up and insufficiently illuminated the area.

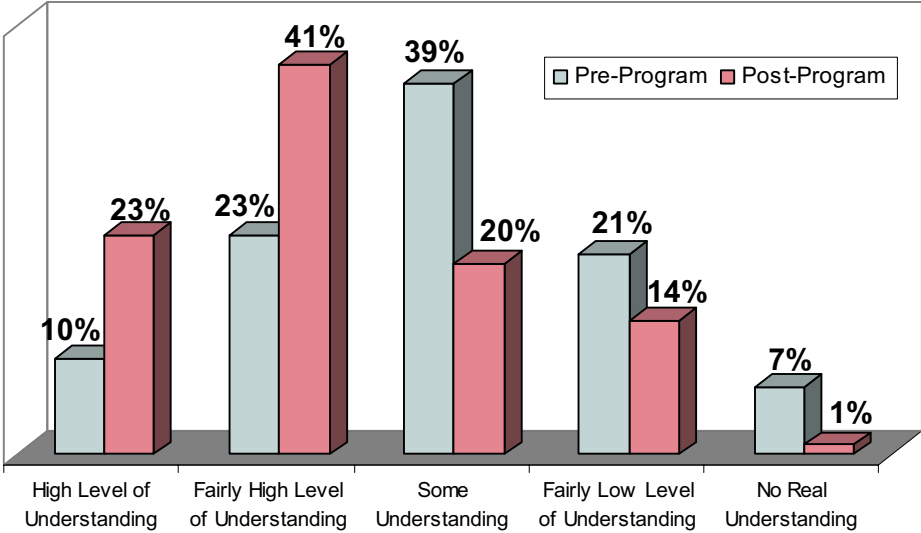
Figure III.4: Satisfaction with Lighting Installed: 2003



One measure of the effect of the Program on customer’s knowledge is whether improvement in energy efficiency understanding increased as a result of the Programs. As shown in Figure III.5, when asked to rate their pre- and post-Program understanding of how to improve energy efficiency in their business, both the number of customers reporting a “high level of understanding” and “fairly high level of understanding” more than doubled as a result of Program

participation. The general trend of increased post-participation knowledge is similar to that found for 2002, although fewer PY 2003 participants mentioned that the auditor provided additional suggestions on improving energy efficiency in other non-lighting aspects of their business.

Figure III.5: Pre- and Post-Program Understanding of Energy Efficiency in Business



We also asked customers what energy improvements they had made prior to the Program. As seen in Table III.6, more than one-third had made some improvements, with reducing their use of lighting. These figures virtually mirror the responses provided by the 2002 participants.

Table III.6: 2003 Participants’ Pre-Program Energy Improvements

Made Improvements?	Frequency	Percent
Yes	25	36%
No	45	64%
Total	70	100%
Types of Improvements Cited*		
Reduced lighting usage	13	
Installed additional CFLs	4	
Lowered water temperature setting	3	
Limit air conditioning usage	3	
Energy-efficient decisions made during remodel	2	
Shut down computers at night	2	
Installed several energy-efficient refrigerators	1	
Installed energy-efficient air conditioner	1	
Installed a programmable thermostat	1	

* Multiple responses possible.

For those reporting no pre-Program energy improvements, most were unsure why they had not taken actions. Those giving a reason for not making improvements cited “not owning the building” and “not being aware of potential energy saving actions.”

To assess free-ridership, we asked customers whether they had been involved in other utility-sponsored programs and to estimate the likelihood of installing the Program measures in the next two years in the absence of Program support. As shown in Tables III.7 and III.8, few customers had participated in other utility programs prior to participating in SDG&E’s Programs and none since. A very small percentage of participants said they were “very likely” to have installed any of the three measures in the next two years without the Programs. Almost twice as many respondents said they were at least “somewhat likely” to install the CFLs than install the fluorescent tubes without the Program support.

Table III.7: Reported Participation in Other Utility Programs: 2003

Participation	Yes		No	
	Frequency	Percent	Frequency	Percent
Participated in other programs prior	5	7%	65	93%
Participated in other programs since	0	0%	70	100%

Table III.8: Likelihood 2003 Participants Would Have Installed Lighting within the Next Two Years in Absence of Program (Freeridership)

	Fluorescent Tubes		CFLs		Exit Signs	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Very likely	2	3%	1	1%	0	0%
Somewhat likely	7	10%	14	20%	1	1%
Not at all likely	59	84%	41	59%	5	7%
Do not know/Not Sure	1	1%	2	3%	0	0%
Not included in retrofit	1	1%	12	17%	64	91%
Total	70	100%	70	100%	70	100%

Finally, as a qualitative assessment of the Programs’ impact on customers’ energy usage, we asked if they had noticed savings on their energy bill since participating in the Program (Table III.9). While 40% of the participants (down from 59% for 2002 participants) acknowledged receiving lower bills, several who did not report savings mentioned that other factors such as increased utility rates, additional non-lighting energy usage, and changes in business hours might have obscured Program-induced savings. Participants did, however, cite a range of non-energy benefits resulting from the lighting retrofit. These responses are shown in Table III.10, with brighter light, improved light quality, and less flickering the most common benefits cited.

Table III.9: Post-Program Savings on Energy Bill

Rating	PY 2002		PY 2003	
	Frequency	Percent	Frequency	Percent
Yes	41	59%	28	40%
No	14	20%	27	39%
Do not know/do not remember	15	21%	15	21%
	70	100%	70	100%

Table III.10: Other Benefits of Lighting Measure(s): 2003

Benefits	Frequency*
Brighter light	27
Higher quality light	20
Less flickering	7
Less noise	3
More even light distribution	3
Helped replace burned out lights	1
Cooler	1

* Multiple responses possible

Non-participants

Three types of nonparticipating customers were surveyed as part of the evaluation:

- **Type 1.** Those who received Program information (exposure) but chose not to participate in the energy assessment or install measures (Population = 18)
- **Type 2.** Those customers who had no exposure to the Program (Population = 103,955)
- **Type 3.** Those who had an audit but chose not to participate in the EZ Turnkey Program (Population = 60)

We asked these non-participants some of the same questions as of participants and some questions specific to their status. When questions were asked of each type of nonparticipant, the responses are shown by category type in the tables below.

The first set of questions explored the customers' past and current understanding of energy efficiency, as well as inquiring regarding any recent actions taken to improve energy efficiency in their business. As the data shown in Figure III.6 indicate, 64% of all surveyed non-participants had taken some action to improve energy efficiency in their business in the past year. The percentage reported having taken actions almost doubled from 2002,

when approximately 35% of all non-participants surveyed reported having taken actions to conserve energy. This may reflect a greater overall awareness of energy conservation as a result of the efforts made by many entities to educate the public as result of the state’s energy crisis and the subsequent rate increases; it might also be an artifact of the sample or the geographic difference in targeted businesses.

As shown in Table III.11, the majority of energy efforts made by non-participants focused on lighting – including both the installation of energy efficient lighting and efforts to reduce usage. Other non-participants mentioned lowering their heating temperature setting in the winter and raising their cooling setting in the summer, as well as the replacing older, less energy efficient equipment.

Figure III.6: Energy Actions in Business Taken by 2003 Non-Participants

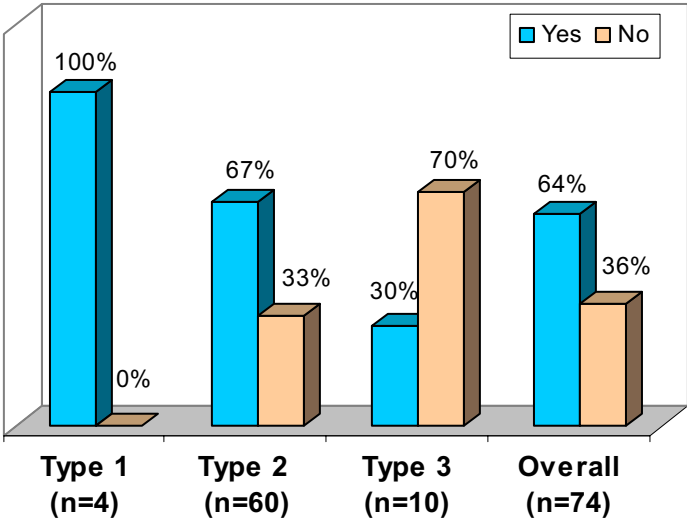


Table III.11: Specific Energy Efficiency Actions Taken by 2003 Non-Participants

Action	Frequency	Percent
Lighting	36	71%
Reduced heating/ac temperature	9	18%
Replaced inefficient equipment with efficient model	5	10%
Switched to Time-of-Use Metering	1	<1%
Total	51	100%

More than half (57%) of the all the non-participants surveyed described their understanding of how to improve their business’ energy efficiency as “Very

High,” with only 19% rating their understanding as “Fairly Low” or “No Real Understanding.” As shown in Figure III.7, a greater percentage of 2003 non-participants with no exposure to the Programs than those in 2002, rated their understanding of energy efficiency at a “high level” or a “fairly high level.” The percentage also increased from 2002 to 2003 among surveyed non-participants with some exposure to the Programs, although the increase is not as large as that for those with no exposure. These results, however, may reflect the increase in the 2003 sample size, rather than any significant difference over time in the non-participants.

Figure III.7: Non-Participants (No Exposure to Program) Rating of Understanding of How to Improve Energy Efficiency in Their Business

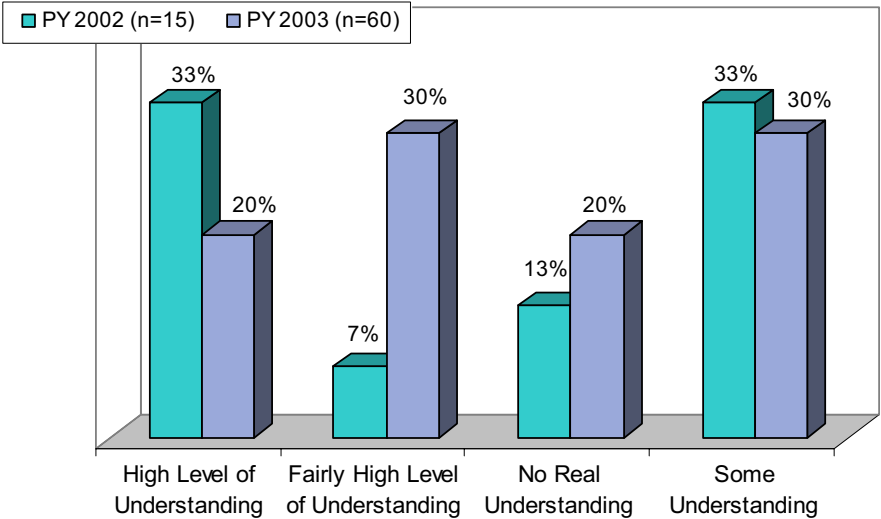
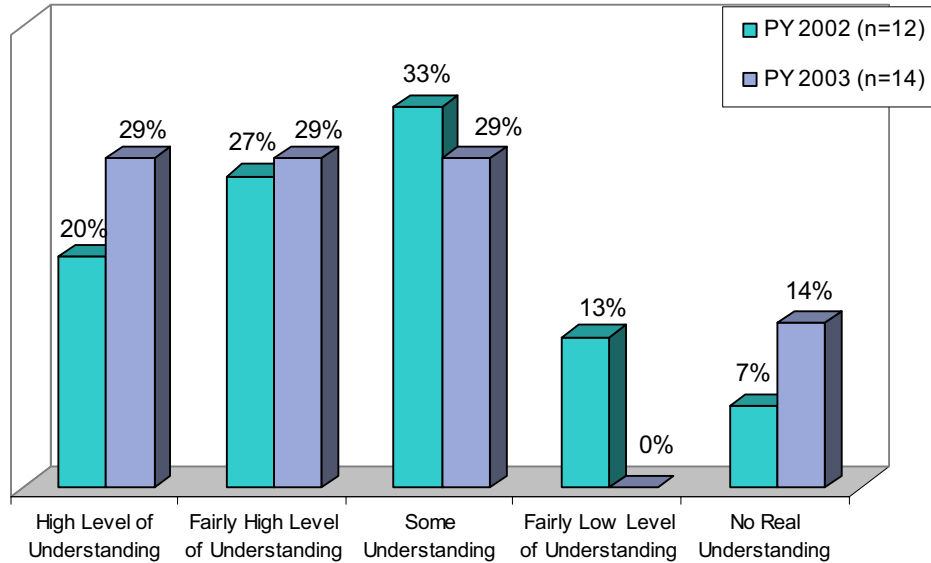


Figure III.8: Non-Participants (Program Exposure) Rating of Understanding of How to Improve Energy Efficiency in Their Business



We also asked non-participants who had received information about the Programs to identify their primary reasons for not taking advantage of them. As shown in Table III.12, half of these non-participants reported having already installed energy efficient lighting or that they were planning on doing so as part of an upcoming remodel or retrofit. Others were simply too busy when approached, not interested, or not contacted by SDG&E after their initial solicitation.

Table III.12: Reasons for Nonparticipation (2003)

Reason	Frequency	Percent
Already planning remodel/retrofit	4	29%
Already installed efficient lighting	3	21%
Not interested	2	14%
SDG&E never returned after initial audit	2	14%
Too busy	2	14%
Chain store - decision made at corporate level	1	7%
Total	14	100%

When asked if they would be interested in participating in Programs like these if they were offered again, nine of these same 14 non-participants replied “yes.” An additional two non-participants said they might be interested but would need more details to determine if the Programs were a good fit for their business. These responses are virtually the same as those given by 2002 non-participants.

IV. Impact Evaluation Results

Most of the energy and demand impact components were stipulated in the Program Implementation Plan (PIP). Those components included wattage reduction, hours of use, and net-to-gross ratios. This evaluation was limited to verification of installation rates and assessment of corresponding realization rates.

The Programs had a total of 1,158 participants who had 67,878 measures installed at their place of business. A list of the measures and the number of installations (as recorded in the Program’s database) for the Program overall, as well as the measures verified during the 50 site visits, is presented in Table IV.1. As shown, the distribution of the measures in the sample is similar to that of the participant population.

Table IV.1: Distribution of Installed Measures in Site Visits and Population

Measure	Sample Size (n=50)		Population (n=1,158)	
	Frequency	Percent	Frequency	Percent
High Efficiency LED Exit Signs New Exit Sign	7	0.24%	167	0.25%
Install 2 4ft T-8 Lamp & Elec. Ballast convert 8ft	16	0.55%	2,307	3.40%
Install 2ft T-8/T-5 Lamp & Elec. Ballast	---	0.00%	10	0.01%
Install 2ft T-8/T-5 Lamp & LBO Elec. Ballast	6	0.21%	18	0.03%
Install 4ft T-8/T-5 Lamp & LBO Elec. Ballast	2,337	80.61%	55,446	81.68%
Screw-in 14-26 watt CF Lamp	146	5.04%	3,923	5.78%
Screw-in 15 watt CF Lamp with Reflector	236	8.14%	4,058	5.98%
Screw-in 23 watt CF Lamp with Reflector	135	4.66%	1,655	2.44%
Screw-in 5-13 watt CF Lamp	16	0.55%	254	0.37%
Wall-box Lighting Sensor	---	0.00%	40	0.06%
Total	2,899	100%	67,878	100.00%

Overall, we found a very high rate of consistency between reported installations and those verified during site visits. The verified rate of installation for all measures was 98.5%. The measures and their individual installation rates are provided in Table IV.2 below.

In fact, only 43 of the 2,899 measures installed at the 50 participants included in the site visit sample were not located and/or were found inoperable by Quantec. Further, all exit signs, 4ft T8 retrofits of T12 8ft fixtures, 2 ft T8s and 5-13 watt CFLs included in the sample were located and operational.

Table IV.2: Verification of Installation by Measure

Measure	Reported (from Database)	Located		Located and Operational	
		No. Measures	Realization Rate	No. Measures	Realization Rate
High Efficiency LED Exit Signs New Exit Sign	7	7	100.0%	7	100.0%
Install 2 4ft T-8 Lamp & Elec. Ballast convert 8ft	16	16	100.0%	16	100.0%
Install 2ft T-8/T-5 Lamp & LBO Elec. Ballast	6	6	100.0%	6	100.0%
Install 4ft T-8/T-5 Lamp & LBO Elec. Ballast	2,337	2,329	99.7%	2,321	99.3%
Screw-in 14-26 watt CF Lamp	146	143	97.9%	142	97.3%
Screw-in 15 watt CF Lamp with Reflector	236	221	93.6%	217	91.9%
Screw-in 23 watt CF Lamp with Reflector	135	135	100.0%	131	97.0%
Screw-in 5-13 watt CF Lamp	16	16	100.0%	16	100.0%
	2,899	2,873	99.1%	2,856	98.5%

Table IV.3 details of the differences between the Program Database and the site visit verifications performed by Quantec. The majority of the disparity can be attributed to attrition of the lighting measures. Indeed, at the time of Quantec’s site visits, 29 located measures were either burned out or had been removed by the participant after burning out. The remaining differential consisted of fluorescent tubes and/or CFLs that were reported in the Database but could not be located during the site verification. Quantec utilized an exhaustive list of measures, which included their respective locations at each site, provided by SDG&E. Any time that a measure on that list could not be located, Quantec spoke with the site’s designated contact to inquire whether that specific measure had not been installed, installed in a different location, or replaced due to measure failure or participant dissatisfaction. Only those measures that could not be located even with the help of the primary contact were finally identified as “Unable to Locate” and deducted from the number calculated in the Database.

Table IV.3: Breakdown of Site Visit Discrepancies

Measure	Not Located and/or Not Operational	Percent of Sample	Reason for Discrepancy	No. Measures
Install 4ft T-8/T-5 Lamp & LBO Elec. Ballast	16	0.68%	Additional Measures Located	(6)
			Burn Out	14
			Unable to Locate	8
Screw-in 14-26 watt CF Lamp	4	2.74%	Burn Out	1
			Unable to Locate	3
Screw-in 15 watt CF Lamp with Reflector	19	8.05%	Burn Out	10
			Unable to Locate	9
Screw-in 23 watt CF Lamp with Reflector	4	2.96%	Burn Out	4
Overall	43	1.48%		43

In order to estimate overall Program savings, the energy and demand impacts of each measure were determined independently. Approved deemed per-unit kWh and kW values were multiplied by the actual installation of each measure. The Programs' overall kWh and kW savings were simply the sum of these individual savings calculations.

Table IV.4: Calculation of kWh and kW Savings by Measure

Measure	Frequency	Net kWh/Unit*	Net kW/Unit*	Realization Rate	Total Net kWh	Total Net kW
High Efficiency LED Exit Signs New Exit Sign	167	302.75	0.0345	100.00%	50,559	5.768
Install 2 4ft T-8 Lamp & Elec. Ballast convert 8ft	2,307	46.99	0.0086	100.00%	108,411	19.738
Install 2ft T-8/T-5 Lamp & Elec. Ballast	10	45.00	0.0082	100.00%	450	0.082
Install 2ft T-8/T-5 Lamp & LBO Elec. Ballast	18	57.67	0.0105	100.00%	1,038	0.189
Install 4ft T-8/T-5 Lamp & LBO Elec. Ballast	55,446	46.99	0.0086	99.32%	2,587,681	471.013
Screw-in 14-26 watt CF Lamp	3,923	218.88	0.0443	97.26%	835,140	169.116
Screw-in 15 watt CF Lamp with Reflector	4,058	213.60	0.0384	91.95%	797,005	143.282
Screw-in 23 watt CF Lamp with Reflector	1,655	286.22	0.0518	97.04%	459,665	83.256
Screw-in 5-13 watt CF Lamp	254	179.28	0.0350	100.00%	45,537	8.889
Wall-box Lighting Sensor	40	89.27	0.0349	100.00%	3,571	1.394
Total	67,878				4,889,057	903

* The Net Per-Unit value was calculated by dividing the Program's forecasted overall savings for a measure by the forecasted number of measure installations.

Table IV.5 below compares:

- 1) The original program goal
- 2) The deemed impacts based on actual participation
- 3) The actual savings based on the site visit verification:

As evident in the table, the Program exceeding its goals in terms of both net energy and demand savings.

Table IV.5: Energy and Demand: Goals and Realized

	Realized Impact	Actual Deemed Savings	Realized Vs. Deemed	Goal	Realized vs. Goal
Energy Savings (kWh)	4,889,057	5,042,947	97.50%	4,763,948	103%
Demand Savings (kW)	903	934	97.51%	895	101%

* Based on Revised Goals, approved by the CPUC on June 17, 2003.

V. Conclusions

The evaluation data indicate that the SBEA and EZ Turnkey Programs continued to provide effective outreach, education, and installation of measures to targeted small business customers in 2003.

- Staff and contractors found that continuing to deliver the Programs using the same two, seasoned contractors, making minor adjustments to contractual requirements and the basis of payment, has contributed to the Programs' ongoing success in reaching goals.
- SDG&E has increased the quality of lighting products eligible for the Programs by restricting purchase to only those that meet a given level of lumen output. And, for these products, SDG&E has continued to seek additional price reductions.
- A greater percentage of 2003 participants rated usefulness and clarity of the energy assessment very positively than those surveyed for 2002. Twenty-five percent more participants in 2003 than in 2002 also rated utility sponsorship of the Programs as very important to the decision to participate.
- Almost 100% of participants were satisfied with the scheduling and conducting of the energy assessments and the installations.
- While almost all participants were very satisfied with installed exit signs and fluorescent tube lighting, issues such as burn outs, reduced lighting, and slow warm ups led to less satisfaction with CFLs.
- Participants in both Programs reported an increase in their knowledge of energy efficiency in their business as a result of participation, as did 2002 surveyed participants. 2003 non-participants surveyed, however, were much more likely than their 2002 counterparts to rate their knowledge of energy efficiency as very high and to have taken energy efficiency actions in their business.
- Cost reductions resulted in the Programs having met their goals, with budget remaining, by May 2003. The Program continued to serve customers with the surplus, providing energy assessments to 1,158 customers, 208 more than the original goal.
- Energy and demand savings goals were exceeded. This was accomplished through serving a greater number of customers, more effectively, and through higher quality products and installation processes.

Appendix A. Interview Guide and Customer Surveys

Name: _____ Title: _____
Date: _____ Interviewer: _____
Entered/formatted: _____ / File name: _____

Interview Guide: Stakeholders

SDG&E: Small Business Assessments and “EZ” Turnkey Programs 2003

Program Roles

1. What has been your role in this second year of the program?

Have there been any changes in your program responsibilities?

What are your current responsibilities?

2. How would you describe the contributions of the various stakeholders to the program's current design and delivery?

Any changes in 2003?

3. How effective has communication been between stakeholders this year? Any changes over last year?

4. **IMPLEMENTERS ONLY:** Have there been any changes in your contract this year? In your roles? (explore fee levels, expectations of staff, etc.)

Program Goals and Objectives.

1. Last year, the goals and objectives, focused on energy savings, led to identifying business that could provide the most energy savings – to ensure that program goals were met. Did this change in 2003? If so, how? If not, why not?
2. To what extent were 2003 goals reasonable, given budgets, timeline, and history with these market sectors?
3. How did participation in both programs change this year? Can you describe how this has worked in implementation?

c. What aspects, if any, were not as successful as envisioned?

d. Could these be improved? If so, how?

e. If no, what barriers existed to achieving these goals/objectives?
How might these barriers be addressed in the future?

Overall Implementation

1. Have any examples of best practices for implementing the programs emerged from the past two years?

2. Are there aspects of the program you would change to improve it in the future? Do you think that a program such as this or similar to this one is still needed to address the needs of hard-to-reach, small businesses? If yes, why? If no, why not?

3. What key things have been learned during these two years of program implementation? (Probe: things you might apply to future program efforts)

4. Do you have any other comments?

**SDG&E Local Non-Residential Small Business Energy Assessment and
EZ Turnkey 2003**

Participant Survey

Insert customer name:

Hello, my name is _____. I'm calling (surveying) on behalf of San Diego Gas & Electric. We are following up with customers who we visited last year to recommend some energy-saving equipment they could install. You may have received some new equipment - such as new lighting-through our EZ Turnkey Program. Our records show that one of our technicians visited your business in (mo) ___(yr)_____ to talk to you about energy savings and installing free equipment.

[If uncertain, or does not want to participate, thank and terminate.]

Are you the person who worked with the SDG&E technician from Power Logic or American Lighting? [Probe with Ken Moss or Cesar if needed]

If yes, proceed.

If no, ask when that person will be available or how to contact (could be landlord)

INTRO

We are conducting a survey of customers who received energy surveys and various energy efficiency equipment to learn about their experience with the program. This information will help SDG&E to determine the energy savings achieved through the programs and improve its services to small business customers like you. All information will remain confidential. IF NEEDED [phone surveys only]: This survey will take about 10 minutes. Is this a good time to talk?

[If customer indicates this is not a good time, ask if you can call again and what might be a good time to do so. RECORD TIME FOR CALLBACK:

_____]

1. First, I'd like to ask how you learned about this program? [*Do not read, check all that apply*]

- Walk in contact by technician
- From a friend or business contact (word-of-mouth)
- Other (Specify): _____

2. Why did you decide to participate in the energy survey?

- To understand more about how energy costs are determined
- To learn more about ways to reduce energy costs
- To get free lighting and other equipment
- A neighboring business or friend participated
- A competing business participated
- Technician indicated that the energy survey would help me
- Other (Specify): _____

The technician provided you information to help you understand energy costs and ways to manage them. I'd like to ask you to rate this information.

3. First, the technician used a form to show you specific information about energy use in your business and how you could save energy. How clear was this information? Would you say it was:

- 1 Not at all clear
- 2 Somewhat clear
- 3 Very clear
- 9 Don't know/don't remember (do not read)

4. How useful was this information about energy use in your business? Would you say it was:

- 1 Not at all useful
- 2 Somewhat useful
- 3 Very Useful
- 9 Don't know/don't remember (do not read)

5. How important was the information on this form in helping you decide to install the new equipment? Would you say it was:

- 1 Not at all important
- 2 Somewhat important
- 3 Very important
- 9 Don't know/don't remember (do not read)

6. Second, the technician provided information about the EZ Turnkey Program and the free equipment that could be installed in your business. How clear was this information? Would you say it was:

- 1 Not at all clear
- 2 Somewhat clear
- 3 Very clear
- 9 Don't know/don't remember (do not read)

Now, I'd like to ask you a few questions about the technician's visit to your business.

7. Was the energy survey completed at a time that was convenient to you?

- Yes
- No
- Don't know/don't remember

8. Did the technician complete the energy survey in a reasonable length of time?

- Yes
- No
- Don't know/don't remember

9. Did you have any issues or concerns with the energy survey?

- Yes
- No [GO TO Q. 10]
- Don't know/don't remember [GO TO Q. 10]

What were these issues? _____

10. Before you participated in this program, what was your understanding of how to improve your business's energy efficiency? Would you say that you had a:

- 5_High level of understanding
- 4_Fairly high level of understanding
- 3_Some understanding
- 2_Fairly low level of understanding

1_ No real understanding

11. After participating in the energy survey, how would you rate your understanding of how to improve your business's energy efficiency? Would you say that you have a:

5_ High level of understanding

4_ Fairly high level of understanding

3_ Some understanding

2_ Fairly low level of understanding

1_ No real understanding

Now, I would like to ask you about the installation of the lighting or other equipment.

12. Was the installation of equipment scheduled at time that was convenient to you?

Yes

No

Don't know/Don't remember

13. Did the installer arrive at the agreed upon time?

Yes [GO TO Q. 14]

No

Don't know/Don't remember [GO TO Q. 14]

13a. Did they call you to inform you of the change in time?

Yes

No

Don't know/Don't remember

14. Did the installer complete the installation in a reasonable length of time?

Yes

No

Don't know/Don't remember

Our records show that you had a variety of new energy efficient equipment installed in your business. I would like to ask you a few questions about this equipment.

15. [Equipment from database] – ex. Lighting

How much of the lighting equipment installed is operating in your business at this time?

All (GO TO 15b)

Some

None

15a. For those not operating: why is this equipment not operating at this time?

15b. How satisfied have you been with the lighting installed in your business? Would you say:

5 Very satisfied with all of the lighting

4 Satisfied with most of the lighting

3 Satisfied with only some of the lighting

2 Satisfied with very little of the lighting

1 Not satisfied with any of the lighting

15c. What is the likelihood that you would have installed the lighting in the next two years if this program had not been available? Would you say it was:

3 Very likely

2 Somewhat likely

1 Not at all likely

9 Don't know/not sure

16. [Equipment from database] – ex. Light sensor

Is the light sensor(s) installed operating at this time?

Yes [GO TO Q. 16b]

No

16a. If not operating: why is the sensor(s) not operating?

16b. How satisfied have you been with the light sensor installed in your business? Would you say:

- 5 Very satisfied
- 4 Somewhat satisfied
- 3 Neither satisfied nor dissatisfied
- 2 Somewhat dissatisfied
- 1 Not satisfied with any of the lighting

16c. What is the likelihood that you would have installed the light sensor within the next two years if this program had not been available? Would you say it was:

- 3 Very likely
- 2 Somewhat likely
- 1 Not at all likely
- 9 Don't know/not sure

17. [Equipment from database] – next

Is the _____ installed operating at this time?

Yes [GO TO Q. 17b]

No

17a. If not operating: why is the _____ not operating?

17b. How satisfied have you been with the _____ installed in your business? Would you say:

- 5 Very satisfied
- 4 Somewhat satisfied
- 3 Neither satisfied nor dissatisfied
- 2 Somewhat dissatisfied
- 1 Not satisfied with any of the lighting

- 17c. What is the likelihood that you would have installed the _____ within the next two years if this program had not provided it? Would you say it was:
- 3 Very likely
 - 2 Somewhat likely
 - 1 Not at all likely
 - 9 Don't know/not sure

[Equipment to continue as needed with same series of questions for each]

18. The technician may have recommended other actions, beyond the free equipment installed, which could help reduce your energy costs. Do you remember these recommendations?

Yes
No [GO TO Q.19]

- 18a. Have you adopted any of those recommendations?

Yes
No [GO TO Q. 18c]

- 18b. What actions have you taken?

- 18c. Do you plan to take any of these actions the future?

Yes [GO TO Q. 19]
No
Don't know [GO TO Q19]

- 18d. Why have you decided not to do the recommended actions?

19. Have you noticed savings on your energy bill?

Yes
No

20. In addition to savings on your bill, what other benefits, if any, have you seen from the new equipment – lighting, etc. – that were installed?

21. Had you made energy saving improvements in your business prior to participation in these programs?

Yes

No [GO TO Q. 21b]

21a. What improvements had you made? _____

21b. Why had you not made improvements before? _____

22. Have you participated in any SDG&E programs prior to this one?

Yes

No [GO TO Q. 23]

Don't know/don't remember [GO TO Q. 23]

22a. Which programs?

23. Have you participated in any SDG&E programs since you received the energy survey and free equipment?

Yes

No [GO TO Q.24]

23a. Which programs?

24. In deciding to have the energy survey and install the lighting, how important was it to you that SDG&E was providing the program?

- 1 Very important
- 2 Somewhat important
- 3 Not at all important
- 9 Don't know/not sure

Before we end, I'd like to ask about your energy use.

25. What are the main uses of energy in your business?

- Lighting
- Air conditioning
- Refrigeration
- Cooking
- Other: (Specify _____)

25b. For each listed: What fuel is used to power this use?

26. What other factors affect how you use energy in your business?

27. Do you have any comments or suggestions about the Small Business Energy Survey and EZ Turnkey programs?

Those are all the questions I have for you today. I would like to thank you for your time and for participating in the SDG&E program.

**SDG&E Local Non-Residential Small Business Energy Assessment and
EZ Turnkey [Small Business Lighting Retrofit Program] 2003**

**Nonparticipant Type I (Information only) and III (Information & Audit,
no measures)**

Utility:

Contractor:

Customer name:

Hello, my name is _____. I'm calling on behalf of SDGE. We are following up with small business customers who are eligible for an energy survey and free equipment – such as lighting - from SDG&E. Last year, one of our technicians contacted your business. Are you the person who was contacted by an SDG&E technician about the survey and equipment available?

If yes, continue.

If no: is there someone else in your business that would know about this?

If yes, ask for name and contact time or number.

If no, Thank and end.

Do you have a few moments to answer some questions about energy use in your business?

If yes, proceed.

If no, ask if we can schedule a time to call back

Intro

1. First, have you taken any actions in the past two years to conserve energy in your business?

Yes

No [GO TO Q.2]

Don't know/don't remember [GO TO Q.2]

1a. What actions have you taken?

Use code if mentioned:

- 1 Energy efficient lighting
- 2 Replaced old equipment with more energy efficient (refrigeration, office equipment, motion sensors, hot water – specify: _____)
- 3 Installed weatherization measures (caulk, weatherstripping, ee windows)
- 4 Reduced water heating temperature
- 5 Reduced heating/ac temperature
- 6 Programmable thermostat
- 7 Light sensor
- 8 Other (Specify _____)

2. Did you take any of these actions with assistance from an SDG&E program?

Yes

No [GO TO Q. 2b]

2a. Which program(s)?

2b. Did you take these actions with assistance from a program sponsored by some other organization?

Yes

No [GO TO Q. 3]

2c. Which agency or organization provided this assistance?

3. On a scale where 1 indicates “no real understanding” and 5 indicates “high level of understanding, how would you rate your understanding of how to improve your business’s energy efficiency? Would you say:

- 5_ High level of understanding
- 4_ Fairly high level of understanding
- 3_ Some understanding
- 2_ Fairly low level of understanding
- 1_ No real understanding

4. When the SDG&E technician called on you about the availability of a free energy survey and energy efficient equipment, what did you think of the offer?

5. Did the technician leave information with you about the program?

Yes

No [GO TO Q. 6]

Don't know/don't remember [GO TO Q. 6]

5a. How clear was this information? Would you say it was:

1 Not at all clear

2 Somewhat clear

3 Very clear

4 Don't know/don't remember

6. FOR THOSE WITH NO AUDIT:

What is the main reason you chose not to have the energy survey and install the equipment offered?

1 Already installed efficient lighting

2 Just not interested

3

FOR THOSE WITH AUDIT BUT NO INSTALLATION:

What is the main reason you chose not to install the equipment offered?

7. Would you be interested in participating if this program were offered again?

Yes [GO TO Q. 8]

No

Not sure/it depends

7a. Why are you not interested in future programs (or not sure if you would like to participate)?

Before we end, I'd like to ask you about your energy use.

8. What are the main uses of energy in your business?

Lighting

Air conditioning

Refrigeration

Cooking

Other (Specify _____)

8b. For each listed: What fuel is used to power this use?

9. What other factors affect how you use energy in your business?

10. SDG&E is interested in the needs of small business customers. Do you have any comments or suggestions about how the utility might better meet your energy needs?

These are all the questions I have for you today. I would like to thank you for your time.

**SDG&E Local Non-Residential Small Business Energy Assessment and
EZ Turnkey [Small Business Lighting Retrofit Program] 2003**

Nonparticipant Type II (No exposure to Program)

Utility:

Customer name:

Hello, my name is _____. I'm calling on behalf of SDGE. We are doing a brief survey with small business customers to explore possible ways in which we might help them save energy. Are you the person who pays the utility bill and/or makes decisions about energy use in your business?

If yes, continue.

If no: is there someone else in your business that would know about this?

If yes, ask for name and contact time or number.

If no, Thank and end.

Do you have a few moments to answer some questions about energy use in your business? (Five minutes or less)

If yes, proceed.

If no, ask if we can schedule a time to call back

Intro

1. First, have you taken any actions in the past two years to conserve energy in your business?

Yes

No [GO TO Q.2]

Don't know/don't remember [GO TO Q.2]

1a. What actions have you taken?

Use code if mentioned:

- 1 Energy efficient lighting
- 2 Replaced old equipment with more energy efficient (refrigeration, office equipment, motion sensors, hot water – specify: _____)

- 3 Installed weatherization measures (caulk, weatherstripping, ee windows)
- 4 Reduced water heating temperature
- 5 Reduced heating/ac temperature
- 6 Programmable thermostat
- 7 Light sensor
- 8 Other (Specify _____)

2. Did you take any of these actions with assistance from an SDG&E program?

Yes

No [GO TO Q. 2b]

2a. Which program(s)?

2b. Did you take these actions with assistance from a program sponsored by some other organization?

Yes

No [GO TO Q. 3]

2c. Which agency or organization provided this assistance?

3. On a scale where 1 indicates “no real understanding” and 5 indicates “high level of understanding, how would you rate your understanding of how to improve your business’s energy efficiency? Would you say:

- 5_ High level of understanding
- 4_ Fairly high level of understanding
- 3_ Some understanding
- 2_ Fairly low level of understanding
- 1_ No real understanding

4. What are the main uses of energy in your business?

- Lighting
- Air conditioning
- Refrigeration
- Cooking
- Other (Specify _____)

- 4b. For each listed: What fuel is used to power this use?
5. What other factors affect how you use energy in your business?
6. SDG&E [SCE] is interested in the needs of small business customers. Do you have any comments or suggestions about how the utility might better meet your energy needs?

These are all the questions I have for you today. I would like to thank you for your time.