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**Southern California Edison Company's
2002 Energy Efficiency Programs
Final Fourth Quarter Report**

May 2003

**Southern California Edison Company's
2002 Energy Efficiency Programs
Final Fourth Quarter Report**

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Program Title: **Residential Appliance Recycling Program**

I. Program Overview

The Residential Appliance Recycling Program (RARP) is a statewide investor-owned utilities program designed to reduce energy usage by allowing eligible residential customers (single family and multifamily owners/landlords and tenants) to dispose of their functioning, inefficient primary and secondary refrigerators and freezers in an environmentally safe manner. Two units, refrigerators or freezers, may be recycled per customer service location per program year. Participation is on a first-come, first serve basis. A recycling incentive of \$35 or a five-pack of compact fluorescent lamps (CFLs) is offered to customers who recycle units between 10-27 cubic feet.

II. Program Budget

The following table reflects the authorized program budget including any fund shifts, which may have occurred in support of the 2002 energy efficiency program.

Table 1 – Budget and Expenditure Overview

2002	Amount
Authorized Budget ¹	\$4,000,000
Fundshift Amount	\$750,000
Revised Authorized Budget	\$4,750,000
Program Expenditures (includes program commitments)	\$4,717,230

1 – Per Decisions 02-03-057 and 03-02-027 (Table 2b) and Advice 1650-E as approved by CPUC.

Fundshift Summary -

SCE shifted \$40,000 from the Single Family Energy Efficiency Rebate program to meet the expected fourth quarter demand of the Appliance Recycling program. The shift did not impair the Single Family Energy Efficiency Rebate program from realizing its potential during the quarter. This was in addition to the \$710,000 from first quarter unspent funds that was shifted into the program during the third quarter per Advice 1650-E, as approved by the CPUC.

III. Program Performance

Table 2 – Performance Overview

Metric	CPUC Target¹	Result
Energy Savings, kWh	44,644,228	48,066,351
Demand Reduction, kW	6,835	7,374
Units	25,047	27,831
Hard-to-Reach Performance	The 2002 target is that 57% of the program applications	In 2002, 56.5% of the program applications came

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	come from HTR areas. ²	from these HTR areas.
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1 – As approved in Decision 03-02-027 (Table 2b). In Advice 1650-E, SCE requested to shift \$0.710 million to this program. The additional funding allows an estimated 4,512 additional units to be recycled with an additional energy and demand savings of 7,782 MWh and 1,192 kW. These additional units are included in the CPUC targets per Advice 1650-E.

2 – The original HTR target proposed by SCE in its 2002 program implementation plans, filed on May 20, 2002, was 49%. SCE increased this target to 57% based on a revised definition of HTR areas to include zip codes that were previously not included in the formulation of the HTR target filed on May 20, 2002.

A. Energy Savings and Demand Reduction Performance –

1. Introduction

The 2002 Residential Appliance Recycling program targets were to realize 44,644,228 kWh of net annualized energy savings and 6,835 kW of net demand reduction along with collecting 25,047 units. Through a combination of selective promotions and managing customer demand for this established program, SCE was able to attain each of the targets by achieving 48,066,351 kWh of net annualized energy savings and 7,374 kW of net demand reduction while collecting 27,831 units.

a. Selective Promotional Strategies

SCE has offered the Residential Appliance Recycling program to residential customers for nine years. As a result, the program is one of the most recognized energy efficiency programs offered by SCE. To take advantage of this customer awareness, SCE limited its marketing efforts to very selective and cost efficient promotional strategies. This cost savings allowed SCE to redirect unspent portions of the program marketing budget to customer incentives thus increasing the number of participants and increasing the energy savings potential of the program.

Specifically, the Residential Appliance Recycling program relied on three cost effective strategies to selectively promote the program to the general consumer: direct mailings, brochures and radio advertisements. The program leveraged two direct mailings. One direct mailing was part of a general energy efficiency customer awareness campaign and the other mailing was part of the statewide Residential Energy Efficiency Survey program questionnaire. SCE also distributed program brochures through authorized payment agencies and SCE’s customer call center. The program also ran a series of radio advertisements to promote broad based awareness. To capture the largest number of listeners, these radio spots typically ran during business and lunch hours.

b. Managing Customer Demand

As the program year progressed, it became apparent that customer demand for the program would exhaust program funds before the end of the calendar year. To extent the program offering as long as possible SCE employed a combination of fund shifts into the program and limiting incentive options. First, SCE sought and

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received authorization to shift unspent first quarter 2003 energy efficiency funds into the program. SCE also shifted funds from the Single Family Energy Efficiency Rebate program to help alleviate demand. Finally, with the program budget for the \$35 cash incentive option nearly depleted, SCE opted to provide customers with only the CFL incentive. SCE estimates that this strategy allowed the program to remain open for an additional two weeks.

B. Hard-to-Reach Performance –

1. Introduction

The Residential Appliance Recycling program's hard-to-reach (HTR) target was to have 57 percent of the program applications come from HTR customers.¹ The program relied on the CPUC's general definition of HTR customers outlined in the Energy Efficiency Policy Manual. This definition was further refined to focus on rural, moderate income and renters. SCE used the CPUC approved 2001 Residential Customer Needs Assessment Study to identify specific zip codes within SCE's service territory to specifically targets these HTR customers. The program relied on strategic marketing and outreach to gain participation of these customer groups. As a result, 56.5 percent of the program applications came from these HTR groups.

2. Reasonable Steps Taken to Achieve Target

The program's HTR marketing and outreach plan focused on strategies that reached different HTR customer groups. These strategies included a bi-lingual (Spanish/English) bill insert (570,000) targeted to various geographical areas, including rural communities. SCE also implemented a print advertising campaign through the Penny Saver magazine, a weekly publication tending to have a high readership from moderate income households. The Penny Saver campaign targeted approximately 2.4 million readers in 240 HTR zip codes within SCE's service territory.

¹ The original HTR target proposed by SCE in its 2002 program implementation plans, filed on May 20, 2002 was 49 percent. SCE increased this target to 57 percent based on a revised definition of HTR areas to include zip codes that were previously not included in the formulation of the HTR target filed on May 20, 2002.

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**Attachment A
Program Results Workbook***

*Energy savings and demand reductions reported in the attached tables may differ from the program's stated achievements in the 2003 Energy Efficiency Annual Report because the tables herein do not incorporate any adjustment factor resulting from SCE's internal verification process nor do the tables reflect 12 months of program activity. The tables herein reflect 9-month's of program activity, whereas the 2003 Energy Efficiency Annual Report reflects 12 months of 2002 program activity.

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Program Title: **Single Family Energy Efficiency Rebates Program**

I. Program Overview

The Single Family Energy Efficiency Rebates program is a statewide program, administered by the four California investor-owned utilities, which provides rebates to single family homeowners on various home improvement products, heating and cooling equipment, appliances, and residential pool equipment.

II. Program Budget

The following table reflects the authorized program budget including any fund shifts, which may have occurred in support of the 2002 energy efficiency program.

Table 1 – Budget and Expenditure Overview

2002	Amount
Authorized Budget ¹	\$5,850,000
Fundshift Amount	(\$40,000)
Fundshift Amount	(\$95,000)
Revised Authorized Budget	\$5,715,000
Program Expenditures (includes program commitments)	\$5,182,744

1 – As approved in Decisions 02-03-057 and 03-02-027 (Table 2b).

Fundshift Summary -

SCE shifted \$40,000 from the Single Family Energy Efficiency Rebate program to meet the expected fourth quarter demand of the Appliance Recycling program. SCE also shifted \$95,000 to the residential Home Energy Efficiency Survey program to fund greater customer outreach activities (e.g., direct customer mailings, etc.). The shift did not impair the Single Family Energy Efficiency Rebate program from realizing its potential during the year.

III. Program Performance

Table 2 – Performance Overview

Metric	CPUC Target¹	Result
Energy Savings, kWh	19,483,521	15,575,896
Demand Reduction, kW	8,606	9,441
Hard-to-Reach Performance	The 2002 target is that 34% of the program applications come from HTR areas.	In 2002, 37% of the program applications came from these HTR areas.

1 – As approved in Decisions 02-03-057 and 03-02-027 (Table 2b).

A. Energy Savings and Demand Reduction Performance

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1. Introduction

SCE's Single Family Home Energy Efficiency Rebates program targets for 2002 was 19,483,521 kWh of net annualized energy savings and 8,606 kW of net demand reductions. SCE employed several actions to meet these targets and as a result achieved 15,575,896 kWh of net annualized energy savings and 9,441 kW of net demand reduction. Throughout the nine-month program year, SCE experienced a much different demand from customers than originally forecasted. Overall, SCE took several steps in attempt to achieve the energy savings and demand reduction targets. These actions included: (1) concerted program outreach and awareness; (2) revised measure mix based on consumer 2002 demand; and (3) targeted promotion of key cost effective measures.

2. Steps Taken To Achieve Target

a. Program Outreach and Awareness

Upon program approval, Southern California Edison immediately launched its 2002 Single Family Home Energy Efficiency Rebates program. SCE sent announcements to retailers and contractors describing the program and detailing the measures and rebate amounts available. For example, SCE provided program announcement materials to the League of California Homeowners so it could send the program announcements to all of its professional contacts (e.g., contractors). In order to streamline the application process, the 2002 Single Family Home Energy Efficiency Rebates program no longer required participants to obtain a reservation prior to purchasing a qualified energy efficiency measure. Applications were provided to participants through participating retailers, contractors and the program's website. On the first day of the program, information on the new program was available and participants had the ability to download applications. Within two weeks of the program, hard copies of the application were distributed to major retailers. Contacts at each retailer were identified so that notification could be provided to SCE as to when additional applications were needed. SCE updated its 24-hour automated toll-free number to inform participants about the program. Here customers, without web access, could leave their name and address to have an application mailed to them or they could speak directly with a call center representative. The call center representatives were trained prior to the program start on all of the program's details including eligibility requirements.

During the initial of months of the program and in support of "summer" measures, SCE had visited 235 pool retailers in our service territory to inform their sales staff as to the pool pump and motor measure and rebate opportunity offered by the program. SCE left simplified, one-page applications at each of the 235 pool stores we contacted. To further promote the program, within six weeks, SCE identified residential customers who were paying higher rates for energy (several hundreds of thousands), and mailed program information to each of these household. Finally, in June 2002, the program was also promoted through radio advertisements advocating energy efficiency.

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b. Reformulation Of Program's Measure Mix Based On Demand

By late June 2002, it became evident that customer participation and the demand for certain measures were not going to mirror the 2001 participation experienced during the previous year's energy crisis. SCE had originally assumed consumers were going to have the same demand for certain measures experienced in 2001. This was not the case. So, in response, SCE reformulated the expected measure mix based on 2002 program participation which would still allow the program to meet its energy and demand savings targets. SCE made plans to aggressively promote more cost effective measures within the program's portfolio of energy efficiency measures. SCE identified two measures which contributed the most energy savings on a "bang-for-incentive dollar" basis: programmable thermostats, and pool pumps and motors.

c. Targeted Promotion

In addition to the program's overall marketing efforts, SCE employed a focused effort on the promotion of programmable thermostats and pool pumps and motors. SCE applied various techniques to promote these measures.

In support of the pool pumps and motors measures, SCE identified approximately 100,000 pool owners in our service territory that had pools older than five years. SCE sent a brochure/application to each of these customers, advocating replacement of their current pool pump with an energy efficient model. In August 2002, the program began expanding efforts to reach pool customers. In addition to our contacts with over 200 retail stores, we began contacting local chapters of the Independent Pool and Spa Service Association. SCE obtained the names and numbers of each of the local chapter leads and mailed program information to them, including brochures for their customers and applications. SCE volunteered to speak at their meetings, several of which took us up on the offer. SCE also made contact with the pool supply distributors that the independent pool service providers use as their pool supply sources. The program identified several key distributors and obtained their agreement to post program information and applications at their parts service counters, ensuring that independent pool service providers, who visited these distributors, were exposed to the program information. Several months after mailing program information to the 100,000 pool owners reference above, SCE followed up by mailing a postcard to each one. We also began follow-up phone calls to these customers to ensure they had the program information. We reached over 4,000 of these customers with older pools. On September 23, 2002, SCE offered, in addition to the customer incentive, a special incentive to the pool retailers and contractors: for each energy efficient pool pump or motor sold or installed by them, the retailers and contractors were eligible to receive a \$100 incentive. This offer was in effect until December 31, 2002, and resulted in over 150 installations.

In order to promote the programmable thermostat, SCE designed a one-page flyer and application in July 2002 and distributed them to approximately 489,000 of

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our customers. SCE's August 2002 bill insert included a piece we designed on the advantages of a programmable thermostat. This was mailed to 4.3 million customers. In November 2002, SCE began its winter "Save Energy Save Money" campaign. It featured a mailer on programmable thermostats to 1.2 million homes and a newspaper insert to approximately 2 million customers. An application was included on one-page of this two-sided mailer. Beginning in November 2002, SCE reached agreement with three major retailers to offer the programmable thermostat rebate at the point-of-sale. Approximately 1,600 programmable thermostats were delivered through this channel, and SCE believes this will be a vital delivery channel for this measure in future years.

B. Hard-to-Reach Performance

1. Introduction

The hard-to-reach target for the 2002 Single Family Energy Efficiency Rebate program stated that 34 percent of the program applications would come from hard-to-reach customer areas. As a result of strategic targeting and aggressive outreach to the HTR customers, SCE received 37 percent of the program applications from HTR customers exceeding its stated target.

2. Reasonable Steps Taken To Achieve Target

The 2002 program was the first time SCE had a formal hard-to-reach goal. SCE performed a detailed analysis of its service territory to identify, by zip code, those areas that met the CPUC's definition "hard-to-reach". The analysis was based on the CPUC approved Residential Needs Assessment Study² that identified various zip codes by various consumer characteristics (e.g., rural, urban, etc). Although the CPUC's definition is much more expansive, the program focused on two HTR groups: rural and moderate income. SCE used the analysis to develop the target and track the program's progress towards the achievement of the target.

Several of the marketing efforts targeted these specific HTR customers including radio spots and the direct mailing of 500,000 applications to these HTR zip codes on three separate occasions throughout the program year. Although not identified directly by the program as HTR, SCE estimated that a sizeable number of customers residing in the program's HTR zip codes included non-English speaking households. Under this assumption, SCE staffed its call center with bi-lingual representatives and created a Spanish version of the application. The program's radio ads for the HTR ran during the program year from June through December 2002.

² Statewide Residential Customer Needs Assessment Study, July 2001. CALMAC ID: 3533.

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**Attachment A
Program Results Workbook***

*Energy savings and demand reductions reported in the attached tables may differ from the program's stated achievements in the 2003 Energy Efficiency Annual Report because the tables herein do not incorporate any adjustment factor resulting from SCE's internal verification process nor do the tables reflect 12 months of program activity. The tables herein reflect 9-month's of program activity, whereas the 2003 Energy Efficiency Annual Report reflects 12 months of 2002 program activity.

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Program Title: **Multifamily Energy Efficiency Rebates Program**

I. Program Overview

The 2002 Multifamily (MF) Energy Efficiency Rebate program is a statewide program providing a broad list of qualifying energy efficiency measures. Prescribed rebates are available for the installation of qualifying energy-efficient improvements in apartment dwelling units and in the common areas of apartment and condominium complexes, and common areas of mobile home parks. Property owners and property managers of existing residential multifamily complexes with five or more dwelling units may qualify.

In addition to the core program described above, SCE also distributes energy saving fluorescent torchieres lamps to multifamily residents through halogen torchiere exchange events.

II. Program Budget

The following table reflects the authorized program budget including any fund shifts, which may have occurred in support of the 2002 energy efficiency program.

Table 1 – Budget and Expenditure Overview

2002	Amount
Authorized Budget ¹	\$2,000,000
Program Expenditures (includes program commitments)	\$1,569,327

1 – As approved in Decisions 02-03-057 and 03-02-027 (Table 2b).

Fundshift Summary -
None.

III. Program Performance

Table 2 – Performance Overview

Metric	CPUC Target¹	Result
Energy Savings, kWh	8,850,000	6,172,152
Demand Reduction, kW	1,090	710
Hard-to-Reach Performance	The 2002 target is 36% of the program applications come from HTR areas.	In 2002, 58.5% of the program applications came from these HTR areas.

1 – As approved in Decisions 02-03-057 and 03-02-027 (Table 2b). The HTR target was corrected in SCE's 2002 Energy Efficiency Programs, Second Quarter Report, dated August 2002.

A. Energy Savings and Demand Reduction Performance

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1. Introduction

In 2002, the Multifamily Energy Efficiency Rebate (MF) program had an energy savings target of 8,850,000 kWh of net annualized energy savings and a net demand reduction target of 1,090 kW. This goal was based upon the Residential Contractor Program (RCP) which the MF Rebate program replaced in 2002. This basis proved misleading as the RCP program design was contractor driven and offered incentives calculated on prescribed prices and saved energy. As a result, the Multifamily Energy Efficiency Rebate program ended its 2002 program year, less than target, with net annualized energy savings of 6,172,152 kWh and a net demand reduction of 710 kW.

With the new program design (mandated by the CPUC) directed toward property owners and managers, SCE utilized a variety of approaches to stimulate market awareness and participation. Program activities implemented to achieve program goals included: (1) program modifications; (2) promotional offerings; (3) on-site events; (4) targeted marketing efforts; and (5) promotion through trade allies.

2. Reasonable Steps Taken To Achieve Target

a. Program Modifications

Upon program implementation on April 1, 2002, property owners and managers immediately began installing interior hardwired fluorescent fixtures in high volumes (since installation requires an electrical contractor, the rebate price was set at a level commensurate with purchase price and installation costs, thus proving to be an attractive retrofit product). In similar fashion, and shortly thereafter, customers installed exterior hardwired fluorescent fixtures to the program's full allocation as well.

Once these products were expended, the program experienced a lull despite program marketing and outreach efforts. This was largely due to remaining program measures which requires some out-of-pocket expense on the part of the property owner or manager – a challenge for this customer segment because of the split-incentive barrier. The split-incentive barrier occurs when the property manager makes the energy efficiency investments but the tenant receives the energy savings benefit and the reduced energy bill.

SCE's 2002 MF Rebate program initial plans proposed a specific product mix by which the program's energy savings goals would be achieved. Being mindful of the program's energy and demand savings targets, the program's measure mix offering could be changed very little without abandoning these program's targets completely.

With careful scrutiny of stagnant program measures, program cost and energy savings comparisons, SCE adjusted measure funding to the few products showing some customer interest through nominal installation levels. This program adjustment was conducted without modification to the program's targets.

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b. Promotional Offerings

A prime example of managing program funding and product mix is the compact fluorescent light bulb installation incentive offered during the fourth quarter 2002. Compact fluorescent lamps (CFLs) offered a high energy savings for a low program cost (i.e., \$2.00 rebate). However, participation levels were significantly below the original program projections needed to achieve program targets. Through market feedback and industry contacts, it was understood that rebate levels that covered a greater portion of the total purchase and installation costs to the customer would stimulate this multifamily market to higher participation levels.

SCE, in conjunction with other investor-owned utilities, offered a \$5.00 installation fee per CFL to installation contractors from November through December 2002. The increased program offering (a total of \$7.00 per CFL) resulted in nearly 90,000 CFLs representing approximately 2,500,000 kWh of net annualized energy savings, being installed during this promotion.

c. On-Site Events

As part of the 2002 Residential MF Rebate program design, SCE conducted several on-site customer events to increase the program's energy savings and demand reduction results. The program offered two types of on-site events: torchiere exchange and compact fluorescent bulb purchase. These strategies were primarily applied to the program's hard-to-reach customer segments. A more detailed discussion of these activities is provided in the hard-to-reach discussion (See, Section B. Hard-to-Reach Performance).

d. Targeted Marketing Efforts

Historically, California's multifamily energy efficiency efforts focused on installation contractors to get energy efficiency products installed at multifamily sites. In its first year of a new program design, the Residential MF Rebate program faced the challenge of directly approaching a historically resistant customer segment without contractor driven targeting and marketing, but rather, with the offer of cash rebates – a more passive offering than in previous years.

Marketing effectively to this customer segment is a daunting task. The real decision makers often have an arm's-length relationship to the property management companies or on-site managers performing the day-to-day operations. Telephone calls and marketing pieces are often thwarted by individuals not having a vested interest in energy efficiency or the value of the property. Nevertheless, SCE did conduct direct marketing knowing our efforts would be successful with a small percentage of decision makers. These direct marketing efforts are part of SCE's total program marketing approach to increase market awareness.

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Inclusive of the direct contact efforts with trade associations, SCE posted bill messages specifically promoting compact fluorescent light bulbs rebate through the Residential MF Rebate program to roughly 9,000 master-metered multifamily accounts in September 2002. Additionally, a postcard mailer was developed and mailed to roughly 53,000 multifamily accounts in October 2002. The postcard's key message promoted compact fluorescent light bulbs rebate and referenced the other 16 products available for cash rebates through the Residential MF Rebate program.

e. Promotion Through Trade Allies

SCE held active memberships in two apartment owner/manager associations. These memberships opened the communication channels between SCE and the targeted customer segment for both program promotion and customer feedback.

In May 2002, SCE teamed with Southern California Gas Company in presenting an overview of the Residential MF Rebate program to the Apartment Association of Orange County. SCE conducted a similar Residential MF Rebate program presentation for the Apartment Association of California Southern Cities in August 2002.

In June 2002, SCE published an article entitled "Take Advantage of the 2002 Multifamily Energy Efficiency Rebates" in the Official California Apartment Journal trade magazine. This monthly periodical is distributed under the umbrella organization California Housing Providers Coalition and reached an estimated 6,000 property owners, managers, and trade allies.

SCE was an exhibitor specifically promoting the Residential MF Rebate program at three trade shows during September 2002. The Apartment Association, California Southern Cities trade show held at the Queen Mary drew roughly 14,000 attendees, and The Apartment Association, Greater Inland Empire's trade show drew roughly 8,000 attendees, many of which are located in SCE's hard-to-reach geographic area. The third trade show was sponsored by Southern California Association for Non-Profit Housing (SCANPH), and attracted roughly 8,000 attendees.

B. Hard-to-Reach Performance

1. Introduction

SCE's 2002 MF Rebate program's hard-to-reach target was to receive 36 percent of the program applications from HTR customers. The program focused its efforts on two types of residential HTR customers: moderate income and rural. SCE relied on the CPUC-approved Statewide Residential Customer Needs Assessment Study to further define these two HTR segments by zip code groupings. By the end of 2002, the MF Rebate program achieved 58.5 percent of all applications coming from the hard-to-reach customer segment. This was accomplished through aggressive outreach and promotion to these HTR segments

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along with targeted delivery of on-site events (i.e., torchiere turn-in and CFL promotion).

2. Reasonable Steps Taken To Achieve Target

a. Outreach And Promotion

Over the course of the year, SCE strongly urged all trade allies to encourage program participation from SCE hard-to-reach customers. Several of SCE's trade allies were located in SCE's hard-to-reach geographic areas which further enhanced the MF Rebate program's ability to reach the hard-to-reach market.

SCE ensured that the bulk of the program's marketing and promotional efforts included hard-to-reach customer markets. One example of this was SCE's MF Rebate program booth at the Apartment Association of Greater Inland Empires' trade show. The majority of attendees were located within the defined hard-to-reach geographic locations. Additionally, SCE's membership in and relationship with the Apartment Association of Greater Inland Empire helped induce several members to participate in the program.

b. On-site Events

Torchiere Exchange Events & Walk-In Exchange Service

The 2002 Residential MF Rebate program offered a halogen torchiere exchange component. This consisted of a direct distribution effort conducted during single or multiple day exchange events, wherein as part of the program, residents of apartment complexes exchanged halogen torchieres for safer, more energy efficient fluorescent torchieres. A total of 2,850 torchieres were exchanged during five events conducted over several days representing energy savings of roughly 630,000 kWh.

Torchiere exchange events allowed SCE additional opportunities to outreach to hard-to-reach customer segments. The first exchange event in 2002 was held in Huntington Park, California, a predominantly Latino and moderate-income community. The second and third exchange events were targeted to the retirement communities of Leisure World Laguna Woods and Seal Beach. Leisure World customers were served over the course of five one-day events. The predominantly African-American and Latino residents residing at one of several Community Development Commission, County of Los Angeles income-qualifying apartment complexes were served over the course of four one-day events. Lastly, leveraging an existing business relationship with the Asian community, SCE conducted a single-day halogen torchiere exchange event in Rowland Heights, California.

To promote these exchange events, SCE distributed flyers door to door, at local markets, flyers and advertisements through community newspapers, and on-site displays and signage.

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As a supplement to the exchange events, SCE made special arrangements with a local fluorescent torchiere manufacturer to enable qualifying SCE customers (i.e., apartment residents) to exchange their halogen torchieres at the manufacturer's site. This opportunity was promoted to property owners and managers for their residents at the Residential MF Rebate booth during the three trade shows. Over 800 fluorescent torchieres were distributed utilizing this method.

Buck-A-Bulb Events

Another creative special arrangement with a local CFL manufacturer was promoted during three trade shows in September and was honored for the duration of the program year. Through one of SCE's established trade ally relationships, a reduced purchase price was offered by a CFL manufacturer to property owners and managers participating through SCE's Residential MF Rebate program. As a result of this pricing arrangement, the CFL cost only \$1.00 to the property owner or manager after rebate. This arrangement was promoted as a "Buck-A-Bulb". Although nearly 1,000 CFLs were distributed as a result of this promotion, the lower than expected response clearly indicated the difficulty in stimulating this customer segment to participate in energy efficiency even when a nominal out-of-pocket expense was involved.

A far greater response was received when the same pricing arrangement was offered during the five one-day torchiere exchange events held at the Leisure World complexes of Laguna Woods and Seal Beach. Over 12,000 CFLs (equivalent to approximately 1,000,000 kWh of annualized energy savings) were distributed between the two Leisure World sites.

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*Energy savings and demand reductions reported in the attached tables may differ from the program's stated achievements in the 2003 Energy Efficiency Annual Report because the tables herein do not incorporate any adjustment factor resulting from SCE's internal verification process nor do the tables reflect 12 months of program activity. The tables herein reflect 9-month's of program activity, whereas the 2003 Energy Efficiency Annual Report reflects 12 months of 2002 program activity.

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Southern California Edison**

Program Title: **Home Energy Efficiency Surveys**

I. Program Overview

The statewide Home Energy Efficiency Survey (HEES) program provides residential customers with energy efficiency information to help them understand, control and reduce energy usage in their homes. The program targets hard-to-reach customers and offers mail-in and online surveys in English, Spanish and Chinese. Customers completing a mail-in or online survey receive a customized energy report that provides an analysis of their actual energy usage. The energy report also includes charts, graphs and information on energy efficiency products, services, rebate programs and other energy-related information to encourage the adoption of energy efficiency measures identified through the energy survey.

The mail-in surveys involve targeted direct mailings, and provide customers who have limited or no internet access with the ability to receive energy information. The online surveys are available on SCE's website in an interactive or web-posted format. The English interactive survey provides customers with immediate results online, and the web-posted Spanish and Chinese surveys are downloadable from SCE's website. Customers complete the surveys and submit them for processing to receive their customized energy reports.

II. Program Budget

The following table reflects the authorized program budget including any fund shifts, which may have occurred in support of the 2002 energy efficiency program.

Table 1 – Budget and Expenditure Overview

2002	Amount
Authorized Budget ¹	\$900,000
Fundshift Amount	\$95,000
Revised Authorized Budget	\$995,000
Program Expenditures (includes program commitments)	\$990,072

1 – As approved in Decisions 02-03-057 and 03-02-027 (Table 2b).

Fundshift Summary -

SCE shifted funds from residential Single Family Energy Efficiency Rebate program to the residential Home Energy Efficiency Survey program to meet to fund greater customer outreach activities (e.g., direct customer mailings, etc.). The shift did not impair the Single Family Energy Efficiency Rebate program from realizing its potential during the year.

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III. Program Performance

Table 2 – Performance Overview

Metric	CPUC Target¹	Result
Mail-in Surveys	18,000	23,684
On-line Surveys	12,000	9,063
Total Surveys	30,000	32,747
Hard-to-Reach Performance	The 2002 target is to send at least 50% of mailed surveys to HTR customers.	In 2002, 61.3% of mail-in surveys were sent to HTR customers.

1 – As approved in Decision 03-02-027, p.10.

Non-Energy Savings Performance –

1. Introduction

The 2002 Home Energy Efficiency Surveys program target was to achieve 30,000 completed survey reports returned to customers. The target included 18,000 mail-in and 12,000 online completed surveys. SCE successfully completed 32,747 surveys including 23,684 mail-in and 9,063 on-line. Although SCE met the Commission’s overall performance target for completed surveys, the mix of online and mail-in surveys is largely determined by customer access to the online website and their willingness to perform an online survey. Customer participation was higher for mail-in surveys rather than online survey requests. SCE took several steps in order to achieve the overall target including: (1) redesign of mail-in survey; (2) extensive direct mailing campaign; (3) enhancements to on-line survey; and (4) innovative marketing campaign to support the on-line survey.

a. Mail-in Survey Redesign

As a result of Commission’s directives, SCE was required to redesign its English language mail-in survey for statewide consistency and to translate the survey to Spanish and Chinese for mailing and posting on SCE’s website. SCE, in coordination with the other investor-owned utilities, completed the development of the new surveys, and the Spanish and Chinese surveys were posted on SCE’s web site by June 2002.

b. Direct Mailing Campaign

Upon completion of the redesigned English, Spanish and Chinese surveys, SCE undertook a direct mail marketing strategy, targeting 265,000 customers for the mail-in survey solicitation packages, including 185,000 English, 28,000 Spanish and 12,000 Chinese mail-in solicitation packages. A majority of these direct mailings went to hard-to-reach customer groups.

In an effort to make the outreach process more effective for the mail-in surveys, SCE supplemented traditional outreach channels with new outreach channels. For example, SCE distributed 2,500 English and 500 Spanish mail-in surveys to

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customers through SCE authorized payment centers. SCE also promoted the mail-in surveys at county and regional fairs and other major events utilizing the Energy Efficiency Mobile Education Unit (MEU) in an ongoing effort to target rural areas. The MEU is a 45-foot recreational vehicle that travels throughout SCE's service area, promoting the benefits of energy efficiency and providing information on SCE's energy efficiency programs. SCE also made several presentations in coordination with various cities such as Rialto, Cerritos and Bellflower to promote the statewide energy efficiency surveys to various customer groups including small business owners, residents and non-profit organizations.

c. Enhanced On-line Survey

SCE enhanced the online survey with a feature to help customers qualify for the State's 20/20 rebate program. Customers completing the online survey received energy-saving recommendations for reducing their energy usage during the 20/20 rebate program offer.

d. Marketing the On-line Survey

Despite extensive radio and print media advertising in the second and third quarters, the number of completed online surveys did not achieve projected targets. The program had achieved less than 4,000 completed online surveys by the end of September 2002. In response, a major online marketing campaign was launched in October 2002. The campaign included online banner ads on eight high traffic local and regional websites and electronic mail blasts to 480,000 SCE customers. The online ads and electronic mail blasts provided direct links to SCE's online survey. In the fourth quarter, SCE offered customers a free movie rental to complete the online survey. Radio ads were added to promote the new offer; electronic mail blasts were sent to 1,756,000 SCE customers; and online banner ads were updated to include the marketing offer and continued posting on high traffic websites. SCE also promoted the online survey through direct mail to 1.2 million customers participating in the 20/20 rebate program to help customers reduce their winter energy bills. As a result of the innovative and aggressive marketing campaign, the program achieved over 9,000 completed surveys.

B. Hard-to-Reach Performance

1. Introduction

The program's hard-to-reach target required at least 50 percent of the mail-in surveys to be mailed to HTR customers. For the HEES program, SCE targeted four specific HTR groups: rural, non-English speaking, renter and moderate income. Overall, 162,323, or 61.3 percent, of the survey packages mailed were sent to HTR customers to achieve the target. These direct mailings included more than 50,000 mailings to non-English speaking customers who indicated to SCE that they prefer communicating in either Spanish or Chinese.

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**2002 Energy Efficiency Program Accomplishments
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Program Title: **California ENERGY STAR® New Homes Programs**

- California ENERGY STAR® New Homes – Multi-family
- California ENERGY STAR® New Homes – Single Family

I. Program Overview

The California Energy Star New Homes programs (CESNHP) are designed to encourage single family and multi-family (including rental apartments, condominiums, townhomes, as well as high-rise buildings on a pilot basis) builders to construct homes that exceed Title 24 through a combination of financial incentives, design assistance, and education. These performance-based programs are designed to encourage homebuilders to construct single family and multi-family dwellings that are 15 percent and 20 percent more efficient than required by the 2001 Residential Energy Efficiency Standards, initiated in State Assembly Bill (AB) 970. The 15 percent level has been designated by the EPA as the new Energy Star® homes baseline for California, subsequent to the Title 24 revisions (2001 Standards) brought about by AB 970. As a result, buyers of single-family homes, and renters of multi-family have energy-efficient, money-saving, comfort and quality alternatives compared to standard new housing.

In order to verify that builders receiving incentives for this program have complied with the program’s requirements, the CESNHP requires homes be inspected by certified Home Efficiency Rating System (HERS) raters in accordance with the California Energy Commission’s inspection criteria (100 percent of the models, and 15 percent of production homes), before incentives are generated and distributed.

II. Program Budget

The following table reflects the authorized program budget including any fund shifts, which may have occurred in support of the 2002 energy efficiency program.

Table 1 – Budget and Expenditure Overview

2002	Amount
California ENERGY STAR® New Homes – Single Family -	
Authorized Budget ¹	\$3,500,000
Fundshift Amount	\$50,000
Revised Authorized Budget	\$3,550,000
Program Expenditures (includes program commitments) ²	\$4,917,183

1 – As approved in Decisions 02-03-056 and 03-02-027 (Table 2b).

2 – Based on historical customer commitment fallout rate associated with this program, the program was oversubscribed relative to the authorized budget.

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2002	Amount
California ENERGY STAR® New Homes – Multi-family -	
Authorized Budget ¹	\$500,000
Fundshift Amount	\$205,000
Fundshift Amount	(\$50,000)
Revised Authorized Budget	\$655,000
Program Expenditures (includes program commitments)	\$728,149

1 – As approved in Decisions 02-03-056 and 03-02-027 (Table 2b).

Fundshift Summary -

To meet an expected growing demand for SCE’s new Multi-family New Construction program, SCE shifted \$205,000 from unspent first quarter 2002 activities, as stated in Advice 1650-E, dated September 9, 2002. Late in the fourth quarter, SCE shifted \$50,000 from the Multi-family New Construction to meet a surge in the demand for the Single Family New Construction program.

III. Program Performance

Table 2 – Performance Overview

California ENERGY STAR® New Homes – Single Family -

Metric	CPUC Target¹	Result
Energy Savings, kWh	3,587,580	4,199,475
Demand Reduction, kW	3,100	4,500

1 – In Decisions 02-03-056 and 03-02-037, the CPUC identified one set of targets for both Single Family and Multi-family programs. The target allocation among single family and multi-family programs is based on SCE’s program forecasts.

California ENERGY STAR® New Homes – Multi-family -

Metric	CPUC Target¹	Result
Energy Savings, kWh	358,000	668,714
Demand Reduction, kW	402	886

1 – In Decisions 02-03-056 and 03-02-037, the CPUC identified one set of targets for both Single Family and Multi-family programs. The target allocation among single family and multi-family programs is based on SCE’s program forecasts.

California ENERGY STAR® New Homes – Single Family and Multi-family -

Metric	CPUC Target¹	Result
Energy Savings, kWh	3,945,580	4,868,189
Demand Reduction, kW	3,502	5,386
Hard-to-Reach	20% of direct implementation funds	In 2002, 58.3% of the program direct

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Performance	allocated to the program be reserved for units constructed for HTR customers.	implementation expenditures were for HTR customers.
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1 – In Decisions 02-03-056 and 03-02-037, the CPUC identified one set of targets for both Single Family and Multi-family programs. The target allocation among single family and multi-family programs is based on SCE’s program forecasts.

Energy Savings and Demand Reduction Performance –

2. Introduction

In 2002, The California Energy Star New Homes Program targets were to achieve 3,156,000 kWh of net annualized energy savings and 3,390 kW of net demand reduction. SCE’s California Energy Star New Homes Program achieved a 10 percent market penetration based on the 2002 commitments relative to the 2002 housing starts within SCE’s service territory.³ As a result, SCE overall realized 4,868,189 kWh of net annualized energy savings and 5,386 kW of net demand reduction. Specifically, the single-family program achieved 4,199,475 kWh of net annualized energy savings and 4,500 kW of net demand reduction. The multi-family program realized 668,714 kWh of net annualized energy savings and 886 kW of net demand reduction. SCE took the following actions in order to achieve these results: (1) industry outreach; (2) local outreach; and (3) multi-family program enhancements.

All of the energy savings achieved in the single family program were from projects located in the hotter, non-coastal climates, with a mix of energy savings in the multi-family program coming from both coastal and non-coastal participants. The energy savings results for this program are based on proposed budgets found in the supporting Title 24 compliance runs submitted with the program applications.

2. Reasonable Steps Taken to Achieve Target

a. Industry Outreach

SCE worked extensively with various channels within the building industry to ensure achieving program goals. Industry outreach activities typically involved sponsoring and/or attending events such as: the California Building Industry Association’s (BIA) Legislative Conference and quarterly subcommittee meetings; BIA/Orange County’s quarterly Purchasing Agents, Suppliers, and Subcontractors (PASS) luncheon; booth space at the annual Pacific Coast Builders Conference at the Moscone Convention Center in San Francisco; and the annual Building Industry Show at the Long Beach Convention Center; Palm

³ Approximately 71,000 single family and multi-family housing starts within SCE’s service territory in 2002, per the Construction Industry Research Board’s (CIRB) California Construction Review, Most Recent Month Reported: December 2002.

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Springs chapter of the BIA; BIA/Los Angeles - Ventura quarterly PASS luncheon; and the Multi-Family Consortium.

b. Local Outreach

Other outreach activity included leveraging SCE's Local Government Initiative to bring the CESNHP to participating jurisdictions, and working with the California Home Energy Efficiency Rating System ("CHEERS") on a story on the CESNHP which was featured in a CHEERS monthly newsletter; creating an electronic mail in box (SCENewHOMES@sce.com) which was specific to residential new construction; and finally, making detailed program information available on SCE's website (www.sce.com – Rebates & Offers – New Construction).

c. Multi-family Program Enhancement

SCE amended its multi-family program offering in the third quarter of 2002. Due to lack of familiarity with the HERS rating industry within this market segment, SCE began offering supplemental offset fees for HERS inspections. This special offset provided \$50/unit and was intended to help with the deployment of understanding and familiarity with the HERS requirements within the multi-family market. This enhanced feature allowed the program to experience much greater program activity.

B. Hard-to-Reach Performance

1. Introduction

SCE actively pursued projects in the hard-to-reach market in order to ensure a minimum of 20 percent of the direct implementation funds were allocated to this customer group. Based on the CPUC's definition of HTR identified in the Energy Efficiency Policy Manual and the added HTR segments identified in Decision 02-03-056, SCE defined HTR customers to include housing for senior citizens, individuals with special needs, moderate income, and rental units along with housing located in rural areas. Rural areas were defined by the CPUC approved Statewide Residential Customer Needs Assessment Study. As a result of targeted outreach, SCE was able to allocate 58.3 percent of the combined Multifamily and Single Family programs' direct implementation dollars to HTR segments.

a. Multi-family

In the multi-family program, SCE allocated 66 percent of the direct implementation funds to the HTR market. Out of the 22 applications (more than 2,000 units), 16 applications (over 1,700 units) were classified as disabled access, senior citizen affordable housing, senior citizen assisted living, affordable housing, or senior citizen rental.

b. Single Family

Within the single family program, SCE earmarked 56 percent of its direct implementation dollars to the HTR. Of the 52 applications (over 5,000 units), 25 applications (more than 2,300 units) were geographically classified HTR, by zip

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code. SCE actively pursued projects typically in the non-coastal climates to not only achieve the energy and demand savings targets set for this program (which are typically higher in these areas due to high air conditioning use), but also to target those areas that fall within the geographically HTR areas.

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*Energy savings and demand reductions reported in the attached tables may differ from the program's stated achievements in the 2003 Energy Efficiency Annual Report because the tables herein do not incorporate any adjustment factor resulting from SCE's internal verification process nor do the tables reflect 12 months of program activity. The tables herein reflect 9-month's of program activity, whereas the 2003 Energy Efficiency Annual Report reflects 12 months of 2002 program activity.

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Program Title: **Nonresidential Standard Performance Contract (SPC) Program**

I. Program Overview

The Standard Performance Contract program offers cash incentives for custom-designed energy savings retrofits of existing facilities. Large and medium sized customers are the normal participants, but small businesses can also participate if their measures do not qualify for the Express Efficiency program.

Any non-residential utility customer paying the gas or electric Public Goods Charge (PGC) in the IOU service territories are eligible for the program. This includes utility customers who may have opted to purchase electricity or gas from other suppliers. Third-party Energy Efficiency Service Providers (EESPs) who sponsor energy efficiency retrofit projects at utility customer facilities are eligible to participate as a project sponsor on behalf of the customer.

II. Program Budget

The following table reflects the authorized program budget including any fund shifts, which may have occurred in support of the 2002 energy efficiency program.

Table 1 – Budget and Expenditure Overview

2002	Amount
Authorized Budget ¹	\$9,650,000
Fundshift Amount	\$650,000
Revised Authorized Budget	\$10,300,000
Program Expenditures (includes program commitments) ²	\$10,625,896

1 – As approved in Decisions 02-03-056 and 03-02-027 (Table 2b).

2 – Based on historical customer commitment fallout rate associated with this program, the program was oversubscribed relative to the authorized budget.

Fundshift Summary -

SCE transferred \$600,000 into the SPC program from the Express Efficiency program and \$50,000 from the Builder Operator Certification program to service a growing wait list of customer applications. These additional funds were fully committed to applications by year's end.

III. Program Performance

Table 2 – Performance Overview

Metric	CPUC Target ¹	Result
Energy Savings, kWh	41,719,000	80,819,751
Demand Reduction, kW	8,620	13,471

1 – As approved in Decisions 02-03-056 and 03-02-027 (Table 2b).

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A. Energy Savings and Demand Reduction Performance

1. Introduction

SCE's 2002 Nonresidential Standard Performance Contract program targets included 41,719,000 kWh of net annualized energy savings and 8,620 kW of net demand reduction. By year's end, SCE had achieved 80,819,751 kWh of net annualized energy savings and 13,471 kW of net demand reduction. SCE greatly exceeded both targets through a combination of various program actions to assure the program's success. These actions included: (1) implementation of incentive caps; (2) a forecast which assumed fewer lighting projects in the program's measure mix; (3) customer awareness of the program; and (4) efficient program operations.

2. Reasonable Steps Taken To Achieve Target

a. Implementation of An Incentive Caps

The SPC program offered incentives to customer based on a cents-per-kWh-saved basis. However, there were several factors that limit the incentive amount. One such factor was an incentive cap of \$300,000 per project site. In 2002, two contracts involved projects that achieved large energy savings, but earned an incentive limited to the \$300,000 cap. These projects yielded a much higher incentive dollar to energy savings ratio than projects that fell below the program's cap.

Another factor limiting the incentive amount was the incentive-to-project cost ratio. A project incentive was capped at 50 percent of the project cost. More than 20 contracts involved projects which resulted in a limited incentive due to the 50 percent cap, thereby increasing the incentive dollar to energy savings ratio.

b. Unexpected Measure Mix

Incentive rates varied based on the retrofit measure involved within a customer's project.⁴ The 2002 forecast was based on the assumption that there would be minimal lighting projects. This assumption was based on a newly imposed provision in the 2002 SPC program that lighting projects had to be comprehensive energy-efficiency projects (i.e., at least 20 percent of the energy savings for the project had to result from non-lighting measures). For that reason, the pro forma forecast assumed only 2 percent of total energy savings would result from lighting measures (at the 5 cent incentive rate). However, the program actually realized 5 percent of the energy savings from lighting measures. Therefore, the incentive costs for those savings were cheaper than originally anticipated (i.e., greater "bang for the buck"), resulting in more energy savings.

⁴ For example, lighting measures paid 5 cents per kWh saved, air conditioning and refrigeration measures paid 14 cents per kWh saved, and all other eligible measures paid 8 cents per kWh saved).

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Likewise, there were more projects with measures falling into the “Other” category, and less in the Air Conditioning and Refrigeration category than originally expected, again resulting in a bigger bang for the buck.

c. Customer Awareness

Customer awareness is critical to the success of any program and the 2002 Nonresidential SPC program is no exception. SCE continued to inform customers about their program through a proven combination of internet access, SCE customer representative contacts and user-friendly program tools.

The Nonresidential SPC program is a mature program design that provided information about the program through a dedicated website (www.scespc.com). This website included a program overview which enabled the customer to quickly understand the features of the program, determine the eligibility requirements, and ascertain how to apply for an incentive. The website also provided information regarding the program’s available incentive funds. The site provided a current status of the funding situation, including the total incentive amount, the total authorized incentive amount reserved [i.e. project approved and under contract], and the incentive amount of applications still under review. In addition, the website contained the SPC Manual setting forth the program’s procedures for participation along with all applicable SPC participation forms.

Critical to the success of the SPC program was SCE’s ability to use SCE customer representatives to encourage customer participation in the program. SCE’s representatives were knowledgeable about the SPC program, and were able to explain the program to their clients and assist them with completing and filing the application forms. In addition, SCE field engineers were available to assist the customer with savings calculations required on the application form.

Finally, SCE offered a user-friendly energy savings calculator. A free compact disc containing the energy savings calculator was made available to all SPC applicants. The compact disc consisted of software that calculated the expected energy savings for a number of measures. The applicant entered information specific to the energy-efficiency project, and the model calculated the energy savings and completed an application form.

d. Efficient Program Operations

In April 2002, program commencement began with informational meetings were held with all SCE customer representatives to provide them with adequate information and tools to educate SCE’s business customers regarding the 2002 SPC program. With this information, the SCE customer representatives, with the assistance of SCE field engineering staff, were able to effectively provide potential applicants with the necessary information and forms, and provide assistance to the applicant in completing and submitting the application.

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The SCE customer representatives were kept informed of the status of applications during the review process. If additional information or clarification was needed from an applicant, the customer representative was notified at the same time as the applicant, to enable him/her to proactively contact the applicant and offer assistance in providing a prompt response. Likewise, the customer representative was notified when the application was approved. This provided the representative an opportunity to advise the applicant of the next steps in the process.

In addition, SCE managed the customer demand for the SPC program by offering to place customers on a waitlist for possible future incentives. As funding became available during the program year (due to projects being discontinued and/or more funds being made available to SPC through fundshifts), applications were activated from the waitlist and reviewed for approval.

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*Energy savings and demand reductions reported in the attached tables may differ from the program's stated achievements in the 2003 Energy Efficiency Annual Report because the tables herein do not incorporate any adjustment factor resulting from SCE's internal verification process nor do the tables reflect 12 months of program activity. The tables herein reflect 9-month's of program activity, whereas the 2003 Energy Efficiency Annual Report reflects 12 months of 2002 program activity.

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Program Title: **Express Efficiency Program**

I. Program Overview

The Express Efficiency (Express) program is a statewide program that provides financial incentives to small and medium sized business customers for installing selected energy-efficiency measures. The primary objective of the Express Efficiency program is to help small and medium business customers achieve long-term annual energy savings and demand reductions through energy-efficient retrofits. The Express Efficiency program is designed to be easy for customers and vendors to use and understand, design features that are particularly important for achieving savings in the small and medium-sized business segment.

Express offers nonresidential prescriptive rebates for specific, proven energy efficient measures including lighting, HVAC, refrigeration, agriculture, LED lighting technology and motor retrofit measures.

II. Program Budget

The following table reflects the authorized program budget including any fund shifts, which may have occurred in support of the 2002 energy efficiency program.

Table 1 – Budget and Expenditure Overview

2002	Amount
Authorized Budget ¹	\$6,000,000
Fundshift Amount	(\$600,000)
Revised Authorized Budget	\$5,400,000
Program Expenditures (includes program commitments) ²	\$5,400,000

1 – As approved in Decisions 02-03-056 and 03-02-027 (Table 2b).

2 – Based on historical customer commitment fallout rate associated with this program, the program was oversubscribed relative to the authorized budget.

Fundshift Summary -

SCE shifted \$600,000 from the Nonresidential Express Efficiency program to service the growing customer waitlist in the Nonresidential Standard Performance Contractor program. The shift did not impair the Nonresidential Express Efficiency program from realizing its potential during the year.

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III. Program Performance

Table 2 – Performance Overview

Metric	CPUC Target ¹	Result
Energy Savings, kWh	64,303,000	123,431,174
Demand Reduction, kW	13,930	19,950
Hard-to-Reach Performance	The 2002 target is to increase HTR customer participation to 47%.	In 2002, 56.6% of the program participants were HTR customers.

1 – As approved in Decisions 02-03-056 and 03-02-027 (Table 2b).

A. Energy Savings and Demand Reduction Performance

1. Introduction

The Express Efficiency program’s target for 2002 was to achieve 64,303,000 kWh of net annualized energy savings and 13,930 kW of net demand reduction. SCE was successful in exceeding the target by realizing 123,431,174 in net annualized energy savings and 19,950 kW of net demand reduction. This achievement was accomplished through various program actions including: (1) strategic promotional events to increase demand for key measures; (2) outreach and marketing to vendors and contractors to increase participation; and (3) operational enhancements to simplify program participation.

2. Reasonable Steps Taken To Achieve Target

a. Strategic Promotional Events

To increase demand for certain energy efficiency measures and to encourage of general participation in the Express Efficiency program, strategic promotional offerings were offered to customer throughout the program year. These promotional events were developed and coordinated by SCE and other investor-owned utilities. The promotions offered higher incentive levels for certain Express Efficiency measures for limited periods of time.

In offering these promotions, an effort was made to optimize a standard measure mix to correspond with untapped markets in the following equipment areas: refrigeration, space conditioning, and HVAC. Budgets for promotional/sale [?] lighting measures were limited. To help promote non-lighting measures, SCE allocated significant incentive budgets for the following measures: HVAC – Setback Programmable Thermostat, Window Film; LED – Exit Signs, Channel Signage; Agricultural – Variable-Frequency Drives for Dairy Vacuum Pumps and Injection Molding Machines; Refrigeration – Night Covers for Display Cases, Strip Curtains, Anti-Sweat Heater Controller, Door Gaskets, Auto-Closers for Cooler and Freezer doors, Vending Machine Controllers, Evaporator Fan Controller; Motors – 20 HP to 250 HP Motors.

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b. Program Outreach and Marketing

SCE implemented various strategies to encourage program participation from a number of different market actors. For instance, to encourage demand for non-lighting measures, SCE conducted seven vendor/contractor-training seminars throughout the service territory. To encourage participation of small and very small businesses, SCE explained to vendors and contractors how a reduction in their installation and equipment costs combined with the program's rebates could significantly reduce the investments for these small businesses, thereby increasing demand for the vendors' and contractors' services and for the Express program.

SCE also employed more traditional strategies to outreach 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 and seasonal announcements. Finally, as an added service to small business customers, the program adopted a series of existing in-language rebate applications.

c. Operational Enhancements To Simplify Participation

In 2002, Express Efficiency simplified the application process for customers participating in the program. Small and medium business customers were informed about the rebate program through various channels. The customers then called a toll-free number to reserve a rebate. Once the retrofit project was completed, the rebate application was submitted to SCE, reviewed for completeness and a rebate check was issued to the customer. SCE utilized the following tools to enhance the customer experience with Express Efficiency.

1. In a continuing effort to provide easy information access for customers, SCE developed the Express Efficiency application in CD-ROM format (CDs). These CDs were distributed through contractors and vendors and on selected outreach events.
2. Another way to apply for the rebate was through an online application form that also served as a rebate reservation form. This online application also validated the customer for participation eligibility.
3. The third and main component of the rebate-processing infrastructure was the Small Business Rebate reservation system. This system tracked all customer reservations, applications, and rebates paid. The system helped save time in processing customers' rebate payments. A customer survey allowed the rebate processing center to ensure that customer expectations were met or exceeded.

B. Hard-to-Reach Performance

1. Introduction

For 2002, the Express Efficiency program's hard-to-reach target was to increase HTR participation to 47 percent. To focus effectively on this target, SCE defined HTR as very small business (i.e., 20 kW or less) and/or businesses located in rural locations. Rural was further defined by a predetermined list of zip codes which are based on the CPUC-approved Statewide Residential Customer Needs

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Assessment Study. SCE applied a combination of one-on-one customer interface and customer events to achieve 56.6 percent participation by these HTR customers.

2. Reasonable Steps Taken To Achieve Target

Delivering the energy efficiency message to small and very small business customers is a constant challenge. SCE realizes the effective method of delivery to this hard-to-reach market is through one-on-one customer contact and through sponsorship of events that attract the targeted HTR customers. This was accomplished through a combination of SCE customer representatives and energy efficiency contractors/vendors.

The first method of one-on-one contact was accomplished by contractors and vendors. As a no-cost, low-cost measure for HTR customers, compact fluorescent lamps were provided to small and very small business customers. This allowed vendors to introduce additional energy-saving measures offered in the Express Efficiency program. This approach was used periodically throughout the year as a method to increase HTR participation.

Another approach utilized SCE customer representatives to support key community events targeted at these HTR customers. As a program delivery channel to hard-to-reach customers, customer representatives conducted various outreach events that focused on the small and very small customers. The program leveraged entities such as the Chamber of Commerce, business association trade shows and cultural events. Vendors were invited to these events, during which SCE customer representatives facilitated the delivery of information about the Express Efficiency special promotions and associated vendor offerings.

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Program Title: **Nonresidential Energy Audit Program**

I. Program Overview

This statewide program offers free energy surveys/audits to nonresidential customers. The audit provides customer assistance in the form of information on the benefits of installing measures or adopting practices that can reduce the customer's utility bills. The energy audit recommendations are based on the customer's recent billing history and/or customer-specific information regarding equipment and building characteristics. The types of audits offered by the program include: onsite audits, on-line, mail-in, over-the-phone, and CD-ROM audits.

II. Program Budget

The following table reflects the authorized program budget including any fund shifts, which may have occurred in support of the 2002 energy efficiency program.

Table 1 – Budget and Expenditure Overview

2002	Amount
Authorized Budget ¹	\$1,400,000
Program Expenditures (includes program commitments)	\$1,400,000

1 – As approved in Decision 03-02-027 (Table 2b).

Fundshift Summary -
None.

III. Program Performance

Table 2 – Performance Overview

Metric	CPUC Target ¹	Result
Audits	4,500	8,783
Hard-to-Reach Performance	SCE's HTR target is to conduct 1,800 energy audits for the HTR customers.	In 2002, 6,839 energy audits were conducted for HTR customers.

1 – In Decision 02-03-057, the CPUC directed SCE to identify certain performance targets in its quarterly reports. In response, SCE proposed these performance targets.

A. Non-Energy Savings Target Performance

1. Introduction

SCE's 2002 Nonresidential Energy Audit program's target was to conduct 4,500 audits. SCE successfully conducted 8,783 energy audits. To assure achievement

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of the this target, SCE implemented various strategies throughout the year including: (1) expanding program offerings; (2) creating customer awareness; (3) reducing cost of on-site audits; and (4) developing creative program outreach techniques.

2. Reasonable Steps Taken To Achieve Target

a. Additional Program Offerings Added

From the commencement of the 2002 Nonresidential Energy Audit program, SCE offered the on-site, on-line and mail-in audits. To improve the program, SCE, in coordination with other investor-owned utilities, added two new program offerings: phone-in audit and CD-ROM audit. SCE also upgraded the mail-in audit to improve the overall design and to achieve greater statewide consistency.

b. Successful Implementation Of On-site Audits For Small And Very Small Businesses

In 2002, SCE in consultation with other investor-owned utilities, created an on-site audits for very small, small and medium customers. The on-site audit provided the customer an initial interview with the trained auditor, during which pertinent information was gathered about how energy was used at the facility, such “business hours” of operation, hours of equipment usage for interior and exterior lighting, air conditioner, and other equipment types, along with the age of the air conditioning equipment. In addition, information was gathered about other high efficiency lighting and air conditioning equipment and temperature control systems previously installed. The auditor also asked about the presence of maintenance contracts for air conditioning equipment, lighting, and refrigeration equipment. The auditor proceeded to take an inventory of the equipment, and calculate the applicable energy savings for the various energy efficiency recommendations. A final summary report was provided, listing all energy efficiency recommendations, estimated annual savings, and estimated payback in years. The customer was provided with a report folder that included a checklist of additional suggestions regarding low cost/ no cost measures designed to provide additional energy savings, Express Efficiency program rebate application forms for the applicable recommendations, and various fact sheets.

c. Program Awareness

SCE used various channels to create program awareness among the nonresidential customer class. These various methods and tactics assured the program’s overall success and included activities such as: (1) conducting two classes for small business customers entitled: “How to manage your business energy costs” –How to conduct an energy-use survey”; (2) releasing nine press releases/ media statements in English and in-language; (3) providing SCE Business Connection bill inserts to more than 1.2 million customers; (4) mailing nearly 300,000 nonresidential energy audit information pieces to customers; (5) providing nearly 10,000 customers with “Save Energy & Save Money” program fact sheets; (6) holding over 70 customer events with emphasis on hard-to-reach businesses with

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more than 22,000 individuals in attendance; and (7) sending over 10,000 mail-in audit invitations and nearly 5,000 on-line audit invitations via electronic mail to nonresidential customers.

d. Reduced On-site Audit Costs

During program implementation, SCE was able to take advantage of lower than expected cost associated with the on-site audit offering. The actual cost of these audits was about twenty-five percent lower than the vendor had anticipated. In addition, the actual costs of developing a new mail-in and over-the-phone audit were significantly less than anticipated because of lower licensing costs. SCE converted these cost savings into an additional 1,700 on-site audits in support of small business customers.

e. New Marketing And Outreach Approaches

In 2002, SCE added a new internet strategy to inform potential customers about the Nonresidential Energy Audit program. SCE successfully promoted on-line audits using electronic-mail “blasts”, which resulted in an additional 400 on-line audits than originally expected. Also, SCE experienced great success with the direct mail campaign for mail-in audits, which resulted in approximately 600 more completed mail-in energy audits than originally forecasted. Also, SCE believes a redesigned mail-in energy audit increased customer response rate for direct mail campaign. The response rate for a direct mail campaign using the newly redesigned energy audit was approximately 5% higher than the response rate achieved in the past using the previous mail-in audit.

B. Hard-to-Reach Performance

1. Introduction

The hard-to-reach target for the 2002 Nonresidential Energy Audit program was to conduct 1,800 energy audits for hard-to-reach (HTR) customers. As a result of targeted and improved program offerings aimed at the smaller business customer, SCE conducted 6,839 audits for HTR customers. The Nonresidential Energy Audit program defines HTR as very small and very small customers and those businesses in rural areas as defined the CPUC approved Statewide Residential Customer Needs Assessment Study.⁵

2. Reasonable Steps Taken To Achieve Target

During implementation of the on-site energy audit component to the 2002 Nonresidential Energy Audit program, SCE explored ways to capture greater program participation by the smaller business owner. Efforts included using six vendors, chosen through a competitive bid process, to provide on-site energy audits focused on the hard-to-reach customer segments. SCE chose these vendors

⁵ Although the study evaluated energy efficiency needs of residential customers, the identification of certain zip codes as rural applies to all customer classes.

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from various locations throughout SCE's service territory and assigned geographic vicinities that had a high concentration of hard-to-reach customers.

SCE developed a highly effective strategy to help these vendors identify HTR customers. Specifically, SCE developed a comprehensive audit procedure and extensive training sessions for these vendors. In addition, SCE developed an easy to use uniform tracking system to allow for the reporting of completed energy audits, and quality controls for the vendor to implement.

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Program Title: **Energy Efficiency Training and Certification for Building Operators**

I. Program Overview

Building Operators Certification (BOC) is a statewide training and certification program for operators of medium and large commercial buildings. The program seeks to establish and support a professional credential for building operators in California. Certified operators will have the training and background to identify and implement energy savings opportunities as an integral part of their operations and maintenance activities. The BOC training course consists of eight days of training classes offered once per month over a seven-month period.

II. Program Budget

The following table reflects the authorized program budget including any fund shifts, which may have occurred in support of the 2002 energy efficiency program.

Table 1 – Budget and Expenditure Overview

2002	Amount
Authorized Budget ¹	\$500,000
Fundshift Amount	(\$50,000)
Revised Authorized Budget	\$450,000
Program Expenditures (includes program commitments)	\$328,076

1 - Authorized by Decisions 02-05-046 and 03-02-027.

Fundshift Summary -

Negotiations with the training course vendor resulted in contractual cost savings. This allowed the program to shift \$50,000 to meet customer demand in the Standard Performance Contract program.

III. Program Performance

Table 2 – Performance Overview

Metric	CPUC Target¹	Result
Students	75	88
Training Course Sessions	3	3

1 –In Decision 02-03-057, the CPUC directed SCE to identify certain performance targets in its quarterly reports. In response, SCE proposed these performance targets.

A. Non-Energy Savings Target Performance

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1. Introduction

For 2002, SCE was authorized to develop, in coordination with other investor-owned utilities, a new builder operator training program. In response, SCE and other IOUs developed the 2002 Nonresidential Energy Efficiency Training and Certification for Building Operators program. SCE's program goals were to offer 3 training course sessions of the new BOC program and to enroll a minimum 75 students in these sessions. SCE achieved both targets by offering 3 training course sessions of the BOC program and enrolling 88 students in these sessions. SCE took several steps in coordination with other investor-owned utilities to achieve these targets which included: (1) developing a comprehensive course curriculum; (2) procuring a qualified vendor to develop and conduct the training courses; (3) scheduling three course sessions; and (4) recruiting eligible students.

2. Reasonable Steps Taken To Achieve Target

a. Development Of The BOC Course Curriculum

In March 2002, SCE was authorized to develop a builder operation training program in coordination with the IOUs. SCE and the other IOUs, in consultation with the CPUC, immediately began to design a training course that would educate building operators of large and medium commercial buildings on strategies that would optimize a building's energy use.

As a result of this coordinated program design process, the course curriculum developed for the 2002 Nonresidential Energy Efficiency Training and Certification for Building Operators program consists of seven classes presented once a month over a seven month period. The topics covered in the seven classes are designed to emphasize maintenance and operational practices to ensure energy efficiency in commercial buildings. Specifically, the course descriptions of the seven classes are:

BOC 101 - Building Systems Overview

Provides an overview of preventive maintenance, energy efficiency principles, and fundamentals of building systems, equipment, and operations. Reviews heating, cooling, ventilation and control systems, water, lighting, and indoor air quality. Covers system interaction and relationship to overall building performance. Provides the foundation for Level I certification courses.

BOC 102 – Energy Conservation Techniques

Helps operators gain a better understanding of how energy is used in commercial buildings and how to identify and prioritize conservation opportunities. Includes basic principles of energy accounting, evaluation of fuel options, operation and maintenance strategies to improve efficiency, and energy management planning techniques.

BOC 103 – HVAC System and Controls

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Focuses on operation and maintenance of equipment and components typically found in commercial buildings, including central heating, cooling, air and ventilating systems in buildings. Provides introduction to automatic control systems and equipment, particularly for central air systems. Emphasis is placed on group problem solving and exercises with respect to preventive maintenance.

BOC 104 – Efficient Lighting Fundamentals

Covers lighting fundamentals and types of lighting for economical and energy efficient lighting systems. Participants learn principles of efficient lighting, including evaluation of lighting levels, quality and maintenance. Other topics include lighting fixture and control technologies, common upgrades, retrofit and redesign options, and management strategies as they apply to space use and function.

BOC 105 – Maintenance and Related Codes

Provides an overview of health, safety, energy, and environmental codes that impact facility operation. Stresses how to comply with the requirements of the most important health and safety codes and how to use the energy and maintenance-related codes to improve energy efficiency.

BOC 106 – Indoor Air Quality

Introduces the basic causes of indoor air quality problems and begins to develop a method of diagnosis and solution. Students will gain an understanding of the dynamic components of indoor air quality in relation to source control, occupant sensitivity and ventilation. Emphasis will be placed on communications with building occupants for reliable investigations without aggravating existing issues.

BOC 107 – Facility Electrical Systems

Develops an understanding of how electricity is distributed in a facility and common electrical distribution problems. Emphasizes the fundamentals of electricity and its application to the workplace.

Each of the above class session is concluded with the administration of a written test.

In addition to the classroom training and written tests, students are required to complete five take-home projects. These projects are intended to apply the training obtained in the classroom to the student's workplace situation, and to be used for classroom discussion. The five projects are:

1. Facility and equipment floor plan
2. Energy use profile for the facility
3. Heating system operational review
4. Lighting survey of the facility
5. Electrical distribution sketch of the facility.

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Students who attend the seven classroom sessions, satisfactorily complete the five take-home projects, and pass all the tests receive a certificate. The value of the certificate is to recognize the student, provide evidence to the student’s employer of his/her level of knowledge and competency in the energy efficient operation and maintenance of buildings and its equipment, and serve as a qualifier for the student to enroll in advanced courses in building operation and maintenance such as those proposed by SCE in 2003.

b. Procurement Of Qualified Vendor

In order to select a qualified vendor to present the training courses, SCE and the other IOUs collaborated to issue a request for proposals in June 2002. Bids were received in early July 2002 followed by in-person bidder presentations of their proposals in mid-July. Six bids were received and evaluated through a point system (based on non-cost evaluation criteria) by the four IOUs. The highest-scoring bidder was selected.

Contract negotiations began with the winning bidder. Through aggressive negotiating by the IOUs, the final bid amount was approximately 70 percent of the original submitted bid without compromising the course outline or number of potential students. The accepted bid amount was prorated between the four IOUs, based on number of training courses and travel expenses expected to be incurred by the vendor. Each of the four IOUs entered into an individual contract with the vendor for its portion of the program costs. SCE’s contract was placed into effect in August 2002.

c. Development Of Training Courses

To achieve the number of training courses identified in the program target, SCE identified three locations to hold three different training courses using the curriculum detailed in a prior section. The course locations were located throughout the southern California area and around within areas that have high concentrations of commercial buildings. SCE also leverage the use of its energy center to deliver one of the three training courses. The following list shows the class schedule for each of the training courses:

1. Irwindale, CTAC Center

October 22, 2002	BOC 101 – BUILDING SYSTEMS OVERVIEW
November 26, 2002	BOC 107 – FACILITY ELECTRICAL SYSTEMS
December 17, 2002	BOC 102 – ENERGY CONSERVATION TECHNIQUES
January 28 & 29, 2003	BOC 103 - HVAC SYSTEMS AND CONTROLS
February 25, 2003	BOC 104 – EFFICIENT LIGHTING FUNDAMENTALS
March 25, 2003	BOC 105 – MAINTENANCE AND RELATED CODES
April 22, 2003	BOC 106 – INDOOR AIR QUALITY

2. Irvine

October	BOC 101 – BUILDING SYSTEMS OVERVIEW
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23, 2002	
November 27, 2002	BOC 107 – FACILITY ELECTRICAL SYSTEMS
December 18, 2002	BOC 102 – ENERGY CONSERVATION TECHNIQUES
January 23 & 24, 2003	BOC 103 - HVAC SYSTEMS AND CONTROLS
February 26, 2003	BOC 104 – EFFICIENT LIGHTING FUNDAMENTALS
March 26, 2003	BOC 105 – MAINTENANCE AND RELATED CODES
April 17, 2003	BOC 106 – INDOOR AIR QUALITY

3. Ontario

November 6, 2002	BOC 101 – BUILDING SYSTEMS OVERVIEW
December 4, 2002	BOC 107 – FACILITY ELECTRICAL SYSTEMS
January 8, 2003	BOC 102 – ENERGY CONSERVATION TECHNIQUES
February 12 & 13, 2003	BOC 103 - HVAC SYSTEMS AND CONTROLS
March 5, 2003	BOC 104 – EFFICIENT LIGHTING FUNDAMENTALS
April 2, 2003	BOC 105 – MAINTENANCE AND RELATED CODES
April 23, 2003	BOC 106 – INDOOR AIR QUALITY

d. Recruitment Of Eligible Students

SCE utilized a combination of reasonable pricing and targeted promotion of the BOC program in order to recruit students. Early on in program development, it was identified that the fee charged to students for similar courses nationally is approximately \$1200. Since 2002 was the initial year of the statewide BOC program, a fee lower than the national average was agreed upon between the utilities and the vendor. A fee of \$950 per attendee was chosen. As an inducement to encourage multiple attendees from a representative company, each additional attendee from the same company enrolled in the same course location was charged \$425. In 2002, about one-third of the attendees at SCE-sponsored courses fell into this category of additional attendees.

SCE relied on three promotional methods to recruit potential students from the targeted customer group: direct mail, direct customer contact, and customer information sessions. A direct mailing conducted by SCE consisted of approximately 5,000 targeted customers from the medium and large commercial building market. Additionally, the BOC course vendor sent the direct mail packet to another 2,000 customers from their mailing list. The mailings included an information packet consisting of a cover letter, a description of the BOC program, a schedule of class offerings, information on pre-course informational sessions, and a registration form. The program also relied on SCE’s customer representatives to inform their customer contacts about the benefits of participating in such a program. The program recruited a significant number of students through this direct outreach.

Finally, SCE held two customer informational sessions. The informational sessions on the BOC program were offered by SCE approximately 3 weeks prior to the initial class sessions. Information about these informational sessions was

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included in the 7,000 direct mail pieces sent by SCE and the BOC course vendor. Also, SCE's customer representatives informed customers about the sessions.

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Program Title: **Emerging Technologies**

I. Program Overview

The Emerging Technologies (ET) program is an information-only program that seeks to accelerate the introduction of energy efficient technologies, applications, and analytical tools that are not widely adopted in California. The program consists of Demonstration & Information Transfer activities and the Emerging Technologies Coordinating Council (ETCC). The Demonstration & Information Transfer portion of the program focuses on near-commercial applications with significant market opportunities, and commercial energy efficient applications with low market penetration. The demonstration projects help to measure, verify and document the potential energy savings of specific applications in different market segments, and overcome market barriers.

The ETCC is an information exchange and coordination effort between the California investor owned utilities (IOUs) and the California Energy Commission's (CEC) Public Interest Energy Research (PIER) program. The ETCC coordination effort ensures an effective linkage between those entities involved in the development of new energy efficient technologies in California, and those involved in their delivery. The ETCC maintains a website at www.ca-etcc.com and a database of emerging technology applications and projects.

II. Program Budget

The following table reflects the authorized program budget including any fund shifts, which may have occurred in support of the 2002 energy efficiency program.

Table 1 – Budget and Expenditure Overview

2002	Amount
Authorized Budget ¹	\$650,000
Program Expenditures (includes program commitments)	\$650,000

1 – As approved in Decisions 02-03-057 and 03-02-027 (Table 2b).

Fundshift Summary -
None.

III. Program Performance

Table 2 – Performance Overview

Metric	CPUC Target¹	Result
Assessments	SCE will perform 8 emerging technology application assessments.	SCE is committed to perform 10 emerging technology application assessments.

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Database Update	Update the Emerging Technology database by updating the list of emerging technology applications on the Emerging Technology Coordinating Council website semiannually.	Updates completed and posted on November 5, 2002 and December 18, 2002.
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1 - Decision 02-03-057.

A. Non-Energy Savings Target Performance

1. Introduction

The 2002 Emerging Technologies program had two distinct targets: perform 8 Emerging Technology Application Assessments and update the Emerging Technology Database. By the end of 2002, SCE committed to and initiated 10 Emerging Technology application assessments. To meet the Emerging Technology application assessments target, SCE researched and analyzed potential emerging technology applications and found opportunities to assess these technologies at customer facilities.

Also, SCE completed two updates to the Emerging Technology database and posted database summary reports to the ETCC website. To achieve the Emerging Technology database update target, SCE designed a new, expanded schema for the existing ET database, identified technology and project information to enhance the database, and published the database’s summary reports on the ETCC website.

2. Reasonable Steps Taken To Achieve Targets

a. Emerging Technology Application Assessments

The Emerging Technology Application Assessments required SCE to remain informed of potential emerging technology applications from a variety of sources including the California Energy Commission’s PIER project, NASA, E Source, American Society of Heating, Refrigerating and Air-Conditioning Engineers, national laboratories, universities, journals, manufacturers and vendors, etc. Assessment projects were initiated and committed to following either a “pull” from an interested customer, or a decision to “push” a technology using either a viable field site or a customer willing to innovate, or to pursue laboratory testing, simulation modeling and studies, in-house demonstrations, or a combination of several of these approaches. Program project managers formulated plans and worked with utility account representatives to negotiate customer agreements if required. At times, a single customer demonstration project may have yielded several assessments if more than one emerging technology application was planned for the site. Once project results are available, targeted information transfer activities will commence.

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Through the ETCC meetings and updated ET database, emerging technology applications from the PIER program were identified as viable candidates for ET application assessment projects. SCE secured agreements from customers to perform a total of 10 emerging technology application assessments at customer sites for the 2002 Emerging Technology program. The following is a list of these **ten** assessments:

- Through the ETCC, SCE, and the other investor-owned utilities, agreed to conduct coordinated follow-on projects to PIER Contract No. 500-98-031, Commercial Kitchen Exhaust Systems. Specifically, SCE initiated the following **four** assessments to build upon the PIER work on Commercial Kitchen Exhaust Systems: Integrated Hood Exhaust Backwall Make-up Air System for Hood Exhaust; Perforated Supply Plenum Make-up Air System for Hood Exhaust; Variable Speed Drive for Commercial Kitchen Hood Exhaust and Make-up Air System; and Exhaust Hood Design & Feasibility Follow-up Report for a Sit Down Restaurant.
- Customer interest in energy efficiency opportunities for new construction permitted SCE to initiate **two** ET application assessments with the Orange County Children’s Museum “Pretend City:” Integrated Design; and Underfloor Air Distribution. The later assessment builds upon work related to PIER Contract Nos. 500-01-015 and 500-01-035, both related to underfloor air distribution systems.
- SCE initiated the following **two** ET application assessments with Los Angeles County: T5 High Output Lighting System for High Bay Workshops; and Variable Geometry Reflector System for HID Lighting.
- Staff expertise and prior test work at SCE’s Refrigeration and Thermal Testing Center (RTTC) helped SCE to initiate the following **two** assessment projects targeting hard-to-reach small commercial customers: Integrated Efficiency Improvement for Small Grocery Stores; and Multiplex Refrigeration in a Small Sit-Down Restaurant.

b. Emerging Technology Database Updates

The Emerging Technology database updates began with a complete review of the existing ET Database that was created in program year 2000. A need to expand the database to track a technology’s commercial readiness and future potential program needs was discussed at the ETCC. Also, the database needed to facilitate mapping CEC PIER project information. SCE designed and proposed to the ETCC a database schema that centers around four basic tables: Technologies, Applications, Projects, and Assessments. The ETCC adopted the new database schema. In the following months, both the IOUs and the CEC proceeded to import and update records from the previous database into the new system, as well as to add new technologies, applications, and project information.

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SCE program staff served as the integrator of each participating group's datasets into the final database, and worked with the IOUs and the CEC to characterize ongoing projects in terms of technologies and applications. The commercial readiness of emerging technology applications were characterized in the new ET Database using the Product Development and Commercialization Cycle diagram shown in the ET Program Implementation Plan. Specifically, ET applications statuses were characterized to be in one of the following stages: Basic Research, Applied Research, Development, Commercial Introduction, Commercial Growth, Commercial Maturity, or Commercial Decline. It is important to note that the database was not intended as a project tracking system, but as a means to follow product readiness, exchange information, and as a comprehensive list of energy efficient emerging technologies originating from a variety of sources.

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Program Title: **Savings By Design**

I. Program Overview

The Savings By Design (SBD) program influences nonresidential building owners, tenants, and design teams to exceed current Title 24 standards (or industry standards for processes) by 10 percent or more for their new construction or renovation/remodel projects. SBD provides energy design education, design assistance, and cash incentives for all project types and sizes that meet the program's eligibility. SBD also leverages resources from industry relationships, strategic alliances, and other Public Purpose Programs to accomplish the goals of energy savings, peak demand reductions and long-term market change.

The program has three elements: the Whole-Building Approach, the Systems Approach, and education and outreach. The core strategy centers on an integrated design approach to optimize energy efficiency, known as the Whole-Building Approach. To include participants who would not normally consider a fully integrated design approach, the Systems Approach provides a simplified, performance-based method, which moves owners and design teams far beyond prescriptive approaches. Finally, program education and outreach strategies, focused on the successful Energy Design Resources model, address market barriers by providing owners and designers with the information, education, and tools to help them make the best possible energy efficiency choices. All three elements support the California Energy Commission's goals for market transition to the 2005 Title 24 code revision cycle.

II. Program Budget

The following table reflects the authorized program budget including any fund shifts, which may have occurred in support of the 2002 energy efficiency program.

Table 1 – Budget and Expenditure Overview

2002	Amount
Authorized Budget ¹	\$7,674,000
Program Expenditures (includes program commitments)	\$7,173,364

1 – As approved in Decisions 02-03-057 and 03-02-027 (Table 2b).

Fundshift Summary -
None.

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III. Program Performance

Table 2 – Performance Overview

Metric	CPUC Target¹	Result
Energy Savings, kWh	33,265,000	60,441,886
Demand Reduction, kW	7,780	10,409
Whole Building	50% of the direct program implementation funds be reserved for encouraging energy reductions that come from whole-building – oriented projects.	59% of the direct program implementation funds were used on encouraging energy reductions that come from whole-building –oriented projects.
Hard-to-Reach Performance	SBD targeted geographically hard-to-reach customers. The program identified the goal as a 25% increase over the percentage of participating projects from geographically hard-to-reach customers as identified in 2001 (which was 6%). In 2002, the program tracked 241 participating projects. This set the goal of 15 HTR projects (6.25% x 241).	In 2002, SBD ended the year with 31 participating HTR projects.

1 – As approved in Decisions 02-03-057 and 03-02-027 (Table 2b).

A. Energy Savings, Demand Reduction and Whole Building Target Performance

1. Introduction

In 2002, the Savings By Design program targets included the attainment of 33,265,000 kWh of net annualized energy savings and 7,780 kW of net demand reduction. The program also had an overall goal to reserve 50 percent of the direct program implementation expenditures to whole building oriented projects. In response, SCE achieved 60,441,886 kWh of net annualized energy savings, 10,409 kW of net demand reduction and committed 59 percent of the program’s direct implementation funds to whole building projects. SCE successfully achieved these targets through strategic outreach and promotion as well as enhanced program delivery.

2. Reasonable Steps Taken To Achieve Target

a. Strategic Outreach And Promotion

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SCE's successful strategy to achieve its program targets was designed around strategic promotion of the services and incentives that are available through Savings By Design. SBD's customer representatives promoted and influenced the participation of architects, designing engineers, and building owners. For example the program's customer representatives maintained membership in industry organizations to influence a wide range of decision makers: American Institute of Architects (AIA) (multiple chapters), American Society of Heating, Refrigerating and Air-Conditioning Engineers (multiple chapters), Illuminating Engineer Society, Association of Energy Engineers, International Congress of Shopping Centers, and American Society of Mechanical Engineers (ASME). Their thorough knowledge of energy efficiency technologies, new construction practices, and overcoming industry barriers produced a successful outcome.

SCE also targeted specific trade shows to promote the SBD program. SCE's sponsorship of the Integrated Energy Efficiency Design Award (IEEDA) in conjunction with the AIA was its most prominent event. IEEDA provided a spotlight for integrating energy efficiency in building design that is aesthetic as well as functional. The sponsorship gained promotional value throughout the year in AIA trade publications and a recognition of prominence in the architectural industry.

The other significant targeted promotional efforts with proven effectiveness was SCE's sponsorship of the training opportunities, including the AIA-accredited training events, training on Title 24 requirements, eQuest (energy calculation tool based on DOE 2) training, onsite training, and others.

The program also relied on the internet to outreach to customers. Energy Design Resources (EDR) is Savings By Design's educational website (www.energydesignresources.com) that provides energy efficiency information and tools designed to assist the new construction industry. EDR served as a powerful tool offered by SBD representatives to building owners, developers and design teams. In 2002, the website was updated to maintain current contact information. Two electronic newsletters were added to the EDR "library," and a Small HVAC Design Brief was also added to the many other design briefs already posted on the website. These tools were important in reaching design teams to inform them of energy efficiency opportunities and in showcasing projects that are integrated with these technologies. In addition to the EDR website, SBD as a statewide effort maintained the SBD website, www.savingsbydesign.com. This website offered direct program information to its visitors, including program overview, policies and procedures, helpful electronic links, and program contact information. In 2002, nearly 16,000 visits to the site were recorded.

Finally, although the receipt of an award for excellent programming was not planned, it was a great way to promote the program and highlight its prominence in the energy efficiency industry. Savings By Design, as a statewide program, was recognized in 2002 for the successful collaborative efforts of the statewide

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program in its effectiveness and innovative creativity in promoting energy efficiency practices.

b. Enhanced Program Delivery

Design Team Incentives worked to outreach to a broad base of customer facility types. Customers who took advantage of the service ranged from University of California facilities, to a small city's city hall building, to a major retailer to a vitamin manufacturer. The Design Team Incentive provided an excellent impetus for design teams to make modifications in designs and provide for energy savings[?], by including financial calculations tending to influence a customer's decision to include specific energy efficient measures not previously considered.

One successful tool employed in 2002 was the use of the program's Alternative Delivery Model (ADM). A strength of ADM is that it enables the program to focus services and incentives on customers that are not "traditional" participants in the program. For example, ADM was used to reach out to the refrigeration industry; that is, those eligible customers who had refrigeration as a major component of their energy use. ADM offered a structured services package that provided enhanced engineering services and incentives as proscribed under SBD program guidelines.

B. Hard-to-Reach Performance

1. Introduction

Savings By Design's hard-to-reach target was to have 15 HTR projects participate in the program. Beginning with the HTR definition outlined in the CPUC's Energy Efficiency Policy Manual, SBD further refined the definition of HTR to focus on those projects located in rural locations based on the CPUC approved Statewide Residential Customer Needs Assessment Study. Although this study deals with the residential customer segment, the rural communities identified in the study apply to all customer classes. SCE was successful in exceeding the target by enrolling 31 HTR projects to the program relying on the following strategies: (1) locating customer representatives in rural communities; (2) leveraging SCE's small business customer representatives to promote program; and (3) promoting program through local governments.

2. Reasonable Steps Taken To Achieve Target

The hard-to-reach target was achieved through three innovative ways. First, SCE located SBD customer representatives closer to the geographically defined HTR areas. This improved the program's outreach and provided participants in rural communities with the same level of customer service as in urban areas. Second, SBD utilized SCE's small business customer representatives to inform their customer segment (i.e., very small, small, medium customers) during various small business outreach events such the Ventura County Business Showcase and Latin Business Association Expo. Finally, a newer component of the program's offering, CheckPoint, leveraged cities' building and planning departments to

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inform builders of SBD. CheckPoint was designed to offer prescriptive (as opposed to whole building design) measures to builders at the same time they are seeking project approval from a city's building and planning department. The CheckPoint offering was another way for SCE to increase HTR and non-HTR customer participation. CheckPoint was offered to customers by leveraging SCE's Local Government Initiative program.

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*Energy savings and demand reductions reported in the attached tables may differ from the program's stated achievements in the 2003 Energy Efficiency Annual Report because the tables herein do not incorporate any adjustment factor resulting from SCE's internal verification process nor do the tables reflect 12 months of program activity. The tables herein reflect 9-month's of program activity, whereas the 2003 Energy Efficiency Annual Report reflects 12 months of 2002 program activity.

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Program Title: **Energy Efficiency Education and Training Program**

I. Program Overview

The statewide Energy Efficiency Education and Training program promotes energy efficiency to a variety of customer segments through energy centers and other informational programs, such as the commercial and industrial informational services and product labeling activities. These educational and informational efforts cover a broad spectrum of market actors, including consumers, midstream actors such as design, engineering and contracting communities, and upstream market actors.

SCE's energy centers, the Customer Technology Application Center (CTAC) and Agricultural Technology Application Center (AGTAC) engage in a variety of distinct activities, all of which serve to provide education and information to SCE customers. The primary audience of the energy centers is commercial and industrial customers. CTAC is located in the metropolitan Los Angeles area and is thus in close proximity to all ranges of commercial and industrial market actors, from end users to contractors as well as architects, designers, and engineers. AGTAC serves these markets but also serves the agricultural community located in the heart of the San Joaquin Valley. Both centers also address the residential market. CTAC directs information mostly to residential architects and designers. AGTAC works with schools within the Valley community to provide information to students and teachers.

II. Program Budget

The following table reflects the authorized program budget including any fund shifts, which may have occurred in support of the 2002 energy efficiency program.

Table 1 – Budget and Expenditure Overview

2002	Amount
Authorized Budget ¹	\$3,813,000
Program Expenditures (includes program commitments)	\$3,424,679

1 – As approved in Decisions 02-03-57 and 03-02-027 (Table 2b).

Fundshift Summary -
None.

III. Program Performance

Table 2 – Performance Overview

Metric	CPUC Target ¹	Result
Seminars/Workshops	The program will conduct 150 seminars/workshops	The program conducted 156 seminars/workshops during

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	during 2002.	2002.
Hard-to-Reach (HTR)	The program will target 45 energy efficiency events to hard-to-reach customers.	The program held 73 energy efficiency events to hard-to-reach customers.

1 - Decision 02-03-057.

A. Non-Energy Savings Target Performance

3. Introduction

The 2002 Education and Training program target was to conduct 150 seminars/workshops during 2002 of which 45 of these events would be targeted to hard-to-reach (HTR) customers. Through the use of SCE’s energy centers, SCE was able to exceed both targets by conducting 156 seminars/workshops which included 73 HTR seminars/workshops. SCE took several actions to conduct these seminars/workshops which included: (1) identifying subject matter and content; (2) scheduling events; (3) marketing and registration; (4) holding the events; and (5) evaluating attendee satisfaction.

4. Reasonable Steps Taken To Achieve Target

A primary means to relay education and information is through seminars and workshops offered through the energy centers. Each seminars and workshops delivered at least two hours of energy efficiency information to a set audience. Examples include a technical consultation held with a small group, the demonstration of a piece of energy efficient equipment, or a facility presentation that encompassed a variety of energy efficiency messages focused on various technologies.

a. Identification of Subject Matter And Content

Determining subject matter was accomplished through an evaluation of energy efficient technologies and the application of those technologies. This information was derived through collaboration with other energy efficiency programs such as the Emerging Technologies program and other technical parties such as class instructors, trade organizations or consultants like E-Source, the American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE), the Illuminating Engineering Society of North America (IESNA), and others. Customer groups as well as regulatory requirements could also influence subject matter.

The development of the final class product was managed by experienced education program managers who took the collaborative effort described above, and then worked with subject matter experts, consisting of SCE technical staff as well as third party consultants who specialize in technologies such as HVAC or lighting, to package a program that covers the intended subject matter. Materials were developed and instructional design was applied to ensure a level of quality conducive to a successful learning experience.

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b. Event Scheduling

A schedule of classes was developed by the education specialists based on several factors including, previous attendance, customer feedback, and in some cases, seasonality. For example, HVAC maintenance classes are historically better attended during the spring. Specialized presentations, technical consultations, and equipment demonstrations were scheduled on demand.

c. Marketing And Registration

Classes were marketed primarily through quarterly calendars of events distributed by mail and, in some cases, via electronic mail, and made available at the energy centers. Copies were also sent to each of the other investor-owned utilities' energy centers. Depending on the targeted audience or the rate of registration, a separate flyer was mailed. Outreach was also conducted through the energy centers' websites: sce.com/ctac and sce.com/agtac. In addition, advertisements were placed in trade publications. SCE's customer representatives also marketed energy center classes to their customers by distributing the calendar and flyers and discussing specific educational needs. The availability of specialized presentations, technical consultations, and equipment demonstrations was also marketed through brochures, websites and customer representatives.

Registration for classes was completed by phone, mail or via the internet. Registrants were tracked and sign-in sheets were created for the day of the event. Attendee information became part of the mailing database for future mailings.

d. Holding the Event

Implementation of classes included customer sign-in the day of the event. If a customer walked in to a class without having first registered, he or she was asked to sign in so that their information could be added to the list of attendees. Based on the sign-in sheets, certificates of completion were created and provided to the attendees at the end of the class. At some point during the class, a brief presentation was given regarding the availability of other energy efficiency programs.

e. Attendee Evaluation

An attendee evaluation consisted of a survey that each class attendee was asked to complete. The evaluation inquired on the attendee's level of satisfaction with the class content, the instructor and class materials. As a follow-up to the classes, SCE reviewed attendance numbers, evaluation surveys and instructor and customer comments.

5. Hard-to-Reach Achievement

The program's hard-to-reach target was to hold 45 workshops/seminars for HTR customers. SCE exceeded this target by holding 73 workshops/seminars. The CPUC's definitions are outlined in its 2001 Energy Efficiency Policy Manual⁶. In the 2002 Education and Training program, SCE chose to focus on three types of

⁶ Dated November 29, 2001, pp. 12-13.

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HTR customers: rural, language, and small and very small businesses. The vast majority of the HTR events targeted the rural customer in various locations throughout SCE's expansive service territory. The rural classification relied on the CPUC-adopted Statewide Residential Customer Needs Assessment Study.⁷ SCE opted to hold these events in areas where a significant number of rural customers resided. Examples of these locations included the cities of Bishop, Mammoth and Tulare. SCE also held HTR events that focused on small businesses and/or businesses where the owners and/or the customers they serve spoke primarily a language other than English. Examples of these events included the Chinese Business Owners Presentation and the Chinese Energy Efficiency Expo.

⁷ Although the study evaluated energy efficiency needs of residential customers, the identification of certain zip codes as rural applies to all customer classes.

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Program Title: **Codes and Standards Advocacy**

I. Program Overview

The statewide Codes and Standards Advocacy program is an information-only program that seeks to bring about upgrades in energy efficiency standards and codes, thereby capturing the benefits for society from California’s diverse energy efficiency efforts. The program includes Codes and Standards Enhancement (CASE) studies for energy efficiency improvements that are developed for promising design practices and technologies (such as those developed in the Residential and Nonresidential New Construction programs). The CASE studies are presented to standards code setting bodies statewide.

The program also addresses long-term peak demand issues by addressing code change opportunities that were not included in the Assembly Bill 970 process. Examples include: a time dependent valuation methodology for valuing source energy, alternative cooling systems, alternative building system control strategies, and daylighting.

II. Program Budget

The following table reflects the authorized program budget including any fund shifts, which may have occurred in support of the 2002 energy efficiency program.

Table 1 – Budget and Expenditure Overview

2002	Amount
Authorized Budget	\$887,500
Program Expenditures (includes program commitments)	\$887,500

Fundshift Summary -
None.

III. Program Performance

Table 2 – Performance Overview

Metric	CPUC Target¹	Result
Seminars/Workshops	SCE will report on not fewer than 10 CASE studies (new and existing) in 2002.	In 2002, SCE initiated 11 CASE studies.

¹ - Decision 02-03-057.

A. Non-Energy Savings Target Performance

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1. Introduction

The 2002 Codes and Standards program target was to conduct 10, new and existing, Codes and Standards Enhancement studies. During the nine month program period, SCE initiated or continued its investigations into 11 CASE initiatives. SCE worked with the other statewide investor-owned utilities to coordinate participation in the California Energy Commission's appliance and building energy efficiency activities. SCE also worked to identify potential CASE study opportunities. Once the opportunities were developed, SCE drafted a work scope and then initiated the CASE initiative.

2. Reasonable Steps Taken To Achieve Target

The Codes and Standards program achieves its advocacy objectives through Codes and Standards Enhancement studies and the resultant report presentations. These CASE studies included empirically-supported investigations and computer-modeled analyses to document the potential benefits of various new energy efficiency standards. The CASE studies were initiated and committed to during the program year. Some projects may take up to three years to complete due to the varying depth of study investigations and analysis, as well as fitting the presentation of proposed standards into the appropriate code-making bodies' revision schedules. CASE studies initiated and committed to during 2002 will be completed no later than year-end 2005.

The process by which SCE conducts a CASE initiative includes the following steps: (1) identify CASE initiative opportunities; (2) create detailed work scope for each initiative; (3) commence work on initiative; (4) prepare CASE initiative schedule; and (5) commence CASE initiative project with final milestone being the Codes and Standards advocacy report, guideline, or proposal.

In support of the 2002 Codes and Standards program, the following CASE initiatives were completed in 2002 or are underway:

1. High ambient HVAC unit testing.
2. Staged-volume packaged HVAC unit study.
3. TDV residential compliance assessment.
4. TDV residential computer simulation package.
5. EER and SEER as cooling season performance indicators.
6. Piping and ductwork losses, phase 1: VAV reheat terminal boxes.
7. Advanced lighting design guidelines.
8. Daylighting photocontrol study.
9. Outdoor lighting spectral effects study.
10. Agribusiness energy efficiency guideline: Dairies.
11. Study on mechanisms for improving the energy efficiency of existing buildings in California.

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Program Title: **Upstream Residential Lighting Program**

I. Program Overview

The Upstream Residential Lighting program solicits proposals from manufacturers to provide ENERGY STAR[®] lighting products to retailers with a discount built-in to the price courtesy of the SCE. Customers receive a \$2 per lamp discount by purchasing compact fluorescent lamps (CFLs) at participating retailers. A \$10 discount accompanies purchases of fluorescent fixtures and torchiere floor lamps. A \$20 discount is provided for the purchase of qualifying ceiling fans. All products must be ENERGY STAR[®] - labeled to qualify. Participating manufacturers are reimbursed by SCE for discounted products shipped and available in stores serving SCE residential customers.

The program also signs-up interested larger retail home improvement and club chains in a separate statewide retailer component to the program. These chains offer point-of-sale discounts for the same universe of lighting products as described above, and discounts are provided in the same amounts as in the manufacturer component. The participating retailers receive reimbursement directly from SCE for the discounts provided to SCE area residential customers.

II. Program Budget

The following table reflects the authorized program budget including any fund shifts, which may have occurred in support of the 2002 energy efficiency program.

Table 1 – Budget and Expenditure Overview

2002	Amount
Authorized Budget	\$1,999,500
Program Expenditures (includes program commitments)	\$1,546,822

Fundshift Summary -
None.

III. Program Performance

Table 2 – Performance Overview

Metric	CPUC Target¹	Result
Energy Savings, kWh	25,626,052	25,654,471
Demand Reduction, kW	3,264	3,814
Hard-to-Reach Performance	At least 15% of the rebate budget reserved for customers in rural areas.	55.9% of the rebate budget was spent in rural locations.

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Hard-to-Reach Performance	10% of the rebate funds reserved for redemptions through purchases from new delivery channels of grocery and drug stores.	35.2% of the rebate budget was spent through grocery and drugstores.
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1 – As approved in Decisions 02-03-057 and 03-02-027 (Table 2b).

A. Energy Savings, Demand Reduction and Whole Building Target Performance

1. Introduction

In 2002, the Residential Upstream Lighting program targets were to achieve 25,626,052 kWh of net annualized energy savings and 3,264 kW of net demand reduction. SCE achieved these targets by realizing 25,654,471 kWh of net annualized energy savings and 3,814 kW of net demand reduction. SCE implemented various strategies to meet these targets including: (1) reduction in administrative costs; (2) reformulation of product offerings; and (3) mass marketing efforts.

a. A Reduction in Administrative Costs

In order to reduce the program’s administrative costs, SCE utilized an in-house invoice processing and a new tracking system, both previously outsourced. During the program year, these costs savings proved beneficial as some of these costs savings were used to offset a higher program incentive budget caused by the limited availability of certain CFL product.

b. Reformulation of Product Offerings

During the planning process and initial implementation of the Residential Upstream Lighting program, SCE assumed a mix of CFLs of various wattages. Specifically, the program forecasted the availability and market acceptance of higher wattage CFLs, such as the 25-watt and 30-watt bulbs, and placed less emphasis on lower wattage bulbs (e.g., 15-watt CFLs). However, during the program implementation, most manufacturers and retailers refused 30-watt and higher CFLs, stating these wattages were in low supply while 15 Watt CFLs were in greater supply. In response, SCE had reformulated the CFL mix away from the higher wattage bulbs to the lower wattages. This reformulation would have significantly reduced the program energy savings potential if it were not for SCE’s reduction in administrative costs mentioned above. SCE shifted administrative funds to the program’s incentive budget. Thus allowing the program to increase the number of CFLs to participants and thereby increase the program’s energy savings potential. Nevertheless, SCE continued to promote the higher wattage bulbs to the manufacturers and retailers throughout the program year.

c. Mass Marketing Efforts

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The program utilized the statewide Marketing and Outreach campaign. Specifically, the statewide Flex Your Power campaign promoted the benefits of ceiling fans and efficient lighting. The program also relied on the targeted marketing efforts of other SCE programs, like the 20/20 Rebate program, which provided lighting efficiency actions and tips.

B. Hard-to-Reach Performance

1. Introduction

The 2002 Residential Upstream Lighting program had two hard-to-reach targets: (1) At least 15 percent of the rebate budget should be reserved for customers in rural areas; and (2) 10 percent of the rebate funds reserved for redemptions through purchases from new delivery channels of grocery and drug stores. For this program, SCE relied on the CPUC approved Statewide Residential Customer Needs Assessment Study, which identified, by zip code, rural communities within SCE's service territory. Through strategic outreach and promotion, SCE was able to spend 55.9 percent of the rebates in rural communities and 35.2 percent of the rebates through grocery and drug stores.

2. Reasonable Steps Taken To Achieve Target

In support of the grocery and drugstore HTR target, in August and September 2002, the program partnered with a manufacturer, a retailer, and SCE's small business customer representatives to conduct a targeted ethnic promotion aimed at non-English speaking Asian customers through a large Chinese grocery store chain. It helped open up a previously closed market to CFLs. During the promotion, 110,000 CFLs were distributed through this Chinese grocery chain. Newspaper advertisements, radio announcements, and cable television spots were used to promote the event. SCE, through its small business customer representatives, persuaded the manufacturer, retailer and a Chinese cable television station to donate the cost of promoting the event. Each of the stores within the Chinese grocery chain was located in an urban area.

As for the rural target, this was not easily achieved. Manufacturers receiving initial CFL allotments for rural areas reduced these initial allotments during the program year as the response rate from rural stores was lower than anticipated. Also, the program spent more time than originally expected, coordinating with a non-investor-owned utility program provider with the same program design and HTR rural target. In early December 2002, SCE launched a rural Hispanic promotion. The program contacted selective non-participating chain retailers in rural areas and persuaded the retailers to participate. Manufacturers, working closely with SCE on this rural promotion, shipped product to participating retailers located in rural communities.

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*Energy savings and demand reductions reported in the attached tables may differ from the program's stated achievements in the 2003 Energy Efficiency Annual Report because the tables herein do not incorporate any adjustment factor resulting from SCE's internal verification process nor do the tables reflect 12 months of program activity. The tables herein reflect 9-month's of program activity, whereas the 2003 Energy Efficiency Annual Report reflects 12 months of 2002 program activity.

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Program Title: **Statewide Marketing and Outreach**

I. Program Overview

Flex Your Power – Energy Efficiency (FYP-EE) is a statewide consumer marketing campaign focused exclusively on energy efficiency. The goal is to build awareness of Energy Star products. The campaign uses a series of advertisements to promote Energy Star products as part of the statewide *Flex Your Power - Energy Conservation Campaign*. The advertising is developed to compliment the ongoing conservation messages of the *Flex Your Power Conservation Campaign*.

The target market is General Market, African American and Asian residential consumers throughout California. With the exception of newspaper ads, the Hispanic market is not included due to a separately funded Univision program (discussed below). Overall, the FYP-EE marketing plan includes three messages that focus on specific Energy Star products running in the months of May, August and October of 2002. Each message runs for three weeks via television and radio, and to a lesser degree, in newspapers.

Univision Television Energy Efficiency Marketing (UTEEM) is a consumer marketing and outreach program. Its goal is to build awareness of and increase participation in energy efficiency rebate programs and other energy efficiency initiatives. The target market is hard-to-reach Hispanic residential consumers. The energy efficiency messages are distributed through a combined schedule of 10- and 60-second Spanish-language commercials.

II. Program Budget

The following table reflects the authorized program budgets, including any fund shifts which may have occurred in support of the 2002 statewide marketing and outreach programs.

Table 1 – Budget and Expenditure Overview

FYP-EE

2002	Amount¹
Authorized Budget ²	\$8,057,000
Program Expenditures (includes program commitments)	\$7,600,676

1 – Reflects a total of all budgets and expenditures for the investor-owned utility service territories (i.e., SCE, Pacific Gas and Electric and Sempra Utilities).

2 – In D.02-07-040, the CPUC transferred contract management from the Department of Consumer Affairs to SCE. SCE continued to use the existing vendor (Grey Worldwide) for all activities related to the FYP-EE campaign.

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Univision

2002	Amount ¹
Authorized Budget	\$2,000,000
Program Expenditures	\$2,000,000

1 – Reflects a total of all budgets and expenditures for the investor-owned utility service territories (i.e., SCE, Pacific Gas and Electric and Sempra Utilities).

III. Program Performance

A. Flex Your Power – Energy Efficiency

1. Introduction

The objectives of the 2002 FYP-EE campaign were two-fold: (1) increase the sales of energy efficient products such as Energy Star qualified dishwashers and light bulbs; and (2) get the appliance and home improvement retailers to join the effort to educate consumers about energy conservation and energy efficient products.

With the success of the 2001 *Flex Your Power Conservation Campaign* and its ongoing success in 2002, the FYP-EE campaign was launched as a compliment to the conservation campaign by focusing on promoting specific energy efficient products in three separate promotions. Products included ceiling fans, washing machines, and light bulbs. The main thrust was to create three television and radio spots that would educate consumers about the products. This was enhanced by three full-page newspaper ads that directed interested consumers to participating retailers in their area where they could purchase energy efficient products. Once in the stores, consumers found a variety of point-of-purchase collateral material that reinforced energy efficient product benefits and rebates.

The following are the results of the FYP-EE campaign:

- Over 95 percent of Californians were reached an average of 25.3 times by the campaign.
- Sales of energy efficient appliances increased by 100 percent and sales of energy efficient light bulbs rose by an astonishing 400 percent.
- The 2001 *Flex Your Power Conservation Campaign* had a total of 586 stores. By the end of 2002, the FYP-EE campaign involved a total number of 1200 stores, including major chains such as Sears, Home Depot, Wal-Mart, Best Buy, Lowe’s and hundreds of independent retailers.

2. Major Campaign Strategies and Successes

a. Radio and Television Strategies

A combination of television and radio was used to provide effective, broad reach against all target audience segments throughout the state, including the hard to reach Asian markets. This strategy ensured that consumer awareness of energy efficient products was immediate. General Market broadcast ran statewide. Asian broadcast was focused in Los Angeles and San Francisco where 80 percent of the

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state's Asian population resides. The General Market television indexed 150 percent against African Americans, providing excellent coverage to that market. The General Market radio buy included urban and R&B radio with strong African American listenership.

By the end of 2002, 95 percent of the California's population had seen or heard FYP-EE campaign messages an average of over 25 times. This was accomplished by airing nearly 25,000 broadcast messages over the course of the campaign.

b. Print Advertising Strategies

Newspaper was used to direct consumers to participating retail locations where they could purchase the Energy Star products featured in the television and radio in addition to other energy efficient products. The advertisements described specific benefits of buying and using energy efficient products and provided information about available rebates. Hard to reach markets including African American, Asian and Hispanic were targeted, in addition to the General Market. Each newspaper insertion reached an average of 4.9 million readers via 43 newspapers throughout the state.

c. Customer Outreach Strategies

Point-of-purchase materials were used to "close the loop" with consumers on the retail level. Once consumers visited a participating location feature in the newspaper ad, they found FYP-EE point-of-purchase pieces to help guide them to the products as well as giving them valuable information about the products, rebates, and conservation tips in general. This approach provided retailers with energy efficient product sales aids and provided the state with a communications channel on a grass roots level. Pieces included rebate cards, consumer brochures, salespeople training guides, aisle violators and product hang tags.

B. Univision Television Energy Efficiency Marketing

1. Introduction

Univision Television Group (Univision) is uniquely positioned to overcome barriers of language and culture to reach California's statewide Hispanic population. The station's credibility with and reach into Hispanic households allowed UTEEM to present the Hispanic market with a schedule of messages regarding the various energy efficiency rebates and other incentive programs provided by the investor-owned utilities. The schedule of messages began in May 20, 2002 and ended September 9, 2002, except for a brief schedule that aired for two weeks in November 2002. The stated goal of the campaign was to reach 93,400,000 viewers over the duration of the television commercial schedule. The final outcome was 107 percent of that goal, or 99,660,000.

2. Major Campaign Strategies and Successes

Univision created 60- and 10-second messages with which the stations' viewers could relate. Because humor is well received by the Hispanic television audience,

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the UTEEM commercials took advantage of the campaign spokesperson’s jocular personality. The result was a series of messages that were both entertaining and informative.

a. Television Strategies

UTEEM was a consumer marketing and outreach campaign designed to build awareness of and increase participation in the 2002 statewide energy efficiency programs. The target market was hard-to-reach Hispanic consumers.

Pairing this program with Univision was a strategic fit for several reasons. Most important, television is the top source for news and information among California’s Hispanic population and is preferred over any other media. Not only is television the media of choice among Hispanic consumers, Univision is preeminent Spanish-language television network in the United States. Specifically, Univision is the largest Spanish-language network, and the fifth largest network in general. The Univision stations in Los Angeles, San Francisco, San Diego, Fresno and Sacramento are the dominant Spanish-language stations in each of their respective markets. In Los Angeles and Fresno, Univision is the top-rated station in the market, regardless of language. These stations have won a number of awards and honors, including the Edward R. Murrow Award for Journalism, for their excellence in news reporting and community service.

Univision’s unique credibility in California’s Hispanic communities was used as an advantage in promoting the 2002 statewide energy efficiency programs. For example, the commercial schedule developed for the program featured Francisco Quiroz, one of Univision’s best known and most liked meteorologists.

The UTEEM campaign produced a series of nine sixty-second Spanish-language commercials, supported by a bonus schedule of eleven ten-second messages. Content promoted specific energy efficiency rebate, residential energy audit and appliance recycling programs, as well as small business energy efficiency programs.

<i>WEEKS SCHEDULED</i>	<i>COMMERCIAL TOPIC</i>
May 20, 2002 and May 27, 2002	Home Improvement: <ul style="list-style-type: none"> ▪ Attic/wall insulation and dual-pane windows
June 3, 2002 and June 10, 2002	Cooling Equipment Rebates: <ul style="list-style-type: none"> ▪ Central A/C ▪ Window A/C ▪ Evaporative Cooler ▪ Whole House Fan
June 17, 2002 and June 24, 2002	Energy Star® Appliance Rebates: <ul style="list-style-type: none"> ▪ Dishwasher ▪ Clothes Washer

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	<ul style="list-style-type: none"> ▪ Hot Water Heater
July 8, 2002 and July 15, 2002	Refrigeration Recycling: <ul style="list-style-type: none"> ▪ \$35 in cash or 5 CFLs Boilers and Boiler Controls (SoCalGas Only)
July 22, 2002 and July 29, 2002	Small Business Programs: <ul style="list-style-type: none"> ▪ Express Efficiency Rebates ▪ Savings By Design ▪ Statewide Energy Audits ▪ Emerging Technologies Program
August 5, 2002 and August 12, 2002	Energy Star® Appliance Rebates (SCE and SDGE) Cooling Equipment Rebates (SCE, PG&E, SDGE)
August 19, 2002 and August 26, 2002	Energy Star® Appliance Rebates (SCE and SDGE) Cooling Equipment Rebates (SCE, PG&E, SDGE)
September 2, 2002 and September 9, 2002	Heating Equipment: <ul style="list-style-type: none"> ▪ Gas Furnace ▪ Heat Pump ▪ Programmable Thermostat
November 11, 2002 and November 18, 2002	Online Energy Audit

The commercial schedule aired on all eleven Univision stations, which are located in Los Angeles, San Francisco, San Diego, Fresno, Sacramento, Salinas-Monterey, Palm Springs, Bakersfield, Yuma-El Centro, Santa Barbara and Chico-Redding. Each commercial was tagged with the appropriate phone number of the investor-owned utilities serving that particular area. Broadcast coverage area of the eleven stations allowed the campaign to effectively reach 98 percent of the state's Hispanic populations.

b. Print Strategies

UTEEM was, by its nature, a television campaign. However, it was supported by news releases to 49 Spanish-language newspapers in California regarding the campaign and the availability of energy efficiency programs. News releases were localized with the toll-free phone number of the investor-owned utility serving that particular area.

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c. Customer Outreach Strategies

California’s Hispanic population is traditionally family oriented. Subsequently, cultural, recreational and entertainment events are very popular in California communities with significant numbers of Hispanic households. As part of its mission to serve Hispanic viewers, Univision often co-sponsors and/or participates in these events, drawing large crowds of viewers to its booth at these types of events.

To broaden the scope of the UTEEM campaign, all eleven Univision stations distributed a UTEEM brochure and imprinted give-aways at the Univision event booths. The brochure, provided in Spanish- and English- language translations, was produced by Univision and UTEEM to explain the 2002 residential statewide energy efficiency programs and encourage Hispanic customers to access more information via the local investor-owned utility toll-free phone number or the internet. In 2002, a minimum of 800,000 Hispanic consumers received the UTEEM brochure at these events. In addition, Univision handed out free paper fans that also displayed the IOUs’ toll-free phone numbers.

To build local awareness of the program, each of Univision’s 11 stations also displayed a UTEEM banner on its building’s exterior and placed literature displays supplied with Spanish-language consumer information brochures in their lobbies.

During initiation of the television schedule, several of Univision’s television schedules made available slots on local talk shows. UTEEM coordinated with CPUC and the IOUs to schedule spokespersons for the 2002 statewide energy efficiency programs on these talk shows. The final schedule of interviews was as follows:

<u>ORGANIZATION REPRESENTED</u>	<u>STATION/LOCATION</u>
CPUC and PG&E	KDTV in San Francisco
CPUC and PG&E	KUVS in Sacramento
PG&E	KABE in Bakersfield
PG&E	KFTV in Fresno
SDGE	KBNT in San Diego
SCE and SoCalGas	KVER in Palm Springs
SCE	KFTV in Fresno

These talk shows allowed CPUC and IOU representatives to provide Hispanic viewers with more in-depth information about the benefits of energy efficiency and the process for accessing rebates and other incentives.

d. Coordination With Statewide Program Offerings

As the FYP-EE campaign and the UTEEM campaign were undertaken simultaneously, UTEEM believed that Hispanic consumers should, as much as

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possible, receive a consistent and seamless message about energy efficiency. Although Hispanics prefer television to any other news medium, they are impacted, to a lesser degree, by energy efficiency messages on radio and in newspapers. For that reason, UTEEM made every effort to coordinate our messages with those of the FYP-EE program. The campaign scheduled the roll-out of various messages to coordinate with FYP-EE's three major promotions: Energy Star ceiling fans, Energy Star clothes washers, and Energy Star light fixtures and lamps.

UTEEM was in constant contact with the IOUs to ensure that the campaign's messages supported the statewide energy efficiency programs. Subsequently, at the request of Southern California Gas Company the campaign produced commercial regarding rebates available on boilers and boiler equipment. We also extended the air dates of certain messages to make best use of available program dollars.

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Program Title: **Residential In-Home Energy Survey**

I. Program Overview

The Residential In-Home Energy Survey program provides customers, particularly hard-to-reach (HTR) customers who do not respond to online and mail-in survey options, with a more personalized, face-to-face energy survey. Upon the customer's request, an appointment is scheduled, and a trained energy auditor is sent to the customer's home to assess energy usage and to provide energy-saving recommendations. Energy auditors are also bilingual and conduct in-home surveys in Spanish. Customers are provided with information on energy efficiency products and services, rebate programs and other energy-related information to encourage the adoption of energy efficiency measures identified the in-home survey.

Maintaining this option is particularly important in 2002, with customers facing higher rates than they did a year ago, and after they have been alerted by the 2001 mass media campaigns and press coverage about the need for and general possibilities for achieving significant energy savings.

II. Program Budget

The following table reflects the authorized program budget including any fund shifts, which may have occurred in support of the 2002 energy efficiency program.

Table 1 – Budget and Expenditure Overview

2002	Amount
Authorized Budget ¹	\$700,000
Program Expenditures (includes program commitments)	\$700,000

1 - Authorized by Decision 02-05-046 and Administrative Law Judge (ALJ) approval on October 15, 2002.

Fundshift Summary -
None.

III. Program Performance

Table 2 – Performance Overview

Metric	CPUC Target¹	Result
Surveys	4,500	5,102
Hard-to-Reach Performance	The Residential In-Home Energy Survey Program will achieve 50% program participation by hard-to-reach.	The Residential In-Home Energy Survey Program achieved 71.2% program participation by hard-to-reach.

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1 – Authorized by Decision 02-05-046 and ALJ approval on October 15, 2002.

A. Non-Energy Savings Performance –

1. Introduction

The 2002 Residential In-home Energy Survey program target was to conduct 4,500 residential surveys. The program exceeded its 2002 program target with 5,102 completed surveys. SCE exceeded these targets through expanded outreach and effective promotion of the Residential In-home Energy Survey program.

a. Expanded Outreach and Promotion

The techniques used for outreach and promotion of the In-Home Energy Survey Program in past years proved to be less effective in 2002. In the past, direct mail and phone center referrals were sufficient to satisfy program goals. However, with the introduction of HTR goals this year, which limits availability of the product to non-HTR customers, less than anticipated phone center activity, the number of completed surveys was well below the goal through the third quarter. Response to direct mail solicitations of HTR customers was about one percent, as opposed to a more typical response rate of about three percent for high usage customers in past years.

In an effort to make the outreach process more effective, SCE expanded its existing direct mail strategy to a total of 125,000 in-home solicitation packages targeting specifically HTR customers. From April through May 2002, SCE sent 50,000 direct mail solicitation packages. During the third quarter, SCE sent an additional 75,000 direct mail solicitation packages to HTR customers. Over 2,500 surveys were completed by the end of the third quarter.

In the fourth quarter of 2002, to further increase program activity SCE began offering a free compact fluorescent lamp (CFL) to participants. As a result of this promotion, SCE experienced a tremendous upswing in participation. Specifically, the use of this limited promotion improved the program's conversion rate of requested survey to completed surveys. By the end of the fourth quarter 2002, SCE had almost doubled the number of surveys completed from prior months. Participating customers also received the added benefit of increased energy savings from the CFL.

B. Hard-to-Reach Performance

1. Introduction

The 2002 Residential In-Home Energy Survey program's hard-to-reach target was to achieve 50 percent (2,250 surveys) program participation from HTR customers. Relying on the CPUC's hard-to-reach definition⁸, SCE further refined the HTR definition for this program to target specifically rural, moderate income and

⁸ Energy Efficiency Policy Manual, dated November 29, 2001.

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renters. Through strategic marketing and outreach, SCE was able to achieve 71.2 percent (3,631 surveys) participation from the HTR segments.

a. Strategic Marketing and Outreach

The Residential In-Home Energy Survey Program has the advantage of being able to respond to the needs of certain HTR customer groups by providing an alternative delivery channel to the statewide Home Energy Efficiency Survey Program through individual interaction.

Certain customer segments tend to have a greater propensity than other customer segments to respond positively to an in-home survey offering than to offers of online or mail-in surveys. As in previous years, SCE continued to target Spanish-language customers; however, the program also expanded its direct mail solicitations and outreach efforts to include other HTR customers including rural, moderate income and renters.

In addition of the targeted direct mailings to HTR customers, SCE implemented Spanish radio advertisements through six major Spanish radio stations in San Bernardino and Riverside counties. The Spanish radio advertisements were specially designed to promote in-home surveys to Spanish-speaking customers. SCE also promoted the in-home survey in the Penny Saver magazine, which was circulated in HTR zip code areas. The Penny Saver advertisements were piloted to reach more than one million HTR customers.

SCE also supplemented traditional outreach channels with the use of the Mobile Education Unit (MEU) at county and regional fairs and other major events. The MEU is a 45-foot converted recreational vehicle equipped with energy-efficient household products and computerized education tools designed to promote consumer interest in energy efficiency. The MEU traveled to HTR areas throughout SCE's service area and enrolled customers into the program.

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Program Title: **Small Nonresidential Hard To Reach**

I. Program Overview

The Small Nonresidential Hard-to-Reach program, implemented as the Small Business Lighting Retrofit program, offers energy efficiency information, equipment and literature to small business customers in areas identified as hard-to-reach by the CPUC and located within SCE's service territory. SCE's hard-to-reach customers are defined as all customers who are located in rural zip codes and/or all customers with a monthly demand of less than 20 kW. The program is designed to introduce small business customers to the benefits of energy efficiency through lighting system upgrades. The upgrades consist of the replacement of low efficiency lighting with high efficiency lighting. The upgrades are provided after an energy audit is performed. The audit helps to demonstrate to the customer the potential for energy savings. Since cost is a major concern for the small business owner, and the largest barrier to participation in traditional rebate programs, all program services are provided free of charge. Professional electrical contractors, hired through a competitive bid process, provide the audits and installation of the lighting system upgrades.

II. Program Budget

The following table reflects the authorized program budget including any fund shifts, which may have occurred in support of the 2002 energy efficiency program.

Table 1 – Budget and Expenditure Overview

2002	Amount
Authorized Budget ¹	\$1,262,200
Program Expenditures (includes program commitments)	\$1,262,200

1 - Authorized by Decision 02-05-046 and ALJ's approval on October 28, 2002.

Fundshift Summary -
None.

III. Program Performance

Table 2 – Performance Overview

Metric	CPUC Target¹	Result
Energy Savings, kWh	2,569,570	3,160,387
Demand Reduction, kW	529	670

1 – Authorized by Decision 02-05-046 and ALJ's approval on October 28, 2002.

1. Energy Savings and Demand Reduction Performance –

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A. Introduction

SCE's 2002 Small Nonresidential Hard-to-Reach program targets included 2,569,570 kWh of net annualized energy savings and 529 kW of net demand reductions. SCE achieved 3,160,387 kWh of net annualized energy savings and 670 kW of net demand reduction. Due to the nature and focus of the program which targeted only very small nonresidential customers (i.e., under 20 kW), typically located in rural communities, there were no specific hard-to-reach targets assigned to the program. Various steps taken by SCE proved very successful in helping SCE meet its targets such as: (1) targeting the appropriate customer segments; (2) providing participants with program materials and services tailored to their energy needs; and (3) selecting vendors that could perform both on-site energy audits/information and lighting upgrades in a cost efficient manner.

B. Reasonable Steps Taken To Achieve Target

1. Program Targeting

An essential element to the success of the program was to identify those customers who met the program's hard-to-reach criteria which consisted of the following: (1) participants located in outlying areas, as defined by SCE rural zip code listing; and/or (2) very small business customers, measured by a monthly demand below 20 kW.

To properly identify the very small business customers, SCE limited its targeting to SCE customers under the GS-1 rate class. The GS-1 rate class is limited only to customers whose demand is below 20 kW. The second criterion was to identify nonresidential customers, under the GS-1 rate class, in rural locations. SCE relied on a group of zip codes that were identified as being located in rural areas within SCE's service territory.⁹ This rural zip code grouping was derived from the CPUC approved Residential Needs Assessment Study, July 2001, CALMAC ID # 3533 (CPUC approved Residential Needs Assessment Study). SCE took further steps to limit the potential participant group by selecting areas with a large GS-1 customer base and areas that were geographically close to each other to reduce program costs. The areas (cities) selected were Hesperia, Lake Elsinore, Moreno Valley, Riverside and Victorville. SCE assigned specific contractors to deliver the program. These contractors were assigned to these areas, but not in the same cities. This strategy provided SCE the flexibility to supplement one contractor for another if unanticipated problems arose during the program term that threatened the achievement of the program's targets. Fortunately, there were no unforeseen events with the installation contractors and there was strong demand for the program.

⁹ This rural zip code grouping was derived from the CPUC approved Residential Needs Assessment Study.

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2. Program Materials

To encourage program participation, SCE provided benefits to potential participants which provided them a clear understanding on the benefits of energy efficiency in their small businesses as well as how to participate in the program. The installation contractor who presented the program to the participant relied on two communications pieces: an onsite energy audit/survey form and a program information sheet. These informational materials provided to potential participants are provided in more detail below:

On-Site Energy Audit/Survey Form

The on-site energy survey form was a simple to use and understand audit that the installation contractor used to demonstrate to the potential participant the difference in energy usage, expressed both in kWh and cost, and between the existing low efficiency lighting and the proposed high efficiency lighting available through the program. This form was also used as the customer's authorization for the contractor to proceed with the lighting system upgrades.

Program Information Sheet

The program offered an information sheet to customers that described the program and its benefits as well as other energy efficiency low/no cost tips that the customer could implement at home as well as in the place of business. The informational tips included recommendations such as cleaning the refrigerator coils, lowering the thermostat etc., which could lead to optimizing the performance of their energy equipment. The SCE energy efficiency toll free number was also included on this sheet so the customer could obtain information about other energy efficiency programs offered by SCE. These were created in English but were also produced in Spanish, Chinese, and Korean for those customers who preferred the information in their native language. It should be mentioned, however, that the installation contractors reported that most customers, regardless of their first language, preferred to conduct business in English.

The informational materials were provided in a folder and the customer was encouraged to use this folder for all energy efficiency related literature as part of their overall business operations. Nearly all of the customers who were provided an informational sheet and an energy survey through the program opted for a lighting upgrade.

The program did not quantify the energy savings associated with the various low/no cost energy efficiency informational tips provided to the customer. Only energy savings and demand reductions associated with the lighting system upgrades were considered in the calculation of the program's overall achievement.

3. Contractor Selection and Coordination

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SCE solicited competitive bids from electrical contractors who could demonstrate an understanding of the energy and non-energy objectives of the program yet whose cost would lead to the achievement of the program's energy savings and demand reduction targets. SCE selected two licensed electrical contractors to provide both the energy audits and to perform lighting upgrades. SCE worked closely with these contractors on strategic planning and during program implementation to ensure that the program achieved the goals while remaining cost effective. Both contractors managed within their contracted budget amounts allotted to them by SCE. As a result, the program achieved both its energy savings and demand reduction targets.

Under direction of SCE, the contractors paid special attention to the customer's time and used a combination of telemarketing and/or direct contact, whichever was preferable to the customer. For example, in certain instances, customers preferred to conduct the survey and potential installations during hours when they expected slow customer traffic in their own businesses. The contractors reported in many instances that customers were anticipating their call/visit because other businesses in their communities had already participated.

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*Energy savings and demand reductions reported in the attached tables may differ from the program's stated achievements in the 2003 Energy Efficiency Annual Report because the tables herein do not incorporate any adjustment factor resulting from SCE's internal verification process nor do the tables reflect 12 months of program activity. The tables herein reflect 9-month's of program activity, whereas the 2003 Energy Efficiency Annual Report reflects 12 months of 2002 program activity.

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Program Title: **Pump Test and Hydraulic Services**

I. Program Overview

SCE's Pump Test and Hydraulic Services program has delivered high quality pump testing services and quality technical information since 1911. Each year the program has been refined to present the customer with the information they need and pump testing data to implement energy efficiency measures for their hydraulic application.

II. Program Budget

The following table reflects the authorized program budget including any fund shifts, which may have occurred in support of the 2002 energy efficiency program.

Table 1 – Budget and Expenditure Overview

2002	Amount
Authorized Budget ¹	\$1,667,800
Program Expenditures (includes program commitments)	\$1,496,404

1 - Authorized by Decision 02-05-046 and ALJ approval on October 28, 2002.

Fundshift Summary -
None.

III. Program Performance

Table 2 – Performance Overview

Metric	CPUC Target¹	Result
Pump Tests	2,000	2,262
Energy Efficiency Information Contacts	1,750	1,867

1 – Authorized by Decision 02-05-046 and ALJ approval on October 28, 2002.

A. Non-Energy Savings Target Performance

1. Introduction

The 2002 Pump Test and Hydraulic Services program targets were to perform 2,000 pump tests and make 1,750 energy efficiency information customer contacts. Through strategic customer outreach and educational efforts, SCE was successful in achieving both targets. Specifically, the program conducted 2,262 pump tests and made 1,867 energy efficiency information customer contacts.

2. Reasonable Steps Taken To Achieve Target

The Pump Test and Hydraulic Services program employed strategic outreach and educational efforts to promote the program's services to the appropriate

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agricultural and water agencies segments that rely on efficient water pumping. Strategic events held in 2002 included the International Ag Expo, Water Awareness Days, and various industry fairs. The program also coordinated with SCE's AgTac and CTAC facilities to offer training classes to effectively promote the energy efficiency benefits of pump testing to the targeted customer groups. In order to reach as broad an audience as possible, the program's customer representatives also maintained memberships in various associations such as the Association of California Water Agencies (ACWA), California Grape and Fruit Tree Association, and California Citrus Mutual. The customer representatives leveraged these memberships to recruit participation in the Pump Test and Hydraulic Services program.

In support of the program's information contact targets, the Pump Test and Hydraulic Services program focused on a very specialized set of customers, those in the agricultural and water agencies markets. The purpose of the energy efficiency informational services was to increase the awareness of energy efficiency opportunities. The program offered customers specific information on ways to improve the efficiency of their water pumping facilities through such strategies as training seminars, program brochures, and general energy efficiency recommendations.

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Program Title: **Local Crosscutting Demonstration and Information Transfer**

I. Program Overview

The Local Crosscutting Demonstration and Information Transfer program is an information-only program that seeks to accelerate the introduction of energy efficient technologies, applications and analytical tools that are not widely adopted in Southern California Edison’s service territory. The program targets both residential and nonresidential customer segments, including new construction, and engages in demonstration and information transfer activities. The program is related to the statewide Emerging Technologies program, but is local in scope.

The program focuses on near-commercial energy efficient applications with significant market potential and commercial energy efficient applications with low market penetration. Demonstration projects, conducted at either customer sites or in controlled environments, provide design, performance, and verification of novel energy efficient systems, helping to reduce the market barriers to their wider acceptance. The program’s demonstration projects help to measure, verify, and document the potential future energy savings of specific applications in different market segments. Information Transfer efforts disseminate project results, and are customized to the targeted markets.

II. Program Budget

The following table reflects the authorized program budget including any fund shifts, which may have occurred in support of the 2002 energy efficiency program.

Table 1 – Budget and Expenditure Overview

2002	Amount
Authorized Budget ¹	\$450,000
Program Expenditures (includes program commitments)	\$450,000

1 - Authorized by Decision 02-05-046 and ALJ approval on October 10, 2002.

Fundshift Summary -
None.

III. Program Performance

Table 2 – Performance Overview

Metric	CPUC Target¹	Result
Assessments	SCE will perform 3 Emerging Technology Application assessments.	6

1 – Authorized by Decision 02-05-046 and ALJ approval on October 10, 2002.

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A. Non-Energy Savings Target Performance

1. Introduction

The 2002 Local Crosscutting Demonstration and Information Transfer program had a single target: Perform three Emerging Technology Application Assessments. In response, SCE initiated a total of six Emerging Technology Application Assessments. To meet the Emerging Technology Application Assessments target, SCE: (1) researched and analyzed potential emerging technology applications; (2) found opportunities to initiate assessments; and (3) proceeded with assessments and negotiate customer agreements if needed.

2. Reasonable Steps Taken To Achieve Target

The Local Crosscutting Demonstration and Information Transfer program achieved its technology application assessment objectives through customized demonstration projects. These projects either took the form of customer site demonstrations, feasibility studies, simulation analysis, controlled environment tests, commercial product development, design methodologies and tool development, or a combination of the approaches. The projects were initiated and committed during the program year. Some projects may take up to three years to complete due to application complexity, construction schedules, building and process commissioning, logistics, etc. Assessment projects initiated and committed to during 2002 will be completed no later than year-end 2005.

Through ongoing information research from a variety of sources, program staff identified viable emerging technology application candidates for assessment projects. As a result, SCE initiated a total of six Emerging Technology Application Assessments (see fourth item below for two of these six) for the 2002 Local Crosscutting Demonstration and Information Transfer program, as listed below:

- Initiated an assessment of a **High Speed Hands Dryer** at SCE's energy center facilities. This recently introduced hand dryer uses high velocity air to blow away most of the water on the hands and reduces the drying cycle by half of the time compared to a conventional hand dryer. The initial field tests and end-use monitoring were completed during the year. Efforts to characterize usage in several additional market segments were started and will continue into 2003.
- Customer interest in energy efficiency opportunities at the El Segundo Unified School District for a high school campus retrofit project allowed SCE to initiate and commit an assessment project targeting **Integrated Design for Nonresidential Retrofit Buildings**. SCE is working with the customer's design team to optimize the overall facility's energy usage using an integrated design approach during the design phase. Additional

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emerging technology application assessments may result from this project as it progresses.

- A customer opportunity with the Arcadia Unified School District permitted SCE to initiate an assessment of an **Advanced Heuristic Thermostatic Control System** in classroom settings. This new type of advanced thermostat, with an embedded heuristic control function, may be wired to either one or more occupancy sensors to control cooling and heating demand. Several classrooms were retrofitted and monitoring equipment installed to collect room and ambient temperatures as well as heat pump energy usage.
- SCE committed and initiated two separate assessment projects to evaluate low-e pigment materials: **Spray-on Radiant Barrier for Existing Residential and/or Small Commercial Buildings**, and **Low-E Pigment for Stucco and Paints for Residential and/or Small Commercial Buildings**. For the Radiant Barrier assessment, a low emissive coating will be sprayed onto the underside of roofs. The radiant barrier will reduce attic air temperatures, and consequently reduce a structure's cooling load. Three moderate-income residential sites in SCE's desert service area signed agreements to participate in this project. Separately, low-e pigment for stucco and paints will be applied to building structures to reduce cooling loads and energy usage. Three different moderate-income residential sites in SCE's desert service area signed agreements to participate in this project.
- Program staff initiated a field test assessment project in collaboration with the HVAC industry to investigate **Improving HVAC Performance and Indoor Air Quality (IAQ) using Ultraviolet (UV) Light**. The project installed a UV lamp in a rooftop package heat pump. The UV light should reduce bacterial growth on the cooling coil surfaces and reduce the pressure drop. This should improve the unit's overall cooling coil performance and improve the indoor air quality. Field end-use energy monitoring and biological sample collections were completed during the year.

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Program Title: **Local Government Initiative**

I. Program Overview

Southern California Edison’s Local Government Initiative (SCE-LGI) educates and informs community leaders, local government planners, building officials, builders, building owners, small business owners, and consumers about the economic benefits of energy efficiency in the areas of residential and nonresidential new construction, as well as small business. Designed with extensive input from Southern California local government building departments, the innovative programs offered through SCE-LGI are designed to help local governments build self-sustaining energy efficiency partnerships with their constituents. The flagship of the SCE-LGI is the Community Energy Efficiency Program (CEEP), which encourages residential building practices that conserve energy and resources while improving government services and the economy. Each CEEP home is built to exceed Title 24 energy efficiency requirements (ENERGY STAR®) by a minimum of 15 percent, and must meet the California Energy Commission’s tight duct criteria, use Building Industry Institute “scopes of work”, and include CHEERS (California Home Energy Efficiency Rating System) inspection and diagnostic evaluations. Beginning in 2002, the SCE-LGI expanded its program offering to include an abbreviated version of SCE’s nonresidential new construction program (Savings By Design) called CheckPoint, a simplified equipment substitution program aimed at small commercial new construction, as well as SCE’s nonresidential Express Efficiency program, which targets the small and medium business owner with retrofit needs.

II. Program Budget

The following table reflects the authorized program budget including any fund shifts, which may have occurred in support of the 2002 energy efficiency program.

Table 1 – Budget and Expenditure Overview

2002	Amount
Authorized Budget ¹	\$850,000
Program Expenditures (includes program commitments)	\$850,000

1 - Authorized by Decision 02-05-046.

Fundshift Summary -
None.

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III. Program Performance

Table 2 – Performance Overview

Metric	CPUC Target¹	Result
Local Jurisdictions	16 new local jurisdictions will participate in the program in 2002.	18
Hard-to-Reach Performance	The program will strive to add 12 new local jurisdictions to the program from these hard to reach geographical areas.	12

1 – Authorized by Decision 02-05-046 and ALJ approval.

A. Non-Energy Savings Target Performance

1. Introduction

In 2002, Southern California Edison’s Local Government Initiative program targets were to have 16 new local jurisdictions participate in the program of which 12 would be from hard-to-reach geographical areas. In order to focus on moderate income areas within SCE’s service territory, the program’s definition of hard-to-reach (HTR) was based on the Housing and Urban Development report (dated 2001) which identified areas of California falling below the California median family income. Through outreach efforts and coordination with other statewide new construction programs, SCE was able to realize 18 new local jurisdictions participate in the program, of which 12 were from HTR communities. The participating jurisdictions, HTR status, and benefit offered to their builder participants are listed below:

HTR	City/Jurisdiction	Benefit Offered by the City to Builder Participants
?	Hanford	Expedited Plan Check/Inspections, and Recognition
?	Ontario	Expedited Plan Check/Inspections, and Recognition
?	Banning	Expedited Plan Check, Recognition
?	San Jacinto	Expedited Plan Check/Inspections, and Recognition
?	Delano	Expedited Plan Check/Inspections, and Recognition
	Garden Grove	Expedited Plan Check, City Council Resolution/Special Recognition
?	Tulare	Expedited Plan Check/Inspections, and Recognition
?	Palm Springs	Expedited Plan Check, Recognition

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	Costa Mesa	Recognition
?	Beaumont	Expedited Plan Check, Recognition
	Moorpark	Expedited Plan Check, Recognition
	Thousand Oaks	Expedited Plan Check/Inspections, and Recognition
	Camarillo	Expedited Plan Check/Inspections, and Recognition
?	Monterey Park	Expedited Plan Check/Inspections, and Recognition
?	Norco	Expedited Plan Check/Inspections, and Recognition
?	Redlands	Expedited Plan Check/Inspections, and Recognition
?	Desert Hot Springs	Expedited Plan Check, City Council Resolution/Special Recognition
	Fullerton	Expedited Plan Check, Special Recognition

2. Reasonable Steps Taken To Achieve Target

In an effort to enroll local jurisdictions into the program, a number of outreach strategies were implemented. These strategies included:

- (1) Working with local governments on new resolutions and city council agenda reports intended to create and adopt benefits for CEEP's builder participants. This work included drafting a city council resolution officially adopting CEEP as a standard practice. Although official resolutions are not required for participation in CEEP, in some cases the City Council wanted an official policy on energy efficiency and/or green building standards;
- (2) Providing technical assistance to city building departments, including aggregate energy savings estimates, emissions savings estimates, dollar savings estimates (dollars not being spent on energy which can be filtered back into the city's economy), as well creating expedited plan check protocols for the building department and conducting energy code training;
- (3) Arranging meetings/writing memoranda on behalf of the building officials, with/for city managers, planning directors, heads of economic development, city council, builders, local Sierra Clubs, etc., promoting the benefits to the city;
- (4) Holding advisory group meetings (typical attendance included existing, new and prospective LGI participants);
- (5) Working with representatives of the California Building Officials (CalBO) association on program promotion. Since most building officials are members of CalBo, outreach at the local chapter meetings was very effective in soliciting interesting and future participation;

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- (6) Outreaching to production homebuilders within the city's jurisdiction. This included educating the builders on the technical requirements of the program as well as the benefits offered by the jurisdiction. Benefits varied amongst jurisdictions, but usually included one or all of the following: expedited plan check (cost savings to builder as they pay interest daily on construction loans – the goal is to reduce plan check time by 50 percent ,which in some cases could be a reduction of three to four weeks), recognition (City Council meetings, grand openings, press releases, speeches, plaque, etc.), and a discount or rebate on permit fees (in some cases up to \$200 per house); and
- (7) Offering the jurisdictions customized program literature once they agreed to become a program participant. This typically included promotional program pieces (CEEP and CheckPoint) containing the city's logo or crest. When soliciting participation from new jurisdictions, samples of other participant's literature were used for demonstration purposes.

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Program Title: **Codes and Standards, Local**

I. Program Overview

This local program assists in the process to bring about cost-effective upgrades to the State's energy related codes and standards that will benefit California as a whole. The California Energy Commission (CEC) has begun the 2003/2005-revision process for both the Title 24 and Title 20 energy standards. This program supports the CEC 2003/2005 standard revision process for both California Title-20 and Title 24. Program activities include:

- Working with manufacturers and industry to develop test procedures for equipment certification; and
- Providing guidance through educational efforts targeted towards local code officials, contractors, consultants, and other groups that are part of the implementation, administration and enforcement of both new and existing energy codes.

II. Program Budget

The following table reflects the authorized program budget including any fund shifts, which may have occurred in support of the 2002 energy efficiency program.

Table 1 – Budget and Expenditure Overview

2002	Amount
Authorized Budget ¹	\$50,000
Program Expenditures (includes program commitments)	\$50,000

1 - Authorized by Decision 02-05-046 and ALJ approval on October 21, 2002.

Fundshift Summary -
None.

III. Program Performance

Table 2 – Performance Overview

Metric	CPUC Target¹	Result
Workshop	The Codes and Standards Program progress will be gauged with the following metric: Conduct one Codes and Standards training workshop during 2002; <u>or</u> develop one test procedure for equipment efficiency certification.	SCE program staff sponsored a one-day Codes and Standards training class on December 3, 2002. The class focused on high performance schools and energy efficiency opportunities. The training class was held in Tulare.

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		SCE also developed one test procedure for equipment efficiency certification.
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1 – Authorized by Decision 02-05-046 and ALJ approval on October 21, 2002.

A. Non-Energy Savings Target Performance

1. Introduction

In 2002, SCE’s Local Codes and Standards target was either to conduct one Codes and Standards training workshop or to develop one test procedure for equipment efficiency certification. In response, SCE completed one training workshop and developed one test procedure. The training workshop was a one-day event that focused on energy efficiency measures to achieve high performance schools. The test procedure was developed for kitchen ventilation equipment.

2. Reasonable Steps Take To Achieve Target

The Local Codes and Standards program was intended to promote the alignment between market-based voluntary programs and proposed Codes and Standards revisions. It is important to improve code administration and enforcement through improved outreach and education, as well as through professional certification and development. SCE played a key role by providing professional training in the area of energy efficiency standards targeted at schools. Eighteen customers attended a training workshop on the Collaborative for High Performance Schools which was held in Tulare, California on December 3, 2002.

In addition to providing professional training, SCE developed a test procedure for kitchen ventilation systems. A major issue pertaining to the performance of kitchen ventilation systems is the cooling load imposed on building air-conditioning systems, particularly those in warm climates. The test procedure developed by SCE will allow kitchen ventilation systems to be optimized for a given climate, while maximizing the system’s energy efficiency.

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Market Assessment and Evaluation (MA&E) and Statewide Evaluation, Measurement and Verification (EM&V)

In July, the four utilities submitted 24 Requests for Proposals (RFPs) to conduct MA&E studies and statewide EM&V studies to Administrative Law Judge (ALJ) Sarah Thomas, as required by the Commission. As requested, the ALJ gave early approval to one of these RFPs. The Commission then suggested some areas of modification for the remaining proposals, which the utilities undertook. In October, the ALJ approved the remaining 23 RFPs.

One of the 23 RFPs, which involves collecting data for the residential new construction portion of the statewide energy efficiency saturation and market potential study, will be issued mid-year 2003, when sufficient new homes have completed construction under the new Title 24 building standards to provide current and representative data.

The remaining 22 RFPs were issued during the fourth quarter of 2002. The RFP for each project was sent to a list of qualified bidders developed for that project. Proposals for 19 of these projects were reviewed in December by project advisory committees consisting of a representative from each utility, two or more representatives from the Energy Division, and, for the MA&E studies, one or more representatives from the CEC. The project advisory committees reviewed all the proposals and discussed their strengths and weaknesses in relation to the selection criteria identified in the RFPs. Energy Division staff participated in these discussions both to provide their own input on strengths and weaknesses and to assure Commission oversight of the selection process.

On January 8, 2003 the utilities sent the assigned Administrative Law Judge a letter requesting approval of the selected bidders for the 19 projects. Letters for three additional projects which had January proposal due dates will be sent later in January. A purchase order will be issued for each project and work will begin on the project after ALJ approval of the selected bidder.

Project status as of January 15, 2003, is shown in the following table.

Lead Utility	Project	January 15, 2003 Consultant Selection Status
CPUC-Required Statewide MA&E Projects		
SCE	Master Contract for Coordination	Approved, project under way
SCE	Master Contract: New Evaluation Framework	Submitted to ALJ 1/8/03
PG&E	Energy Efficiency Potential/Saturation Study	Proposals in review
PG&E	Residential New Construction Potential Study	RFP to be issued 6/03
SCE	Residential Market Share Tracking Project	Submitted to ALJ 1/8/03
PG&E	Best Practices Database	Proposals in review
SDG&E	Deemed Savings Database	Submitted to ALJ 1/8/03

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Evaluation, Measurement & Verification for Statewide Energy Efficiency Programs

Residential Retrofit Programs

PG&E	Single-Family Rebates	Submitted to ALJ 1/8/03
SDG&E	Multi-Family Rebates	Submitted to ALJ 1/8/03
SCE	Mail-In and Online Home Energy Surveys	Submitted to ALJ 1/8/03
SCE	Refrigerator Recycling	Submitted to ALJ 1/8/03

Nonresidential Retrofit Programs

SCE	Standard Performance Contracting	Submitted to ALJ 1/8/03
PG&E	Express Efficiency	Submitted to ALJ 1/8/03
PG&E	On-Site Audits	Submitted to ALJ 1/8/03
PG&E	Building Operator Certification	Submitted to ALJ 1/8/03
SCE	Emerging Technology Demonstration	Submitted to ALJ 1/8/03

New Construction Programs

SCE	Savings By Design Building Efficiency Assessment	Submitted to ALJ 1/8/03
SCE	Savings By Design Market & Program Tracking	Submitted to ALJ 1/8/03
SCE	Energy Design Resources	Submitted to ALJ 1/8/03
SCE	Nonresidential New Construction Technical Support	Proposals in review
PG&E	Residential New Construction	Submitted to ALJ 1/8/03

Cross-Cutting Statewide Programs

SDG&E	Residential Lighting	Submitted to ALJ 1/8/03
SCE	Education & Training Services	Submitted to ALJ 1/8/03
SCE	Codes & Standards	Submitted to ALJ 1/8/03

Update on the Master Contract for Coordination

The recommended bidder resulting from the RFP for the master contract for coordination was approved by the ALJ and began work immediately in September 2002. CALMAC (the California Measurement Advisory Council) and the consultant team held a public workshop in September on a draft plan for coordinating and consolidating the evaluation, measurement and verification work for all the 2002 programs. The consultant team submitted its recommended evaluation coordination plan to the Commission in October 2002. The team also submitted a revised, detailed project plan to the project advisory committee in December 2002.