2003 Energy Efficiency Annual Report

- Summary Report
  2002 Results – 2003 Plans

- Technical Appendix
  2002 Results

May 2003

CONTENTS

Executive Summary

Southern California Edison Company's (SCE) 2002 energy efficiency programs expanded on SCE's long-established tradition of helping customers to save energy and control their energy bills. In 2002, over 50,000 customers saved energy and reduced their energy bills by participating in SCE's energy efficiency programs. In addition, our programs created considerable, ongoing resource benefits to all ratepayers. Our 2002 program portfolio provided over 400 million kWh of net energy savings, 86 MW of net demand reduction and nearly $130 million of net resource benefits. This report describes the energy efficiency program activities SCE administered and implemented during calendar year 2002 that created these customer and resource benefits.

During the first few months of 2002, while we awaited Commission approval of our 2002 program plans and budgets, SCE continued to offer its 2001 energy efficiency program designs for our customers. Immediately after the Commission authorized us to offer our 2002 program portfolio, SCE rolled out the new energy efficiency programs for our customers.

Funding for SCE's 2002 energy efficiency programs is collected pursuant to Public Utilities (PU) Code Sections 381 and 399. CPUC approval for the specific 2002 program activities was provided in Decisions D.01-11-066, D.02-03-056, D.02-04-001, D.02-05-046, D.02-06-026, D.02-07-040, and D.03-02-027.

As we have always done, SCE remains committed to working closely with the Commission and the state to ensure that California's energy related public policy goals are attained and that the programs achieve reliable and durable energy savings and demand reduction.

The 2002 program results build on SCE's solid foundation of expertise, experience and track record of success. As a result, SCE was able to reliably deliver substantial resource benefits for our ratepayers and the state at reasonable cost. SCE proposes to continue in this role during 2003 and expand these achievements into the future.

2002 Energy Efficiency Results

RESIDENTIAL PROGRAMS

SCE's 2002 residential programs provided considerable energy savings and resource benefits while reaching a significant number of hard-to-reach customers. In 2002 SCE's residential energy efficiency programs created over 80 million kWh of energy savings, 24 MW of demand reduction and produced over $15 million in net benefits to SCE ratepayers.

SCE offered customers its highly successful residential energy management services through its Statewide Home Energy Efficiency Surveys program, offering Mail-in and Online energy efficiency surveys, and its Local In-Home Audits program. Each of these programs provides customized energy advice to residential customers.

SCE's Residential Energy Management Services programs targeted customers defined by the Commission as hard-to-reach through non-English solicitation packages and outreach events in rural

communities. We reached over 5,100 customers with these programs.

SCE's Single-Family and Multi-Family Energy Efficiency Rebate programs focused on hardware-based energy savings and resource benefits by providing rebates to participating customers for the purchase and installation of whole house fans and ENERGY STAR®-qualified central air conditioners, among many other products. SCE managed the programs, tracked program budgets, commitments and installations, and ensured that applications adhered to program guidelines. In total, the Single-Family Rebate program achieved over 16 million kWh of annual energy savings and a demand reduction in excess of 11 MW, while the Multi-Family rebate program saved an additional 6 million kWh and approximately 4 MW.

SCE's Refrigerator Recycling program recycled more than 33,000 refrigerators and freezers, which resulted in a total annualized energy savings of over 57 million kWh and a demand reduction of 9 MW. SCE offered customers participating in this program a choice between a cash incentive or a five-pack of compact fluorescent bulbs to further increase the energy savings impact of the program.

NONRESIDENTIAL PROGRAMS

SCE continued to produce significant energy savings and resource benefits through the provision of its nonresidential energy efficiency programs while more fully addressing the needs of its hard-to-reach customers. In 2002 SCE's residential energy efficiency programs produced over 225 million kWh of energy savings, 38 MW of demand reduction and produced nearly $100 million in net benefits to SCE ratepayers.

The statewide Building Operators Certification program (BOC) provided training and certification for operators of medium and large commercial buildings to establish and support a professional credential for building operators in California. SCE marketed the program through a target mailing to 5,000 medium and large commercial customers, and direct communications with customers by SCE account managers. A total of 88 students were enrolled in this program in 2002.

SCE continued to provide answers to customers' questions and advice regarding energy efficiency products and services through the statewide nonresidential energy audits program. In 2002 the program completed over 8,700 audits, including 6,800 audits to hard-to-reach SCE customers.

The highly successful Agricultural Services local program performed over 3,000 pump tests, including approximately 200 tests to SCE customers previously not receiving this service. SCE achieved these results by strengthening current relationships and cultivating new relationships with agribusiness, water districts, trade and ethnic associations, vendors, manufacturers, and local and state governments.

The Local Small Nonresidential Hard-to-Reach (HTR) program, provided no-cost energy efficient equipment and information to very small business (under 20kW) , targeting customers defined as hard-to-reach by the CPUC. In past years these customers typically have not participated in SCE's energy efficiency programs. Through SCE's directed marketing activities, approximately 800 customers participated in SCE's 2002 program.

The 2002 Express Efficiency program was offered to small nonresidential customers. SCE managed the program implementation plan to adhere to a detailed timeline and performance

targets which provided statewide consistency in all aspects of the program. This highly successful program achieved nearly 130 million kWh of annualized energy savings and 23 MW of demand reduction.

The Standard Performance Contract (SPC) program continued its success in providing significant energy savings to SCE's nonresidential customers. SCE program managers ensured that the program was fully subscribed at year-end. SCE customers participating in the SPC program achieved over 93 million kWh of annualized energy savings and 15 MW of demand reduction.

SCE continued to make significant contributions to the Emerging Technologies Coordination Council, a statewide information exchange and coordination effort by investor-owned utilities and the CEC's Public Interest Energy Research (PIER) program. SCE maintains the group's web site and emerging technologies database. The database contains descriptions of emerging technology projects as well as many of the CEC's PIER projects.

NEW CONSTRUCTION PROGRAMS

In 2002, SCE continued its programs in the new construction market, providing information and incentives towards the construction of energy-efficient residential and nonresidential dwellings.

In 2002, SCE promoted the statewide California Energy Star New Homes Programs at industry trade shows and local building industry affiliations throughout the year to a diverse group of building industry professionals. SCE through these efforts received commitments for over 5,000 energy efficient homes and over 2,000 energy efficient multi-family units in 2002.

SCE provided marketing support for the nonresidential new construction program, Savings By Design, through distribution of over 2,500 Energy Design Assistance Newsletters, and distributed 317 compact discs with Energy Design Resources software. In 2002, the Savings By Design program achieved over 70 million kWh and 13 MW of demand reduction in SCE's service territory.

CROSSCUTTING

SCE's statewide energy efficiency education and training program provided customers with valuable energy efficiency information. SCE's Customer Technology Application Center (CTAC) and Agricultural Technology Application Center (AGTAC) continued to serve as focal points for customers to attend workshops and observe product demonstrations and displays featuring state-of-the-art energy efficiency technologies.

SCE's Demonstration and Information Transfer program develops projects which offer real-world applications for the commercialization of innovative technologies. SCE initiated six assessment projects in 2002.

The Codes & Standards programs are information-only programs that promote upgrades and enhancements to various energy efficiency standards and codes, thereby capturing the benefits for society from California's diverse energy efficiency efforts. During 2002 SCE's technical staff participated in workshops towards the revision of both residential and nonresidential building standards and initiated several Codes and Standards Enhancement studies.

SCE's Local Government Initiative 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. In 2002, the program secured participation from 18 Southern California jurisdictions.

The statewide crosscutting Upstream Residential Lighting program provides a point-of-purchase discount to customers who purchase qualifying fluorescent Energy Star® lighting products. In a co-op arrangement, SCE provides manufacturers with rebates, which allows manufacturers to pass the rebates on to the retailers, who promote the competitive pricing of these products. Through SCE's efforts with lighting manufacturers and retailers to buy down the cost of energy-efficient lighting products, customers received a $2 discount per unit off the purchase price of an Energy Star® -qualified compact fluorescent lamp (CFL) and a $10 discount per unit for a torchiere or hardwired indoor /outdoor lighting fixture. In 2002, the Upstream Residential Lighting program provided rebates on over 600,000 energy efficient compact fluorescent lamps and over 10,000 energy efficient fixtures and torchieres.

STATEWIDE MARKETING AND OUTREACH

Flex Your Power – Energy Efficiency is a statewide consumer marketing campaign which focuses exclusively on energy efficiency. The goal is to build awareness of Energy Star® products and the message is delivered through newspaper, radio and television media.

SCE facilitated the statewide coordination between the IOUs and Flex Your Power as the administrator of this statewide program. SCE fulfilled the same role as statewide administrator of the Univision Television Energy Efficiency Marketing (U-TEEM) marketing campaign. U-TEEM is a consumer marketing and outreach program which targets hard to reach Spanish speaking customers.

At the end of December 2002, both the Flex Your Power – Energy Efficiency Campaign and the U-TEEM campaign had achieved their goal of raising general awareness of energy efficiency.

NON-IOU PROGRAMS

SCE administers 15 third-party programs which were selected by the CPUC to be implemented by non-utilities in California. The budgets and payments made in 2002 by SCE for the administration of these programs are included in this report. A total of 23 programs are offered in SCE's service territory by non-utility entities. The results achieved by these third-parties for their non-utility programs are submitted to the Commission by each of the non-utility entities and are not included in this report.

MARKET ASSESSMENT & EVALUATION AND REGULATORY OVERSIGHT

As directed by the California Public Utilities Commission Decision 01-11-066, the utilities submitted proposed budgets for the Program Year (PY) 2002 statewide studies mandated by the CPUC in December, 2001. The CPUC authorized utilities to begin work on detailed work plans for these studies on May 16, 2002. As required by Decision 02-05-046, SCE and the other utilities developed 24 detailed project work plans and Requests for Proposals (RFPs) for all of the CPUC-required projects and the evaluation, measurement and verification studies of all the statewide programs in May and June of 2002. All but one of the RFPs have been released; the remaining RFP will be released in the summer of 2003. Proposals have been received and contractors selected to begin work on

19 of these projects, with the remainder scheduled to be started later in 2003.

SHAREHOLDER PERFORMANCE INCENTIVES

The Commission did not approve a performance incentive mechanism for 2002 energy efficiency programs.

SUMMER INITIATIVE

In response to the energy crisis, the Commission selected eight initiatives designed specifically to reduce energy consumption during peak summer periods. The majority of the program activity for these programs concluded in 2001. In 2002 the program primarily focused on the processing of commitments made prior to 2002.

Table 1.1
2003 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC

	2002 Budget	[1,2]	2002 Recorded	[1,2,3]	2003 Budget	[4]
Residential	$ 16.364.923		$ 15.320.755		$ 16.045.654	
Nonresidential	24.996.890		25.352.487		26.850.000	
New Construction	13.366.281		14.385.088		13.900.000	
Crosscutting	9,290,306		8,402,769		11,300,000	
Total IOU Programs	64,018,400	[5]	63,461,098	[5]	68,095,654	[5]
Statewide Marketing	3,350,000	[6]	4,658,764	[7]	3,350,000	[6]
Non-IOU Programs	31,462,595	[8]	9,124,616	[9]	31,462,595	[8]
Total Non-IOU Programs	34.812.595		13.783.380		34.812.595	
Utility Administration of Non-IOU Programs	1.081.768		117.114	[10]	747.070	
MA&E and Regulatory Oversight	3.457.000		3.457.000		3.457.000	
Shareholder Performance Incentives	-	[11]	-	[11]	-	[11]
Total Energy Efficiency	$ 103,369,763		$ 80,818,592		$ 107,112,319	
Total Summer Initiative [12]	$ 21,250,000	[13]	$ 599,995	[14]	$ -	
Total Energy Efficiency and Summer Initiative [15]	$ 124,619,763		$ 81,418,587		$ 107,112,319	

[1] Amounts reflect Program Year 2002 (PY02) funds, including fund shifts during 2002.
[2] Amounts reflect 12 months of budget and recorded expenditures, as approved in D.01-11-066 (PY2001 Program Continuation), D.02-03-056 (Statewide Programs), and D.02-05-046 (Local Programs).
[3] All Recorded amounts include payments in 2002 and amounts committed to projects in 2002, unless otherwise noted. Committed amounts may not be fully realized.
[4] Amounts reflect Program Year 2002 (PY03) funds, as requested on December 4, 2002.
[5] Includes MA&E related to Local Programs.
[6] SCE's portion of Statewide Marketing and Outreach Budget (D.02-03-056).
[7] Total Statewide amount expended by SCE on Statewide Marketing and Outreach Budget, not SCE's portion.
[8] Total amount budgeted for SCE's portion of all Non-IOU programs offered in SCE's service territory, covering multiple years.
[9] Total amount paid in 2002 towards Non-IOU programs administered by SCE, not SCE's portion. Excludes committed funds.
[10] Total amount expended in 2002 for Non-IOU program administration by SCE. Excludes committed funds.
[11] The Commission authorized no Shareholder Performance Awards in 2002 or 2003.
[12] Does not include utility administrative costs associated with these programs.
[13] Total SI budget, covering multiple years. Does not include utility administrative costs associated with these programs.
[14] Expenditures made in 2002 only. Does not include expenditures or commitments made in prior years.
[15] Additional Pensions and Benefits (P&B) costs not included in any funding tables.

Table 1.2
2003 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY PROGRAM EFFECTS: ELECTRIC

	2002 First Year Net Annualized Capacity Savings (MW)	[1,2]	2002 First Year Net Annualized Energy Savings (kWh)	[1,2]	2002 Lifecycle Energy Savings (kWh)	[1,2]	2003 First Year Net Annualized Capacity Savings (MW)	[1]	2003 First Year Net Annualized Energy Savings (kWh)	[1]
Residential	24.38		80,185,872		882,044,587		23.44		78,409,699	
Nonresidential	38.73		225,225,570		3,339,193,723		31.53		148,742,039	
New Construction	18.61		75,089,103		1,211,162,021		12.20		46,952,095	
Crosscutting	3.81		25,654,471		307,853,647		24.97		34,167,185	
Total Energy Efficiency	85.54		406,155,015		5,740,253,979		92.14	[3]	308,271,018	[3]
Total Summer Initiative	71.66	[4]	102,104,555	[4]	-		-		-	
Total Energy Efficiency and Summer Initiative	157.20		508,259,570		5,740,253,979		92.14		308,271,018	

[1] Net Savings reflect Commission-adopted net-to-gross ratios
[2] Amounts reflect 12 months of budget and recorded expenditures and related savings, as approved in D.01-11-066 (PY2001 Program Continuation), D.02-03-056 (Statewide Programs), and D.02-05-046 (Local Programs).
[3] Forecasted Net Capacity and Energy Savings from SCE's November 4, 2002 proposal for 2003 programs. Not all programs were required to claim energy savings.
[4] Summer Initiative Load impacts are recorded (actual + committed) inception-to-date.

Table 1.3
2003 Energy Efficiency Annual Report
SUMMARY OF COST-EFFECTIVENESS: ELECTRIC
(Benefit-Cost Ratios)

	2002 Program Administrator Cost Test [1]	2002 Total Resource Cost Test [1]	2003 Program Administrator Cost Test [2]	2003 Total Resource Cost Test [2]
Residential	2.30	1.74	2.40	2.22
Nonresidential	5.34	3.46	4.46	3.05
New Construction	3.87	2.32	2.50	1.97
Crosscutting	1.55	1.11	8.70	2.23
Total Energy Efficiency	3.77	2.51	3.53	2.51

[1] Includes all costs from Tables TA 2.1, TA 3.1, TA 4.1, TA 5.1 - Program Cost Estimates Used for Cost-Effectiveness.
[2] Based upon SCE's November 4, 2002 proposal for 2003 programs. Includes MA&E costs.
Includes only costs and benefits for those programs with cost-effectiveness showings in November 4, 2002 proposal.

Table 1.4
2003 Energy Efficiency Annual Report
SUMMARY OF COST-EFFECTIVENESS: ELECTRIC
(Net Benefits)

	2002 TRC [1]	2003 TRC [2]
Residential	$ 15,401,169	$ 19,070,808
Nonresidential	97,735,047	63,394,909
New Construction	14,832,165	17,410,236
Crosscutting	1,212,225	10,276,650
Total Energy Efficiency	$ 129,180,606	$ 110,152,602

[1] Includes all costs from Tables TA 2.1, TA 3.1, TA 4.1, TA 5.1 - Program Cost Estimates Used for Cost-Effectiveness.
[2] Based upon SCE's November 4, 2002 proposal for 2003 programs. Includes MA&E costs.
Includes only costs and benefits for those programs with cost-effectiveness showings in November 4, 2002 proposal

Residential Information

MASS MARKET INFORMATION

Program Description

Mass Market Information (MMI) is an interactive energy efficiency service that gives residential and small business customers the tools to manage their energy costs. The online service provides direct access to SCE's energy efficiency products and services and links to other resources to help enhance home comfort and provide businesses with additional energy efficiency resources.

MMI provides an abundance of energy-saving tips and useful information about energy-efficient appliances and equipment. Interactive features enable customers to sign up for programs and services, estimate appliance and equipment energy costs, and obtain the latest information on energy–efficient technologies.

2002 Results and Achievements

Pursuant to Commission directive (D.01-11-066), SCE offered this program, initiated in 2001, during the first part of 2002. The activities from this program were then continued throughout 2002 within other 2002 energy efficiency programs.

Residential Information

MOBILE EDUCATION UNIT

Program Description

The Mobile Education Unit (MEU) is a 45-foot converted recreational vehicle equipped with energy-efficient household products and computerized educational tools designed to promote consumer interest in energy efficiency, ENERGY STAR® qualified products, and utility rebate and incentive programs. The MEU was developed under the 1998 third-party initiative solicitation process.

2002 Results and Achievements

Pursuant to Commission directive (D.01-11-066), SCE offered this program, initiated in 2001, during the first part of 2002. The activities from this program were then continued throughout 2002 within other 2002 energy efficiency programs.

Residential Energy Management Services

HOME ENERGY EFFICIENCY SURVEYS PROGRAM

Program Description

The Statewide Home Energy Efficiency Surveys program is designed to increase consumer awareness of energy efficiency opportunities, encourage adoption of energy-efficient practices, and induce a permanent change in attitudes and actions toward energy-efficient products and services. Energy surveys take the forms of mail-in or online and provide customers (including hard-to-reach) with energy efficiency information to help them reduce their energy bills. The surveys also provide a segue for offering other energy efficiency products and services such as residential rebates and retail outlets that feature Energy Star®-qualified products. Marketing and promotion strategies include: Energy Star® Mobile Education Unit (MEU); e-mail promotions; direct mail; bill messages or inserts; print media advertising; Internet; local governments; phone centers; and ethnic, trade, and community associations.

MAIL-IN SURVEY

The Mail-In Survey is a self-completed questionnaire that contains specific questions about the types of appliances, their usage pattern and the structure of the home. Customers can request Mail-In Surveys via the phone or on SCE's website. It is completed by the customer and then mailed to SCE for processing. The questionnaire is processed and the customer receives computer-generated graphs depicting their annual energy-use and itemized lists of their electric appliance energy usage. In addition, customers receive specific energy and cost-savings recommendations. Customers also receive other educational material on other energy efficiency programs and services. The mail-in survey is also available in Spanish and Chinese.

ONLINE ENERGY SURVEY

The Online Survey, accessible through www.sce.com, provides customers with 24-hour access to a secured website that gives immediate energy efficiency recommendations based on the responses to the online questionnaire. The survey provides direct links to websites that offer energy efficiency products and services, rebate programs and other energy-related information to encourage adoption of energy efficiency measures identified through the energy survey.

2002 Results and Achievements

In 2002, over 32,000 residential home energy efficiency surveys were completed.

Mail-In Survey

SCE mailed 215,000 solicitation packages with emphasis on HTR customers, including 28,000 Spanish and 12,000 Chinese language packages. The program received over 23,000 completed surveys in response to the solicitations and met the HTR goal by mailing 51% or 115,000 packages to HTR customers.

Online Survey

SCE launched a major online marketing campaign that included radio, direct mail, 1.7

million email blasts and a variety of banner ads on eight local and regional websites and web service providers. Customers completing an online survey were also eligible for a free movie rental. The program achieved over 9,000 surveys.

Residential Energy Management Services

IN-HOME ENERGY SURVEY PROGRAM

Program Description

The Local In-Home Energy Survey Program provides customers with recommendations on how to save energy. Customers request in-home audits in response to a direct mailer or to an offer made by a customer representative. An appointment is scheduled and a trained energy auditor travels to the customer's home for the scheduled appointment, explains the purpose of the program and survey, and identifies the focus of the customer's interests or needs.

After the onsite walk-through, the auditor reviews the customer's appliance inventory and makes cost-effective energy-saving recommendations. The auditor also explains the benefits of implementing these recommendations and addresses any remaining customer concerns. Appropriate program literature and referrals to other energy efficiency programs are given to the customer, together with a copy of the appliance inventory.

Based on market analysis, SCE determined that certain hard-to-reach (HTR) customer segments had a greater propensity than other customer segments to respond positively to an in-home survey offering than others of online or mail-in surveys. In particular, SCE has found that Latino customers are more likely to prefer face-to-face interaction. Also, Latino customers and some other customer segments rely even more than the average SCE customer on the utility's sponsorship of the program to assure them that it is safe and effective for them to invite an otherwise unknown auditor into their home. Accordingly, SCE began targeting the Latino community. This included printing solicitation materials in both English and Spanish and adding Spanish-speaking energy auditors. SCE also expanded the outreach program to include customers in rural locations utilizing direct mail, print media, the MEU and Spanish radio advertising.

TELEPHONE SURVEY

Telephone Energy Surveys are offered to customers who do not have time to participate in an In-Home Energy Survey. The trained energy auditor verbally walks the customer through the home and follows the same procedures as the in-home survey. The results of the survey along with program literature and referrals to other energy efficiency programs are mailed to the customer, together with a copy of the appliance inventory.

2002 Results and Achievements

SCE piloted Spanish radio ads and the use of the Penny Saver publication to reach Spanish-speaking customers. The MEU attended events in rural communities to enroll customers. In addition, a free compact fluorescent bulb (CFB) was provided to customers completing in-home surveys. Of the over 5,102 completed surveys, 71 percent were from HTR customers.

Residential Energy Efficiency Incentives

SINGLE FAMILY ENERGY EFFICIENCY REBATES PROGRAM

Program Description

The Single Family Energy Efficiency Rebates (SFEER) program is a statewide program administered by the four investor-owned utilities (IOUs) which provides rebates on various home improvement products, heating and cooling equipment, appliances and residential pool equipment.

Rebates were offered for the following energy-efficient equipment:

- Advanced Whole-House Evaporative Cooler
- Energy Star®-Labeled Programmable Thermostat
- Energy-Efficient Central Air Conditioner
- Energy-Efficient Central Heat Pump
- High-Performance Dual-Pane Windows
- Energy Star®-Labeled Room Air Conditioner
- Whole House Fan
- Pool Pump and Motor Replacement

This program also includes customer information and education to our residential customers, and marketing and outreach to manufacturers, retailers, and distributors.

2002 Results and Achievements

In 2002, SFEER program encouraged residential customers to purchase and install over 1,600 whole house fans, and 7,400 Energy Star®-qualified central air conditioners among many other products. This resulted in over 16,000 MWh of annual energy savings and a demand reduction of 11 MW.

Pursuant to Commission directive (Decision 01-11-066), SCE offered the 2001 Residential Home Energy Rebate Program (HER) during the first part of 2002. This program was discontinued in mid-year and replaced by the 2002 SFEER program.

Customer Information and Education

SCE implemented a series of mailings and bill inserts to customers encouraging the purchase and installation of programmable thermostats. This effort was highly successful, as it resulted in more than 5,000 installations.

Energy efficiency information was also disseminated to customers through SCE's MEU. The MEU is a 35-foot converted recreational vehicle equipped with energy-efficient household products and computerized educational tools designed to promote consumer interest in energy efficiency, Energy Star® qualified products, and utility rebate and incentive programs.

In 2002, the MEU conducted 127 visits throughout SCE's service territory.

Marketing and Outreach

SCE implemented an incentive to pool retailers and contractors, offering a $100 rebate for each pool pump installed. This effort resulted in approximately 200 installations.

During fourth quarter SCE implemented a pilot to promote programmable thermostats through a point-of-sale (POS) rebate in coordination with three major retailers. The pilot was extremely successful,

as it resulted in over 8,000 units installed.

SCE also implemented a series of mailings to customers, encouraging the purchase and installation of programmable thermostats independent of the POS effort. This effort, too, was highly successful, resulting in more than 5,000 installations.

Outreach for pool pumps included door handlers delivered by field service representatives, bill inserts and more than 100,000 direct mail brochures and letters.

Approximately 37% of program applications received were from HTR areas. This surpasses the goal of 34%.

During the fourth quarter, the IOUs coordinated with "Flex Your Power," Univision and the U.S. DOE/EPA sponsored Energy Star® program and Energy Star® Partners to promote energy efficiency in California.

Residential Energy Efficiency Incentives

MULTIFAMILY ENERGY EFFICIENCY REBATES PROGRAM

Program Description

The Multifamily Energy Efficiency Rebate program's (MFEER) goal is to stimulate the multifamily market segment to install energy-efficient products. The MFEER 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. The program is uniform throughout all the IOUs' service areas, with consistent terms and requirements and implementation characteristics, including rebate levels and application procedures.

Rebates were offered for the following energy-efficient equipment:

- Energy Star® CFLs (both interior and exterior)
- Energy Star®-Labeled Programmable Thermostats
- High Performance Low E Dual-Pane Windows
- Insulation (electric heating required)
- Low-Flow Showerheads (electric heating required)
- Faucet Aerators (electric heating required)
- High Efficiency Exit Signs
- Occupancy Sensors
- Photocells
- Energy Star®-Labeled Room Air Conditioners
- Energy Efficient Package Terminal Air Conditioners and Heat Pumps
- Energy Efficient Central Air Conditioners
- Energy Efficient Central Heat Pumps

Many of these measures are available as apartment and common area improvements resulting in both the property owner and resident tenant reaping benefits from reduced energy costs.

2002 Results and Achievements

A total of 308 multifamily complexes received direct incentives through the MFEER program representing approximately 6,100 MWh in net annualized savings and a net demand reduction of approximately 4 MW. Program highlights include the installation of approximately 120,000 CFBs and 18,000 hardwired fluorescent fixtures. Halogen torchieres turn-in events resulted in 3,682 halogen torchieres exchanged for energy saving fluorescent torchieres. Additionally, the MFEER program exceeded its HTR goal.

Pursuant to Commission directive (Decision 01-11-066), SCE offered the 2001 Residential Contractor and Torchiere Turn-In programs during the first part of 2002. These programs were discontinued in mid-year and replaced by the 2002 MFEER program.

Residential Energy Efficiency Incentives

RESIDENTIAL APPLIANCE RECYCLING PROGRAM (RARP)

Program Description

This statewide program encourages customers to dispose of operable, old, inefficient refrigerators in an environmentally responsible, energy-saving process. SCE utilizes a turnkey recycling company to implement and maintain the pickup and disposal procedures. The vendor is responsible for establishing and operating recycling centers, scheduling and performing pickups, paying (or delivering) incentives to participants, and for the actual recycling process, which involves dismantling the appliance and removing refrigerants in an environmentally safe manner. The vendor recovers and recycles chlorofluorocarbons (CFC) and metals, along with non-CFC replacement refrigerants under section 608 of the 1990 amendments to the Clean Air Act.

Program guidelines require the following:

- Participant must be an SCE residential customer;
- Refrigerator / Freezer must be in working condition (cooling); and
- Appliance size should be between 10 and 27 cubic feet.

RARP is a statewide program offered in the SCE, PG&E and SDG&E service territories with SCE serving as the statewide administrator.

2002 Results and Achievements

In SCE service territory, approximately 33,000 refrigerators and freezers were picked up and recycled producing a total annualized energy savings of 57,287 MWh and demand reduction of 9 MW, including the savings from customers receiving compact fluorescent lights (in lieu of the $35 check). Approximately 6% of the customers requested the five-pack compact fluorescent light incentive offer.

Also, an increased emphasis was placed on customer participation from the HTR markets as defined by the CPUC. SCE narrowly missed its HTR goal of 57% participation from HTR markets, achieving 56.5%.

The 2002 program met the goals for number of units collected and recycled, total energy savings, demand reductions and number of HTR participants.

Over 2,780 tons of scrap metal; 10,296 pounds of CFC / HFC refrigerants; 2,034 gallons of compressor oil; 1,740 pounds of capacitors / ballasts; approximately .5 pounds of mercury switches and thermocouples; and approximately 120 pounds of batteries were recovered and recycled in an environmentally safe manner.

Table 2.1
2003 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
RESIDENTIAL PROGRAM AREA

	2002 Budget	[1,2]	2002 Recorded	[1,2,3]
Information	$ 127,095		$ 127,227	
EMS	1,863,879		1,827,753	
EEI				
SPCs (RCP)	-		-	
Rebates	14,373,949		13,365,775	
Loans	-		-	
Other	-		-	
Upstream Programs				
Information	-		-	
Financial Assistance	-		-	
Residential Total	$ 16,364,923		$ 15,320,755	

[1] Excludes Shareholder Incentives and Other Costs, as shown in Table TA 2.1.
[2] Amounts reflect 12 months of budget and recorded expenditures, as approved in D.01-11-066 (PY2001 Program Continuation), D.02-03-056 (Statewide Programs), and D.02-05-046 (Local Programs).
[3] All Recorded amounts include payments in 2002 and amounts committed to projects in 2002. Committed amounts may not be fully realized.

Table 2.2
2003 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY PROGRAM EFFECTS: ELECTRIC
RESIDENTIAL PROGRAM AREA

	2002 First Year Net Annualized Capacity Savings (MW)	[1,2]	2002 First Year Net Annualized Energy Savings (kWh)	[1,2]	2002 Net Lifecycle Energy Savings (kWh)	[1,2]
Information	-		-		-	
EMS	-		-		-	
EEI						
SPCs (RCP)	-		-		-	
Rebates	24.38		80,185,872		882,044,587	
Loans	-		-		-	
Other	-		-		-	
Upstream Programs						
Information	-		-		-	
Financial Assistance	-		-		-	
Residential Total	24.38		80,185,872		882,044,587	

[1] Net Savings reflect Commission-adopted net-to-gross ratios.
[2] Amounts reflect 12 months of budget and recorded expenditures and related savings, as approved in D.01-11-066 (PY2001 Program Continuation), D.02-03-056 (Statewide Programs), and D.02-05-046 (Local Programs).

Table 2.3
2003 Energy Efficiency Annual Report
SUMMARY OF COST-EFFECTIVENESS: ELECTRIC
(Benefit-Cost Ratios)
RESIDENTIAL PROGRAM AREA

	2002 Program Administrator Cost Test	[1]	2002 Total Resource Cost Test	[1]
Information	-		-	
EMS	-		-	
EEI				
SPCs (RCP)	-		-	
Rebates	2.63		1.92	
Loans	-		-	
Other	-		-	
Upstream Programs				
Information	-		-	
Financial Assistance	-		-	
Residential Total	2.30		1.74	

[1] Includes all costs depicted in Table TA 2.1 -
Program Cost Estimates Used for Cost-Effectiveness - Residential Program Area.

Table 2.4
2003 Energy Efficiency Annual Report
SUMMARY OF COST-EFFECTIVENESS: ELECTRIC
RESIDENTIAL PROGRAM AREA
(Net Benefits)

		2002 TRC
Information	$	(127,227)
EMS		(1,908,416)
EEI		
SPCs (RCP)		-
Rebates		17,436,812
Loans		-
Other		-
Upstream Programs		
Information		-
Financial Assistance		-
Residential Total	$	15,401,169

Nonresidential Information

BUILDING OPERATOR CERTIFICATION

Program Description

The Building Operators Certification program (BOC) is a statewide training and certification program for operators of medium and large commercial buildings that seeks to establish and support a professional credential for building operators in California. Certified operators are given 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.

2002 Results and Achievements

In 2002, the BOC program offered three training courses (each training course consisted of eight classes). A total of 88 students were enrolled in the three courses.

SCE marketed the program through the following ways:

- A mass mailing was performed to a targeted list of 5,000 medium and large commercial customers that were determined to be most likely interested in the BOC training.
- SCE's account management group communicated to its customers about the excellent opportunity of the BOC training.
- Further, SCE contacted customers involved in its energy efficiency incentive programs to inform them about the BOC training program.

Nonresidential Energy Management Services

NONRESIDENTIAL ENERGY AUDITS

Program Description

This statewide program offers free energy 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 during the year included the following: onsite audits, online, mail-in, over–the-phone, and CD-ROM audits.

2002 Results and Achievements

By the end of 2002, the program completed nearly 8,800 audits, which included about 6,800 HTR audits. In addition to conducting energy-use audits the program also sponsored three "How to do an Energy Audit" training sessions. The online, mail-in, and CD-ROM audits utilized by the IOUs were identical.

Nonresidential Energy Management Services

PUMP TEST AND HYDRAULIC SERVICES

Program Description

The Local Pump Test and Hydraulic Services (PTHS) program is intended to influence water agencies, municipalities, agricultural, and other customers with pumping applications to adopt maintenance and capital investment practices that will ultimately improve the overall efficiency of their pumping systems. This objective is accomplished through hydraulic test specialists who provide pump efficiency tests that determine overall plant system efficiency, electrical motor performance, pump hydraulics, and water well characteristics. In addition, SCE also delivered activities to this group of customers that were historically known as energy management services. This included education and training activities that promotes energy efficiency. SCE accomplished this through strengthening current relationships and cultivating new relationships with agri-business, water districts, trade and ethnic associations, vendors, manufacturers, and local and state governments.

2002 Results and Achievements

In 2002, the SCE PTHS program:

- Performed specialized pump tests on 3,323 pumps for agricultural and water agency customers.
- Achieved over 1,800 customer contacts that presented energy efficiency information, education, and program promotion.
- Mailed 1,500 letters to SCE's agricultural customers providing information regarding SCE's pump test program and identified available rebates / incentives through SCE's incentive programs and the CEC's Agricultural Peak Load Reduction program.

Completed development of a Pump Test Resource CD in conjunction with the DOE. Over 1,000 CDs were distributed to customers, vendors, and other industry participants.

Nonresidential Energy Efficiency Incentives

SMALL NONRESIDENTIAL HARD-TO-REACH PROGRAM

Program Description

The Local Small Nonresidential HTR program, also known as the Small Business Lighting Retrofit program, provides no-cost energy efficient equipment and information leading to low-cost energy efficient upgrades to the very small business (under 20kW) customer with special focus on the economically disadvantaged businesses and those customers defined as HTR by the CPUC. For this program, HTR customers are defined as customers who are located in rural zip codes and have a monthly demand of less than 20kW. Literature was provided in English, Spanish, Chinese and Korean.

2002 Results and Achievements

By the end of 2002, approximately 800 customers participated in the program and achieved a net savings of 3,160 MWh and a demand reduction of nearly 1 MW.

Nonresidential Energy Efficiency Incentives

EXPRESS EFFICIENCY

Program Description

This statewide program offers nonresidential rebates to customers to encourage energy efficiency. The specific energy-efficient measures are: lighting, HVAC, refrigeration, agriculture, gas, LED lighting technology and motor retrofit measures.

The program is targeted to HTR, small and medium-sized commercial, industrial, and agricultural customers (with demands equal to or less than 500 kW or 250,000 annual therms).

2002 Results and Achievements

The program achieved a net savings of approximately 129,000 MWh and 23 MW.

In collaboration, the IOUs developed the Program Implementation Plan that included a detailed timeline and performance targets which provided statewide consistency in all aspects of the program.

All four IOUs implemented an identical Express Efficiency Summer Sale offering customers up to four times the original rebate amount for installing selected air conditioning, lighting, agricultural, refrigeration, and motor equipment and an identical Express Efficiency Fall Sale offering customers double, triple, even quadruple rebates for installing selected lighting, LED, air conditioning, refrigeration, agricultural, and motor equipment.

In addition, the IOUs developed identical Express Efficiency applications in foreign languages. At SCE, applications were available in Spanish, Chinese, Korean and Vietnamese. The Express Efficiency program was advertised on Spanish speaking TV channels through the Univision Television Group statewide marketing and outreach program.

Pursuant to Commission directive (D.01-11-066), SCE offered this program to all Nonresidential customers during the first part of 2002. Upon adoption of the 2002 program plans, the activities from this program were limited to small nonresidential customers for the remainder of the 2002 program year.

Nonresidential Energy Efficiency Incentives

STANDARD PERFORMANCE CONTRACT (SPC)

Program Description

The Large and Small/Medium Nonresidential Standard Performance Contract (SPC) program is a statewide, performance-based financial incentive program targeted to nonresidential customers and the energy efficiency service provider (EESPs) market. The program is a "standard offer" consisting of payment of a fixed-price incentive by the utility administrator to end-users or third-party EESPs in exchange for measured kilowatt-hour energy savings achieved by the installation of an energy efficiency project at a host customer facility.

Pursuant to Commission directive (D.01-11-066), SCE offered 2001 Small / Medium SPC program separate from the Large SPC program. Upon adoption of the 2002 program plans, the Small/Medium SPC program was discontinued and was combined with the Large SPC program to create the 2002 SPC program.

2002 Results and Achievements

The SPC program operation commenced in April, 2002. By year-end 2002, the program was fully subscribed. It achieved over 93,000 MWh in annualized energy savings and nearly 15 MW of net demand reduction. The dollar value of paid and committed incentives attributed to the 2002 SPC programs totals more than $10 million.

Upstream Programs

EMERGING TECHNOLOGIES

Program Description

The statewide 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 two parts: 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 ETCC is a statewide information exchange and coordination effort between PG&E, SCE, SoCalGas, SDG&E, and the California Energy Commission Public Interest Energy Research (PIER) program.

The Demonstration & Information Transfer component introduces new energy efficient applications to the market through ET Application Assessment projects. The assessments may consist of a diversity of project types including: feasibility studies, simulation analysis, field demonstrations, controlled environment tests, commercial product development, design methodologies and tool development. The assessments may take up to three years to complete. 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.

The ETCC was founded in 2000, and serves as a statewide information exchange and coordination effort between the investor-owned utilities (IOUs) and the PIER program. The ETCC coordination effort ensures an effective linkage between entities involved in either the development or delivery of new energy efficient technologies in California. The ETCC maintains a website, www.ca-etcc.com, and a database of ET technology applications and projects.

2002 Results and Achievements

ETCC ACTIVITIES

The ETCC met five times during 2002: May 13, June 25, July 31, September 25, and on December 13. The ETCC discussed program plans, the status of various projects, and identified and initiated updates to the ET database. A new ET database was completed during the year and updated twice. The database's summary reports are posted on the ETCC website.

During the year, the PIER Buildings team presented on-going projects with near-term technologies that may be ready for utility ET program involvement. Among the projects discussed were:

- Alternatives to Compressor Cooling, PIER Contract No. 500-98-024,
- Power Line Carrier Bi-Level Switch, PIER Contract No. 400-99-012,
- Next Generation Relocatable Classrooms, PIER Contract No. 400-99-012,
- Commercial Kitchen Exhaust Systems, PIER Contract No. 500-98-031,
- Night Ventilation / Demand Ventilation, PIER Contract No. 400-99-011,
- California Kitchen Lighting, PIER Contract No. 400-99-011,
- Integrated Design of Small Commercial HVAC Systems, PIER Contract No. 400-99-013,
- Market-Optimized Residential Heat Pump Water Heater, PIER Contract No. 500-98-028.

The utilities reviewed and analyzed the CEC projects and technology-applications for potential follow-up activities. The utilities agreed to conduct statewide follow-on projects to PIER's work on commercial kitchen exhaust and make-up air systems.

SCE is participating in the field tests of the advanced heat pump water heater prototype as part of PIER Contract 500-98-028. SCE identified and funded four test sites. The heat pump water heater may replace electric water heaters in small commercial, office, and residential settings. The heat pump water heaters were installed during the year, and end-use monitoring is proceeding by the PIER contractor.

Separately, SCE is working with Occidental College, the South Coast Air Quality Management District, and with SoCalGas to determine the energy impacts of replacing a standard dry cleaning process with a professional wet cleaning process. The majority of dry cleaners in Southern California are ethnic, small commercial operations. The projects will compare cleaning and pressing results, environmental impacts, water usage, and source fuel energy consumption.

TECHNOLOGY APPLICATION ASSESSMENT PROJECTS

SCE initiated ten ET Application Assessment projects during the PY2002 nine-month program period and one project during the initial three-month bridge funding period in 2002. The specific ongoing assessment projects initiated in 2002 are:

(1) Residential Economizer "Night Breeze" - Habitat for Humanity
Initiated during the first quarter, this project aims to demonstrate the "Night Breeze" technology from PIER Contract No. 500-98-024, in homes built through both the Long Beach and Orange County Chapters of Habitat for Humanity (HfH). Initial design proposals are in review with Habitat's architects. Also, SCE established a collaborative relationship with ADM Associates, who are working with Habitat on the "Energy Efficient Low-Income Housing" PIER project; Contract No. 400-00-036.

(2) Integrated Design – Orange County Children's Museum "Pretend City"
SCE is working with the Orange County Children's Museum (OCCM) on the design of a new facility: "Pretend City." SCE has facilitated a design charrete for the project and published a report summarizing the energy efficiency options that may be considered in the project. The options under review include building envelope options, daylighting, lighting and controls, space conditioning, building materials, and indoor environmental quality

issues. The Museum's customer design team is reviewing the charrete report and considering which options to select for detailed analysis.

(3) Underfloor Air Distribution – OCCM "Pretend City"
As part of the "Pretend City" project, SCE initiated a technology application assessment on Underfloor Air Distribution systems. The assessment will build on work underway in PIER Contracts Nos. 500-01-015, "Field Study of the Impacts of Underfloor Air Distribution" and 500-01-035, "Energy Performance of Underfloor Air Distribution Systems."

(4) Integrated Hood Exhaust Backwall Make-up Air System for Hood Exhaust and (5) Perforated Supply Plenum Make-up Air System for Hood Exhaust
Both these projects are part of a statewide, coordinated effort between the utilities to build upon the ongoing work in PIER Contract No. 500-98-031, "Improving Energy Efficiency of Commercial Kitchen Exhaust Systems." Islands Restaurants and Panda Express Restaurants signed agreements with SCE to participate in the projects. Analysis is underway to determine which technology will be demonstrated in each restaurant chain. The field demonstrations will be installed in new restaurants under construction.

(6) Variable Frequency Drive for Commercial Kitchen Hood Exhaust and Make-up Air System
This project is one of three SCE technology application assessments that is part of a statewide, coordinated effort to build upon the ongoing work in PIER Contract No. 500-98-031, "Improving Energy Efficiency of Commercial Kitchen Exhaust Systems." Applebee's Restaurants signed an agreement with SCE to retrofit the technology into one of their existing facilities.

(7) Exhaust Hood Design & Feasibility Follow-up Report for a Sit Down Restaurant
In a previous monitoring project, SCE instrumented a Denny's Restaurant to collect detailed demand and energy usage information of a sit-down restaurant's end uses. As part of SCE's efforts to build upon the work in PIER Contract No. 500-98-031, "Improving Energy Efficiency of Commercial Kitchen Exhaust Systems," a follow-up study is underway to investigate potential exhaust hood design improvements, retrofit issues, and cost-effectiveness.

(8) T5 High Output Lighting System for High Bay Workshops
Los Angeles County signed an agreement with SCE to retrofit a high bay workshop area with a T5 High Output (HO) lighting system. This assessment project will determine whether T5 HO lamps can improve the overall area lighting and reduce energy consumption. The basic lighting design work is near completion.

(9) Variable Geometry Reflector System for HID Lighting
Los Angeles County signed an agreement with SCE to retrofit Variable Geometry Reflectors and HID Lamps in one of the county's parking lots. The assessment project aim is to determine if the use of these special HID reflectors can improve area lighting conditions allowing a reduction in lamp size to achieve energy savings. The initial lighting design work for this project was completed.

(10) Integrated Efficiency Improvements for Small Grocery Stores
This project will evaluate an integrated approach to improve the energy efficiency of the principal electrical end-uses in small grocery stores. This project may result in several technology application assessments for this market segment. As part of the project, the facility's lighting would be retrofitted, possibly with T5 lamps and electronic dimming ballasts. The

refrigeration system would be retrofitted with a high efficiency condenser, a multiplex compressor rack, and an advanced energy management system. L&K Market, a small, ethnic-owned business, signed an agreement with SCE to participate in the project.

(11) Multiplex Refrigeration in a Small Sit-Down Restaurant

This project may result in several technology application assessments for this market segment. The project will retrofit a high-efficiency, multiplex refrigeration system and a high efficiency air-cooled condenser into a small, sit-down restaurant. An advanced control system, coupled with a variable speed drive, will float the head pressure as a function of ambient conditions. In addition, energy efficient reach-in cabinets will be evaluated as part of the project. Dattilos Restaurant, a small, woman-owned business, signed an agreement with SCE to participate in the project

Table 3.1
2003 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
NONRESIDENTIAL PROGRAM AREA

	2002 Budget	[1,2]	2002 Recorded	[1,2,3]
Information	539,129	$	417,036	
EMS				
Large	-		-	
Small/Medium	3,938,779		3,420,719	
EEI: Customized Rebates				
Large	-		-	
Small/Medium	-		-	
EEI: Prescriptive Rebates				
Large	-		-	
Small/Medium	7,167,265		7,114,031	
EEI: SPCs				
Large	12,033,251		13,122,875	
Small/Medium	255,921		215,282	
Upstream Programs				
Information	1,062,545		1,062,545	
Financial Assistance	-		-	
Nonresidential Total	$ 24,996,890		$ 25,352,487	

[1] Excludes Shareholder Incentives and Other Costs, as shown in Table TA 3.1.
[2] Amounts reflect 12 months of budget and recorded expenditures, as approved in D.01-11-066 (PY2001 Program Continuation), D.02-03-056 (Statewide Programs), and D.02-05-046 (Local Programs).
[3] All Recorded amounts include payments in 2002 and amounts committed to projects in 2002. Committed amounts may not be fully realized.

Table 3.2
2003 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY PROGRAM EFFECTS: ELECTRIC
NONRESIDENTIAL PROGRAM AREA

	2002 First Year Net Annualized Capacity Savings (MW)	[1,2]	2002 First Year Net Annualized Energy Savings (kWh)	[1,2]	2002 Net Lifecycle Energy Savings (kWh)	[1,2]
Information	-		-		-	
EMS						
Large	-		-		-	
Small/Medium	-		-		-	
EEI: Customized Rebates						
Large	-		-		-	
Small/Medium	-		-		-	
EEI: Prescriptive Rebates						
Large	-		-		-	
Small/Medium	24.02	[2]	131,876,071		1,846,264,991	
EEI: SPCs						
Large	14.68		92,686,245		1,482,979,928	
Small/Medium	0.04		663,254		9,948,805	
Upstream Programs						
Information	-		-		-	
Financial Assistanc	-		-		-	
Nonresidential Total	38.73		225,225,570		3,339,193,723	

[1] Net Savings reflect Commission-adopted net-to-gross ratios.
[2] Amounts reflect 12 months of budget and recorded expenditures and related savings, as approved in D.01-11-066 (PY2001 Program Continuation), D.02-03-056 (Statewide Programs), and D.02-05-046 (Local Programs).

Table 3.3
2003 Energy Efficiency Annual Report
SUMMARY OF COST-EFFECTIVENESS: ELECTRIC
(Benefit-Cost Ratios)
NONRESIDENTIAL PROGRAM AREA

	2002 Program Administrator Cost Test	[1]	2002 Total Resource Cost Test	[1]
Information	-		-	
EMS				
Large	-		-	
Small/Medium	-		-	
EEI: Customized Rebates				
Large	-		-	
Small/Medium	-		-	
EEI: Prescriptive Rebates				
Large	-		-	
Small/Medium	9.69		4.79	
EEI: SPCs				
Large	5.03		3.37	
Small/Medium	2.16		2.07	
Upstream Programs				
Information	-		-	
Financial Assistanc	-		-	
Nonresidential Total	5.34		3.46	

[1] Includes all costs depicted in Table TA 3.1 -
Program Cost Estimates Used for Cost-Effectiveness - Nonresidential Program Area.

Table 3.4
2003 Energy Efficiency Annual Report
SUMMARY OF COST-EFFECTIVENESS: ELECTRIC
NONRESIDENTIAL PROGRAM AREA
(Net Benefits)

		2002 TRC
Information	$	(443,375)
EMS		
Large		-
Small/Medium		(3,593,569)
EEI: Customized Rebates		
Large		-
Small/Medium		-
EEI: Prescriptive Rebates		
Large		-
Small/Medium		56,398,192
EEI: SPCs		
Large		46,228,610
Small/Medium		240,657
Upstream Programs		
Information		(1,095,468)
Financial Assistance		-
Nonresidential Total	$	97,735,047

Residential New Construction

CALIFORNIA ENERGY STAR® NEW HOMES PROGRAMS (CESNHP)

Program Description

The California Energy Star® New Homes Programs (CESNHP) continue to build on one of the most successful efforts undertaken by California investor-owned utilities (IOUs) over the past decade to influence the design and construction of energy-efficient single family and multifamily dwellings. Through a combination of financial incentives, design assistance, and education, these performance-based programs encourage single family and multifamily (includes rental apartments, condominiums, town homes; as well as high-rise buildings on a pilot basis) builders to construct single family and multifamily dwellings that are 15% and 20% more efficient than required by the 2001 Residential Energy Efficiency Standards. The 15% level has been designated by the Environmental Protection Agency (EPA) as the new Energy Star® homes baseline for California, subsequent to the Title 24 revisions (2001 Standards) brought about in Assembly Bill 970. As a result, buyers of single family homes, and renters of multifamily have energy-efficient, money-saving, comfort and quality alternatives compared to standard new housing.

This program was promoted at industry trade shows and local building industry affiliations throughout the year to a diverse group of building industry professionals. Additional promotional efforts are carried out through various media avenues, trade shows, and educational seminars.

2002 Results and Achievements

In 2002, 5,234 single-family homes and 2,030 multi-family units were committed to participate in the program and will be built over the next two years. The CESNHP received recognition for significant contributions to the presence of Energy Star® qualified homes in the marketplace. CESNHP was awarded the Energy Star® Partner of the Year Award by the United States EPA. This prestigious award was given to the California IOUs for CESNHP's outstanding program design, which included collaborative media advertising as well as development and distribution of identical program applications within the IOU service territories.

Approximately 75 *Builder Resource Guides* were distributed to builders, architects, engineers, and others in the building industry. This guide covers a wide range of topics, including Title 24, the EPA's Energy Star® Home Program, as well as Home Energy Rating System ratings, and is intended to be an "encyclopedia" reference for nearly all actors within the building industry.

In 2002, CESNHP achieved 4,868 MWh of net annualized energy savings and a 5.4 MW of net demand reduction.

Nonresidential New Construction

SAVINGS BY DESIGN

Program Description

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 simpler, performance-based method, which moves owners and design teams far beyond prescriptive approaches. Finally, program Education and Outreach strategies, focus on the successful Energy Design Resources (EDR) 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 (CEC's) goals for market transition to the 2005 Title 24 code revision cycle.

2002 Results and Achievements

The Statewide SBD rolled out to the public on April 1, 2002. Outreach and marketing activities included classes, trainings, onsite education, tradeshows, seminars, distribution of EDR materials, program brochures and information, and dissemination of California High Performance Schools program documents. SBD's website attracted over 15,841 visits in 2002 and EDR's website attracted 41,498 visits. A total of 34 trainees completed the EDR on-line training courses.

Requests for Proposals were issued to expand the library of tools and materials available to architects and engineers through the EDR component.

SCE's SBD program achieved over 70,000 MWh of net annualized energy savings and over 13 MW of net peak load reduction. 59% of the incentive monies were allocated to Whole Building Approach projects. Customers were informed of the SBD program and EDR resources through distribution of over 2,500 Energy Design Assistance Newsletters. Approximately 317 EDR compact discs were distributed to customers from EDR website requests.

Table 4.1
2003 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
NEW CONSTRUCTION PROGRAM AREA

	2002 Budget [1,2]	2002 Recorded [1,2,3]
Residential	$ 4,518,681	$ 5,935,331
Nonresidential	8,847,600	8,449,757
New Construction Total	$ 13,366,281	$ 14,385,088

[1] Excludes Shareholder Incentives and Other Costs, as shown in Table TA 4.1.
[2] Amounts reflect 12 months of budget and recorded expenditures, as approved in D.01-11-066 (PY2001 Program Continuation), D.02-03-056 (Statewide Programs), and D.02-05-046 (Local Programs).
[3] All Recorded amounts include payments in 2002 and amounts committed to projects in 2002. Committed amounts may not be fully realized.

Table 4.2
2003 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY PROGRAM EFFECTS: ELECTRIC
NEW CONSTRUCTION PROGRAM AREA

	2002 First Year Net Annualized Capacity Savings (MW) [1,2]	2002 First Year Net Annualized Energy Savings (kWh) [1,2]	2002 Lifecycle Energy Savings (kWh) [1,2]
Residential	5.39	4,868,189	87,627,398
Nonresidential	13.22	70,220,914	1,123,534,623
New Construction Total	18.61	75,089,103	1,211,162,021

[1] Net Savings reflect Commission-adopted net-to-gross ratios.
[2] Amounts reflect 12 months of budget and recorded expenditures and related savings, as approved in D.01-11-066 (PY2001 Program Continuation), D.02-03-056 (Statewide Programs), and D.02-05-046 (Local Programs).

Table 4.3
2003 Energy Efficiency Annual Report
SUMMARY OF COST-EFFECTIVENESS: ELECTRIC
(Benefit-Cost Ratios)
NEW CONSTRUCTION PROGRAM AREA

	2002 Program Administrator Cost Test	[1]	2002 Total Resource Cost Test	[1]
Residential	0.62		0.70	
Nonresidential	6.16		2.77	
New Construction Total	3.87		2.32	

[1] Includes all costs depicted in Table TA 4.1 -
Program Cost Estimates Used for Cost-Effectiveness - New Construction Program Area.

Table 4.4
2003 Energy Efficiency Annual Report
SUMMARY OF COST-EFFECTIVENESS: ELECTRIC
NEW CONSTRUCTION PROGRAM AREA
(Net Benefits)

		2002 TRC
Residential	$	(1,634,182)
Nonresidential		16,466,348
New Construction Total	$	14,832,165

Crosscutting Information

ENERGY EFFICIENCY EDUCATION & TRAINING PROGRAM

PROGRAM DESCRIPTION

The statewide Energy Efficiency Education and Training program promotes energy efficiency to end-use customers through a variety of education and training techniques, including SCE's energy centers (CTAC and AgTAC), product labeling, commercial and industrial informational services and the refrigeration and thermal testing center (RTTC). Pursuant to CPUC directive (Decision 01-11-066), SCE continued to offer certain programs from program year 2001 during the first part of 2002. The activities from 2001 programs were continued in the statewide Energy Efficiency Education and Training program.

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 to such upstream actors 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.

CTAC

CTAC offers customers current, objective information on state-of-the-art, energy-efficient electric technologies and environmentally sensitive solutions to their energy challenges. CTAC is designed to help businesses run their operations more effectively while reducing energy costs, improving product quality, and meeting stringent area air quality standards. Customers and visitors from throughout the nation and the world have come to CTAC to attend seminars and workshops, and to demonstrate or to test new products.

Located in the heart of one of the most densely populated areas in Southern California, CTAC is a 42,000 square-foot facility with several distinct product and technology centers including the: Commercial Products Center; Lighting Products Center; Industrial Technology Center; Home Efficiency Center; Foodservice Technology Center; and the Refrigeration and Thermal Testing Center (RTTC), all where vendors and manufacturers contribute equipment to showcase technologies. CTAC's 110-seat Executive Conference Center is used for workshops and seminars.

AGTAC

AGTAC offers valuable environmentally friendly, energy-efficient and cost-competitive solutions to the agricultural community. This 21,000 square-foot facility on a

10-acre site is a companion to CTAC and is located in the heart of one of the most productive agricultural regions in the world - the San Joaquin Valley. The facility has several distinct product and technology centers including the: Business Resource Center; Exhibit Hall; Lighting Products Center; 200-seat Learning Center; Office Technologies Center; 5,000 square foot Annex and an Outdoor Demonstration Grounds.

At AGTAC, a 4.5-acre outdoor demonstration area is a microcosm of agricultural crops grown within the Central Valley and displays a variety of working pumps, water conserving irrigation systems, and other efficient technologies for outdoor use in landscape, row crops, vineyards, trees and other farming applications. Inside the Center are permanent and short-term displays on energy-efficient technologies including electric motors; pumping equipment; HVAC; lighting; and other innovative products and services.

The energy centers educate and inform customers through formal class instruction, facility / technology presentations, technical consultations, equipment demonstrations, graphics, displays, and exhibits. They also provide printed materials highlighting energy efficient technologies, the application of a technology, or promoting other energy efficiency programs or services.

PRODUCT LABELING

The Product Labeling program complements SCE's residential energy efficiency rebate programs by improving the sales and distribution of energy-efficient products for the home. The program disseminates rebate information and point-of-purchase materials to retail stores and home improvement centers within SCE's service area. The program also provides rebate program training to sales associates and pool and heating, ventilating and air conditioning (HVAC) contractors.

INFORMATIONAL SERVICES

SCE's Informational Services delivers vital energy efficiency information to all commercial and industrial customers. This component of the Education and Training program helps customers overcome the information barrier to ultimately make informed decisions regarding energy-efficient equipment purchases and operational practices.

REFRIGERATION AND THERMAL TESTING CENTER (RTTC)

The RTTC was established in 1996 and since its inception; this state-of-the-art 4,000 square-foot testing facility conducted numerous energy efficiency test projects. The mission of the RTTC is to promote the application of energy efficient refrigeration and HVAC technologies by performing realistic and impartial laboratory tests. In the absence of refrigeration energy efficiency standards, the RTTC's services play an instrumental role in quantifying the impact of energy efficient technologies and informing SCE's customers and the industry members.

The results of the RTTC's test projects have been rolled into a number of statewide energy efficiency incentive programs and training workshops. Also, information obtained from the RTTC's energy efficiency projects have been referenced in numerous trade journals and technical publications and presented in several energy–related conferences and meetings nationwide. The RTTC's testing capabilities can be summarized as follows:

1. Testing of HVAC equipment and related technologies
2. Testing of supermarket refrigeration systems
3. Testing of refrigeration units including, self-contained display cases, beverage bending machines and ice makers
4. Testing of technologies used in cold storage and walk-in cooler / freezer facilities
5. Calorimetric testing of various appliances
6. Testing of various refrigerants.

The RTTC is equipped with four environmental chambers and five refrigeration rack systems, as well as specialized environmental control systems. The sophisticated data acquisition of the RTTC monitors over 400 channels of data in intervals of seconds.

2002 Results and Achievements

CTAC

The following activities took place at CTAC in 2002: 1,405 events; 74 off-site events; 120 energy efficiency seminars and 156 energy efficiency events; 163 energy efficient equipment demonstrations; 937 technical consultations; and 25,324 attendees.

The following activities took place at AGTAC in 2002: 319 events; 6 off-site events; 1,321 technical demonstrations; 72 technical consultations; 51 seminars and 59 total energy efficiency events; and 12,452 attendees.

Several new classes were developed and / or offered at CTAC and AGTAC including:

- Basic Instrumentation & Sensors
- High Performance Ducts / Residential Energy Standards for engineers and contractors
- Skylight / Daylight Workshop
- Technology Review
- Industrial Ammonia Refrigeration
- Convection Oven Technology
- Energy Efficiency Lighting for Foodservice
- Lighting Controls for Energy Management
- Advanced Lighting Technologies
- Energy Efficiency Supermarket Refrigeration
- Hibay Lighting
- Advanced Food Service Refrigeration
- Lighting for Offices and Schools
- Successful Merchandising with Efficient Lighting
- Energy Audits & Management for Foodservice
- New Energy Technology Series

New displays at CTAC included compressed air systems in the Industrial Technology Center; 1) a small screw compressor that can be disassembled to aid instructors that teach compressed air classes; 2) an operating 50 horsepower screw compressor to show performance and operating characteristics of screw compressors. The skylights in two areas of CTAC were upgraded with day lighting controls and metering to demonstrate the performance of day lighting systems. The single-phase electric motors display was modified to use as a hands-on demonstration in the electric motors classes. Modifications were made to the ductwork on the exhaust hood ventilation system in the Foodservice Technology Center. A new variable speed drive and controls (heat and smoke sensing) were also added. The system is quieter, performs better and serves as a demonstration on how controls can reduce energy use in ventilation systems. New pendant mounted indirect and direct / indirect luminaries were installed in the Lighting Lab to show case linear fluorescent T-5 technologies.

At AGTAC, the following displays and exhibits were completed: The first phase of AGTAC's outdoor Low Pressure Pumping Exhibit that was designed in 2002

was completed. This multi-purpose hands-on demonstration unit showcases and compares motor and pump efficiencies under full-load operational working conditions. Two additional kiosks were purchased and programmed with an energy information quiz and energy tips. One of these kiosks was programmed in Spanish for our Hard-to-Reach (HTR) non-English speaking customers. The wall insulation exhibit was upgraded with interactive temperature comparison devices and infrared laser. Construction of a master Supervisory Control and Data Acquisition (SCADA) Center was completed. This master unit uses a radio frequency transmitter to collect information electronically from various remote exhibits throughout the facility and then displays it at a central location for presentation to customers. A 5 horsepower motor cut-a-way display was added for use and showcase during various motor classes.

In 2002, CTAC enhanced partnerships with:

- California Community College Chancellor's Office
- Victor Valley Community College
- Northwest Energy Efficiency Council
- Maintenance Superintendents Association
- Union Roofing Contractors Association
- Integrated Waste Management Board, California Department of General Services, and HDR Architecture (Sustainable Building event)
- Association for Efficient Environmental Energy Systems (AEEES) - (Ground Water Source Heat Pumps)
- PG&E - (Photovoltaic classes)
- City Terraces Council - (Low income children's program)
- Brithinee Electric & DOE - (Pump Testing Seminar)
- San Gabriel Mountains Regional Conservancy (SGMRC) (Event on Watershed)

AGTAC

AGTAC continued working and sponsorship with the Center of Irrigation Technologies from California State University in Fresno and California Polytechnic University from San Luis Obispo in conducting various efficient irrigation classes for the farming community.

In December, a 12-day holiday lighting event was held at AGTAC. Tulare County Office of Education, Tulare School District, clubs, and local business organizations participated in creating 38 lighted displays. Drive-thru public viewing was available three to four hours nightly. Approximately 3,600 energy information tip cards were distributed, and 11,306 attendees viewed various energy efficiency related graphics.

During 2002, Outreach supported over 144 energy efficiency events, including trade shows, community events, conferences, and external business events. The Outreach program provided staffing, displays, demonstrations, and handout materials to 60,000 attendees. Included in the demonstrations and displays were Energy Star ® offerings, such as energy efficient lighting, controls, windows, office equipment and rebate/incentive information.

As part of their statewide efforts, Edison's CTAC and AGTAC, PG&E's Stockton Training Center, SoCalGas' Energy Resource Center, and SDG&E's Energy Efficiency Training team again collaborated to enhance seminar offerings through the sharing of classes. CTAC and AGTAC held a total of 18 classes that were a part of this joint effort (See chart next page).

Classes	Date
Lighting and Daylighting for Architects & Designers	1/29/02
Design Strategies for High Performance Glass	2/06/02
Industrial Maintenance	5/14/02
Lighting for Offices & Schools	5/16/02
Industrial Maintenance	5/22/02
Lighting & Daylighting for Architects/Designers	6/19/02
Industrial Ammonia Refrigeration	6/25/02
Industrial Maintenance	7/31/02
Designing Sustainable Libraries	8/13/02
Lighting/Daylighting for Architects & Designers	8/28/02
Energy Audits & Management - Food Service (joint)	9/5/02
Tool Lending Library Workshop	9/12/02
Technology Review Workshop	9/17/02
Hibay Lighting Workshop	9/17/02
Energy Efficient Refrigeration	9/18/02
Design Strategies for High Performance Glass	9/19/02
Energy Auditor Training	12/4/02; 12/5/02

PRODUCT LABELING

During 2002, the Product Labeling program consisted of providing copies of program applications and information to over 500 retail establishments in the SCE service territory. In the first two weeks of the program, SCE sent applications to approximately 300 retail stores that offer energy efficient products on the Single Family Rebate Program. Within two months of the program, in-store visits were made to about 250 retail pool stores and training provided to sales associates along with copies of the one-page, easy-to-use pool pump/motor rebate applications for customers. Contacts at each of the 500 retail stores were established so that throughout the program a re-supply of support materials could be maintained. SCE attended pool and HVAC trade association meetings to provide information on SCE's Home Energy Efficiency Rebate Program. SCE also and trained major retailer sales staff and HVAC contractors on the HVAC component of the rebate program.

Pursuant to Commission directive (Decision 01-11-066), SCE offered the Residential Appliance (Energy Star® Labeling) Information program during the first part of 2002. This program was discontinued in mid-year and replaced by the 2002 Statewide Energy Efficiency Education and Training program.

INFORMATIONAL SERVICES

SCE's energy efficiency customer representatives successfully delivered energy efficiency messages and programming directly to over 28,000 small, medium, and large customers through face-to-face meetings, presentations, direct mail brochures, e-mail, and by telephone. These contacts helped make customers aware of available incentive programs such as Savings by Design, Express Efficiency, and Standard Performance Contracts, as well as events and training offered through SCE's CTAC and AGTAC. Customer representatives also supported customer participation in incentive program processes and procedures, promoting a higher rate of customer participation in incentive

program processes and procedures promoting a higher rate of customer participation for each program.

Pursuant to Commission directive (Decision 01-11-066), SCE offered the following Information programs during the first part of 2002:
Small / Medium Energy Management Services, Commercial Energy Efficiency Information Services, and Industrial Energy Efficiency Information Services. These programs provided energy efficiency information and education to targeted nonresidential customers. These programs were discontinued in mid-year and replaced by the 2002 Statewide Energy Efficiency Education and Training program.

RTTC

In 2002, the following projects were conducted at the RTTC:

- Evaluation of the impact of high ambient temperatures on the performance, energy use and peak electric demand of roof top air conditioners. This project was founded by Codes and Standards initiative.
- Investigation of energy efficient supermarket display cases – under this project, the U.S. Department of Energy through Oak Ridge National lab sought services of the RTTC in this $108,000 grant project.
- Energy Efficiency training workshops for SCE customers and SCE account representatives.
- Provided numerous tours of the facility for SCE customers.

Upstream Programs

DEMONSTRATION & INFORMATION TRANSFER

Program Description

The Demonstration & Information Transfer (D&IT) 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 SCE'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 ET program, but is local in scope. The program focuses on near-commercial applications with significant market opportunities, and commercial energy efficient applications with low market penetration.

The program introduces new energy-efficient applications to the market through ET Application Assessment projects. The assessments may consist of a diversity of project types including: feasibility studies, simulation analysis, field demonstrations, controlled environment tests, commercial product development, design methodologies and tool development. The assessments may take up to three years to complete. 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.

2002 Results and Achievements

SCE initiated six ET application assessment projects as part of the Local D&IT program. The specific, ongoing assessment projects initiated in 2002 are:

1. **Improving HVAC Performance and Indoor Air Quality (IAQ) using Ultraviolet (UV) Light.** This is field test conducted at an office facility in collaboration with the HVAC industry. 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 across the coils. 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. A final report is in preparation.

2. **Spray-on Radiant Barrier for Existing Residential and/or Small Commercial Buildings.** A low emissive coating will be sprayed onto the underside of roofs to form a radiant barrier. The radiant barrier will reduce attic air temperatures, and consequently reduce a structure's cooling load. Three low-income residential sites in SCE's desert service area

signed agreements to participate in this project.

3. **Low-E Pigment for Stucco and Paints for Residential and/or Small Commercial Buildings.** Low-e pigment for stucco and paints will be applied to building structures to reduce cooling loads and energy usage. Three low-income residential sites in SCE's desert service area signed agreements to participate in this project.

4. **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 of a retrofit project. El Segundo Unified School District signed an agreement to participate in this project.

5. **High Speed Hands Dryer.** A 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.

6. **Advanced Heuristic Thermostatic Control System.** A new type of advanced thermostat, with an embedded heuristic control function wired to either one or more occupancy sensors, may be used to control a room's cooling and heating demand. The Arcadia Unified School District signed an agreement to test the technology. Several classrooms were retrofitted and monitoring equipment installed to collect room and ambient temperatures as well as heat pump energy usage.

Upstream Programs

CODES AND STANDARDS

Program Description

STATEWIDE CODES AND STANDARDS

The Statewide Codes & Standards (C&S) program is an information-only program that promotes upgrades and enhancements to various energy efficiency standards and codes, thereby capturing the benefits for society from California's diverse energy efficiency efforts. The program sponsors Codes and Standards Enhancement (CASE) studies as part of its advocacy activities. CASE initiatives for promising energy efficiency design practices and technologies may be targeted, as well as energy efficiency measures promoted through both the residential and nonresidential new construction programs. The completed CASE initiative reports are presented to the standards and code-setting bodies to encourage the adoption of energy efficiency measures.

The C&S program activities have inherent synergies with other programs, such as the ET program, energy efficiency equipment rebates, and energy audits, through the advocacy of specific energy efficiency measures. The 2002 C&S efforts are conducted within the long-term code upgrade cycles. For example, the California building code cycles are typically three years.

LOCAL CODES AND STANDARDS

The Local C&S program is an information-only program that helps to bring about cost-effective upgrades to the State's energy related codes and standards that will benefit California as a whole. The 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.

2002 Results and Achievements

Throughout 2002, the Statewide C&S technical staff participated in statewide team meetings, CEC workshops for the 2005 Title 24 code revision cycle for both the Residential and Nonresidential Building Energy Efficiency Standards, CEC's Existing Building Energy Efficiency Opportunity Study (Assembly Bill 549) report, CEC public workshops for Time Dependent Valuation Life (TDV) Cycle Costing and Outdoor Lighting Standards. Also, the program's technical staff attended and participated in meetings of organizations that impact California building and appliance standards, including: American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE), Cool Roof Rating Council (CRRC), and the National Fenestration Rating Council (NFRC).

During the year, SCE program staff initiated several CASE studies, bringing the total number of ongoing CASE initiatives, new and in progress, to 11. The following 11 CASE studies are underway:

- High Ambient HVAC Unit Testing,
- Staged-Volume Packaged HVAC Unit Study,
- Time Dependent Valuation (TDV)

Residential Compliance Assessment,
- TDV Residential Computer Simulation Package,
- EER and SEER as Cooling Season Performance Indicators,
- Piping & Ductwork Losses, Phase 1: VAV Reheat Terminal Boxes,
- Advanced Lighting Design Guidelines,
- Daylighting Photocontrol Study,
- Outdoor Lighting Spectral Effects Study,
- Agribusiness Energy Efficiency Guideline for Dairies, and
- Study on Mechanisms for Improving the Energy Efficiency of Existing Buildings in California.

During 2002, SCE sponsored a one-day training class in Tulare. The class focused on high performance schools and energy efficiency opportunities.

2002 Program activities for the Local C&S program included:
- 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.

Upstream Programs

LOCAL GOVERNMENT INITIATIVE (LGI)

Program Description

SCE'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. With extensive input from Southern California local government building departments, the innovative programs offered through SCE-LGI, such as the Community Energy Efficiency Program (CEEP) and other cross-cutting programs CheckPoint and Express Efficiency, are designed to help local governments build self-sustaining energy efficiency partnerships with their constituents and transform energy efficiency markets at the community level.

2002 Results and Achievements

In 2002, the program secured participation from 18 new jurisdictions, exceeding the goal by two jurisdictions. There were 12 jurisdictions identified as hard-to-reach (√-- county population falls below the California median family income), also meeting the goal.

- √ Banning
- √ Beaumont
- Camarillo
- Costa Mesa
- √ Delano
- √ Desert Hot Springs
- Fullerton
- Garden Grove
- √ Hanford
- √ Monterey Park
- Moorpark
- √ Norco
- √ Ontario
- √ Palm Springs
- √ Redlands
- √ San Jacinto
- Thousand Oaks
- √ Tulare

CEEP encourages residential building practices that conserve energy and resources while improving government services and the economy. Several large production home builders, including Shea Homes, Premier Homes, Pardee Homes, Centex, Griffin Communities, New Urban West, and many others have recently built CEEP communities. Each CEEP home is built to exceed 15% above Title 24 energy efficiency requirements (Energy Star®), must meet the CEC's tight duct criteria, use Building Industry Institute "scopes of work", and include CHEERS (California Home Energy Efficiency Rating System) inspection and diagnostic evaluations conducted by a certified CHEERS rater.

Upstream Programs

UPSTREAM RESIDENTIAL LIGHTING

Program Description

The statewide crosscutting Upstream Residential Lighting program provides a point-of-purchase (POP) discount to customers who purchase qualifying fluorescent Energy Star® lighting products. In a co-op arrangement, SCE provides manufacturers with rebates, which allows manufacturers to pass the rebates on to the retailers, who promote the competitive pricing of these products. More retail channels were developed and opened with this approach because the manufacturers' reach is much longer than the IOUs or the retailers. In 2003, a component was added to extend the offer of upstream incentives directly to large statewide retail chains. The offer entailed allowing the rebate to be paid directly to them, instead of the manufacturer. These chains offered POS discounts for the same lighting products as described above, and discounts were provided in the same amounts as in the manufacturer component. The statewide retailers received reimbursement directly from SCE for the discounts provided to SCE area residential customers.

Through SCE's efforts with lighting manufacturers and retailers to buy down the cost of energy-efficient lighting products, customers received a $2 discount per unit off the purchase price of an Energy Star® -qualified compact fluorescent lamp (CFL) and a $10 discount per unit for a torchiere or hardwired indoor/outdoor lighting fixture. A $20 rebate was given to purchasers of ceiling fans with light kits that were wholly Energy Star® compliant. All products had to be Energy Star®- labeled to qualify. Participating manufacturers were reimbursed by SCE for discounted products shipped and available in stores serving SCE residential customers.

The 13 manufacturers who participated in the Upstream Residential Lighting program were: American Power Products, American Top Lighting, Angelo Brothers Company, Feit Electric Company, Greenlite Corporation, Lights of America, Luminex dba Energy Plus, Energy Technology Labs DBA Luxlite USA, MaxLite, Panasonic Lighting, Sunpark Electronics, Surya Roshni, Inc., and UsPar Enterprises Inc.

Three statewide retailers participated: Costco, Sam's Club, and Lowe's.

The program rolled out in time for the September lighting season. The manufacturing component allowed the retailers to participate with products from one or more participating manufacturers. This dynamic drove prices down, allowing some retailers to offer products at less than $1 per CFL. Many locations sold CFLs for $2 or less.

2002 Results and Achievements

Accomplishments in 2002 included:

- Over 605,800 screw-in bulbs were sold with a $2 incentive.
- Over 10,600 fixtures and torchieres were sold with a $10 incentive

- 50 ceiling fans were sold with a $20 incentive.
- Approximately 75 unique retailers participated.

The statewide program exceeded its HTR participation goals for rural area customers, ethnic grocery, and drug store customers.

Table 5.1
2003 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
CROSSCUTTING PROGRAM AREA

	2002 Budget [1,2]	2002 Recorded [1,2,3]
Information	$ 4,979,421	$ 4,525,558
EMS	-	-
EEI		
SPCs	-	-
Rebates	-	-
Loans	-	-
Other	-	-
Upstream Programs		
Information	2,263,900	2,237,500
Financial Assistance	2,046,985	1,639,711
Crosscutting Total	$ 9,290,306	$ 8,402,769

[1] Excludes Shareholder Incentives and Other Costs, as shown in Table TA 5.1.
[2] Amounts reflect 12 months of budget and recorded expenditures, as approved in D.01-11-066 (PY2001 Program Continuation), D.02-03-056 (Statewide Programs), and D.02-05-046 (Local Programs).
[3] All Recorded amounts include payments in 2002 and amounts committed to projects in 2002. Committed amounts may not be fully realized.

Table 5.2
2003 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY PROGRAM EFFECTS: ELECTRIC
CROSSCUTTING PROGRAM AREA

	2002 First Year Net Annualized Capacity Savings (MW)	[1,2]	2002 First Year Net Annualized Energy Savings (kWh)	[1,2]	2002 Net Lifecycle Energy Savings (kWh)	[1,2]
Information	-		-		-	
EMS	-		-		-	
EEI						
SPCs	-		-		-	
Rebates	-		-		-	
Loans	-		-		-	
Other	-		-		-	
Upstream Programs						
Information	-		-		-	
Financial Assistance	3.81		25,654,471		307,853,647	
Residential Total	3.81		25,654,471		307,853,647	

[1] Net Savings reflect Commission-adopted net-to-gross ratios.
[2] Amounts reflect 12 months of budget and recorded expenditures and related savings, as approved in D.01-11-066 (PY2001 Program Continuation), D.02-03-056 (Statewide Programs), and D.02-05-046 (Local Programs).

Table 5.3
2003 Energy Efficiency Annual Report
SUMMARY OF COST-EFFECTIVENESS: ELECTRIC
(Benefit-Cost Ratios)
CROSSCUTTING PROGRAM AREA

	2002 Program Administrator Cost Test	[1]	2002 Total Resource Cost Test	[1]
Information	-		-	
EMS	-		-	
EEI				
SPCs	-		-	
Rebates	-		-	
Loans	-		-	
Other	-		-	
Upstream Programs				
Information	-		-	
Financial Assistance	7.44		28.74	
Crosscutting Total	1.55		1.11	

[1] Includes all costs depicted in Table TA 5.1 -
Program Cost Estimates Used for Cost-Effectiveness - Crosscutting Program Area.

Table 5.4
2003 Energy Efficiency Annual Report
SUMMARY OF COST-EFFECTIVENESS: ELECTRIC
CROSSCUTTING PROGRAM AREA
(Net Benefits)

		2002 TRC
Information	$	(4,607,867)
EMS		-
EEI		
SPCs		-
Rebates		-
Loans		-
Other		-
Upstream Programs		
Information		(6,957,301)
Financial Assistance		12,777,393
Crosscutting Total	$	1,212,225

Market Assessment & Evaluation

Program Description

Market Assessment & Evaluation (MA&E) is the set of activities needed to provide market, program, and product assessment studies and analyses useful to energy efficiency program planners and policy makers. Within this broad category, Evaluation, Measurement & Verification is the subset of activities that: (1) independently assess how and whether energy efficiency programs met their stated goals; (2) use available secondary data, program–specific data and measurements, and appropriate sampling and modeling processes to produce reliable estimates of the energy savings achieved by a program; and (3) assess how well the program operated in terms of effectiveness and efficiency in meeting program goals.

Quarterly summary reports on the progress of all MA&E studies are provided to the Commission and other parties, as part of the utilities' quarterly reports on their energy efficiency programs.

Beginning in 2002, the Commission mandated two types of energy efficiency programs, statewide and local. Studies for local programs are funded from the individual program budgets and are, therefore, not reported here.

2002 Results and Achievements

A. 2002 STATEWIDE STUDIES

As directed by the California Public Utilities Commission (CPUC) Decision 01-11-066, the utilities submitted proposed budgets for the Program Year (PY) 2002 statewide studies mandated by CPUC in December, 2001. The CPUC authorized utilities to begin work on detailed work plans for these studies on May 16, 2002. As required by Decision 02-05-046, SCE and the other utilities developed 24 detailed project work plans and Requests for Proposals (RFPs) for all of the CPUC-required projects and the evaluation, measurement and verification studies of all the statewide programs in May and June of 2002. The utilities presented the draft study plans at a California Measurement Advisory Council (CALMAC) workshop on June 12, 2002, to gather public input on them, revised them, and submitted them to the CPUC on June 17, 2002. As requested, the CPUC gave early approval to the RFP for the project to coordinate all of the statewide and local evaluation, measurement and verification plans in early July. The Commission then suggested some areas of modification for the remaining proposals, which the utilities undertook. In October the Administrative Law Judge (ALJ) approved the remaining 23 RFPs.

SCE issued 12 of these RFPs during the fourth quarter of 2002 to a list of qualified bidders developed for each of the projects, and other utilities issued proposals for all but one of the other projects. (The remaining project RFP for a study of residential new construction energy efficiency potential will be issued in Summer 2003, when additional data on dwellings built under the new Title 24 standards are available.) The proposals for 19 of the projects were reviewed in December and three in January by project advisory committees consisting of a representative from each utility, two or more representatives from the Energy Division, and (for the CPUC-required MA&E

studies only) a representative from the California Energy Commission. The project advisory committees discussed the strengths and weaknesses of each proposal in relation to the selection criteria identified in the RFPs and selected a recommended bidder. 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 ALJ a letter requesting approval of the selected bidders for the 19 projects, with the remaining project recommendations following thereafter. The ALJ approved all of the selections in early February. The utilities then issued purchase orders to the approved winning bidders and work has begun on all of the projects.

The projects and the lead utility for each are shown in the following tables.

CPUC-REQUIRED STATEWIDE MA&E PROJECTS

Utility	Project
SCE	Master Contract for Coordination
SCE	Master Contract: New Evaluation Framework
PG&E	Energy Efficiency Potential / Saturation Study
PG&E	Residential New Construction Potential Study
	(RFP to be issued June, 2003)
SCE	Residential Market Share Tracking Project
PG&E	Best Practices Database
SDG&E	Deemed Savings Database

EVALUATION, MEASUREMENT & VERIFICATION FOR STATEWIDE ENERGY EFFICIENCY PROGRAMS

Residential Retrofit Programs

Utility	Project
PG&E	Single-Family Rebates
SDG&E	Multi-Family Rebates
SCE	Mail-In and Online Home Energy Surveys
SCE	Refrigerator Recycling

Nonresidential Retrofit Programs

Utility	Project
SCE	Standard Performance Contract (SPC)
PG&E	Express Efficiency
PG&E	On-Site Audits
PG&E	Building Operator Certification
SCE	Emerging Technology Demonstration

EVALUATION, MEASUREMENT & VERIFICATION FOR STATEWIDE ENERGY EFFICIENCY PROGRAMS (Continued)

New Construction Programs

Utility	Project
SCE	Savings by Design (SBD) Building Efficiency Assessment
SCE	Savings by Design (SBD) Market & Program Tracking
SCE	Energy Design Resources
SCE	Nonresidential New Construction Technical Support
PG&E	Residential New Construction

Cross-Cutting Statewide Programs

Utility	Project
SDG&E	Residential Lighting
SCE	Education & Training
SCE	Codes & Standards

Master Evaluation Contract for the Coordination and Consolidation of Studies of 2002 Energy Efficiency Programs

SCE issued the RFP and received proposals for this project in July. The project advisory group, consisting of representatives of the utilities and the Energy Division, reviewed the proposals, selected a winning bid, and recommended the approval of the winning bidder to the CPUC in August. The winning consultant team began work in September. The team held a CALMAC workshop on September 18, 2002, to inform third-party implementers and evaluators about the project plans and to gather input on the plans. Based on this input, the team revised its work plan. The team then gathered the more than one hundred statewide and local evaluation, measurement and verification plans submitted to the CPUC, entered them into a database, reviewed the plans, and developed a report recommending which studies would benefit from coordination and/or consolidation. SCE submitted this report to the CPUC and the parties on November 1, 2002. The team then began to work on further database development to allow the use of its database structure by Energy Division staff for program tracking. The team also organized its work plan to review and to provide advice to Energy Division staff on the revised evaluation, measurement and verification plans for local programs that were to be submitted to the CPUC for approval in early 2003.

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 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.

B. STATEWIDE AND UTILITY-SPECIFIC STUDIES INITIATED BEFORE 2002

SCE had responsibility for four statewide study areas:

- market share tracking for key residential

energy efficiency measures;
- the residential retrofit and remodeling market and the program related to that market;
- large nonresidential customers and the large customer SPC program; and
- the nonresidential new construction market, the nonresidential new construction programs, and nonresidential construction codes and standards.

During PY 2002, SCE completed studies in these areas that were initiated in earlier years. These projects were funded with earlier-year MA&E funds. Descriptions of these studies are provided below.

In addition, SCE participated in funding and providing input to some multiple-sponsor studies that were completed during 2002.
- The American Council for an Energy-Efficient Economy (ACEEE) completed a report featuring case studies of major 2001 energy efficiency programs in the United States with a significant potential impact on peak demand.
- Members of CALMAC sponsored a study of the energy and demand savings achieved by the unprecedented variety and volume of energy efficiency programs implemented in California in 2001, building on the work of the ACEEE study. This study, managed by the Natural Resources Defense Council, was completed by Global Energy Services in early 2003. It is posted on the CALMAC website.
- SCE participated in funding an ACEEE study of lessons learned in program administration from California's historic energy efficiency program response to the 2000-2001 energy crisis. This study was also completed in early 2003, and it is posted on ACEEE's website, www.aceee.org.
- PG&E managed a study completed in April 2002 that evaluates the PY 2001 Summer Initiative Pool Pump programs. SCE participated in funding and providing ongoing advice for this joint study of PG&E, SDG&E, and SCE.
- SDG&E managed the Statewide Residential Ceiling Fan Monitoring Study. SCE participated in funding and providing ongoing project oversight for this joint study of PG&E, SDG&E, and SCE.
- SCE provided data collection and analysis support for a University of California, Riverside study of the conservation motivations of California residential electricity consumers and how that impacted their energy usage behavior.

Residential Market Share Tracking Project

This ongoing project tracks information on the market share of ten key types of energy-efficient equipment measures that are major targets of PY 1998-2003 California energy efficiency programs. It has also established a system for monitoring changes in market share by decision type over time. Data are being gathered from distributors and retailers, on-site surveys of new homes, county building departments, and from point-of-sales reports purchased from national sources. Analysis of the information is provided in both detailed and summary form annual or semi-annual reports for lighting and for appliance measures, and the data are also provided in a publicly available database. These data can be used to assess the success of specific residential programs and to offer guidance for future program planning.

The Project completed the following reports in 2001, each of which is described in the Annotated Bibliography section of the Technical Appendix to this Report. A summary version of each report (in a 4- to 8-page brochure format) was also completed at the same

time for each of these reports.

- California Lamp Report 2001, Volume 2, May 2002
- California Lamp Report 2002, Volume 1, November 2002
- California Residential Appliance Report 2001, November 2002
- California Residential Heating, Ventilating and Air Conditioning (HVAC) Report, October 2002

Statewide Residential Contractor Program Energy and Market Impact Assessment Study 2001

This study was initiated in 2001 to develop estimates of the energy impacts of the single-family and multi-family components of the Residential Contractor Program. It also examines the diffusion of program-promoted measures through key market effects indicators. The study was completed in mid-2002.

Process and Impact Evaluation of the 2001 Statewide Nonresidential Standard Performance Contract Program, Appendix

The core evaluation study was completed in December 2001. An appendix that provides measurement and verification case studies was completed in April 2002.

Nonresidential New Construction (NRNC) Market Characteristics and Program Tracking Project

This project provides reports of statewide NRNC program activity and market activity. Tracking the changing characteristics of the NRNC market over time provides information for refining program design and for assessing program accomplishments. The PY 2001 Annual Report was completed in March 2002. The study reports on the characteristics of the NRNC market include construction value and volume, types of buildings, types of owners, design team characteristics, etc. The program activities reports include number, square footage, and estimated savings of the projects approved for incentives. Program activity is summarized by building type and by program approach for each of the investor-owned utilities as well as statewide. Program activity is also described in terms of program penetration into the new construction market, at both the utility and statewide level.

NRNC Building Efficiency Assessment Project

This project quantifies the energy savings and efficiencies of both participant and non-participant buildings. The approach to developing these data is similar to that used in preparing the statewide NRNC Baseline Study and the results can be referenced back to that study to assess progress. These data are developed on an on-going basis (sampled quarterly), capturing the data stream as the projects enter the program and are carried through to construction. DOE-2 models are built based on detailed on-site surveys of a sample of buildings. Energy savings are calculated by end-use and for whole buildings. Quantifiable information is developed on the changes in building efficiency attributable to the SBD program influences. Specific building and equipment characteristics (e.g., types of glazing, types of lamps, ballasts and light fixtures, HVAC system types) are also tracked and can be analyzed for trends.

In addition, the project collects information on program participants' attitudes and responses to the SBD program as they go through the program process. The results provide feedback to program managers and policymakers and should facilitate incremental improvements to program process and operations. The results also identify changes in design practices as a result of program operation.

The latest report from this ongoing study will provide analysis of the SBD program participants and non-participants whose buildings were completed between fourth quarter 2000 and fourth quarter 2001. It is scheduled for completion in first quarter 2003.

Lighting Controls Effectiveness Assessment

This statewide study examines the effectiveness of manually switched lighting controls, such as bi-level switching. The study includes on-site collection of data on occupancy patterns and lighting operation. It estimates the demand and energy savings created by manual switching. It identifies occupant behavior that reduces the savings potential and compares actual savings to Title 24 assumptions of savings. The study was completed in second quarter 2002.

Energy Design Resources Usage Study

This utility-specific study evaluates the usage patterns of building energy design tools provided by SCE to architects and design and mechanical engineers for building design. The information is used to provide a qualitative assessment of program impact and to make recommendations for program design and delivery.

Residential Audit Programs Evaluation

This study was designed to analyze program delivery and energy savings attributable to energy usage audits offered through the following delivery mechanisms: website, in-home visits, mail-in / mail-back, telephone, and time-of-sale home inspection. The study gathered program data and program materials as input for the analysis. The study sought to improve the estimates of energy savings achieved by each type of delivery mechanism and to assess customer satisfaction with the audit programs. It was completed in the second half of 2002.

Strategic Options Analysis of Energy Efficiency Program Portfolios

SCE commissioned some exploratory analyses of a new approach to determining the cost effectiveness of energy efficiency programs by assessing their value as a means of reducing future marginal market prices of electricity and the volatility of future market prices of electricity. The projects produced a draft white paper and a proof-of-concept model that estimated significant but reasonable values for a commercial program portfolio using SCE data and recent price forecasts.

Weather Data Project

SCE's system of 23 weather stations was maintained, and weather data were gathered, stored, and made readily accessible to SCE program managers, program implementation contractors, and customer contact staff. These data are used in the residential mail-in audit program. They are also provided to nonresidential customers, energy efficiency service providers, and design professionals for use in energy simulation modeling to develop more accurate estimates of the energy savings particular customers can expect from retrofit, renovation, or construction design decisions.

Nonresidential Customer Classification and Analysis Project

Standard Industrial Classification (SIC) and North American Industrial Classification System (NAICS) codes were assigned to new nonresidential customers throughout the year. The software for code assignment, database management, and data analysis was maintained. NAICS classifications were also added for the majority

of existing customers that did not yet have them, in preparation for beginning to report energy usage by NAICS groups in 2003.

The nonresidential SIC and NAICS data and analyses are used as basic information for the following purposes:

- program evaluations and market characterizations;
- drawing study samples;
- identifying target customer groups for specific energy efficiency program elements and intervention strategies; and
- tailoring energy efficiency marketing messages to specific customer needs.

Ad Hoc Analyses

Ad hoc analyses of data from existing saturation survey, end-use load research, and other study data sources were also undertaken as requested by program and study managers. Such analyses are often requested to estimate market potential for specific technologies, identify high-potential market segments to whom program marketing should be targeted, and provide other information of value to program and study design and program implementation.

During 2002, SCE energy efficiency engineers continued work on a project to update the engineering algorithms that SCE uses to estimate energy savings of measures promoted by SCE programs across all customer sectors. The work will provide more current and accurate Unit Energy Savings estimates by incorporating the effects of new appliance and building standards and new technologies. It is also intended to provide useful input to the statewide 2002 deemed savings database project.

Also, SCE MA&E staff collected information from other areas that have run recent refrigerator recycling programs and have developed savings estimates more recent than those of SCE's study of the 1996 SCE program. This information was used to design and refine the 2002 refrigerator recycling evaluation, measurement and verification plan.

California Energy Commission Market Assessment and Evaluation (MA&E) Activities (Write up prepared by CEC)

2002 Results and Achievements

The California Energy Commission (CEC) continues to manage one statewide study area, Nonresidential Market Share Tracking. The CEC is also conducting data collection activities in the form of commercial and residential customer characteristics surveys. In addition, CEC staff will continue to support to Market Assessment & Evaluation (MA&E) planning and coordination by providing technical expertise on buildings codes and standards, and through dissemination of studies. CEC staff maintains both physical and on-line libraries of statewide MA&E studies under the guidance of the California Measurement Advisory Council's (CALMAC) Website Committee. The Committee also devoted significant time to making improvements in the site content, organization, and database search functionality in 2002. All reports published since 1996 are now available online for direct download.

STATEWIDE STUDIES

NONRESIDENTIAL REMODELING AND RENOVATION

The Nonresidential Remodeling and Renovation Study was completed in 2002. This study characterized the decision-making process for purchase of energy using equipment during remodeling or renovating events, and described the level and types of such activity by market segment. The study identified target strategies to facilitate energy efficient investment during remodeling and renovation and market segments with high potential for energy savings. Data were obtained from focus groups, secondary data, building permits, Title 24 documentation, telephone surveys and on-site visits to remodeling and renovation projects completed in 2000.

The differences in the way market actors view the remodeling and renovation market are captured in the first of three reports produced in this study (qualitative, quantitative and summary). Architects and engineers, for example, see little difference in their remodeling and renovation work from that in new construction. Commercial real estate firms and developers, however, specialize in either remodeling /renovation or new construction. Five unique remodeling /renovation investment options are described in this report along with suggestions for program strategies tuned to the different options. The quantitative analysis report revealed several interesting findings about the market. First, remodeling and renovating activity are governed by factors that are different from those governing the new construction market. Remodeling and renovation have significant effects in reducing electricity use. Office buildings account for most of the remodeling and renovating activity. Retail buildings are also likely candidates, but show noticeably less activity than office buildings. A number of other "micro-level" decision-making findings are also reported. A

workshop in March 2002 gave participants a chance to hear a presentation and discuss findings both in person and via dial-in telephone conferencing services. Twenty-eight people from five different states signed up for the conference call.

NONRESIDENTIAL MARKET SHARE TRACKING STUDY

This study, begun in July 2000, is identifying and collecting data on key nonresidential energy efficiency measures. It is processing the data into a confidential database, and aggregating meaningful results into a publicly accessible database.

The contractor conducted 48 open-ended interviews with suppliers of industrial energy-related technologies. It used results to help in the design of an onsite survey of industrial sites in California to collect information on:

- companies' purchases and efficiency choices for motors, compressed air systems, gas process heating, and pumping, including quantities and prices and market pathways
- practices like maintenance, lubrication, self-generation, water reuse, and power generation
- decision factors in choice of efficiency, shares of items purchased through different types of suppliers, how technologies are used.

The first year of industrial surveying is complete; raw data from 236 surveys have been delivered. The second, final year of surveying is in progress.

A telephone survey will gather similar information from suppliers to California of industrial and commercial lighting, chillers, and windows. The survey has been developed and is in pre-test phase.

Secondary sources are being used to inform the database, including California Demand-Side Measurement Advisory Committee (CADMAC) and CALMAC studies, the Database of Energy Efficiency Resources (DEER) study, and a University of California study on food processing technologies.

CEC DATA COLLECTION ACTIVITIES

The focus of this area is the collection and analysis of basic data about customer characteristics, energy use, and energy-using technologies that provide the foundation for energy efficiency program planning and evaluation, energy demand analysis, and market monitoring. In the past, customer characteristics data were provided to the CEC by the state's utilities through general rate case authorizations. However, with the passage of California State Assembly Bill 1890, these data collection efforts were no longer funded, although utilities are still required to provide the data under the California Code of Regulations, Title 20. In Resolution E-3592, the California Public Utilities Commission (CPUC) acknowledging the value of Title 20 survey research to cost-effective energy efficiency and conservation activities (Ordering Paragraph 82), authorized the utilities to transfer a total of $2.1 million for two years (1999 and 2000) to the CEC for Title 20 data collection activities. In November 2000, a request for an additional $2.1 million for 2001 was made in the utilities' study plans. No additional funds were requested in 2002 or 2003.

COMMERCIAL END-USE SURVEY (CEUS)

The CEUS began in March 2001 and is expected to be completed by early 2004. This project will collect building characteristic information from approximately 2,800 sites statewide for use in commercial sector market characterization and for developing estimates of energy usage by end-use, end-use saturations, and end-use load shapes. The CEC will also develop site-specific engineering

models calibrated to actual historical consumption and then weather normalize the results. The individual site models will be organized into an energy simulation management system that can perform a variety of modeling scenarios based on user-defined characteristics.

Most of 2001 was spent negotiating the data requirements of the project with utilities and developing the project work plan. Throughout 2002, data collection protocols and energy simulation modeling protocols were developed and field testing of the on-site survey instrument using the protocols was completed. The sample design and procedures to recruit survey participants were established. Extensive software development took place during 2002 to create the data entry and quality control software, survey database structure and the energy simulation and model calibration systems. Both historical and normalized weather data sets were developed for 20 separate locations across California. By the end of 2002, enough progress had been made to start full-scale data collection activities in the field.

RESIDENTIAL APPLIANCE SATURATION SURVEY (RASS)

The RASS will gather basic information on building characteristic, appliance holdings, demographic data, awareness of energy efficiency measures and programs, and load shifting opportunities and behavior. The project will produce appliance saturations, end-use intensities, and both confidential and public data sets and reports on project results. Conflicts between the CPUC and the CEC, contract review by Department of General Services, and negotiations with utilities concerning data transfers consumed much of 2002. But a research plan was developed in late 2002, which allowed us to begin survey questionnaire design early in 2003.

IMPROVEMENTS TO THE DEER

The DEER contains data on costs and energy impacts for commercially available efficiency measures and is used by utilities and the CEC for cost-effectiveness evaluation.

The work in 2002 was to have focused on the development of incremental measure cost data for measures currently not included in the DEER. Because Standard Performance Contract (SPC) incentives are paid per kilowatt-hour saved, rather than per measure installed, new methodologies for applying measure cost data to the SPC program must be developed. We also anticipated the need to incorporate updated load shapes and load impacts at the end-use level to assist program managers in estimating the cost effectiveness of new programs, load control technologies, or energy management systems.

Delay in the adoption of the Program Year 2001 MA&E plans delayed this project until in spring 2002. Contract documents had been prepared to continue with the firm who had done the previous updates, but unfortunately, in spring 2002 the State suspended all sole-source contracting options. The encumbrance deadline did not permit opening a bid process, so the $400,000 funding was allowed to revert.

2003 MA&E Plans

CEC DATA COLLECTION ACTIVITIES

CEUS

Full-scale fieldwork began in early 2003 and, as of the end of March, approximately 600 sites have been completed. Full-scale simulation modeling started during April. There is a small end-use monitoring element to the project that will be implemented during 2003 to help calibrate lighting consumption and heating,

ventilating and air conditioning system operation. The final piece of the simulation modeling system (the results display component) will be added in 2003. By the end of 2003, the bulk of on-site data collection and simulation model construction will be finished.

RASS

In April of 2003, the first of two batches of 50,000 mail surveys will be sent to prospective participants. Whole house and air conditioner metering will be installed during summer 2003. Data collection and analysis should be completed in the calendar year 2003, and the results of the survey will be available early in 2004.

STATEWIDE STUDIES

NONRESIDENTIAL MARKET SHARE TRACKING STUDY

The second year of industrial surveys is in process. About 140 out of 324 on-site surveys have been conducted. The telephone survey of lighting, chiller, and window suppliers is still in pre-test phase. By year's end, 104 surveys will have been conducted.

Secondary source research continues, with the Nonresidential New Construction Study results being extracted into the database. (This is a statewide study contracted through SCE.)

CEC MA&E EXPENDITURES AND BUDGETS

Table 1: CEC MA&E Expenditures and Budgets

	PY 2002 Authorized	PY 2002 Actual and Committed	2003 Planned Budget
CEC Data Collection and Analysis			
Commercial End Use Survey (CEUS)		*$ 0*	*$ 0*
Residential Appliance Saturation Survey (RASS)		*$ 0*	*$ 0*
Database of Energy Efficient Resources (DEER)		*$ 0*	*$ 0*
Total		*$ 0*	*$ 0*
CEC-Managed Statewide Studies	*$ 0*		
Nonresidential Market Share Tracking		*$ 0*	
Nonresidential Remodeling & Renovation		*$ 0*	
Total		*$ 0*	*$0*
TOTAL AUTHORIZED	***$ 0***		
TOTAL ACTUAL AND COMMITTED		***$ 0***	

Table 2: Funding Contribution to CEC 2003 Data Collection and Analysis Budget by Utility

	Contribution	Percent
(1) PG&E	*$ 0*	*0*
(2) SCE	*$ 0*	*0*
(3) SDG&E	*$ 0*	*0*
(4) SoCalGas	*$ 0*	*0*
Total	*$ 0*	*0*

Table 6.1
2003 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
MARKET ASSESSMENT & EVALUATION (MA&E)

Project	Activity Cost [1]	SCE Cost [1]
CPUC Required Studies		
EM&V Master Contract	$ 1,083,000	$ 356,565
Potential/SaturationStudy	1,550,000	510,319
Best Practices Database	967,000	318,373
Deemed Savings Database	650,000	214,005
Total CPUC Required Studies:	$4,250,000	$1,399,262
Statewide Program EM&V		
Residential Retrofit	1,695,000	558,059
Nonresidential Retrofit	2,015,000	663,415
New Contruction	1,435,000	472,457
Cross-Cutting Statewide	1.435.000	265.037
Total Statewide Program EM&V:	$6,580,000	$1,958,967
Regulatory Oversight		
CPUC Energy Division Funding	300,000	98,771
Total Regulatory Oversight:	$300,000	$98,771
Statewide MA&E Total	$ 11,130,000	$ 3,457,000

[1] All Recorded amounts include payments in 2002 and amounts committed to projects in 2002. Committed amounts may not be fully realized.

2002 Performance Incentives

Summary

This section is not applicable for the 2002 Energy Efficiency Program Year.

There were no shareholder performance incentives authorized by the California Public Utilities Commission for 2002 Energy Efficiency Programs. The Energy Efficiency Policy Manual, adopted by Decision 01-11-066 stated, "In the past, the Commission has offered shareholder incentives to large IOUs for successful program delivery, in lieu of a profit margin. The Commission will no longer make a special provision for shareholder earnings." (D.01-11-066, Attachment 1, p.28) Decision D.02-03-056 authorizing the 2002 Statewide Energy Efficiency Programs reiterated the Commission's position on this matter.

The Commission did not approve a mechanism for 2002 which would provide an incentive for meeting program performance goals. However, in 2002 a percentage of the budget for each of the programs intending to produce energy savings was devoted to payment based upon a reasonable attempt by the program administrator to meet energy savings goals. The performance achievement mechanism is based on: (1) pre-determined energy savings and demand reduction targets and (2) a set of program-specific targets including hard to reach targets. The program results related to this performance achievement mechanism are located in SCE's Updated 2002 4th Quarter Report included as part of the 2003 AEAP.

Utility Programs

RESIDENTIAL POOL EFFICIENCY PROGRAM

Program Description

The Residential Pool Efficiency Program (PEP!) was piloted towards the end of summer 2000 by PG&E, SCE, and SDG&E, as a comprehensive swimming pool intervention strategy, designed as a rapid response to reduce demand and energy usage of residential pool pumps.

PEP! offered residential pool owners, who were receiving service on a non-time-of-use tariff, financial incentives for the purchase and installation of high efficient pool pump efficiency improvements and the re-set of pool pump timers to run during summer off-peak hours. The program also included an informational element to help build consumer awareness of energy consumption associated with pools.

Market objectives included: (1) reduction of peak demand by encouraging the operation of pool pumps during off peak hours; (2) reduction in electricity consumption by encouraging replacement of pool pumps or motors with more efficient units; and (3) increase in the consumer awareness of swimming pool efficiencies through an educational campaign directed at pool owners.

2002 Results and Achievements

No program activity occurred during 2002 with the exception of servicing prior customer commitments from 2001 program activities.

Utility Programs

LED TRAFFIC SIGNAL REBATE PROGRAM

Program Description

The light emitting diode (LED) Traffic Signal Rebate Program encouraged cities and other public agencies within SCE's service territory to replace incandescent traffic signals with efficient LED versions. The program provided incentives for the following LED traffic signals:

- Red ball and arrow
- Green ball and arrow
- Amber flashing beacon
- Pedestrian hand
- Pedestrian hand / person combination

This SI program was designed to achieve demand reductions by June 2001; therefore, incentives of up to 100 percent of the hardware cost (installation cost and sales tax are the responsibility of the participant) were offered for signals installed by that time. For signals installed after June 2001, incentives were reduced by 50 percent. Incentives were provided for hardwired fixtures only (as available) and had to meet the maximum power demand requirements.

According to the schedule set by the California Public Utilities Commission, the SI LED program was developed and introduced on September 11, 2000. Customer reservation forms were available as of this date. As a result of SCE's aggressive outreach during September 2000, the program was fully committed by early October 2000.

2002 Results and Achievements

Activity related to this program in 2002 was limited to the processing of prior commitments.

Utility Programs

HARD TO REACH

Program Description

The Hard to Reach (HTR) program encouraged peak demand savings through the installation of energy efficiency measures at multi-family apartment complexes, mobile home parks, and condominium complexes. HTR offered incentives (posted prices) for a wide variety of qualifying measures including: lighting equipment; refrigerators; clothes washers; dishwashers, HVAC equipment; thermal shell measures; water heaters; and water flow restrictors.

The program was open to all project sponsors that had the appropriate licenses, bonding, certification, and insurance to perform the required work. HTR was a statewide offering with standardized incentive levels, procedures, and contracts. Project Sponsors identified and sold individual projects based upon an approved marketing plan.

2002 Results and Achievements

Activity related to this program in 2002 was limited to the processing of prior commitments.

Utility Programs

THIRD PARTY INITIATIVES

Program Description

The Third Party Initiative (TPI) solicited innovative strategies and technologies from the non-utility energy services marketplace for SCE's territory. The significant difference for this solicitation, compared to previous TPI programs, was the focus on projects that could be expected to achieve cost– effective peak demand reductions by June 2001. Nineteen proposals were received, and four projects were selected in October 2000, based on the project feasibility for success in identified underserved markets and on the experience of the project team, as well as cost effectiveness. The maximum award was $635,000, with the total award amount for all projects at $1,700,000.

2002 Results and Achievements

RESIDENTIAL ENERGY EFFICIENCY AUDIT AND AIR CONDITIONER REBATE PROJECT
Certified home inspectors added free energy efficiency audits to their time-of-sale home inspections. This service provided the opportunity for energy efficiency upgrades to be included in any remodeling or renovation work planned by homeowners. Qualifying customers were offered rebates, matched by manufacturers, for highly efficient air conditioning units.

The program ended in 2001 and no activity occurred in 2002.

RESIDENTIAL NEW CONSTRUCTION AIR CONDITIONING PROJECT
This project offered residential builders a rebate for installing high-efficiency air conditioners in new homes that were to be completed by summer, 2001. The contractor implementing the program was unable to secure builder commitments, and notified SCE after the summer of 2001 that it believed it should close down the program and allow the funds to be used for other purposes. There was no 2002 activity as the contactor ceased operations in 2001.

SMALL COMMERCIAL EVAPORATIVE PRE-COOLERS PROJECT
This project was designed to install evaporative pre-coolers on package rooftop air conditioner units of small commercial customers, resulting in a substantial reduction in the energy requirement for a given level of air conditioning. Since the program's inception, the contractor was unable to secure any customer agreements or install any pre-cooler systems at customer facilities. The program contractor requested and was granted a time extension to pursue sales leads through the First Quarter 2002, but did not achieve any sales.

SMALL COMMERCIAL EFFICIENT LIGHTING PROGRAM
This local contractor performed lighting audits, design and installation services of energy-efficient replacement lighting systems at a highly subsidized cost for small/medium commercial customers. As a direct installation initiative, this project was very successful due to the minimal customer

financial involvement and traditional nature of the energy efficiency measure. However, running parallel to another statewide energy efficiency program (Express Efficiency), several other local lighting contractors felt disadvantaged by the higher subsidy of this TPI (and lower prices that the TPI contractor could offer) and filed complaints with SCE. Ultimately, the contractors' funds were fully subscribed in late 2001, producing all of the SI TPI portfolio savings for 2001. There were no additional activities in 2002.

Non-Utility Programs

RESIDENTIAL REFRIGERATOR RECYCLING

Program Description

SCE contracted with the Appliance Centers of America (ARCA) to implement a Summer Initiative Residential Refrigerator Recycling program in the service territories of SCE, San Diego Gas and Electric (SDG&E), and Pacific Gas & Electric (PG&E).

Customers received a cash incentive for recycling old, inefficient refrigerators or freezers. ARCA picked up the old appliance from the customer's home at no charge to the customer and recycled it in an environmentally safe manner. The old appliances were taken to a staging area where they were later shipped to ARCA's recycling facility located in Compton, California.

2002 Results and Achievements

There were no new units processed in 2002 related to this program. There were administration costs incurred related to units collected in 2001 in both SDG&E and PG&E service territories. SCE continued to offer a Residential Refrigerator Recycling program as part of its 2002 program portfolio.

Non-Utility Programs

CAMPUS ENERGY-EFFICIENT PROJECT

Program Description

The Campus Energy Efficiency Project provided financial incentives for energy demand reduction projects at University of California and California State (UC/CSU) campuses within SCE's service territory. Originally this project included three campuses; however at the time of implementation only two campuses, California State Polytechnic University Pomona (Cal Poly Pomona) and California State University of Long Beach (CSULB), committed to proceed with their projects.

2002 Results and Achievements

There were no activities related to this program in 2002. All program activities were completed by the end of 2001.

Non-Utility Programs

BEAT THE HEAT

Program Description

Beat the Heat encouraged commercial and industrial customers to replace halogen torchiere lamps with ENERGY STAR® models that reduce energy and demand, improve building comfort, and eliminate fire danger. The program also provided for recycling of the halogen torchieres that were replaced. The program was offered through a third party vendor, ECOS Consulting. SDG&E was tasked with the overall contract management between ECOS Consulting and the three electric California utilities.

2002 Results and Achievement

Due to the success of the program, Beat the Heat was extended through the first quarter of 2002 by the Commission at the recommendation of the three electric California utilities. Activity continued into 2002, with an additional 442 torchieres exchanged for a savings of over 1,000 MWh.

Non-Utility Programs

CALIFORNIA OIL PRODUCERS ELECTRIC COOPERATIVE (COPE)

Program Description

The California Oil Producers Electric Cooperative (COPE) program provided incentives on the purchase and installation of energy-efficient equipment for its members in the SCE and PG&E service territories. The program focused on measures known to reduce peak demand.

2002 Results and Achievements

No new activity took place during 2002. All program requirements were completed by the end of 2001.

Table 8.1
2003 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
SUMMER INITIATIVES

		2002 Budget	[1,2]		2002 Recorded	[1,3]
Utility Programs						
Residential Pool Efficiency Program	$	3,000,000		$	39,573	
LED Traffic Signal Rebate Program		7,500,000			389,664	
Hard To Reach		2,600,000			152,776	
Third Party Initiatives		1,700,000			17,982	
Total Utility Programs		14,800,000			599,995	
Non-Utility Programs						
Residential Refrigerator Recycling		1,200,000			-	
Campus Energy-Efficient Project		3,500,000			-	
Beat The Heat		250,000			-	
COPE		1,500,000			-	
Total Non-Utility Programs		6,450,000			-	
Summer Initiative Total	$	21,250,000		$	599,995	

[1] Amounts do not include utility administrative costs.
[2] Budget reflects total Summer Initiative Authorization for multiple years.
[3] Expenditures made in 2002 only. Does not include expenditures or commitments made in prior years.

Table 8.2
2003 Energy Efficiency Annual Report

SUMMARY OF ENERGY EFFICIENCY PROGRAM EFFECTS: ELECTRIC
SUMMER INITIATIVES

	2002 First Year Net Annualized Capacity Savings (MW) [1,2]	2002 First Year Net Annualized Energy Savings (kWh) [1,2]
Utility Programs		
Residential Pool Efficiency Program	45.87	3,856,000
LED Traffic Signal Rebate Program	9.52	42,520,076
Hard To Reach	7.30	15,000,000
Third Party Initiatives	2.40	3,478,900
Total Utility Programs	65.09	64,854,976
Non-Utility Programs		
Residential Refrigerator Recycling	2.40	14,038,000
Campus Energy-Efficient Project	2.32	7,423,000
Beat The Heat	0.18	3,813,330
COPE	1.67	11,975,249
Total Non-Utility Programs	6.57	37,249,579
Summer Initiative Total	71.66	102,104,555

[1] Load impacts are estimated for only SCE's service territory.
[2] Summer Initiative Load impacts are recorded (actual + committed) inception-to-date.

CONTENTS

Section I - General Information

This section contains narrative that documents and explains the data shown for Table TA-1.1.

Table TA 1.1A Avoided Costs for 2002 Programs

The avoided cost forecast in Table TA 1.1A represents those costs utilized in the planning and delivery of SCE energy efficiency programs in 2002. This forecast is consistent with the forecast utilized in SCE's December 14, 2001 Application for 2002 energy efficiency program funding.

Avoided costs for the 2002 programs, as presented in Table TA 1.1A, reflect the statewide inputs to avoided costs as adopted in the Commission's Energy Efficiency Policy Manual, Decision 01-11-066 and included in the "Cost Effectiveness Spreadsheet.xls" circulated by the Commission for public use in calculating the 2002 program forecast cost effectiveness.

Table TA 1.1B Avoided Costs for 2003 Programs

The avoided cost forecast in Table TA 1.1B represents those costs utilized in the planning of SCE energy efficiency programs in 2003. This forecast is consistent with the forecast utilized in SCE's November 4, 2002 Application for 2003 energy efficiency program funding.

Avoided costs for the 2003 programs, as presented in Table TA 1.1B, reflect the statewide inputs to avoided costs as adopted in the Commission's Energy Efficiency Policy Manual, Decision 01-11-066 and included in the "Cost Effectiveness Spreadsheet.xls" circulated by the Commission for public use in calculating the 2003 program forecast cost effectiveness.

Table TA 1.1A
2003 Energy Efficiency Annual Report
AVOIDED COSTS: ELECTRIC ($/kWh)

2002				
Year	Electric Generation	Electric T&D ($/kW)	Electric Env. Externalitites ($/kWh)	Total ($/kWh)
2002	$0.10	$0.01	$0.01	$0.11
2003	$0.06	$0.01	$0.01	$0.07
2004	$0.05	$0.01	$0.01	$0.07
2005	$0.05	$0.01	$0.01	$0.07
2006	$0.05	$0.01	$0.01	$0.06
2007	$0.05	$0.01	$0.01	$0.07
2008	$0.05	$0.01	$0.01	$0.07
2009	$0.06	$0.01	$0.01	$0.07
2010	$0.06	$0.01	$0.01	$0.07
2011	$0.06	$0.01	$0.01	$0.08
2012	$0.06	$0.01	$0.01	$0.08
2013	$0.06	$0.01	$0.01	$0.08
2014	$0.07	$0.01	$0.01	$0.08
2015	$0.07	$0.01	$0.01	$0.09
2016	$0.07	$0.01	$0.01	$0.09
2017	$0.08	$0.01	$0.01	$0.10
2018	$0.08	$0.01	$0.01	$0.10
2019	$0.08	$0.01	$0.01	$0.11
2020	$0.09	$0.01	$0.01	$0.11
2021	$0.09	$0.01	$0.01	$0.12

Table TA 1.1B
2003 Energy Efficiency Annual Report
AVOIDED COSTS: ELECTRIC ($/kWh)

2003				
Year	Electric Generation	Electric T&D ($/kW)	Electric Env. Externalitites ($/kWh)	Total ($/kWh)
2003	$0.10	$0.01	$0.01	$0.11
2004	$0.06	$0.01	$0.01	$0.07
2005	$0.05	$0.01	$0.01	$0.07
2006	$0.05	$0.01	$0.01	$0.07
2007	$0.05	$0.01	$0.01	$0.06
2008	$0.05	$0.01	$0.01	$0.07
2009	$0.05	$0.01	$0.01	$0.07
2010	$0.06	$0.01	$0.01	$0.07
2011	$0.06	$0.01	$0.01	$0.07
2012	$0.06	$0.01	$0.01	$0.08
2013	$0.06	$0.01	$0.01	$0.08
2014	$0.06	$0.01	$0.01	$0.08
2015	$0.07	$0.01	$0.01	$0.08
2016	$0.07	$0.01	$0.01	$0.09
2017	$0.07	$0.01	$0.01	$0.09
2018	$0.08	$0.01	$0.01	$0.10
2019	$0.08	$0.01	$0.01	$0.10
2020	$0.08	$0.01	$0.01	$0.11
2021	$0.09	$0.01	$0.01	$0.11
2022	$0.09	$0.01	$0.01	$0.12

Section II - Residential Program Area

This section contains narrative that documents and explains the data shown for Tables TA 2.1 through TA 2.4.

Table TA 2.1 Program Cost Estimates Used for Cost-Effectiveness - Residential Program Area

This table documents those costs used in determining the cost-effectiveness of residential energy efficiency programs. These tables provide all program costs, including costs expended in 2002 and those costs associated with commitments from 2002 programs.

Program Incentives (Recorded)
Incentive costs represent incentives paid to customers during 2002 (Actual) as well as incentives associated with commitments from the 2002 residential programs (Committed).

Program Administrative Costs (Recorded)
These costs include all expenditures directly charged to the program with the exception of incentive costs. The administrative costs consist of labor, non-labor, contract labor, and allocated material costs (See Also Table TA 2.2). These costs represent administrative costs expended during 2002 (Actual) as well as administrative costs associated with the handling of commitments from the 2002 residential programs (Committed).

Shareholder Incentives
Costs represented in the Shareholder Incentives column would represent an allocated amount of the total performance awards earned during a particular program year. There were no shareholder incentives authorized for 2002.

Other Costs
Costs represented in the Other Costs column represent the MA&E costs for the statewide programs. MA&E costs for the Local programs are included in the Program Administrative Costs column. Other allocated costs recorded in the Other Costs category in previous Energy Efficiency Annual Reports (e.g., General Support, Regulatory Support, CPUC Staff, and Summer Initiative Administrative) are now recorded in the Program Administrative Costs column.

Total Utility Costs
The sum of the Program Incentives (Recorded) columns, Program Administrative Costs (Recorded) columns, Shareholder Incentives, and Other costs.

Incremental Measure Costs (Net)
These costs generally represent the incremental costs of energy efficiency measures over the standard replacement measures. SCE's incremental measure costs are typically derived from the latest cost source available for the particular measure(s), including recent measure cost studies. The gross amounts of these costs are reduced by appropriate net-to-gross ratios for the particular measure or end-use. The net-to-gross ratios are consistent with the ratios utilized in SCE's December 14, 2001 Application for 2002 energy efficiency program funding.

Table TA 2.2 Direct and Allocated Administrative Costs - Residential Program Area

This table documents the breakdown of the actual administrative costs used in determining the cost-effectiveness of residential energy efficiency programs. These tables provide detail of all actual program administrative costs expended in 2002. These costs include the costs of Market Assessment & Evaluation for the Local Energy Efficiency Programs, regulatory support, and other energy efficiency support costs.

Labor Costs (Actual)
Labor costs consist of SCE labor charges that are directly charged to the program. These costs include salaries and expenses of SCE employees engaged in developing energy efficient marketing strategies, plans, and programs; developing program implementation procedures; reporting, monitoring, and evaluating systems. The reported costs reflect only the actual costs incurred in 2002 in support of 2002 residential programs.

Non-Labor Costs (Actual)
Non-labor costs include materials, consultant fees, vendor contracts, and other miscellaneous costs charged directly to the program. These costs include items such as booklets, brochures, promotions, training, membership dues, postage, telephone, supplies, printing / photocopying services, and computer support services. Several programs contain a significant amount of Non-Labor administrative costs due to the use of vendor contracts in the delivery of these programs.

Contract Labor Costs (Actual)
Labor costs consist of contract employees' labor charges that are directly charged to the program. These costs include salaries and expenses of contract employees engaged in developing energy efficient marketing strategies, plans, and programs; developing program implementation procedures; reporting, monitoring, and evaluating systems.

Allocated Administrative Costs (Actual)
Allocated administrative costs represent those for building lease and maintenance costs and management oversight expenditures. In addition, the 2002 Allocated Administrative Costs (Actual) category includes costs related to systems support, regulatory support, internal audits, and other costs which are allocated to the programs. In previous years these latter costs were displayed in other sections of the Energy Efficiency Annual Report and not in this section.

Total Administrative Costs (Actual)
The summation of the aforementioned utility administrative costs - Labor, Non-labor, Contract, and Allocated Administrative costs.

Table TA 2.3 Market Effects: Projected Annual Program Energy Reductions - Residential Program Area

The projected annual program energy reductions for the residential program area, presented in TA 2.3, are derived from ex ante estimates of energy savings. These estimates are based upon the measure level savings data submitted in SCE's December 14, 2001 Application for 2002 Energy Efficiency Program Funding and adopted in Decisions D.02-03-056 and D.02-05-046. These estimates have been updated, as applicable, to correspond with the actual program implementation during 2002 and to reflect actual program results as of December 31, 2002. Recorded savings amounts reflect all 2002 program impacts, including impacts from measures installed in 2002 and those impacts associated with commitments from 2002 programs.

Inputs and assumptions for these estimates are described in this section. Projections of annual program energy reductions are developed similarly across program areas, but the specifics of each program area will be discussed in the individual sections to this Technical Appendix.

Program Energy Reduction Assumptions

Annual program energy reduction estimates for residential programs supplied in the December 14, 2001 Application for 2002 Energy Efficiency Program Funding and submitted herein as the 2002 program results are the result of a summation of measure-level savings from the measures installed or committed to be installed as a result of the 2002 residential programs. The measure-level savings information used to calculate the 2002 program results are based upon the latest energy savings data available for the particular measure(s), including measurement studies, historical program results, and engineering estimates. The gross amounts of these costs are reduced by appropriate net-to-gross ratios for the particular measure or end-use.

The Effective Useful Life is the length of time (years) for which the load impacts of an energy efficiency measure are expected to last. The useful life estimates are also based upon the Energy Efficiency Policy Manual, adopted in Decision D.01-11-066.

Table TA 2.4 Distribution of RCP Payments - Residential Program Area

SCE's Residential Contractor Program (RCP) was designed to provide incentives to different energy service providers and customers. Table TA 2.4 identifies the distribution of recorded payments to project sponsors (multi-family), energy service providers, and contractors (single-family), and delineates any payments made to affiliates of the utility distribution company. Thus, the amounts in the "Total" column represent the total dollar amount allocated to a particular project sponsor or contractor. The table also demonstrates the payments made for particular end-uses. Each of these allocations of payments, by recipient and end-use, is based upon information contained in SCE's tracking system for this program.

Table TA 2.4 is separated into Table TA 2.4A and Table TA 2.4B to separate RCP programs between the single-family element and the multi-family element.

Table TA 2.4 for RCP payments is submitted herein in lieu of TA 2.4 as defined in the May 1999 version of the Reporting Requirements Manual 2. Table TA 2.4 as defined in the May 1999 version of the Reporting Requirements Manual 2 refers to SCE's Residential Standard Performance Contracting (SPC) program, which is no longer applicable.

Table TA 2.4 is not applicable to SCE's 2002 Energy Efficiency programs. SCE did not offer the RCP or a Residential SPC program in 2002.

Table TA 2.1
2003 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
PROGRAM COST ESTIMATES USED FOR COST-EFFECTIVENESS - RESIDENTIAL PROGRAM AREA
2002

	Program Incentives (Recorded) [1]		Program Administrative Costs (Recorded)		Shareholder Incentives [1]	Other Costs [2]	Total Utility Costs	Incremental Measure Costs
	Actual	Committed	Actual	Committed				
Information	$ -	$ -	$ 127.227	$ -	$ -	$ -	$ 127.227	$ -
EMS	-	-	1.235.669	592.084	-	-	1.827.753	-
EEI								
SPCs (RCP)	-	-	-	-	-	-	-	-
Rebates	8.722.019	1.484.964	2.862.423	296.370	-	477.395	13.843.171	15.323.000
Loans	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-
Upstream Programs								
Information	-	-	-	-	-	-	-	-
Financial Assistanc	-	-	-	-	-	-	-	-
Residential Total	$ 8.722.019	$ 1.484.964	$ 4.225.318	$ 888.455	$ -	$ 477.395	$ 15.798.151	$ 15.323.000

[1] The Commission authorized no Shareholder Performance Awards in 2002 or 2003.
[2] Statewide Market Assessment and Evaluation costs.

Table TA 2.2
2003 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
DIRECT AND ALLOCATED ADMINISTRATIVE COSTS - RESIDENTIAL PROGRAM AREA
2002

	Actual Labor	Actual Non-Labor	Actual Contract	Actual Allocated	Actual Admin Total
Information	$ 33,988	$ 83,743	$ 328	$ 9,168	$ 127,227
EMS	112,412	1,058,180	16,596	48,480	1,235,669
EEI					
SPCs (RCP)	-	-	-	-	-
Rebates	737,008	982,908	496,436	646,070	2,862,423
Loans	-	-	-	-	-
Other	-	-	-	-	-
Upstream Programs					
Information	-	-	-	-	-
Financial Assistance	-	-	-	-	-
Residential Total	$ 883,409	$ 2,124,831	$ 513,360	$ 703,718	$ 4,225,318

Table TA 2.3
2003 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY PROGRAM EFFECTS: ELECTRIC
MARKET EFFECTS: PROJECTED ANNUAL PROGRAM ENERGY REDUCTIONS - RESIDENTIAL PROGRAM AREA
2002

Information

Year	(MW)	(MWH)
2002	0.000	0
2003	0.000	0
2004	0.000	0
2005	0.000	0
2006	0.000	0
2007	0.000	0
2008	0.000	0
2009	0.000	0
2010	0.000	0
2011	0.000	0
2012	0.000	0
2013	0.000	0
2014	0.000	0
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
Total	0.000	0

EMS

Year	(MW)	(MWH)
2002	0.000	0
2003	0.000	0
2004	0.000	0
2005	0.000	0
2006	0.000	0
2007	0.000	0
2008	0.000	0
2009	0.000	0
2010	0.000	0
2011	0.000	0
2012	0.000	0
2013	0.000	0
2014	0.000	0
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
Total	0.000	0

EEI
SPCs (RCP)

Year	(MW)	(MWH)
2002	0.000	0
2003	0.000	0
2004	0.000	0
2005	0.000	0
2006	0.000	0
2007	0.000	0
2008	0.000	0
2009	0.000	0
2010	0.000	0
2011	0.000	0
2012	0.000	0
2013	0.000	0
2014	0.000	0
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
Total	0.000	0

EEI
Rebates

Year	(MW)	(MWH)
2002	0.024	80.186
2003	0.024	80.186
2004	0.024	80.186
2005	0.024	80.186
2006	0.024	80.186
2007	0.024	80.186
2008	0.024	80.186
2009	0.024	80.186
2010	0.024	80.186
2011	0.024	80.186
2012	0.024	80.186
2013	0.000	0
2014	0.000	0
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
Total	0.024	882.045

EEI
Loans

Year	(MW)	(MWH)
2002	0.000	0
2003	0.000	0
2004	0.000	0
2005	0.000	0
2006	0.000	0
2007	0.000	0
2008	0.000	0
2009	0.000	0
2010	0.000	0
2011	0.000	0
2012	0.000	0
2013	0.000	0
2014	0.000	0
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
Total	0.000	0

EEI
Other

Year	(MW)	(MWH)
2002	0.000	0
2003	0.000	0
2004	0.000	0
2005	0.000	0
2006	0.000	0
2007	0.000	0
2008	0.000	0
2009	0.000	0
2010	0.000	0
2011	0.000	0
2012	0.000	0
2013	0.000	0
2014	0.000	0
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
Total	0.000	0

Upstream Programs
Information

Year	(MW)	(MWH)
2002	0.000	0
2003	0.000	0
2004	0.000	0
2005	0.000	0
2006	0.000	0
2007	0.000	0
2008	0.000	0
2009	0.000	0
2010	0.000	0
2011	0.000	0
2012	0.000	0
2013	0.000	0
2014	0.000	0
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
Total	0.000	0

Upstream Programs
Financial Assistance

Year	(MW)	(MWH)
2002	0.000	0
2003	0.000	0
2004	0.000	0
2005	0.000	0
2006	0.000	0
2007	0.000	0
2008	0.000	0
2009	0.000	0
2010	0.000	0
2011	0.000	0
2012	0.000	0
2013	0.000	0
2014	0.000	0
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
Total	0.000	0

Table TA 2.4
2003 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
DISTRIBUTION OF RCP PAYMENTS - RESIDENTIAL PROGRAM AREA
SINGLE-FAMILY PROGRAM AREA
2002

THIS TABLE IS NOT APPLICABLE
TO THE 2002 ENERGY EFFICIENCY PROGRAMS

Table TA 2.4B
2003 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
DISTRIBUTION OF RCP PAYMENTS - RESIDENTIAL PROGRAM AREA
MULTI-FAMILY PROGRAM AREA
2002

THIS TABLE IS NOT APPLICABLE
TO THE 2002 ENERGY EFFICIENCY PROGRAMS

Section III - Nonresidential Program Area

This section contains narrative that documents and explains the data shown for Tables TA 3.1 through TA 3.4.

Table TA 3.1 Program Cost Estimates Used for Cost-Effectiveness - Nonresidential Program Area

This table documents those costs used in determining the cost-effectiveness of nonresidential energy efficiency programs. These tables provide all program costs, including costs expended in 2002 and those costs associated with commitments from 2002 programs.

Program Incentives (Recorded)
Incentive costs represent incentives paid to customers during 2002 (Actual) as well as incentives associated with commitments from the 2002 nonresidential programs (Committed).

Program Administrative Costs (Recorded)
These costs include all expenditures directly charged to the program with the exception of incentive costs. The administrative costs consist of labor, non-labor, contract labor, and allocated material costs (See Also Table TA 3.2). These costs represent administrative costs expended during 2002 (Actual) as well as administrative costs associated with the handling of commitments from the 2002 nonresidential programs (Committed).

Shareholder Incentives
Costs represented in the Shareholder Incentives column would represent an allocated amount of the total performance awards earned during a particular program year. There were no shareholder incentives authorized for 2002.

Other Costs
Costs represented in the Other Costs column represent the MA&E costs for the statewide programs. MA&E costs for the Local programs are included in the Program Administrative Costs column. Other allocated costs recorded in the Other Costs category in previous Energy Efficiency Annual Reports (e.g., General Support, Regulatory Support, CPUC Staff, and Summer Initiative Administrative) are now recorded in the Program Administrative Costs column.

Total Utility Costs
The sum of the Program Incentives (Recorded) columns, Program Administrative Costs (Recorded) columns, Shareholder Incentives, and Other costs.

Incremental Measure Costs (Net)
These costs generally represent the incremental costs of energy efficiency measures over the standard replacement measures. SCE's incremental measure costs are typically derived from the latest cost source available for the particular measure(s), including recent measure cost studies. The gross amounts of these costs are reduced by appropriate net-to-gross ratios for the particular measure or end-use. The net-to-gross ratios are consistent with the ratios utilized in SCE's December 14, 2001 Application for 2002 energy efficiency program funding.

Table TA 3.2 Direct and Allocated Administrative Costs - Nonresidential Program Area

This table documents the breakdown of the actual administrative costs used in determining the cost-effectiveness of nonresidential energy efficiency programs. These tables provide detail of all actual program administrative costs expended in 2002. These costs include the costs of Market Assessment & Evaluation for the Local Energy Efficiency Programs, regulatory support, and other energy efficiency support costs.

Labor Costs (Actual)
Labor costs consist of SCE labor charges that are directly charged to the program. These costs include salaries and expenses of SCE employees engaged in developing energy efficient marketing strategies, plans, and programs; developing program implementation procedures; reporting, monitoring, and evaluating systems. The reporting costs reflect only the actual costs incurred in 2002 in support of 2002 nonresidential programs.

Non-Labor Costs (Actual)
Non-labor costs include materials, consultant fees, vendor contracts, and other miscellaneous costs charged directly to the program. These costs include items such as booklets, brochures, promotions, training, membership dues, postage, telephone, supplies, printing / photocopying services, and computer support services. Several programs contain a significant amount of Non-Labor administrative costs due to the use of vendor contracts in the delivery of these programs.

Contract Labor Costs (Actual)
Labor costs consist of contract employees' labor charges that are directly charged to the program. These costs include salaries and expenses of contract employees engaged in developing energy efficient marketing strategies, plans, and programs; developing program implementation procedures; reporting, monitoring, and evaluating systems.

Allocated Administrative Costs (Actual)
Allocated administrative costs represent those for building lease and maintenance costs and management oversight expenditures. In addition, the 2002 Allocated Administrative Costs (Actual) category includes costs related to systems support, regulatory support, internal audits, and other costs which are allocated to the programs. In previous years these latter costs were displayed in other sections of the Energy Efficiency Annual Report and not in this section.

Total Administrative Costs (Actual)
The summation of the aforementioned utility administrative costs - Labor, Non-labor, Contract, and Allocated Administrative costs.

Table TA 3.3 Market Effects: Projected Annual Program Energy Reductions - Nonresidential Program Area

The projected annual program energy reductions for the nonresidential program area, presented in TA 3.3, are derived from ex ante estimates of energy savings. These estimates are based upon the measure level savings data submitted in SCE's December 14, 2001 Application for 2002 Energy Efficiency Program Funding and adopted in Decisions D.02-03-056 and D.02-05-046. These estimates have been updated, as applicable, to correspond with the actual program implementation during 2002 and to reflect actual program results as of December 31, 2002. Recorded savings amounts reflect all 2002 program impacts, including impacts from measures installed in 2002 and those impacts associated with commitments from 2002 programs.

Inputs and assumptions for these estimates are described in this section. Projections of annual program energy reductions are developed similarly across program areas, but the specifics of each program area will be discussed in the individual sections to this Technical Appendix.

Program Energy Reduction Assumptions
Annual program energy reduction estimates for nonresidential programs supplied in the December 14, 2001 Application for 2002 Energy Efficiency Program Funding and submitted herein as the 2002 program results are the result of a summation of measure-level savings from the measures installed or committed to be installed as a result of the 2002 nonresidential programs. The measure-level savings information used to calculate the 2002 program results are based upon the latest energy savings data available for the particular measure(s), including measurement studies, historical program results, and engineering estimates. The gross amounts of these costs are reduced by appropriate net-to-gross ratios for the particular measure or end-use.

The Effective Useful Life is the length of time (years) for which the load impacts of an energy efficiency measure are expected to last. The useful life estimates are also based upon the Energy Efficiency Policy Manual, adopted in Decision D.01-11-066.

Table TA 3.4 Distribution of SPC Payments - Nonresidential Program Area

SCE's Nonresidential Standard Performance Contracting (SPC) programs were designed to provide funding to a number of different energy service providers and customers alike. Table TA 3.4 identifies the distribution of recorded payments to energy service providers and customers, and delineates any payments made to affiliates of the utility distribution company. Thus, the amounts in the "Total" column represent the total dollar amount allocated to a particular energy service company or customer. The table also demonstrates the payments made for particular end-uses. Each of these allocations of payments, by recipient and end-use, is based upon information contained in SCE's tracking system for these programs.

Table TA 3.4 is separated into Table TA 3.4A and Table TA 3.4B to reflect the significant differences between SCE's SPC programs for large and that for medium/small customers. After the first part of 2002 only one SPC program was available to customers.

Table TA 3.1
2003 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
PROGRAM COST ESTIMATES USED FOR COST-EFFECTIVENESS - NONRESIDENTIAL PROGRAM AREA
2002

	Program Incentives (Recorded)		Program Administrative Costs (Recorded)		Shareholder Incentives [1]	Other Costs [2]	Total Utility Costs	Incremental Measure Costs
	Actual	Committed	Actual	Committed				
Information	$ -	$ -	$ 223.076	$ 193.960	$ -	$ -	$ 417.036	$ -
EMS								
Large	-	-	-	-	-	-	-	-
Small/Medium	-	-	3.210.245	210.474	-	172.850	3.593.569	-
EEI: Customized Rebates								
Large	-	-	-	-	-	-	-	-
Small/Medium	-	-	-	-	-	-	-	-
EEI: Prescriptive Rebates								
Large	-	-	-	-	-	-	-	-
Small/Medium	2.593.014	2.347.200	1.863.280	310.537	-	241.990	7.356.021	12.473.000
EEI: SPCs								
Large	1.985.702	8.770.094	1.769.716	597.363	-	-	13.122.875	17.248.000
Small/Medium	108.172	20.767	81.343	5.000	-	-	215.282	139.000
Upstream Programs								
Information	-	-	273.649	788.896	-	32.924	1.095.468	-
Financial Assistan	-	-	-	-	-	-	-	-
Nonresidential Total	$ 4.686.888	$ 11.138.061	$ 7.421.308	$ 2.106.230	$ -	$ 447.764	$ 25.800.250	$ 29.860.000

[1] The Commission authorized no Shareholder Performance Awards in 2002 or 2003.
[2] Statewide Market Assessment and Evaluation costs.

Table TA 3.2
2003 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
DIRECT AND ALLOCATED ADMINISTRATIVE COSTS - NONRESIDENTIAL PROGRAM AREA
2002

	Actual Labor	Actual Non-Labor	Actual Contract	Actual Allocated	Actual Admin Total
Information	$ 76,480	$ 115,069	$ -	$ 31,527	$ 223,076
EMS					
Large	-	-	-	-	-
Small/Medium	1,984,318	775,184	39,195	411,547	3,210,245
EEI: Customized Rebates					
Large	-	-	-	-	-
Small/Medium	-	-	-	-	-
EEI: Prescriptive Rebates					
Large	-	-	-	-	-
Small/Medium	860,596	518,971	195,537	288,177	1,863,280
EEI: SPCs					
Large	574,176	705,699	28,729	461,111	1,769,716
Small/Medium	28,445	34,436	-	18,461	81,343
Upstream Programs					
Information	124.609	71.239	25.436	52.365	273.649
Financial Assistance	-	-	-	-	-
Nonresidential Total	$ 3,648,625	$ 2,220,597	$ 288,897	$ 1,263,188	$ 7,421,308

Table TA 3.3
2003 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY PROGRAM EFFECTS: ELECTRIC
MARKET EFFECTS: PROJECTED ANNUAL PROGRAM ENERGY REDUCTIONS - NONRESIDENTIAL PROGRAM AREA
2002

Information

Year	(MW)	(MWH)
2002	0.000	0
2003	0.000	0
2004	0.000	0
2005	0.000	0
2006	0.000	0
2007	0.000	0
2008	0.000	0
2009	0.000	0
2010	0.000	0
2011	0.000	0
2012	0.000	0
2013	0.000	0
2014	0.000	0
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
Total	0.000	0

EMS
Large

Year	(MW)	(MWH)
2002	0.000	0
2003	0.000	0
2004	0.000	0
2005	0.000	0
2006	0.000	0
2007	0.000	0
2008	0.000	0
2009	0.000	0
2010	0.000	0
2011	0.000	0
2012	0.000	0
2013	0.000	0
2014	0.000	0
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
Total	0.000	0

EMS
Small/Medium

Year	(MW)	(MWH)
2002	0.000	0
2003	0.000	0
2004	0.000	0
2005	0.000	0
2006	0.000	0
2007	0.000	0
2008	0.000	0
2009	0.000	0
2010	0.000	0
2011	0.000	0
2012	0.000	0
2013	0.000	0
2014	0.000	0
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
Total	0.000	0

EEI: Customized Rebates
Large

Year	(MW)	(MWH)
2002	0.000	0
2003	0.000	0
2004	0.000	0
2005	0.000	0
2006	0.000	0
2007	0.000	0
2008	0.000	0
2009	0.000	0
2010	0.000	0
2011	0.000	0
2012	0.000	0
2013	0.000	0
2014	0.000	0
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
Total	0.000	0

EEI: Customized Rebates
Small/Medium

Year	(MW)	(MWH)
2002	0.000	0
2003	0.000	0
2004	0.000	0
2005	0.000	0
2006	0.000	0
2007	0.000	0
2008	0.000	0
2009	0.000	0
2010	0.000	0
2011	0.000	0
2012	0.000	0
2013	0.000	0
2014	0.000	0
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
Total	0.000	0

EEI: Prescriptive Rebates
Large

Year	(MW)	(MWH)
2002	0.000	0
2003	0.000	0
2004	0.000	0
2005	0.000	0
2006	0.000	0
2007	0.000	0
2008	0.000	0
2009	0.000	0
2010	0.000	0
2011	0.000	0
2012	0.000	0
2013	0.000	0
2014	0.000	0
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
Total	0.000	0

EEI: Prescriptive Rebates
Small/Medium

Year	(MW)	(MWH)
2002	0.024	131.876
2003	0.024	131.876
2004	0.024	131.876
2005	0.024	131.876
2006	0.024	131.876
2007	0.024	131.876
2008	0.024	131.876
2009	0.024	131.876
2010	0.024	131.876
2011	0.024	131.876
2012	0.024	131.876
2013	0.024	131.876
2014	0.024	131.876
2015	0.024	131.876
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
Total	0.024	1.846.265

EEI: SPCs
Large

Year	(MW)	(MWH)
2002	0.015	92.686
2003	0.015	92.686
2004	0.015	92.686
2005	0.015	92.686
2006	0.015	92.686
2007	0.015	92.686
2008	0.015	92.686
2009	0.015	92.686
2010	0.015	92.686
2011	0.015	92.686
2012	0.015	92.686
2013	0.015	92.686
2014	0.015	92.686
2015	0.015	92.686
2016	0.015	92.686
2017	0.015	92.686
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
Total	0.015	1.482.980

EEI: SPCs
Small/Medium

Year	(MW)	(MWH)
2002	0.000	663
2003	0.000	663
2004	0.000	663
2005	0.000	663
2006	0.000	663
2007	0.000	663
2008	0.000	663
2009	0.000	663
2010	0.000	663
2011	0.000	663
2012	0.000	663
2013	0.000	663
2014	0.000	663
2015	0.000	663
2016	0.000	663
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
Total	0.000	9.949

Upstream Programs
Information

Year	(MW)	(MWH)
2002	0.000	0
2003	0.000	0
2004	0.000	0
2005	0.000	0
2006	0.000	0
2007	0.000	0
2008	0.000	0
2009	0.000	0
2010	0.000	0
2011	0.000	0
2012	0.000	0
2013	0.000	0
2014	0.000	0
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
Total	0.000	0

Upstream Programs
Financial Assistance

Year	(MW)	(MWH)
2002	0.000	0
2003	0.000	0
2004	0.000	0
2005	0.000	0
2006	0.000	0
2007	0.000	0
2008	0.000	0
2009	0.000	0
2010	0.000	0
2011	0.000	0
2012	0.000	0
2013	0.000	0
2014	0.000	0
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
Total	0.000	0

Table TA 3.4A
2003 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
DISTRIBUTION OF SPC PAYMENTS - NONRESIDENTIAL PROGRAM AREA
LARGE SPC
2002

	Lighting [1,2]	HVAC [1,2]	Other [1,2]	Total [1,2]
Edison Source	$ -	$ -	$ -	$ -
Total Affiliate	$ -	$ -	$ -	$ -
ESCO 1		$ 90.903		$ 90.903
ESCO 2	51,197			51,197
ESCO 3			6,307	6,307
ESCO 4			15,669	15,669
ESCO 5		8.943		8.943
ESCO 6		31,668		31,668
ESCO 7			7,000	7,000
ESCO 8			240,982	240,982
ESCO 9		2.321		2.321
ESCO 10	170.558			170.558
ESCO 11			8,488	8,488
ESCO 12		47,460		47,460
ESCO 13	11.517			11.517
ESCO 14			15.075	15.075
ESCO 15			35,222	35,222
ESCO 16	8,799			8,799
ESCO 17			48,177	48,177
ESCO 18		2.778		2.778
ESCO 19		57,754		57,754
ESCO 20	6,989			6,989
ESCO 21	420,192			420,192
ESCO 22			8.104	8.104
ESCO 23			17,516	17,516
ESCO 24			44,213	44,213
ESCO 25	8,580			8,580
ESCO 26			19.572	19.572
ESCO 27	116,930			116,930
ESCO 28			155,373	155,373
ESCO 29			102,270	102,270
ESCO 30		34.546		34.546
ESCO 31			10.222	10.222
ESCO 32	16,436			16,436
ESCO 33			260,947	260,947
ESCO 34	6.402			6.402
ESCO 35			12.950	12.950
ESCO 36			12,188	12,188
ESCO 37	38,885			38,885
ESCO 38			249,505	249,505
Total ESCO	$ 856,486	$ 276,371	$ 1,269,781	$ 2,402,639

Customer Project 1			$ 15,779	$ 15,779
Customer Project 2		2,653		2,653
Customer Project 3			4,402	4,402
Customer Project 4		566		566
Customer Project 5			32,855	32,855
Customer Project 6			105,000	105,000
Customer Project 7	14,030			14,030
Customer Project 8	179,291			179,291
Customer Project 9		90,000		90,000
Customer Project 10			28,915	28,915
Customer Project 11			36,659	36,659
Customer Project 12	44,604			44,604
Customer Project 13			10,014	10,014
Customer Project 14			77,737	77,737
Customer Project 15		1,491		1,491
Customer Project 16			5,460	5,460
Customer Project 17		68,161		68,161
Customer Project 18	18,473			18,473
Customer Project 19			15,666	15,666
Customer Project 20			300,000	300,000
Customer Project 21			65,802	65,802
Customer Project 22		2,716		2,716
Customer Project 23		31,281		31,281
Customer Project 24			24,892	24,892
Customer Project 25	12,160			12,160
Customer Project 26			14,633	14,633
Customer Project 27	20,478			20,478
Customer Project 28		9,283		9,283
Customer Project 29			6,228	6,228
Customer Project 30	21,199			21,199
Customer Project 31			42,500	42,500
Customer Project 32			122,953	122,953
Customer Project 33	9,515			9,515
Customer Project 34			1,766	1,766
Customer Project 35			7,748	7,748
Customer Project 36			1,750	1,750
Customer Project 37			154,834	154,834
Customer Project 38		228,005		228,005
Customer Project 39			24,296	24,296
Customer Project 40		19,790		19,790
Customer Project 41	1,642			1,642
Customer Project 42			11,310	11,310
Customer Project 43		151,315		151,315
Customer Project 44	102,415			102,415
Customer Project 45			53,917	53,917
Customer Project 46			20,218	20,218
Customer Project 47		44,432		44,432
Customer Project 48			174,805	174,805
Customer Project 49		17,579		17,579
Customer Project 50			185,300	185,300
Customer Project 51			29,056	29,056
Customer Project 52	2,493			2,493
Customer Project 53			20,127	20,127
Customer Project 54		3,574		3,574
Customer Project 55	3,841			3,841
Customer Project 56		26,849		26,849
Customer Project 57			13,898	13,898
Customer Project 58	9,972			9,972
Customer Project 59	33,585			33,585
Customer Project 60			5,280	5,280
Customer Project 61	952			952
Customer Project 62			9,718	9,718
Customer Project 63			3,923	3,923
Customer Project 64	124,969			124,969
Customer Project 65			69,310	69,310
Customer Project 66		20,000		20,000
Customer Project 67			40,000	40,000
Customer Project 68			79,733	79,733
Customer Project 69			60,153	60,153
Customer Project 70			13,353	13,353
Customer Project 71			123,681	123,681
Customer Project 72	9,690			9,690
Customer Project 73			7,585	7,585
Customer Project 74			75,621	75,621

Customer Project 75	19,550			19,550
Customer Project 76			26,335	26,335
Customer Project 77			12,588	12,588
Customer Project 78			103,691	103,691
Customer Project 79		196,243		196,243
Customer Project 80			103,757	103,757
Customer Project 81		37,500		37,500
Customer Project 82			110,582	110,582
Customer Project 83			12,212	12,212
Customer Project 84			217,664	217,664
Customer Project 85		741		741
Customer Project 86	14,809			14,809
Customer Project 87			42,368	42,368
Customer Project 88	23,655			23,655
Customer Project 89		23,032		23,032
Customer Project 90			17,688	17,688
Customer Project 91		4,250		4,250
Customer Project 92			2,018	2,018
Customer Project 93		11,980		11,980
Customer Project 94			14,104	14,104
Customer Project 95			7,659	7,659
Customer Project 96			21,974	21,974
Customer Project 97			20,800	20,800
Customer Project 98			10,719	10,719
Customer Project 99		5,101		5,101
Customer Project 100			3,245	3,245
Customer Project 101		110,555		110,555
Customer Project 102	110,963			110,963
Customer Project 103			75,710	75,710
Customer Project 104			57,606	57,606
Customer Project 105		773		773
Customer Project 106	99,583			99,583
Customer Project 107			1,097	1,097
Customer Project 108			8,129	8,129
Customer Project 109			142,374	142,374
Customer Project 110			104,429	104,429
Customer Project 111			6,537	6,537
Customer Project 112	10,053			10,053
Customer Project 113			17,263	17,263
Customer Project 114		50,178		50,178
Customer Project 115		27,046		27,046
Customer Project 116	13,758			13,758
Customer Project 117	11,871			11,871
Customer Project 118			3,365	3,365
Customer Project 119			3,084	3,084
Customer Project 120			24,214	24,214
Customer Project 121		378,959		378,959
Customer Project 122	4,035			4,035
Customer Project 123			42,538	42,538
Customer Project 124	13,033			13,033
Customer Project 125		9,128		9,128
Customer Project 126			4,773	4,773
Customer Project 127			6,884	6,884
Customer Project 128			145,894	145,894
Customer Project 129			15,394	15,394
Customer Project 130			8,296	8,296
Customer Project 131			72,738	72,738
Customer Project 132			197,775	197,775
Customer Project 133			15,955	15,955
Customer Project 134			22,500	22,500
Customer Project 135			74,089	74,089
Customer Project 136	10,961			10,961
Customer Project 137			23,290	23,290
Customer Project 138			7,798	7,798
Customer Project 139			54,799	54,799
Customer Project 140	37,953			37,953
Customer Project 141			165,000	165,000
Customer Project 142	44,929			44,929
Customer Project 143			145,498	145,498
Customer Project 144			49,891	49,891
Customer Project 145			114,961	114,961
Customer Project 146			350,000	350,000
Customer Project 147			9,296	9,296
Customer Project 148	9,269			9,269

Customer Project 149			87.028	87.028
Customer Project 150			13.400	13.400
Customer Project 151			65.967	65.967
Customer Project 152		1.110		1.110
Customer Project 153		12.596		12.596
Customer Project 154	53.393			53.393
Customer Project 155			26.727	26.727
Customer Project 156	62.411			62.411
Customer Project 157			106.781	106.781
Customer Project 158		87.660		87.660
Customer Project 159			9.104	9.104
Customer Project 160	21.405			21.405
Customer Project 161	131.409			131.409
Customer Project 162			92.633	92.633
Customer Project 163	114,259			114,259
Customer Project 164			13,943	13,943
Customer Project 165			1,970	1,970
Customer Project 166			49,000	49,000
Total Customer Projects	$ 1,416,603	$ 1,674,550	$ 5,262,005	$ 8,353,158
Total Payments	$ 2,273,089	$ 1,950,921	$ 6,531,786	$ 10,755,796

[1] Includes 110% contingent funds up to defined caps.
[2] Includes Actual and Committed Payments

Table TA 3.4B
2003 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
DISTRIBUTION OF SPC PAYMENTS - NONRESIDENTIAL PROGRAM AREA
SMALL SPC
2002

	Lighting [1,2]	HVAC [1,2]	Other [1,2]	Total [1,2]
Affiliate 1	$ -	$ -	$ -	$ -
Total Affiliate	$ -	$ -	$ -	$ -
ESCO 1			$ 10,965	$ 10,965
ESCO 2			9,800	9,800
ESCO 3	2,420			2,420
ESCO 4	2,596			2,596
ESCO 5			6,190	6,190
ESCO 6			7,326	7,326
Total ESCO	$ 5,016	$ -	$ 34,281	$ 39,297
Customer Project 1			$ 73,863	$ 73,863
Customer Project 2			4,271	
Customer Project 3			11,509	
Total Customer Projects	$ -	$ -	$ 89,642	$ 89,642
Nonresidential Total	$ 5,016	$ -	$ 123,923	$ 128,939

[1] Includes 110% contingent funds up to defined caps.
[2] Includes Actual and Committed Payments

Section IV - New Construction Program Area

This section contains narrative that documents and explains the data shown for Tables TA 4.1 through TA 4.4.

Table TA 4.1 Program Cost Estimates Used for Cost-Effectiveness - New Construction Program Area

This table documents those costs used in determining the cost-effectiveness of new construction energy efficiency programs. These tables provide all program costs, including costs expended in 2002 and those costs associated with commitments from 2002 programs.

Program Incentives (Recorded)
Incentive costs represent incentives paid to customers during 2002 (Actual) as well as incentives associated with commitments from the 2002 new construction programs (Committed).

Program Administrative Costs (Recorded)
These costs include all expenditures directly charged to the program with the exception of incentive costs. The administrative costs consist of labor, non-labor, contract labor, and allocated material costs (See Also Table TA 4.2). These costs represent administrative costs expended during 2002 (Actual) as well as administrative costs associated with the handling of commitments from the 2002 new construction programs (Committed).

Shareholder Incentives
Costs represented in the Shareholder Incentives column would represent an allocated amount of the total performance awards earned during a particular program year. There were no shareholder incentives authorized for 2002.

Other Costs
Costs represented in the Other Costs column represent the MA&E costs for the statewide programs. MA&E costs for the Local programs are included in the Program Administrative Costs column. Other allocated costs recorded in the Other Costs category in previous Energy Efficiency Annual Reports (e.g., General Support, Regulatory Support, CPUC Staff, and Summer Initiative Administrative) are now recorded in the Program Administrative Costs column.

Total Utility Costs
The sum of the Program Incentives (Recorded) columns, Program Administrative Costs (Recorded) columns, Shareholder Incentives, and Other costs.

Incremental Measure Costs (Net)
These costs generally represent the incremental costs of energy efficiency measures over the standard replacement measures. SCE's incremental measure costs are typically derived from the latest cost source available for the particular measure(s), including recent measure cost studies. The gross amounts of these costs are reduced by appropriate net-to-gross ratios for the particular measure or end-use. The net-to-gross ratios are consistent with the ratios utilized in SCE's December 14, 2001 Application for 2002 energy efficiency program funding.

Table TA 4.2 Direct and Allocated Administrative Costs - New Construction Program Area

This table documents the breakdown of the actual administrative costs used in determining the cost-effectiveness of new construction energy efficiency programs. These tables provide detail of all actual program administrative costs expended in 2002. These costs include the costs of Market Assessment & Evaluation for the Local Energy Efficiency Programs, regulatory support, and other energy efficiency support costs.

Labor Costs (Actual)
Labor costs consist of SCE labor charges that are directly charged to the program. These costs include salaries and expenses of SCE employees engaged in developing energy efficient marketing strategies, plans, and programs; developing program implementation procedures; reporting, monitoring, and evaluating systems. The reported costs reflect only the actual costs incurred in 2002 in support of 2002 new construction programs.

Non-Labor Costs (Actual)
Non-labor costs include materials, consultant fees, vendor contracts, and other miscellaneous costs charged directly to the program. These costs include items such as booklets, brochures, promotions, training, membership dues, postage, telephone, supplies, printing / photocopying services, and computer support services. Several programs contain a significant amount of Non-Labor administrative costs due to the use of vendor contracts in the delivery of these programs.

Contract Labor Costs (Actual)
Labor costs consist of contract employees' labor charges that are directly charged to the program. These costs include salaries and expenses of contract employees engaged in developing energy efficient marketing strategies, plans, and programs; developing program implementation procedures; reporting, monitoring, and evaluating systems.

Allocated Administrative Costs (Actual)
Allocated administrative costs represent those for building lease and maintenance costs and management oversight expenditures. In addition, the 2002 Allocated Administrative Costs (Actual) category includes costs related to systems support, regulatory support, internal audits, and other costs which are allocated to the programs. In previous years these latter costs were displayed in other sections of the Energy Efficiency Annual Report and not in this section.

Total Administrative Costs (Actual)
The summation of the aforementioned utility administrative costs - Labor, Non-labor, Contract, and Allocated Administrative costs.

Table TA 4.3 Market Effects: Projected Annual Program Energy Reductions - New Construction Program Area

The projected annual program energy reductions for the new construction program area, presented in TA 4.3, are derived from ex ante estimates of energy savings. These estimates are based upon the measure level savings data submitted in SCE's December 14, 2001 Application for 2002 Energy Efficiency Program Funding and adopted in Decisions D.02-03-056 and D.02-05-046. These estimates have been updated, as applicable, to correspond with the actual program implementation during 2002 and to reflect actual program results as of December 31, 2002. Recorded savings amounts reflect all 2002 program impacts, including impacts from measures installed in 2002 and those impacts associated with commitments from 2002 programs.

Inputs and assumptions for these estimates are described in this section. Projections of annual program energy reductions are developed similarly across program areas, but the specifics of each program area will be discussed in the individual sections to this Technical Appendix.

Program Energy Reduction Assumptions

Annual program energy reduction estimates for new construction programs supplied in the December 14, 2001 Application for 2002 Energy Efficiency Program Funding and submitted herein as the 2002 program results are the result of a summation of measure-level savings from the measures installed or committed to be installed as a result of the 2002 new construction programs. The measure-level savings information used to calculate the 2002 program results are based upon the latest energy savings data available for the particular measure(s), including measurement studies, historical program results, and engineering estimates. The gross amounts of these costs are reduced by appropriate net-to-gross ratios for the particular measure or end-use.

The Effective Useful Life is the length of time (years) for which the load impacts of an energy efficiency measure are expected to last. The useful life estimates are also based upon the Energy Efficiency Policy Manual, adopted in Decision D.01-11-066.

Table TA 4.1
2003 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
PROGRAM COST ESTIMATES USED FOR COST-EFFECTIVENESS - NEW CONSTRUCTION PROGRAM AREA
2002

	Program Incentives (Recorded)		Program Administrative Costs (Recorded)		Shareholder Incentives [1]	Other Costs [2]	Total Utility Costs	Incremental Measure Costs
	Actual	Committed	Actual	Committed				
Residential	$ -	$ 4.102.800	$ 1.667.569	$ 164.962	$ -	$ 215.651	$ 6.150.982	$ 3.416.000
Nonresidential	931.016	4.485.542	1.651.188	1.382.011	-	256.806	8.706.562	16.037.000
New Construction Total	$ 931.016	$ 8.588.342	$ 3.318.757	$ 1.546.973	$ -	$ 472.457	$ 14.857.545	$ 19.453.000

[1] The Commission authorized no Shareholder Performance Awards in 2002 or 2003.
[2] Statewide Market Assessment and Evaluation costs.

Table TA 4.2
2003 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
DIRECT AND ALLOCATED ADMINISTRATIVE COSTS - NEW CONSTRUCTION PROGRAM AREA
2002

	Actual Labor	Actual Non-Labor	Actual Contract	Actual Allocated	Actual Admin Total
Residential	$ 213,923	$ 1,277,253	$ 29	$ 176,364	$ 1,667,569
Nonresidential	697,895	512,674	86,777	353,841	1,651,188
New Construction Total	$ 911,818	$ 1,789,927	$ 86,806	$ 530,206	$ 3,318,757

Table TA 4.3
2003 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY PROGRAM EFFECTS: ELECTRIC
MARKET EFFECTS: PROJECTED ANNUAL PROGRAM ENERGY REDUCTIONS - NEW CONSTRUCTION PROGRAM AREA
2002

Residential

Year	(MW)	(MWH)
2002	0.005	4,868
2003	0.005	4,868
2004	0.005	4,868
2005	0.005	4,868
2006	0.005	4.868
2007	0.005	4.868
2008	0.005	4,868
2009	0.005	4,868
2010	0.005	4,868
2011	0.005	4,868
2012	0.005	4.868
2013	0.005	4.868
2014	0.005	4,868
2015	0.005	4,868
2016	0.005	4,868
2017	0.005	4,868
2018	0.005	4,868
2019	0.005	4.868
2020	0.000	0
2021	0.000	0
Total	0.005	87,627

Nonresidential

Year	(MW)	(MWH)
2002	0.013	70,221
2003	0.013	70,221
2004	0.013	70,221
2005	0.013	70,221
2006	0.013	70.221
2007	0.013	70,221
2008	0.013	70,221
2009	0.013	70,221
2010	0.013	70,221
2011	0.013	70,221
2012	0.013	70.221
2013	0.013	70.221
2014	0.013	70,221
2015	0.013	70,221
2016	0.013	70,221
2017	0.013	70,221
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
Total	0.013	1,123,535

Section V - Crosscutting Program Area

This section contains narrative that documents and explains the data shown for Tables TA 5.1 through TA 5.4.

Table TA 5.1 Program Cost Estimates Used for Cost-Effectiveness - Crosscutting Program Area

This table documents those costs used in determining the cost-effectiveness of crosscutting energy efficiency programs. These tables provide all program costs, including costs expended in 2002 and those costs associated with commitments from 2002 programs.

Program Incentives (Recorded)
Incentive costs represent incentives paid to customers during 2002 (Actual) as well as incentives associated with commitments from the 2002 crosscutting programs (Committed).

Program Administrative Costs (Recorded)
These costs include all expenditures directly charged to the program with the exception of incentive costs. The administrative costs consist of labor, non-labor, contract labor, and allocated material costs (See Also Table TA 5.2). These costs represent administrative costs expended during 2002 (Actual) as well as administrative costs associated with the handling of commitments from the 2002 crosscutting programs (Committed).

Shareholder Incentives
Costs represented in the Shareholder Incentives column would represent an allocated amount of the total performance awards earned during a particular program year. There were no shareholder incentives authorized for 2002.

Other Costs
Costs represented in the Other Costs column represent the MA&E costs for the statewide programs. MA&E costs for the Local programs are included in the Program Administrative Costs column. Other allocated costs recorded in the Other Costs category in previous Energy Efficiency Annual Reports (e.g., General Support, Regulatory Support, CPUC Staff, and Summer Initiative Administrative) are now recorded in the Program Administrative Costs column.

Total Utility Costs
The sum of the Program Incentives (Recorded) columns, Program Administrative Costs (Recorded) columns, Shareholder Incentives, and Other costs.

Incremental Measure Costs (Net)
These costs generally represent the incremental costs of energy efficiency measures over the standard replacement measures. SCE's incremental measure costs are typically derived from the latest cost source available for the particular measure(s), including recent measure cost studies. The gross amounts of these costs are reduced by appropriate net-to-gross ratios for the particular measure or end-use. The net-to-gross ratios are consistent with the ratios utilized in SCE's December 14, 2001 Application for 2002 energy efficiency program funding.

Table TA 5.2 Direct and Allocated Administrative Costs - Crosscutting Program Area

This table documents the breakdown of the actual administrative costs used in determining the cost-effectiveness of crosscutting energy efficiency programs. These tables provide detail of all actual program administrative costs expended in 2002. These costs include the costs of Market Assessment & Evaluation for the Local Energy Efficiency Programs, regulatory support, and other energy efficiency support costs.

Labor Costs (Actual)
Labor costs consist of SCE labor charges that are directly charged to the program. These costs include salaries and expenses of SCE employees engaged in developing energy efficient marketing strategies, plans, and programs; developing program implementation procedures; reporting, monitoring, and evaluating systems. The reported costs reflect only the actual costs incurred in 2002 in support of 2002 crosscutting programs.

Non-Labor Costs (Actual)
Non-labor costs include materials, consultant fees, vendor contracts, and other miscellaneous costs charged directly to the program. These costs include items such as booklets, brochures, promotions, training, membership dues, postage, telephone, supplies, printing / photocopying services, and computer support services. Several programs contain a significant amount of Non-Labor administrative costs due to the use of vendor contracts in the delivery of these programs.

Contract Labor Costs (Actual)
Labor costs consist of contract employees' labor charges that are directly charged to the program. These costs include salaries and expenses of contract employees engaged in developing energy efficient marketing strategies, plans, and programs; developing program implementation procedures; reporting, monitoring, and evaluating systems.

Allocated Administrative Costs (Actual)
Allocated administrative costs represent those for building lease and maintenance costs and management oversight expenditures. In addition, the 2002 Allocated Administrative Costs (Actual) category includes costs related to systems support, regulatory support, internal audits, and other costs which are allocated to the programs. In previous years these latter costs were displayed in other sections of the Energy Efficiency Annual Report and not in this section.

Total Administrative Costs (Actual)
The summation of the aforementioned utility administrative costs - Labor, Non-labor, Contract, and Allocated Administrative costs.

Table TA 5.3 Market Effects: Projected Annual Program Energy Reductions - Crosscutting Program Area

The projected annual program energy reductions for the crosscutting program area, presented in TA 4.3, are derived from ex ante estimates of energy savings. These estimates are based upon the measure level savings data submitted in SCE's December 14, 2001 Application for 2002 Energy Efficiency Program Funding and adopted in Decisions D.02-03-056 and D.02-05-046. These estimates have been updated, as applicable, to correspond with the actual program implementation during 2002 and to reflect actual program results as of December 31, 2002. Recorded savings amounts reflect all 2002 program impacts, including impacts from measures installed in 2002 and those impacts associated with commitments from 2002 programs.

Inputs and assumptions for these estimates are described in this section. Projections of annual program energy reductions are developed similarly across program areas, but the specifics of each program area will be discussed in the individual sections to this Technical Appendix.

Program Energy Reduction Assumptions

Annual program energy reduction estimates for crosscutting programs supplied in the December 14, 2001 Application for 2002 Energy Efficiency Program Funding and submitted herein as the 2002 program results are the result of a summation of measure-level savings from the measures installed or committed to be installed as a result of the 2002 crosscutting programs. The measure-level savings information used to calculate the 2002 program results are based upon the latest energy savings data available for the particular measure(s), including measurement studies, historical program results, and engineering estimates. The gross amounts of these costs are reduced by appropriate net-to-gross ratios for the particular measure or end-use.

The Effective Useful Life is the length of time (years) for which the load impacts of an energy efficiency measure are expected to last. The useful life estimates are also based upon the Energy Efficiency Policy Manual, adopted in Decision D.01-11-066.

Table TA 5.1
2003 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
PROGRAM COST ESTIMATES USED FOR COST-EFFECTIVENESS - CROSSCUTTING PROGRAM AREA
2002

	Program Incentives (Recorded)		Program Administrative Costs (Recorded)		Shareholder Incentives [1]	Other Costs [2]	Total Utility Costs	Incremental Measure Costs
	Actual	Committed	Actual	Committed				
Information	$ -	$ -	$ 4.397.953	$ 127.605			$ 4.525.558	$ -
EMS	-	-	-	-	-	-	-	-
EEI								
SPCs	-	-	-	-	-	-	-	-
Rebates	-	-	-	-	-	-	-	-
Loans	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-
Upstream Programs								
Information	-	-	975.670	1.261.830			2.237.500	4.677.000
Financial Assistan	840.890	478.140	249.464	71.216	-	139.926	1.779.637	-
Crosscutting Total	$ 840.890	$ 478.140	$ 5.623.087	$ 1.460.651	$ -	$ 139.926	$ 8.542.695	$ 4.677.000

[1] The Commission authorized no Shareholder Performance Awards in 2002 or 2003.
[2] Statewide Market Assessment and Evaluation costs.

Table TA 5.2
2003 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
DIRECT AND ALLOCATED ADMINISTRATIVE COSTS - CROSSCUTTING PROGRAM AREA
2002

	Actual Labor	Actual Non-Labor	Actual Contract	Actual Allocated	Actual Admin Total
Information	$ 2,179,461	$ 1,800,519	$ 121,082	$ 296,890	$ 4,397,953
EMS	-	-	-	-	-
EEI					
SPCs	-	-	-	-	-
Rebates	-	-	-	-	-
Loans	-	-	-	-	-
Other	-	-	-	-	-
Upstream Programs					
Information	64.117	848.561	1.232	61.760	975.670
Financial Assistance	122,681	46,508	-	80,274	249,464
Crosscutting Total	$ 2,366,259	$ 2,695,589	$ 122,314	$ 438,925	$ 5,623,087

Table TA 5.3
2003 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY PROGRAM EFFECTS: ELECTRIC
MARKET EFFECTS: PROJECTED ANNUAL PROGRAM ENERGY REDUCTIONS - CROSSCUTTING PROGRAM AREA
2002

Information			EMS			EEI SPCs		
Year	(MW)	(MWH)	Year	(MW)	(MWH)	Year	(MW)	(MWH)
2002	0.000	0	2002	0.000	0	2002	0.000	0
2003	0.000	0	2003	0.000	0	2003	0.000	0
2004	0.000	0	2004	0.000	0	2004	0.000	0
2005	0.000	0	2005	0.000	0	2005	0.000	0
2006	0.000	0	2006	0.000	0	2006	0.000	0
2007	0.000	0	2007	0.000	0	2007	0.000	0
2008	0.000	0	2008	0.000	0	2008	0.000	0
2009	0.000	0	2009	0.000	0	2009	0.000	0
2010	0.000	0	2010	0.000	0	2010	0.000	0
2011	0.000	0	2011	0.000	0	2011	0.000	0
2012	0.000	0	2012	0.000	0	2012	0.000	0
2013	0.000	0	2013	0.000	0	2013	0.000	0
2014	0.000	0	2014	0.000	0	2014	0.000	0
2015	0.000	0	2015	0.000	0	2015	0.000	0
2016	0.000	0	2016	0.000	0	2016	0.000	0
2017	0.000	0	2017	0.000	0	2017	0.000	0
2018	0.000	0	2018	0.000	0	2018	0.000	0
2019	0.000	0	2019	0.000	0	2019	0.000	0
2020	0.000	0	2020	0.000	0	2020	0.000	0
2021	0.000	0	2021	0.000	0	2021	0.000	0
Total	0.000	0	Total	0.000	0	Total	0.000	0

EEI Rebates			EEI Loans			EEI Other		
Year	(MW)	(MWH)	Year	(MW)	(MWH)	Year	(MW)	(MWH)
2002	0.000	0	2002	0.000	0	2002	0.000	0
2003	0.000	0	2003	0.000	0	2003	0.000	0
2004	0.000	0	2004	0.000	0	2004	0.000	0
2005	0.000	0	2005	0.000	0	2005	0.000	0
2006	0.000	0	2006	0.000	0	2006	0.000	0
2007	0.000	0	2007	0.000	0	2007	0.000	0
2008	0.000	0	2008	0.000	0	2008	0.000	0
2009	0.000	0	2009	0.000	0	2009	0.000	0
2010	0.000	0	2010	0.000	0	2010	0.000	0
2011	0.000	0	2011	0.000	0	2011	0.000	0
2012	0.000	0	2012	0.000	0	2012	0.000	0
2013	0.000	0	2013	0.000	0	2013	0.000	0
2014	0.000	0	2014	0.000	0	2014	0.000	0
2015	0.000	0	2015	0.000	0	2015	0.000	0
2016	0.000	0	2016	0.000	0	2016	0.000	0
2017	0.000	0	2017	0.000	0	2017	0.000	0
2018	0.000	0	2018	0.000	0	2018	0.000	0
2019	0.000	0	2019	0.000	0	2019	0.000	0
2020	0.000	0	2020	0.000	0	2020	0.000	0
2021	0.000	0	2021	0.000	0	2021	0.000	0
Total	0.000	0	Total	0.000	0	Total	0.000	0

Upstream Programs
Information

Year	(MW)	(MWH)
2002	0.000	0
2003	0.000	0
2004	0.000	0
2005	0.000	0
2006	0.000	0
2007	0.000	0
2008	0.000	0
2009	0.000	0
2010	0.000	0
2011	0.000	0
2012	0.000	0
2013	0.000	0
2014	0.000	0
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
Total	0.000	0

Upstream Programs
Financial Assistance

Year	(MW)	(MWH)
2002	0.004	25,654
2003	0.004	25.654
2004	0.004	25,654
2005	0.004	25.654
2006	0.004	25,654
2007	0.004	25.654
2008	0.004	25.654
2009	0.004	25.654
2010	0.004	25.654
2011	0.004	25.654
2012	0.004	25.654
2013	0.004	25.654
2014	0.000	0
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
Total	0.004	307.854

Section VI - MA&E and Regulatory Oversight; Annotated Bibliography

NONRESIDENTIAL NEW CONSTRUCTION (NRNC) MARKET CHARACTERIZATION AND PROGRAM ACTIVITIES TRACKING REPORT: PY2000: FINAL

QUANTUM CONSULTING
MARCH 2002

Market characterization is developed in this study using FW Dodge data. It is intended to inform policymakers, regulators, stakeholders, as well as program managers, implementers and evaluators, about the characteristics of the California NRNC market and its segments. The program activities tracking part of the study focuses on the accomplishments of the statewide NRNC Savings By Design (SBD) Program, and it describes the ways in which the SBD Program fits into the NRNC market. The activities described in this report cover new construction and remodel / renovation / tenant improvement projects from calendar year 2001. Using the market characterization data in combination with the SBD program tracking data provides market penetration estimates. Results for PY2001 indicate that the SBD program captured 14% of the nonresidential new construction projects and 9% of the renovation and remodeling projects that require Title 24 compliance. By square footage, program penetration into the new construction market is 33%, indicating that the program is reaching relatively large buildings. Although this penetration level is twice as high when compared to PY2000, significant opportunities remain for increased program penetration into the market.

NRNC MARKET CHARACTERIZATION AND PROGRAM ACTIVITIES TRACKING REPORT: QUARTERS 3-4, 2001

QUANTUM CONSULTING
MARCH 2002

The statewide Market Characterization and Program Activity Tracking (MCPAT) Study was commissioned to track trends in the nonresidential new construction (NRNC) market, as well as participation in the Savings By Design statewide NRNC Program, in PY2000 – 2001. The publication of results on an ongoing basis allows program designers, implementers, evaluators, and market participants to determine the extent to which the NRNC market changes over a given period of time, and if necessary, modify the SBD Program to most effectively enhance energy efficiency practices in the new construction market. This Report summarizes the NRNC market and SBD Program tracking and penetration results in Quarters 3-4, 2001.

NONRESIDENTIAL STANDARD PERFORMANCE CONTRACTING PROGRAM MEASUREMENT & VERIFICATION CASE STUDY REPORT

XENERGY, INC.
APRIL 2002

This report presents ten case studies of projects conducted by large nonresidential customers under California's 1998 and 1999 nonresidential Standard Performance Contract (SPC) Program, with attention to the Measurement and Verification (M&V) component of these projects. The overall goal of these case studies was to bring a better understanding of the appropriateness and effects of the M&V required for the SPC Program. The case studies were projects implemented by customers with more than 500kW demand that had completed at least 1 year of M&V. The ten case studies outline the M&V process beginning from the project submittal and savings estimates through the first year (and, in some cases, second year) results. Where possible, we interviewed the customer, the third-party firms sponsoring the project (if applicable), and utility representatives. The research questions focused on the participants' knowledge, attitudes, and behaviors (both actual and hypothetical) concerning the M&V requirements

LIGHTING CONTROLS EFFECTIVENESS ASSESSMENT

ADM ASSOCIATES
MAY 2002

This study measures and quantifies the effects of bi-level switching in 79 office, retail, and school sites. Lighting systems were electronically monitored, and occupants were interviewed to determine behavioral differences between summer and winter bi-level switch operation. In California, Title 24 identifies bi-level switching is a mandatory lighting design measure, requiring that most areas within commercial buildings, have their connected lighting load wired in such a way that the lighting load can be reduced by at least 50%. Bi-level switching is a simple manual means for controlling interior lighting.

CALIFORNIA RESIDENTIAL MARKET SHARE TRACKING – LAMP REPORT 2001, VOLUME 2

REGIONAL ECONOMIC RESEARCH
MAY 2002

This report is one product of the ongoing Residential Market Share Tracking Project. This particular report offers a comprehensive look at the residential market for light bulb sales in 2001, both within California and nationwide. These data are procured as point-of-sales data from five major sales channels: 1) food and grocery stores; 2) drug stores; 3) mass merchandisers; 4) home improvement stores; and 5) hardware stores. The California-specific data are further segmented by service territory for PG&E, SCE, and SDG&E.

CALIFORNIA RESIDENTIAL MARKET SHARE TRACKING – LAMP TRENDS, 2001, VOLUME 2– SUMMARY REPORT

REGIONAL ECONOMIC RESEARCH
MAY 2002

This 4-page summary report provides the key results from the full lamp trends report described immediately above. This report offers a summary overview of the California and national market for PY2001 light bulb sales, with graphs to illustrate the findings.

CALIFORNIA RESIDENTIAL MARKET SHARE TRACKING – HVAC, 2000

REGIONAL ECONOMIC RESEARCH
MAY 2002

The California Residential Efficiency Market Share Tracking project (RMST) includes examinations of efficiency shares and average efficiencies of appliances, HVAC equipment, lamps, and new construction. This report presents results for HVAC equipment in 2000. The objective of each report is to present the market share of energy efficient products over time within the California residential market. A four- to eight-page high-level summary accompanies each report. The reports are published twice a year. The HVAC report focuses on central air conditioners (CACs), air source heat pumps, and central gas furnaces. General market information and estimates of market shares of high efficiency HVAC equipment are presented, as well as figures regarding equipment installed in newly constructed homes throughout California.

CALIFORNIA RESIDENTIAL MARKET SHARE TRACKING – HVAC, 2000 SUMMARY REPORT

REGIONAL ECONOMIC RESEARCH
MAY 2002

This 8-page report summarizes the key findings in the market for residential HVAC units, drawn from the full-length report described immediately above. The summary report includes several graphics to illustrate key points.

SCE RESIDENTIAL AUDIT PROGRAMS EVALUATION

RIDGE & ASSOCIATES
SEPTEMBER 2002

This report documents the evaluation results of SCE's Residential Audit Programs for program year 2000. In 2000, the residential audits portfolio included residential energy survey programs, the California Home Energy Efficiency Rating System program, and the Inspectech / Primis / Geo-Praxis Time-of-Sale audit, a third-party sponsored program. These programs are designed to increase homeowner awareness of energy efficiency opportunities in order to achieve energy and cost savings. The residential energy surveys take various forms including: mail-in, online, in-home, and phone audits, with the in-home audits being offered to both renters and homeowners. The evaluation study estimates overall and audit-specific adoption rates for recommended measures and practices, customer satisfaction, and per household and per program gross and net savings for adopted measures and practices. The study also describes participants in terms of

their demographic characteristics and attitudes toward energy conservation. Study results indicate adoption ratios that vary between .31 and .67, and net first-year energy reductions per dwelling ranging from 123-790 kWh depending on the type of audit.

2001 STATEWIDE RESIDENTIAL CONTRACTOR PROGRAM ENERGY AND MARKET IMPACT ASSESSMENT

ADM ASSOCIATES
OCTOBER 2002

This study develops estimates of the energy savings by measure and for the whole program for the single-family and multi-family residential contractor program. While the single-family program was not continued in 2002, the savings estimates developed are useful for both the single-family and multi-family rebate programs of 2002. In addition, the study examines the diffusion of measures promoted by the program among the contractor segments, using key market effects indicators.

CALIFORNIA RESIDENTIAL MARKET SHARE TRACKING – HVAC, 2001

REGIONAL ECONOMIC RESEARCH
OCTOBER, 2002

This report, which is one product of the ongoing Residential Market Share Tracking Project, offers a comprehensive look at the residential market for appliances. This report examines the efficiency shares and average efficiencies for HVAC units sold throughout California. Sales data from independent appliance retailers and national chain retailers were analyzed to determine the statewide market share of Energy Star qualified HVAC units. The data contained in this report cover HVAC data through year end 2001.

CALIFORNIA RESIDENTIAL MARKET SHARE TRACKING – HVAC, 2001 SUMMARY REPORT

REGIONAL ECONOMIC RESEARCH
OCTOBER, 2002

This 8-page report summarizes the key findings in the market for residential HVAC units, drawn from the full-length report described immediately above. The summary report includes several graphics to illustrate key points.

CALIFORNIA RESIDENTIAL MARKET SHARE TRACKING – LAMP REPORT 2002, VOLUME 1

REGIONAL ECONOMIC RESEARCH
NOVEMBER 2002

This report is part of the ongoing Residential Market Share Tracking Project. It offers a comprehensive look at the sales of CFL's and lamp sales within the residential market. This report includes CFL and lamp data through the first two quarters of PY2002, both within California and nationwide. These data are procured through point-of-sales data from five major sales channels: 1) food and grocery stores; 2) drug stores; 3) Mass Merchandisers; 4) home improvement stores; and 5) hardware stores. The California-specific data are further segmented by service territory for each of the state's investor owned utilities: PG&E, SCE, and SDG&E.

CALIFORNIA RESIDENTIAL MARKET SHARE TRACKING – LAMP TRENDS, 2002, VOLUME 1 – SUMMARY REPORT

REGIONAL ECONOMIC RESEARCH
NOVEMBER 2002

This 4-page summary report provides the key results from the full lamp trends report described immediately above. This report offers a summary overview of the California and national market for PY2001 light bulb sales, with graphs to illustrate the findings.

CALIFORNIA RESIDENTIAL MARKET SHARE TRACKING – APPLIANCES 2001

REGIONAL ECONOMIC RESEARCH
NOVEMBER 2002

This report, which is one product of the ongoing Residential Market Share Tracking Project, offers a comprehensive look at the residential market for appliances. This report examines the efficiency shares, and average efficiencies for clothes washers, dishwashers, refrigerators, and room air conditioners sold throughout California. Sales data from independent appliance retailers and national chain retailers were analyzed to determine the statewide market share of Energy Star qualified appliances. The data contained in this updated report highlights key findings of the first two reports that cover appliance data from 1998 through year end 2001.

CALIFORNIA RESIDENTIAL MARKET SHARE TRACKING – APPLIANCE TRENDS, 2001 SUMMARY REPORT

REGIONAL ECONOMIC RESEARCH
NOVEMBER 2002

This 8-page report summarizes the key findings in the market for residential appliances, drawn from the full-length report described immediately above. The summary report includes several graphics to illustrate key points.

Section VII - Shareholder Performance Incentives

This section is not applicable for the 2002 Energy Efficiency Program Year.

There were no shareholder performance incentives authorized by the California Public Utilities Commission for 2002 Energy Efficiency Programs.

Section VIII - Summer Initiative

This section contains narrative that documents and explains the data shown for Tables TA 8.1 and TA 8.2.

Table TA 8.1 Program Expenditures – Summer Initiatives

This table documents those costs used in the summer initiative energy efficiency programs. These tables provide all program costs, including costs expended in 2002 and those costs associated with commitments from 2002 programs.

Program Incentives (Recorded)
Incentive costs represent incentives paid to customers during 2002 (Actual) as well as incentives associated with commitments from the 2002 summer initiative programs (Committed).

Program Administrative Costs (Recorded)
These costs include all expenditures directly charged to the program with the exception of incentive costs. The administrative costs consist of labor, non-labor, contract labor, and allocated material costs (See Also Table TA 8.2). These costs represent administrative costs expended during 2002 (Actual) as well as administrative costs associated with the handling of commitments from the 2002 summer initiative programs (Committed). These costs are representative of the utility administrative costs only. No administrative costs on the part of other parties are included in these administrative costs.

Other Costs
All program costs associated with SCE's 2002 summer initiative programs were delineated in the remaining categories. SCE does not have any 2002 summer initiative program costs classified as "Other".

Total Utility Costs
The sum of the Program Incentives (Recorded) columns, Program Administrative Costs (Recorded) columns, and Other costs.

Table TA 8.2 Direct and Allocated Administrative Costs – Summer Initiative Program Area

This table documents the breakdown of the actual administrative costs used in the summer initiative energy efficiency programs. These tables provide detail of all actual program administrative costs expended in 2002. These costs are representative of the utility administrative costs only. No administrative costs on the part of other parties are included in these administrative costs.

Labor Costs (Actual)
Labor costs consist of SCE labor charges that are directly charged to the program. These costs include salaries and expenses of SCE employees engaged in developing energy efficient marketing strategies, plans, and programs; developing program implementation procedures; reporting, monitoring, and evaluating systems. The reported costs reflect only the actual costs incurred in 2002 in support of 2002 summer initiative programs.

Non-Labor Costs (Actual)
Non-labor costs include materials, consultant fees, vendor contracts, and other miscellaneous costs charged directly to the program. These costs include items such as booklets, brochures, promotions, training, membership dues, postage, telephone, supplies, printing / photocopying services, and computer support services.

Contract Labor Costs (Actual)
Labor costs consist of contract employees' labor charges that are directly charged to the program. These costs include salaries and expenses of contract employees engaged in developing energy efficient marketing strategies, plans, and programs; developing program implementation procedures; reporting, monitoring, and evaluating systems.

Allocated Administrative Costs (Actual)
Allocated administrative costs represent those for building lease and maintenance costs and management oversight expenditures.

Total Administrative Costs (Actual)
The summation of the aforementioned utility administrative costs - Labor, Non-labor, Contract, and Allocated Administrative costs.

Table TA 8.1
2003 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
PROGRAM EXPENDITURES - SUMMER INITIATIVES
2002

	Program Incentives (Recorded)		Program Administrative Costs (Recorded) [1]		Other Costs	Total Utility Costs
	Actual	Committed	Actual	Committed		
Utility Programs						
Residential Pool Efficiency Program	$ 39,573	$ -	$ -	$ -	$ -	39,573
LED Traffic Signal Rebate Program	389,664	-	-	-	-	389,664
Hard To Reach	152,776	-	-	-	-	$ 152,776
Third Party Initiatives	17,982	-	-	-	-	17,982
Total Utility Programs						
Non-Utility Programs						
Residential Refrigerator Recycling	-	-	-	-	-	-
Campus Energy-Efficient Project	-	-	-	-	-	-
Beat The Heat	-	-	-	-	-	-
COPE	-	-	-	-	-	-
Total Non-Utility Programs						
Summer Initiative Total	$ 170,758	$ -	$ -	$ -	$ -	$ 170,758

[1] Administrative costs represent utility administrative costs only, as represented in Table TA 8.2.

Table TA 8.2
2003 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
DIRECT AND ALLOCATED ADMINISTRATIVE COSTS - SUMMER INITIATIVES
2002

	Actual Labor [1]	Actual Non-Labor [1]	Actual Contract [1]	Actual Allocated [1]	Actual Admin Total
Utility Programs					
Residential Pool Efficiency Program	$ -	$ -	$ -	$ -	$ -
LED Traffic Signal Rebate Program	-	-	-	-	-
Hard To Reach	-	-	-	-	-
Third Party Initiatives	-	-	-	-	-
Total Utility Programs	-	-	-	-	-
Non-Utility Programs					
Residential Refrigerator Recycling	-	-	-	-	-
Campus Energy-Efficient Project	-	-	-	-	-
Beat The Heat	-	-	-	-	-
COPE	-	-	-	-	-
Total Non-Utility Programs	-	-	-	-	-
Summer Initiative Total	$ -	$ -	$ -	$ -	$ -

[1] Administrative costs represent utility administrative costs only.

Section IX - Balancing Accounts for Post-1997 Energy Efficiency Activities and Non-IOU Payment Information

This section contains narrative that documents and explains the data shown for Table TA 9.1 through TA 9.3.

Table TA 9.1 Demand-Side Balancing Accounts

The balancing accounts described in Table TA 9.1 were authorized in Decision 97-12-103, the Interim Opinion on 1998 Utility Energy Efficiency Programs, and recently updated pursuant to Resolution E-3792.

In Decision 97-12-103, Ordering Paragraph 13, the Commission stated the following:

> In Phase 1, before the CBEE has legal authority to receive funds, the utilities will continue to administer and implement 1998 energy efficiency programs and incurs expenses associated with pre-1998 commitments. Procedures will be set up to track funds and expenditures associated with 1998 activities and pre-1998 commitments, and two balancing accounts will be created. The existing demand-side management balancing accounting will be maintained in one account, with unspent pre-1998 balancing account funds and expenditures associated with pre-1998 commitments (such as pre-1998 bidding program obligations) reflected in this account. No PGC moneys will be credited to the demand-side management balancing account; rather, a second new account will be established to track PGC funds that are allocable to the allowed 1998 energy efficiency programs, operating costs of the CBEE and the funds directed by the CBEE to a new administrator.

In Resolution E-3792 (as corrected by Resolution E-3807), Ordering Paragraph 1, the Commission stated the following:

> Edison, PG&E, and SDG&E are directed to collect and track program funds, along with interest earned on collected funds, as specified in this Resolution, in separate balancing accounts. This tracking will begin with customer billings on January 1, 2002 forward.

Table TA 9.2 Non-IOU Payments - 2002

SCE administers 15 programs which are implemented by non-utilities in California. All of the non-utility programs were chosen by the Commission in a 2002 solicitation. The budgets and payments made in 2002 by SCE in the administration of these programs are included in TA 9.2.

Budget
The budget reflects an aggregation of the 2002 budget for activities performed by Non-utility implementers in all utility service territories supported by the program and may support both electric and gas activities.

Payments
Payments owed to non-IOU implementers for worked performed from inception to 12/31/02.

Table TA 9.3 Direct and Allocated Administrative Costs – Utility Administration of Non-IOU Programs

This table documents the breakdown of the actual administrative costs used in the non-utility energy efficiency programs. These tables provide detail of all actual program administrative costs expended in 2002. These costs are representative of the utility administrative costs only. No administrative costs on the part of other parties are included in these administrative costs.

Labor Costs (Actual)
Labor costs consist of SCE labor charges that are directly charged to the program. These costs include salaries and expenses of SCE employees engaged in developing energy efficient marketing strategies, plans, and programs; developing program implementation procedures; reporting, monitoring, and evaluating systems. The reported costs reflect only the actual costs incurred in 2002 in support of 2002 non-utility programs.

Non-Labor Costs (Actual)
Non-labor costs include materials, consultant fees, vendor contracts, and other miscellaneous costs charged directly to the program. These costs include items such as booklets, brochures, promotions, training, membership dues, postage, telephone, supplies, printing/photocopying services, and computer support services.

Contract Labor Costs (Actual)
Labor costs consist of contract employees' labor charges that are directly charged to the program. These costs include salaries and expenses of contract employees engaged in developing energy efficient marketing strategies, plans, and programs; developing program implementation procedures; reporting, monitoring, and evaluating systems.

Allocated Administrative Costs (Actual)
Allocated administrative costs represent those for building lease and maintenance costs and management oversight expenditures.

Total Administrative Costs (Actual)
The summation of the aforementioned utility administrative costs - Labor, Non-labor, Contract, and Allocated Administrative costs.

Table TA 9.1
2003 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
PUBLIC PURPOSE PROGRAM BALANCING ACCOUNTS
2002

Balancing Account	Description	Authorized by
Public Purpose Programs Adjustment Mechanism (PPPAM)	Records Public Goods Charge Expenses authorized in P.U. Code 399.8.	Decision D.97-12-103; Resolution E-3792

Table TA 9.2
2003 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
NON-IOU PAYMENTS
2002

Non-IOU Implementer	Program Title	Budget [1]	Payments [2] (a/o 12/31/02)
ADM Associates, Inc.	Mobile Energy Clinic Program	$ 726,069	$ 326,232
Alliance to Save Energy	Green Schools, Green Communities	1,314,285	435,825
American Synergy Corporation	Comprehensive Hard-to-Reach Residential and Small Commercial Energy Savings Program	2,980,952	1,473,571
ASW Engineering	The Energy Savers Program	2,642,270	923,141
California State University Chancellor's	California State University Energy Efficiency Program Proposal	536,766	132,818
County of Los Angeles	The County of Los Angeles Internal Services Division Energy Efficiency Program	3,333,333	817,735
Ecos Consulting	Energy Star CFL Program for Small Hardware and Grocery Retailers	5,504,182	$ 1,333,582
Energy Coalition	The Energy District Approach for Sustainable Energy Efficiency in California	3,047,619	1,037,526
Geothermal Heat Pump Consortium	Proposal to Promote Geoexchange to SCE Customers	1,287,531	578,316
Global Energy Partners, LLC	Energy Efficiency Services for Electricity Consumption and Demand Reduction in Oil Production in the State of CA	1,730,250	422,254
Global Energy Services	Chinese Language Efficiency Outreach (CLEO)	703,752	280,263
Proctor Engineering Group Ltd.	Check Me	2,852,381	702,399
Quantum Consulting Inc.	Municipal Wastewater Retro-Commissioning	2,481,095	874,785
Rita Norton & Associates	South Bay Communities & Affiliates Energy Efficiency Program	1,904,761	495,562
Xenergy	Comprehensive Compressed Air Program	1,524,000	618,762
Total		$ 32,569,246	$ 10,452,771

notes -
[1] - Budget reflects an aggregation of all service territories supported by programs managed by SCE and may include both electric and gas.
[2] - Payments reflect payments owed to non-IOU implementer for worked performed from inception to 12/31/02.

Table TA 9.3
2003 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
DIRECT AND ALLOCATED ADMINISTRATIVE COSTS - UTILITY ADMINISTRATION OF NON-IOU PROGRAMS
2002

	Contract Admin	Actual Labor	Actual Non-Labor	Actual Contract	Actual Allocated	Actual Admin Total
	SCE	72,068	2,198	42,848	-	117,114
Total		$ 72,068	$ 2,198	$ 42,848	$ -	$ 117,114

notes -
Does not include various support activities expenditures (e.g., procurement, legal support, etc.).