02-05-007

2002 Energy Efficiency Annual Report

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May 2002

SOUTHERN CALIFORNIA
EDISON
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Executive Summary

Southern California Edison (SCE) has been assisting customers in the efficient use of electricity since the early 1900's, when it first worked with its agricultural customers in testing the efficiency of electrical pumps. In this long-standing tradition, SCE continues to ensure that customers receive high-quality energy efficiency services.

SCE's goals for 2001 reflect the urgency of today's energy supply situation in California. SCE continued its cost-efficient delivery of energy efficiency services that provide energy-saving solutions to all customer classes. SCE will continue to offer solutions in the form of energy efficiency information, energy management surveys, and financial incentives. These solutions will continue to preserve SCE's long tradition of assisting customers in the efficient use of electricity.

THE CURRENT ENERGY EFFICIENCY ENVIRONMENT

In Decision 97-02-014, and subsequent decisions, the Commission described its new focus for energy efficiency programs that transform the market for energy efficiency. The onset of the energy crisis in summer 2000 resulted in a return to traditional energy efficiency objectives of achieving immediate capacity reductions and energy savings.

SCE maintains its commitment to assist the Commission in meeting the state's goals for energy efficiency. In 2001, SCE continued to work with the Commission and other interested parties in the development of program plans which meet the Commission's goals and provide high quality energy efficiency programs to SCE's customers.

2001 ENERGY EFFICIENCY RESULTS

With the onset of the energy crisis in summer 2000, SCE's historic achievements in energy efficiency placed it in a unique position to respond quickly to new energy initiatives in 2001. SCE's 2001 energy efficiency programs achieved over 454,000 MWh of net annualized energy savings and a net demand reduction of 121.2 MW. In addition to achieving this level of energy savings, SCE continued to develop innovative programs designed to more effectively reach existing energy efficiency target markets. In 2001, SCE developed new ways to serve hard-to-reach customers. SCE's 2001 programs were targeted to both customers and energy efficiency suppliers to advance energy savings and peak capacity reductions in California's electricity infrastructure.

RESIDENTIAL PROGRAMS

SCE made significant enhancements to communication channels with its hard-to-reach customers. For example, for the first time, the Energy Guide was produced in five languages: English, Spanish, Chinese, Korean and Vietnamese. In addition, production of the Mass Market Information Kiosk was completed in the third quarter. Sixty-four kiosks were installed in retail stores and rural areas reaching underserved customers with Energy Guides and energy efficiency program information.

SCE also continued the provision of its highly successful residential energy management services through the In-Home Energy Survey, Telephone Survey, and the

Mail-in Survey, which provide customized energy advice to residential customers. SCE's Residential Survey programs achieved a 24% increase in 2001 with over 56,000 surveys completed. The Online Energy Survey was introduced in September 2000. It allows residential customers to receive the same personalized energy usage information and cost-savings recommendations over the Internet.

As an incentive to motivate contractors to expeditiously install approved projects in the Residential Contractor program, SCE initiated a new payment-in-full, one payment schedule

SCE's new Home Energy Rebate program focused on the purchase and installation of ENERGY STAR®-qualified refrigerators, whole house fans, and ENERGY STAR®-qualified central air conditioners, among many other products. In total, it achieved over 9,400 MWh of annual energy savings and a peak reduction in excess of 9.7 MW.

In SCE's continuing commitment to protect the environment and reduce energy, the Refrigerator Recycling program recycled more than 45,000 refrigerators and freezers, which resulted in a total annualized energy savings of over 53,600 MWh and peak demand reduction of 9.1 MW. As an added incentive to customers, SCE offered a five-pack of compact fluorescent bulbs to customers who recycled their inefficient refrigerator or freezer.

The California Home Energy Rating System (CHEERS) again achieved significant results. In support of the In-Home Audit program, CHEERS conducted over 5,149 Energy Wizards, which are twice as many as in 2000. An Energy Wizard, a less comprehensive audit, provides potential new homeowners information on possible energy upgrades the home may need.

The Mobile Education Unit continued its successful outreach efforts throughout SCE's service territory. Site visits were conducted in 31 rural areas, reaching approximately 16,100 geographically hard-to-reach customers. In addition, 65 visits were made to SCE service areas with predominately Hispanic or Asian populations. These targeted outreach efforts resulted in providing energy efficiency information to an additional 21,000 hard-to-reach customers.

In 2001, the Residential Lighting program shifted emphasis from retailer training and education to increased financial incentives to manufacturers that immediately reduced the price of energy efficient lighting products. Through SCE's efforts, customers received a $3 discount per unit off the purchase price of ENERGY STAR®-qualified compact fluorescent lamps and a $10 discount per unit for a torchiere or hardwired indoor/outdoor lighting fixtures. As a result, over 356,500 bulbs were sold with a $3 incentive, over 58,350 torchieres were sold with a $10 incentive and over 16,280 fixtures were sold with a $10 incentive resulting in net savings of 30,000 MWh and nearly 28.0 MW.

NONRESIDENTIAL PROGRAMS

To maximize energy and demand savings, SCE made a number of significant programmatic changes to the nonresidential portfolio. One of the most significant changes was the expansion of the Express Efficiency rebate program to include financial incentives to small business, commercial, industrial and other nonresidential customers. SCE also continued its very successful Summer Initiative light emitting diode (LED) Traffic Signal Rebate offering through

Express Efficiency. Additionally, through Express Efficiency, SCE implemented "Blitz" initiatives promoting specific measures (e.g., window film) targeted to the smaller business customers. The Standard Performance Contract program requirements were also modified to simplify the application process. As a result of these program modifications, SCE has achieved approximately 266,000 MWh of net annualized energy savings and over 50.7 MW of net demand reductions in 2001.

SCE's Customer Technology Application Center (CTAC) and Agricultural Technology Application Center (AGTAC) serve as focal points for customers to attend workshops and observe product demonstrations and displays featuring state-of-the-art energy efficiency technologies for commercial, industrial, and agricultural customers. SCE's Emerging Technologies Showcasing projects offer real-world applications for the commercialization of innovative technologies.

The highly successful Agricultural Services program performed 3,713 pump tests and 335 enhanced pump tests, which resulted in nearly 14,500 MWh of annualized energy savings, 20% more than the achieved savings from last year.

SCE continued to provide answers to customers' questions and advice regarding energy efficiency products and services through the Small Business Energy-Use Survey/Small Energy Management Services, and Large Commercial/Industrial Services.

The 2001 Express Efficiency program was expanded to include small businesses, commercial, industrial, and other nonresidential customers. This highly successful program achieved more than 40,500 MWh of annualized energy savings and 9.0 MW of demand reduction.

SCE continued to offer its Premium Efficiency Motor Distribution Incentive and Heating, Ventilating and Air Conditioning (HVAC) Contractor programs which provide multi-year market intervention strategies designed to transform the market for premium efficiency three-phase electric motors and energy efficient HVAC equipment.

The cornerstone of the financial incentives programs is the Standard Performance Contract (SPC) program. In its fourth year of operation, the Large SPC program was fully subscribed; achieving over 33,600 MWh of annualized energy savings and 6.2 MW of demand reduction. This was the first year of operation for the Small/Medium SPC and it was successful in achieving full subscription, achieving approximately 7,700 MWh of annualized savings and 1.5 MW of demand reduction.

SCE made significant contributions to the Emerging Technologies Coordination Council that is 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 2001, SCE had significantly increased funding in the residential and nonresidential new construction market. SCE continued to offer incentives to homebuilders to encourage them to build ENERGY STAR® - qualified homes through a whole house approach. SCE also implemented a manufacturer incentive

program, which encouraged air conditioning distributors to sell higher efficient units to builders at reduced prices. In the nonresidential market, SCE continued to offer the very successful Savings By Design program. Although the new construction activities have a much longer lead-time before buildings are constructed, these programs capture significant lost energy savings opportunities. By the end of 2001, these programs achieved approximately 69,000 MWh of net annualized energy savings and 19.4 MW of net demand reductions.

SUMMER INITIATIVE

In response to the energy crisis, the Commission selected eight initiatives designed specifically to reduce energy consumption during peak summer periods: Residential Refrigerator Recycling program, Pool Efficiency program, LED Traffic Signal Rebate, Campus Energy-Efficient Project, Beat the Heat, Hard to Reach, California Oil Producers Electric Cooperative, and a Third Party Solicitation conducted by SCE. The programs were conducted in the summer months and funded with unspent funds from prior years' energy efficiency program funds. For the most part, these funds became available when customers who had previously committed to install energy efficiency measures failed to do so.

By December 31, 2000, the Summer Initiative Refrigerator Recycling program had been completed in SCE's service territory. By August 31, 2001, the program was completed in both PG&E and SDG&E's service territory. The SCE program resulted in over 8,800 units being collected and recycled.

SCE rolled out an aggressive Residential Pool Efficiency program. 55,300 customers participated which is 160% more than last year and $2.7 million was paid in rebates.

In the highly successful LED Traffic Signal Rebate program, 27 cities received rebates on 18,000 red; 15,800 green; 36 flashing amber signal heads; and 3,000 hand/pedestrian signals.

The Campus Energy Efficiency Project provided financial incentives for energy demand reduction projects at Cal Poly Pomona and California State University at Long Beach. By June 2001, Cal Poly Pomona submitted its final report for the completion of their thermal energy storage expansion project which resulted in an energy demand reduction of 1.5 MW and nearly 4,000 MWh of annualized energy savings. CSULB submitted its report for their lighting, high efficiency motors, and variable speed drive projects that resulted in an energy demand reduction of just under 1.6 MW and nearly 3,700 MWh of annualized energy savings.

Beat the Heat program encouraged commercial and industrial customers to replace their 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 halogen torchieres that were replaced. ECOS, under the guidance of SCE, was able to exchange 731 torchieres that achieved a savings of 3,700 MWh and .4 MW of demand reduction.

A Hard-to-Reach Initiative was targeted to multifamily apartment complexes, mobile home parks, and condominium complexes. Incentives were paid for a wide variety of qualifying measures including: lighting, refrigerators, clothes washers, dishwashers, HVAC equipment, thermal shell measures, water heaters and water flow restrictors.

Total program funds are fully subscribed resulting in an energy savings of 15,000 MWh and 7.3 MW of demand reduction.

The California Oil Producers Electric Cooperative summer initiative provided incentives to members that achieve peak demand reduction. A total of 49 projects were implemented resulting in nearly 12,000 MWh energy savings and 1.6 MW demand reduction.

MARKET ASSESSMENT & EVALUATION AND REGULATORY OVERSIGHT

SCE's MA&E group completed statewide studies areas of market share tracking for residential energy efficiency measures, large nonresidential customers and programs, and the nonresidential new construction market, including nonresidential new construction codes and standards. SCE's MA&E group also worked on projects designed to meet the information needs of SCE program planners and implementation contractors, and to meet milestones in SCE's shareholder earnings mechanism.

SHAREHOLDER INCENTIVE MECHANISM

The 2001 performance incentive mechanism allows SCE to recover incentives for successful program implementation and management. SCE's earnings claim for 2001 energy efficiency activities is $5.591 million.

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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.

2001 Results and Achievements

During 2001, SCE implemented a two-page residential "Quick Tips" Energy Guide that includes suggestions on how customers can conserve energy usage along with references to energy efficiency programs available to them. These redesigned Energy Guides were made available in English, Spanish, Korean, Chinese, and Vietnamese.

Energy Guides were distributed through phone center inquiries, home/trade shows and fairs, trade and ethnic associations, energy centers, home improvement stores, schools, chambers of commerce, community-based organizations, non-profit agencies, and integration with other energy efficiency activities.

Production of the Mass Market Information Kiosk was completed in the third quarter. Sixty-four kiosks were installed in retail stores and rural areas with the intent of reaching underserved customers with energy guides and energy efficiency program information in English and Spanish.

SCE distributed a total of 128,994 Energy Guides in five languages as follows: 97,591 English; 20,782 Spanish; 6,576 Chinese; 2,025 Korean; 2,020 Vietnamese.

Residential Energy Management Services

RESIDENTIAL ENERGY SURVEYS

Program Description

Residential energy survey programs are 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 various forms such as mail-in, in-home, phone, or online and provide customers (including moderate income) or their children (e.g., school-based audits) 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® Mobil Education Unit; e-mail promotions; direct mail; bill messages or inserts; print media advertising; Internet; local governments; phone centers; and ethnic, trade, and community associations.

IN-HOME SURVEY

In-Home Energy Surveys provide customers with recommendations on saving energy. Customers request in-home surveys 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.

TELEPHONE SURVEY

Telephone Energy Surveys are offered to customers who cannot complete a Mail-In Energy Survey; do not have time to participate in an In-Home Energy Survey; or do not have access to a computer for the Online 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.

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 the web. 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.

ONLINE ENERGY SURVEY

SCE introduced the Online Energy Survey for residential customers in September 2000. The survey is accessible through www.sce.com. The program allows residential customers to receive the same personalized energy usage information and cost-savings recommendations over the Internet.

2001 Results and Achievements

In 2001, over 56,000 residential energy surveys were completed resulting in an energy savings of 9,261 MWh and a demand reduction of 3.55 MW. A majority of the customers opted for the mail-in audit to conduct the survey. In its first full year of availability, over 8,600 online energy surveys were completed, which represented approximately 15% of all surveys completed by customers.

Residential Energy Efficiency Incentives

RESIDENTIAL CONTRACTOR PROGRAM (RCP)

Program Description

The overarching goal of SCE's Residential Contractor Program (RCP) is to stimulate a competitive and sustainable market for residential energy efficiency products and services. The RCP features two distinct program elements: Single-Family and Multi-Family.

The Single-Family element applies to single-family homes, condominium dwelling units, small, attached apartments (e.g., duplexes, tri-plexes and four-plexes) and mobile homes. This element promotes a whole system approach, emphasizing certain comprehensive measure packages, such as a set of heating, ventilating and air conditioning (HVAC) measures, and delivers the program through approved contractors.

The Multi-Family element applies to apartment dwelling units, and common areas of mobile home parks, condominium and apartment complexes. It provides a performance-based standard performance contract offering similar to the Small Business Standard Performance Contract program.

2001 Results and Achievements

In 2001, the Single-Family element totaled almost 20,300 voucher/applications representing approximately 3,589 MWh of net annualized energy savings and a peak demand reduction of 1.08 MW.

The Multi-family element of the program totaled 203 multi-dwelling sites, representing approximately 13,631MWh in net annualized energy savings and a peak demand reduction of 0.25 MW. Although the Multi-family element offered incentives for a variety of measures, lighting measures accounted for over 92 percent of the savings and the remainder resulted from water heater controller installations.

The RCP incentive budgets for both Single-Family and Multi-family were fully subscribed.

Residential Energy Efficiency Incentives

RESIDENTIAL HOME ENERGY REBATE PROGRAM (HER)

Program Description

The Residential Home Efficiency Rebate (HER) program encourages residential customers to reduce energy consumption through a wide range of residential energy efficiency rebate opportunities. The HER program provides financial incentives for the purchase and installation of select energy-efficient products and seeks to improve the knowledge, attitude toward, and acceptance of energy-efficiency practices in the home. The program complements the nationwide DOE/Environmental Protection Agency ENERGY STAR® (DOE/EPA ENERGY STAR®) program.

2001 Results and Achievements

In 2001, the HER program encouraged residential customers to purchase and install over 57,000 ENERGY STAR®-qualified refrigerators, 7,700 whole house fans, and 10,000 ENERGY STAR ®-qualified central air conditioners, among many other products. This represents over 9,465 MWh of annual energy savings and a peak demand reduction in excess of 9.75 MW.

Residential Program Area

Residential Energy Efficiency Incentives

RESIDENTIAL REFRIGERATOR RECYCLING

Program Description

This 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 working; and
- Appliance volume should be between 10 and 27 cubic feet.

2001 Results and Achievements

In 2001, the Refrigerator Recycling program recycled over 45,700 refrigerators and freezers, which produced a total annualized energy savings of 53,613 MWh and peak demand reduction of 9.09 MW. Customers were given the ability to request a refrigerator pick up through SCE's website, www.sce.com, 24 hours a day, 7 days a week or by calling SCE's toll-free number.

Approximately 8% of the customers requested the new five-pack compact fluorescent light incentive offer (in lieu of the $35 check). This resulted in 1,039 MWh and 1.01 MW of additional energy savings and demand reduction, respectively. The 2001 program exceeded the number of units collected in 2000 and achieved the highest unit volume since the inception of the program.

Over 4,500 tons of scrap metal; 16,900 pounds of CFC refrigerants; 3,300 gallons of compressor oil; 2,900 pounds of capacitors/ballasts; approximately 0.9 pounds of mercury switches and thermocouples; and approximately 240 pounds of batteries were recovered and recycled in an environmentally safe manner.

Upstream Programs

CALIFORNIA HOME ENERGY EFFICIENCY RATING SYSTEM (CHEERS)

Program Description

The California Home Energy Efficiency Rating System (CHEERS) is a non-profit corporation whose mission is to develop, implement, and manage a market-driven residential Home Energy Rating (HERS) audit/verification tool for new and existing homes in California. Representatives from the building, lending, real estate, and utility industries along with various state regulators, are involved in the CHEERS effort.

CHEERS audits and rates the energy efficiency of a home, primarily focusing on the thermal envelope and heating, ventilating and air conditioning (HVAC) systems. They also audit lighting and appliances. The audit and subsequent rating provides energy efficiency recommendations based on the overall cost effectiveness of the improvement. The traditional HERS is an in-depth energy audit which provides the house a "score" (from 1 to 100) of its energy efficiency rating. It offers documentation in support of consumers' applications for Energy Efficiency Mortgages for existing homes.

A less comprehensive audit, the Energy Wizard, provides potential new homeowners information on possible energy efficiency upgrades the home may need. The Energy Wizard is a useful measurement tool, however it does not include the HERS rating.

CHEERS is currently the only HERS provider certified in California which qualifies to facilitate the Title 24's Alternative Calculation Methodology for residential new construction. CHEERS worked with the building industry in 1999 to create the "Cookbook," a manual for Title 24 and ENERGY STAR® compliance.

2001 Results and Achievements

CHEERS spent the majority of 2001 supporting the new 2001 Title 24 standards which became fully effective January 1, 2002. One thousand third-party inspections and verifications were conducted in support of residential new construction program initiatives and activities. In 2001, 19 traditional CHEERS ratings were performed, and in support of the In-Home Audit program, CHEERS conducted over 5,149 Energy Wizards.

Upstream Programs

RESIDENTIAL APPLIANCE (ENERGY STAR® LABELING)

Program Description

The 2001 Appliance program was designed to be complementary to the nationwide DOE/EPA ENERGY STAR® program. The programs included refrigerators and room air conditioners.

In 2001, SCE worked closely with five major appliance manufacturers and nearly 200 retailers to promote ENERGY STAR® qualified appliances. As part of this program, SCE provided funding for the manufacturers to promote the ENERGY STAR® versions of the products they offer, special labeling materials for the retailers, and in-store visits to ensure the sales representatives were knowledgeable about the programs and that sufficient materials were available to promote the products.

2001 Results and Achievements

Accomplishments in 2001 included:

- recruited 179 appliance stores in SCE's service territory to participate in the Appliance Labeling program
- provided point-of-purchase materials to these participating stores
- conducted visits to each participating appliance store to ensure proper use of ENERGY STAR® appliance labeling materials and knowledge of sales associates.

Upstream Programs

RESIDENTIAL LIGHTING

Program Description

The Residential Lighting program provided customers rebates when they purchase compact fluorescent lighting products through an upstream method. In a co-op arrangement, SCE provided manufacturers with rebates which allowed manufacturers to pass the rebates on to the retailers, who promoted the competitive pricing of these products. More retail channels were developed and opened with this approach, as the manufacturers' reach is much longer than the investor-owned utilities or the retailers.

Through SCE's efforts with lighting manufacturers to buy down the cost of energy-efficient lighting products, customers received a $3 discount per unit off the purchase price of an ENERGY STAR®-qualified compact fluorescent lamp and a $10 discount per unit for a torchiere or hardwired indoor/outdoor lighting fixture.

The program also includes torchiere exchange activities. In events held throughout SCE's service territory, customers received a new energy-efficient torchiere lamp in exchange for their existing halogen unit.

2001 Results and Achievements

Accomplishments in 2001 included:

- In the Co-op Lighting Program, over 356,500 bulbs were sold with a $3 incentive and over 58,350 torchieres and 16,280 fixtures were sold with a $10 incentive.
- The 13 retailers who participated in the Lighting program were: Costco, WalMart, Sam's Club, Lowe's Home Improvement Warehouse, Long's Drugs, Home Depot, Albertson's, California Do-It Centers, House2Home, Fisher Malibu Lumber, All American Home Centers, B&B Hardware, and Lamps Plus.
- The Torchiere program (that preceded the Co-op and was ultimately incorporated into Co-op) sold 3,500 torchieres through Orchard Supply Hardware.
- As part of the Torchiere Turn-In program, approximately 16,400 bulbs and 9,400 torchieres were distributed in the cities of Santa Monica and Irvine.

The Co-op Lighting and Torchiere Turn-In programs achieved 30,035 MWh of annualized energy savings and a demand reduction of 27.50 MW.

Upstream Programs

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.

2001 Results and Achievements

Accomplishments in 2001 include:

- conducted 208 visits where customers learned about energy efficiency and were able to obtain copies of Energy Guides and rebate program information
- contacted a total of 56,748 customers
- partnered with nine cities to host Energy Fairs for local residents utilizing the MEU as a focal point for consumer education
- visited 31 rural locations that accounted for approximately 16,100 hard-to-reach customer contacts
- made 65 visits to SCE service areas where Hispanic or Asian populations accounted for more than 47 percent of households. This outreach resulted in an additional 21,000 hard-to-reach customers.
- continued the "Pin Program," teaching retail employees about energy efficiency. More than 500 retail employees earned our "Ask Me" pin in 2001.

Upstream Programs

THIRD-PARTY INITIATIVE - SOFTWARE TOOL FOR RESIDENTIAL ENERGY-USE ANALYSIS

Program Description

Initiated through the third-party initiatives, the Software Tool For Residential Energy End-Use Analysis is a user-friendly software program for assessing energy efficiency opportunities for residential customers. It provides graphic descriptions of the energy and economic implications of residential building design decisions accessible to the average residential customer. The project is creating a Java graphical user interface for the Solar 5.4 Energy Modeling Program, and customizing the energy data for SCE's service territory.

2001 Results and Achievements

The Home Energy Efficient Design (HEED) program completed its current phase of development in April. The software was constantly reviewed and revised to meet the desired results. The user-friendly program offers clear graphical illustrations for both beginning and advanced users. Several workshops were conducted for students, architects, and other professionals. Over 1,000 downloads of the program occurred after June, 2001 and it is estimated that 80% of those were from first-time users. As a result of their input, frequently asked questions were included in the updated program. Also, users were questioned as to the success of the measures implemented as recommended by this program, at which time a peak load reduction estimate can be established.

Residential Program Area

Table 2.1
2002 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
RESIDENTIAL PROGRAM AREA

	2001 Budget [1,2,3]	2001 Recorded [1,2,3,4]
Information	$ 3,047,250	$ 2,736,019
EMS	1,700,000	1,683,138
EEI		
SPCs (RCP)	4,716,500	4,716,500
Rebates	12,093,250	12,093,389
Loans	-	-
Other	-	-
Upstream Programs		
Information	3,338,000	3,334,240
Financial Assistance	3,210,000	3,163,963
Residential Total	$ 28,105,000	$ 27,727,247

[1] Excludes Shareholder Incentives and Other Costs, as shown in TA 2.1A.
[2] Amounts reflect Program Year 2001 (PY01) funds, as of December 31, 2001.
[3] Amounts exclude $4.5 million in DSM funds authorized for use in Advice 1570-E.
[4] All Recorded amounts include payments in 2001 and amounts committed to projects in 2001. Committed amounts may not be fully realized.

Table 2.2
2002 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY PROGRAM EFFECTS: ELECTRIC
RESIDENTIAL PROGRAM AREA

	2001 First Year Net Annualized Capacity Savings (MW) [1,2]	2001 First Year Net Annualized Energy Savings (kWh) [1,2]	2001 Net Lifecycle Energy Savings (kWh) [1,2]
Information	-	-	-
EMS	3.56	9,261,153	9,261,153
EEI			
SPCs (RCP)	1.33	17,219,848	154,978,634
Rebates	18.83	63,077,621	883,086,696
Loans	-	-	-
Other	-	-	-
Upstream Programs			
Information	-	62,148	62,148
Financial Assistance	27.50	30,035,382	540,636,884
Residential Total	51.22	119,656,153	1,588,025,516

[1] Net Savings reflect Commission-adopted net-to-gross ratios.
[2] Amounts exclude $4.5 million in DSM funds authorized for use in Advice 1570-E, resulting in approximately 20 million kWh and 4.0 MW.

Residential Program Area

Table 2.3
2002 Energy Efficiency Annual Report
SUMMARY OF COST-EFFECTIVENESS: ELECTRIC
(Benefit-Cost Ratios)
RESIDENTIAL PROGRAM AREA

	2001 Program Administrator Cost Test	[1]	2001 Total Resource Cost Test	[1]
Information		-		-
EMS		3.51		3.51
EEI		2.96		1.74
SPCs (RCP)		3.15		2.91
Rebates		-		-
Loans		-		-
Other				
Upstream Programs		0.03		0.03
Information		3.77		2.26
Financial Assistance				
Residential Total		2.58		2.08

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

Table 2.4
2002 Energy Efficiency Annual Report
SUMMARY OF COST-EFFECTIVENESS: ELECTRIC
RESIDENTIAL PROGRAM AREA
(Net Benefits)

		2001 TRC
Information	$	(2,736,019)
EMS		4,691,239
EEI		
SPCs (RCP)		6,475,801
Rebates		27,559,194
Loans		-
Other		-
Upstream Programs		
Information		(3,405,142)
Financial Assistance		7,463,464
Residential Total	$	40,048,537

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Nonresidential Information

CUSTOMER TECHNOLOGY APPLICATION CENTER (CTAC)/ AGRICULTURAL TECHNOLOGY APPLICATION CENTER (AGTAC)

Program Description

SCE is home to two distinct energy centers. CTAC and its companion center, AGTAC, share technical expertise and energy education products to provide SCE customers with a diverse range of educational products and services.

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, all where vendors and manufacturers contribute equipment to showcase technologies. CTAC's 110-seat Executive Conference Center is used for workshops and seminars.

AGTAC offers valuable environmentally friendly, energy-efficient and cost-competitive solutions to the agricultural community. This 16,000 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; 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; heating, ventilating and air conditioning (HVAC); lighting; and other innovative products and services.

AGTAC's informational education program and service offerings primarily focus on agricultural customers; however, offerings also are available to industrial, commercial, and residential customers. AGTAC offers farmers, growers, dairymen, food processors, and businesses a large portfolio of programs and services that

can help them save money on their energy bills and make more informed decisions about energy use, equipment purchases, and production processes. In addition, a variety of business and community meetings are held at AGTAC. By holding these meetings, AGTAC connects customers to energy efficiency ideas, technologies, and solutions.

AGTAC specialists offer seminars and consultation in the areas of energy management and services, lighting applications, irrigation, heating and ventilation, pumping, motor technologies, industrial processes, and communications. Video-conference technology allows AGTAC visitors the opportunity to take advantage of seminars, lectures, and demonstrations offered globally and at CTAC without leaving the San Joaquin Valley.

2001 Results and Achievements

The following activities took place at CTAC in 2001: 1,419 events; 62 off-site events; 111 energy efficiency seminars; 128 technical demonstrations; 1,520 technical consultations; and 22,503 attendees.

The following activities took place at AGTAC in 2001: 336 events; 746 technical demonstrations; 42 energy efficiency seminars; and 11,598 attendees.

Several new classes were developed and offered at CTAC and AGTAC including: Operating an Energy Efficient Restaurant; Technology Review; Compressed Air Systems; Industrial Maintenance; Skylighting Design; and Basic Instrumentation & Sensors.

New displays at CTAC in 2001 included installation of a twenty foot diameter, high volume, low speed (HVLS) ceiling fan for use in industrial, warehouse, manufacturing and agricultural applications. The HVLS fan is more efficient and outperforms smaller pedestal fans. Daylight harvesting systems, for commercial and industrial applications, were installed in two areas of CTAC. These systems are equipped with light level sensors, dimming or switching controls and metering to indicate energy savings. A variable speed drive (VSD) unit was installed on the plastic injection-molding machine in the Industrial Technology Center. It can now be demonstrated how a VSD can reduce energy use by up to 50% on hydraulic plastic injection-molding machines.

At AGTAC, the following displays and exhibits were completed: An energy management system with electronic automated programmable controls and information tracking capabilities for lighting and HVAC with remote accessibility; sky-lighting with day-lighting controls; two information kiosks with energy tips and a quiz; an interactive wall insulation exhibit; ENERGY STAR® office equipment energy use statistics in graphics; product upgrades to the outdoor lighting exhibits; and a static display which compares energy efficiency information on compact fluorescent and incandescent lamp usage.

With the cooperation of the Center of Irrigation Technology from California State University, Fresno, and private industry, AGTAC completed an extensive design of a multipurpose 30,000-gallon interactive water flow and pumping efficiency exhibit for the outdoor demonstration grounds. Two 100-foot long concrete water canals outfitted with various electronic and automatic water flow measurement and control devices will be combined with a six-pump demonstration station to address ways to efficiently manage, flow, pump and control large volumes of water in agricultural and/or water district type

conditions. As a cooperative project, industry has committed donations of various equipment and services.

In 2001, CTAC continued a partnership with Cal Poly Pomona's Center for Lighting Education and Applied Research to develop a "Multimedia Lighting Education Program." This program provides education and training on energy efficiency for lighting professionals and practitioners. Information on energy-efficient practices and new technologies are disseminated through existing California statewide educational/instructional networks (i.e. satellite down links, internet sites, community colleges, etc.)

At AGTAC, the University of California at Davis completed its fourth year of a five-year applied research project on "Best Management Practices for Irrigation Scheduling of Trees and Vines." Three electronic devices are used in the research to control waterings for efficiency while seeking to maximize crop yield.

During 2001, Outreach supported over 60 energy efficiency events, including trade shows, community events, conferences, and external business events. The Outreach program provided staffing, displays, demonstrations, and hand-out materials to over 50,000 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 Pacific Energy Center, and SoCalGas' Energy Resource Center, again collaborated to enhance seminar offerings through the sharing of classes. CTAC and AGTAC held a total of nine classes that were a part of this joint effort.

Operating an Energy Efficient Restaurant	April 26, 2001
Lighting and Daylighting for Architects and Designers	September 13, October 3
Notebook of a Site Engineer	September 13
High Performance Schools	September 18
Designing High Performance Health Care Facilities	September 20
Integrated Building Design	September 25
Design Strategies for High Performance Glass	November 7
Designing Sustainable Libraries	November 8

Nonresidential Energy Management Services

AGRICULTURAL SERVICES

Program Description

The Agricultural/ Pumping Services program element is intended to influence water agencies, municipalities, agricultural, and other pumping customers to adopt preventative maintenance practices that should 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.

2001 Results and Achievements

In 2001, SCE hydraulic test specialists tested 3,713 pumps and provided over 335 enhanced pump tests.

Nonresidential Energy Management Services

SMALL BUSINESS ENERGY-USE SURVEY/SMALL ENERGY MANAGEMENT SERVICES

Program Description

This program augments other utility program elements which serve the nonresidential market by providing special services to serve the "under served" market segment, which includes minority- and women-owned businesses. This includes promoting awareness of energy efficiency and its benefits to businesses, nonprofit organizations, and specific customer trade and ethnic associations and their members. This program also cultivates relationships between vendors and traditionally "hard-to-reach" small business market sub-segments (e.g., non-English primary language, etc.)

SMALL BUSINESS ENERGY USE SURVEY
In 2001 the Small Business Energy Use-Survey was provided in two formats: hardcopy (mail-in) and on-line. It provided customers with energy efficiency information to help them reduce their energy bills. The surveys also provided an opportunity to introduce other energy efficiency products and services such as small commercial/industrial rebates and ENERGY STAR®- rated products.

SMALL ENERGY MANAGEMENT SERVICES
Small Energy Management Services are provided to customers through direct customer contact, or in response to direct mail/program advertisement. Through this program, SCE also responds to contacts initiated by customers when they have questions about energy efficiency programs or measures.

2001 Results And Achievements

SMALL BUSINESS ENERGY-USE SURVEY
By the end of 2001, the program completed 925 online surveys and 149 mail-in surveys for a total of 1,074.

SMALL ENERGY MANAGEMENT SERVICES
In 2001, the program supported nearly 80 presentations to trade associations and over 1,900 direct customer contacts for technical support.

Nonresidential Energy Management Services

LARGE COMMERCIAL AND INDUSTRIAL SERVICES

Program Description

The Large Commercial and Industrial Energy Management Services (EMS) program promotes implementation of energy efficiency measures and practices while simultaneously informing customers about the current status of energy efficiency. Program representatives continue to inform customers on current energy efficiency program offerings.

SCE informs customers of energy efficiency programs available to them and keep them informed of energy efficiency regulations as they continue to evolve. Outreach activities and supporting materials inform customers of the developing statewide focus of energy efficiency programs.

Customers often contact SCE when they have questions about energy efficiency programs or measures. SCE continues to provide the resources in order to respond to these inquiries with explanations of the current program offerings in today's marketplace.

2001 Results And Achievements

In 2001, customers continued to be contacted through workshops or individually regarding energy efficiency programs. Customer contact continues to be a contributing factor to the success of Standard Performance Contract, Express Efficiency and other nonresidential programs. These customer communications were used as the primary means to educate customers on the value of energy efficiency in today's market and thus positively influence the sustainability of the energy efficiency market.

Nonresidential Energy Efficiency Incentives

EXPRESS EFFICIENCY

Program Description

The Express Efficiency program provides financial incentives to small business, commercial, industrial and other nonresidential customers to increase energy efficiency. In order to facilitate the use of available funds, an incentive cap of $50,000 per customer was instituted. Measure types available for rebates include lighting retrofits, food service refrigeration, air conditioning units, control equipment, and LED (light emitting diode) Traffic Signals.

2001 Results And Achievements

In 2001, the Express Efficiency Program achieved over 188,864 MWh of annualized energy savings and approximately 34.17 MW of demand reduction. Nearly 1,000 direct rebates were issued.

The 2001 LED Traffic Signal Rebate program was fully committed, with 45 cities participating representing almost $3.2 million in incentives, 31,300 MWh of annualized energy savings, and just under 7.0 MW of demand reduction.

Nonresidential Energy Efficiency Incentives

STANDARD PERFORMANCE CONTRACT (SPC)

Program Description

The Large and Small/Medium Nonresidential Standard Performance Contracting 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.

2001 Results And Achievements

LARGE SPC
The Large SPC program operation commenced in late March 2001. By year-end 2001, the program was fully subscribed. It achieved over 33,647 MWh of net annualized energy savings and 6.22 MW of net demand reduction. The dollar value of committed incentives totals more than $5.8 million.

SMALL/MEDIUM SPC
The Small/Medium SPC program was introduced in March 2001. By year-end, the program's entire incentive budget was subscribed. The program has achieved approximately 7,770 MWh of net annualized savings and 1.54 MW of demand reduction.

Upstream Programs

EMERGING TECHNOLOGIES

Program Description

The Emerging Technologies program consists of two main parts: Demonstration & Information Transfer, and the Emerging Technologies Coordinating Council.

The Demonstration & Information Transfer component introduces new energy efficient applications to the market. The audiences for SCE's statewide emerging technologies showcase alliances are commercial, industrial, and agricultural, and mass market customers, builders, building owners, and design professionals. These customers and business groups are reluctant to try innovative energy efficiency solutions, tending to operate as they have in the past. To overcome their reluctance, we provide data on the performance of energy-efficient systems installed in actual projects. Showcase alliances with customers in key market segments are carefully structured projects that are documented, generate actual data on energy-efficient technologies, and make the information available to a wide, targeted audience.

The Emerging Technologies Coordination Council was founded in 2000. The Council is a statewide information exchange and coordination effort between SCE, PG&E, SoCalGas and SDG&E and the California Energy Commission's (CEC) Public Interest Energy Research (PIER) program. Each utility's Emerging Technology program consists of activities that may be coordinated with other utilities and the CEC, possible joint projects, and activities that are unique to the utilities' service territory and customer base.

Emerging Technologies Showcases have the following characteristics:

- Demonstration projects at customer sites in order to showcase promising "off-the-shelf" technologies, or new and innovative techniques that develop through the design and construction documentation process;
- Documentation of energy and demand impacts through engineering analysis;
- Documentation of performance and maintenance requirements;
- Customer visits to showcase sites to increase knowledge and comfort level; and
- Dissemination of results through fact sheets, web pages, ads, technical journals, newspapers, magazines, and technical presentations.

The program reduces market barriers in several ways. The data generated at showcase sites make it convenient and less costly for the target audience to acquire information about emerging energy-efficient technologies. Similarly, criticism of emerging energy-efficient technologies is reduced through actual site information and customer visits to the showcase sites. Both help provide a better understanding of

the benefits of energy-efficient practices. The showcase sites help to overcome years of "business as usual" in building and design practices that continue the use of outdated technologies.

The Codes and Standards program element proposes enhancements to various energy efficiency standards and codes, thereby capturing the benefits for society from California's diverse energy efficiency efforts. Codes and Standards Enhancement (CASE) initiatives for specific energy efficiency improvements were developed for promising design practices and technologies. Energy efficiency measures promoted through Residential and Nonresidential New Construction programs are candidates for CASE initiatives. Completed CASE initiative reports will be presented to standards and code-setting bodies to facilitate adoption.

2001 Results And Achievements

During 2001, SCE signed 13 new agreements with customers to showcase energy efficiency emerging technologies at their place of business. Due to the new construction nature of many showcases, project construction, testing, and monitoring are not typically completed within a single calendar year. It is expected that these showcase projects will be constructed, tested, and monitored for performance over the next two years.

The four investor-owned utilities and the CEC held several meetings as part of the Emerging Technologies Coordinate Council. SCE maintains the group's web site and emerging technologies database. The database contains descriptions of most of the utilities sponsored emerging technology projects as well as many of the CEC PIER projects.

SCE's Statewide Codes and Standards technical staff participated in the statewide team meetings and planning workshops for the 2005 Title 24 code revision cycle. Statewide team meeting agendas included updates on CASE initiatives, particularly the Time Dependent Valuation Methodology and the Performance Testing of HVAC Equipment at High Ambient Conditions. SCE presented six energy efficiency measure templates at the CEC-hosted workshops on the upcoming 2005 code. The purpose of these workshops was to hear from various industry stakeholders on proposed revisions.

SCE made significant progress on its Performance Testing of HVAC Equipment at High Ambient Conditions initiative. The instrumentation and data recording equipment installation has been completed at SCE's Refrigeration & Thermal Test Center located in Irwindale. The test of the first standard efficiency packaged air-conditioning unit has commenced and will be completed by February 2002. A total of four 5-ton packaged air-conditioning units, two standard efficiency and two high efficiency, will be tested. The final report of these tests is scheduled for completion by June 2002.

The statewide Codes & Standards team continued to support development of the Time Dependent Valuation methodology. SCE funded the preparation of an analytical tool to evaluate the impact of the proposed methodology on the cost effectiveness of various energy efficient measures.

The statewide team coordinated Building Energy Efficiency Standards training sessions. The training sessions sought to educate building stakeholders on the 2001 AB 970 revisions to the Title-24 standards.

Upstream Programs

PREMIUM EFFICIENCY MOTOR DISTRIBUTION INCENTIVES

Program Description

The Premium Efficiency Motor Distributor Incentive program was a multi-year market intervention strategy, which sought to transform the market for premium efficiency three-phase electric motors. The program objectives were accomplished mainly through an upstream financial incentive strategy for distribution channel members other than original equipment manufacturers, to encourage stocking of qualifying motors.

Program objectives are achieved mainly through an upstream financial incentive strategy for non-original equipment manufacture (OEM) motor distribution channel members to encourage stocking of qualifying motors. Motor distribution channel members include motor rewind shops who sell new motors, motor distributors and, in limited cases, the manufacturers.

2001 Results And Achievements

Just under 100 distributors/dealer locations enrolled in the program and 24 distributors/dealers achieved active status. During the program year 1,083 motors were processed representing 858 MWh of annualized energy savings and 0.1 8 MW of demand reduction.

Upstream Programs

HVAC CONTRACTOR PROGRAM

Program Description

The Nonresidential HVAC (heating, ventilating and air conditioning) Contractor program seeks to transform the market for nonresidential single-phase central air conditioners and central heat pump units through an upstream strategy for HVAC installation contractors. At the point of the equipment replacement market event, the program focuses on creating a "market pull" condition to increase penetration rates of 12 SEER and above air conditioning units installed at small and medium nonresidential customer locations.

2001 Results And Achievements

In 2001, SCE paid incentives to 74 contractors for installing high efficiency air conditioning in small and medium sized nonresidential customer facilities, for promoting the Express Efficiency program and helping customers participate.

Table 3.1
2002 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
NONRESIDENTIAL PROGRAM AREA

	2001 Budget	[1,2]	2001 Recorded	[1,2,3]
Information	3,090,418		$ 3,072,740	
EMS				
Large	1,059,775		1,038,173	
Small/Medium	2,822,500		2,615,812	
EEI: Customized Rebates				
Large	-		-	
Small/Medium	-		-	
EEI: Prescriptive Rebates				
Large	10,577,225	[5]	10,432,403	
Small/Medium	3,501,000		3,395,584	
EEI: SPCs				
Large	6,526,730		6,526,730	
Small/Medium	1,943,000		1,943,000	
Upstream Programs				
Information	3,320,936		3,320,936	
Financial Assistance	465,000		432,645	
Nonresidential Total	$ 33,306,584		$ 32,778,024	

[1] Excludes Shareholder Incentives and Other Costs, as shown in TA 3.1A.
[2] Amounts reflect Program Year 2001 (PY01) funds, as of December 31, 2001.
[3] All Recorded amounts include payments in 2001 and amounts committed to projects in 2001. Committed amounts may not be fully realized.

Table 3.2
2002 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY PROGRAM EFFECTS: ELECTRIC
NONRESIDENTIAL PROGRAM AREA

	2001 First Year Net Annualized Capacity Savings (MW)	[1]	2001 First Year Net Annualized Energy Savings (kWh)	[1]	2001 Net Lifecycle Energy Savings (kWh)	[1]
Information	-		-		-	
EMS						
Large	-		-		-	
Small/Medium	5.15		15,200,498		228,007,477	
EEI: Customized Rebates						
Large	-		-		-	
Small/Medium	-		-		-	
EEI: Prescriptive Rebates						
Large	28.42	[2]	167,861,786		167,861,786	
Small/Medium	9.00		40,571,879		486,862,548	
EEI: SPCs						
Large	6.22		33,646,961		504,704,414	
Small/Medium	1.54		7,770,082		116,551,229	
Upstream Programs						
Information	-		-		-	
Financial Assistanc	0.18		858,363		12,875,440	
Nonresidential Total	50.53		265,909,569		1,516,862,895	

[1] Net Savings reflect Commission-adopted net-to-gross ratios.

Table 3.3
2002 Energy Efficiency Annual Report
SUMMARY OF COST-EFFECTIVENESS: ELECTRIC
(Benefit-Cost Ratios)
NONRESIDENTIAL PROGRAM AREA

	2001 Program Administrator Cost Test	[1]	2001 Total Resource Cost Test	[1]
Information	-		-	
EMS				
Large	-		-	
Small/Medium	4.17		4.05	
EEI: Customized Rebates				
Large	-		-	
Small/Medium	-		-	
EEI: Prescriptive Rebates				
Large	10.01		7.36	
Small/Medium	8.67		4.77	
EEI: SPCs				
Large	4.42		4.03	
Small/Medium	3.81		3.98	
Upstream Programs				
Information	-		-	
Financial Assistanc	2.15		1.83	
Nonresidential Total	6.06		4.86	

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

Table 3.4
2002 Energy Efficiency Annual Report
SUMMARY OF COST-EFFECTIVENESS: ELECTRIC
NONRESIDENTIAL PROGRAM AREA
(Net Benefits)

		2001 TRC
Information	$	(3,072,740)
EMS		
Large		(1,038,173)
Small/Medium		9,321,352
EEI: Customized Rebates		
Large		-
Small/Medium		-
EEI: Prescriptive Rebates		
Large		126,662,271
Small/Medium		30,990,952
EEI: SPCs		
Large		24,811,890
Small/Medium		6,232,038
Upstream Programs		
Information		(3,320,936)
Financial Assistance		449,949
Nonresidential Total	$	191,036,603

Residential New Construction

RESIDENTIAL NEW CONSTRUCTION PROGRAM

Program Description

SCE's Residential New Construction program is a performance-based program for which the primary objective is to change the current energy efficiency practices of the residential builder. This program is intended to promote the efforts of those builders who are proactively seeking to update their current energy efficiency practices. As a result of this program, new residential homes are significantly more energy efficient than current (1998 Residential Building Energy Efficiency Standards - Title 24) state building standards.

The program targets the single-family production homebuilders in SCE's service territory. The program incorporates the following minimum requirements:

- builder must exceed 1993 Model Energy Code (Title 24) by 30 percent in order to qualify for the Environmental Protection Agency's ENERGY STAR® rating;
- builder must have the duct system designed and sized according to the Air Conditioning Contractors of America procedures,
- all energy efficiency features are randomly inspected by a third-party vendor;
- system diagnostics must be performed by a third-party vendor; and
- builder must maintain promotional materials marketing energy efficiency provided by SCE.

The program also provides builders with a Home Energy Rating System (HERS) rating through the CHEERS program. This rating can be given to the prospective homebuyer that can serve as supporting documentation for an energy efficient mortgage (EEM).

In response to the 2000 summer capacity crisis, SCE expanded and enhanced the Residential New Construction program by offering financial incentives direct to builders starting construction in 2000 for the downsizing of heating, ventilating, and air conditioning (HVAC) systems (by a minimum average of 0.5 tons).

SCE's Residential New Construction program also conducted Builder Energy Code training classes, in concert with the California Energy Commission, in preparation for the new 2001 Title 24 standards. This training educated building departments, builders and their staff, as well as some of their subcontractors, on the new requirements of the 2001 standards. SCE held nine training sessions throughout our service territory and, along with the other investor-owned utilities, contributed to the training of more than 3,000 building department staff from roughly 350 of the 530 building departments within the State.

These programs were also 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.

2001 Results And Achievements

In 2001, 4,866 residential units were committed to participate in the program. It is expected that these units will be built over the next few years. Additionally, SCE's Residential New Construction program continued its far reaching marketing and advertising campaign which included insertions in a variety of builder trade magazines, consumer home-buyer's guides, local and regional newspapers, billboards, and builder grand opening support.

In response to the energy crisis in 2001, SCE piloted a manufacturer's high efficiency HVAC buy-down program. The intent of this pilot was to "rapidly deploy" high efficiency (minimum SEER 14.00) air conditioning to builders with projects that were advanced in the construction stage, and were too late in the "build-out" for significant envelope changes, but could benefit from higher efficiency air conditioning.

The goal of this program was to get 2,000 high efficiency units installed by May 31, 2002. Some of the participating manufacturers were unable to sell high efficiency units as expected, however the program still met with some success by committing 1,277 units, all of which will be installed by May 31, 2002.

Approximately 100 *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 HERS ratings, and is intended to be an "encyclopedia" reference for nearly all actors within the building industry.

In 2001, Residential New Construction achieved 6,997 MWh on annualized energy savings and a 9.18MW demand reduction.

Nonresidential New Construction

SAVINGS BY DESIGN

Program Description

Savings By Design (SBD) encourages high performance nonresidential remodeling and renovation. This process seeks to permanently reduce the transaction costs associated with developing and evaluating energy efficiency design alternatives. It also seeks to improve the comfort, efficiency, and performance of buildings by promoting an integrated team approach to design. The program provides direct benefits to all market actors and market segments, including building owners - large or small, public or private, occupant or developer - and design professionals involved in building remodeling and renovation.

This program encourages building owners, developers, and lenders to continue to make energy efficient design and construction decisions through analysis of financial benefits resulting from energy efficiency including life cycle cost considerations.

SBD offers two alternative approaches to energy efficiency: Systems Approach and a Whole Building Approach. The Systems Approach is used for projects where design of the energy systems is done at different phases, where one energy system predominates, intervention occurs late in the design, or for small buildings with simple system interactions. The Whole Building Approach is used for projects where the design team can work closely to integrate the building's energy systems for buildings with complex system interactions and for large, multi-use facilities.

The program offers three types of assistance:

- design assistance - which includes recommendations for efficient equipment and consultation on enhanced design strategies;
- financial incentives - to building owners when the efficiency of the building exceeds the minimum SBD requirements; and
- design team incentives - offered to support the extra effort for integrated energy design and to reward exceptional design accomplishments.

2001 Results And Achievements

In 2001, SBD achieved 61,031 MWh of net annualized energy savings and 9.43 MW of net peak demand reduction.

In addition, the Nonresidential Energy Efficiency SBD component achieved 19,570 MWh of annualized energy savings and a demand reduction of 3.26 MW. (See Section 2, Table 3.2.)

Nonresidential New Construction

ENERGY DESIGN RESOURCES

Program Description

Energy Design Resources (EDR) is an integrated package of design tools and information resources that promote the design and construction of high-performance buildings. These tools are readily available and accessible to designers working in the new construction market and inherently complement the Whole Building Approach strategies of the SBD program. The program provides:

- information resources supporting a wide range of energy efficiency design strategies, techniques, and technologies;
- software tools that facilitate design practices and financial processes that lead to increased energy efficiency in buildings;
- technology transfer, including industry seminars, targeted training events, and an easily-accessible Internet website; and
- validation of and peer recognition for designers and developers of exemplary projects that successfully incorporate principles of energy efficient design.

2001 Results And Achievements

In 2001, SCE provided 18 in-house seminars for local architectural and engineering firms to promote the program, as well as seminars to inform the industry of the current changes in the Title 24 standards.

The following statistics were recorded from the Energy Design Resources website in 2001: over 26,000 site-hits were recorded, with more than 24,900 Mbytes downloaded; eQUEST downloads increased by 28%; eVALUator downloads were up by 23%; and SkyCalc downloads increased 57%. The "EDR Charette" - on-line analysis software - saw registered users increase from 119 in 2000, to 284 by the end of 2001. The activity in the on-line virtual workshop training area increased from five completions in 2000 to 12 completions in 2001.

Nonresidential New Construction

LOCAL GOVERNMENT INITIATIVE (LGI)

Program Description

Local government initiatives transform energy efficiency markets at the community level. Some local governments may use the municipal planning process and the development approval process to institutionalize wider consideration and implementation of energy efficiency in community planning and new construction. Other local governments may establish institutions or programs to mobilize and link community resources to form self-sustaining partnerships, mechanisms and/or initiatives that promote and facilitate energy efficiency on a community-wide basis. These community-based initiatives can also mobilize and link a broad range of community resources (local financial institutions, contractors, business organizations, service clubs, and non-profits) to form self-sustaining partnerships, mechanisms and/or initiatives to promote and facilitate energy efficiency.

2001 Results and Achievements

Early in the year, a Thermostatic Expansion Valve (TXV) incentive program was implemented, complemented by air-flow and refrigerant charge training. This initiative was similar to a strategy offered as part of SCE's Residential New Construction program, and was targeted at HVAC distributors and installers. Over 1,150 TXV units were installed by year-end, achieving a net savings of 677 MWh and 0.8 MW of demand reduction. An additional 58 MWh energy savings and 0.02 MW demand reduction were achieved from 21 ENERGY STAR® Homes built through the program. Finally, LGI continues to work with local jurisdictions on energy provisions and policies (street width, tree canopies, building orientation) that can be incorporated at the General Plan stage of development.

New Construction Program Area

Table 4.1
2002 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
NEW CONSTRUCTION PROGRAM AREA

	2001 Budget	[1,2]	2001 Recorded	[1,2,3]
Residential	$ 5,257,000		$ 5,237,057	
Nonresidential	10,150,416		9,804,756	
New Construction Total	$ 15,407,416		$ 15,041,813	

[1] Excludes Shareholder Incentives and Other Costs, as shown in TA 4.1A.
[2] Amounts reflect Program Year 2001 (PY01) funds, as of December 31, 2001.
[3] All Recorded amounts include payments in 2001 and amounts committed to projects in 2001. Committed amounts may not be fully realized.

Table 4.2
2002 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY PROGRAM EFFECTS: ELECTRIC
NEW CONSTRUCTION PROGRAM AREA

	2001 First Year Net Annualized Capacity Savings (MW) [1]	2001 First Year Net Annualized Energy Savings (kWh) [1]	2001 Lifecycle Energy Savings (kWh) [1]
Residential	9.18	6,996,897	132,941,039
Nonresidential	10.26	61,707,665	617,076,645
New Construction Total	19.44	68,704,561	750,017,684

[1] Net Savings reflect Commission-adopted net-to-gross ratios.

New Construction Program Area

Table 4.3
2002 Energy Efficiency Annual Report
SUMMARY OF COST-EFFECTIVENESS: ELECTRIC
(Benefit-Cost Ratios)
NEW CONSTRUCTION PROGRAM AREA

	2001 Program Administrator Cost Test [1]	2001 Total Resource Cost Test [1]
Residential	2.36	2.66
Nonresidential	7.11	4.34
New Construction Total	5.62	4.01

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

Table 4.4
2002 Energy Efficiency Annual Report
SUMMARY OF COST-EFFECTIVENESS: ELECTRIC
NEW CONSTRUCTION PROGRAM AREA
(Net Benefits)

		2001 TRC
Residential	$	8,297,197
Nonresidential		67,429,762
New Construction Total	$	75,726,960

Market Assessment & Evaluation

Program Description

Market Assessment & Evaluation (MA&E) is the set of activities needed: (1) to provide market and product assessment studies and analyses useful to energy efficiency program planners and policy makers; and (2) to evaluate the performance of energy efficiency programs.

2001 Results And Achievements

STATEWIDE STUDIES

SCE's MA&E Group had responsibility for four statewide study areas:

- market share tracking for key residential energy efficiency measures;
- the residential retrofit and remodeling market and the Residential Contractor Program (RCP) related to that market;
- large nonresidential customers and the Standard Performance Contracting (SPC) program; and
- the nonresidential new construction market, the nonresidential new construction programs, and nonresidential construction codes and standards.

During 2001, the Group completed studies in these areas that were initiated in 2000. The Group initiated and, in some cases, completed studies that were proposed in SCE's PY 2001 program application and authorized by the CPUC for implementation. These projects are described below.

Other statewide study work by SCE staff and consultants are described in a final section on other statewide study activity.

Residential Market Share Tracking Project

The goal of this project is to develop a time series of data on the market share of fourteen key types of energy-efficient equipment. Analysis of the information are provided in a variety of reports, and the reports are made available on the California Measurement Advisory Council (CALMAC) website, www.calmac.org. The reports are also provided upon request; about 40 requests from have been fulfilled during the year, many from government agencies.

The data can be used to assess the success of specific residential programs and to offer guidance for any mid-course corrections. Tailored reports can also be generated to provide the data needed to verify utility achievement of milestones for performance.

The Residential Market Share Tracking Project has now established the baseline market share for 14 residential energy efficiency measures that are major targets of Program Year (PY) 1998-2002 California energy efficiency programs. It has also established a system for monitoring changes in market share by decision type over time, and it incorporates a dynamic database for this continued data tracking. Data are being gathered from distributors and retailers, on-site surveys of new homes, county building departments, and point-of-sales reports purchased from national sources.

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:

- California Lamp Report 2001 (2 semi-annual volumes): April 2001 & October 2001
- California Residential New Construction 2001: July, 2001
- California Residential Appliance Report 2001: September, 2001

In addition, the following summary reports in brochure format were produced:

- California Lamp Trends (2 issues – early 2001, and late 2001)
- California Appliance Trends
- Trends in California Residential New Construction

Residential Retrofit, Renovation and Remodeling/Residential Contractor Area

Process Evaluation of the PY 2000 RCP

The Statewide RCP Evaluation Study Phase III was initiated in the last quarter of 2000. This study was to determine short-term modification needs of the RCP program, both multi-family and single-family elements. This was done by analyzing the status of the PY 2000 program and examining several overarching issues examined through both program staff and contractors' perspectives on various administrative features of the program, including incentive levels, contractor screening and training, and trade specific issues. It documents how the PY 2000 programs were designed to achieve sustainable changes in the market and assesses their performance in doing so.

The study was completed in summer 2001. Results were presented to residential program managers for use in PY 2002 program planning, and they were presented to the public in the CALMAC residential studies workshop in December 2001.

California Residential Remodeling/Renovation Market Study

This study explored California homeowners' decision-making processes for remodeling, especially with respect to such remodeling projects as kitchen; bathroom; windows; insulation; hardwired lighting; heating, ventilating and air conditioning (HVAC); and roof. This involved modeling key drivers that result in satisfactory completions of projects and factors that influence decisions, including pay-back, comfort and safety, warranty, financing, and choice of contractor. The basic data for the modeling was derived from detailed surveys of a sample of homeowners who had recently remodeled. The analysis developed a profile and segments of remodelers. It explored barriers to energy-efficient choices. It also examined the effectiveness of various consumer information delivery channels, including media, Internet, word-of-mouth, and sales staff, that result in consumers taking action on information. The study was initiated in 2000 and completed in summer 2001.

Residential Customer Needs Assessment Study

This study was required by an Administrative Law Judge Ruling of October 25, 2000. The overall research objective was to assess the needs of residential customers, with a particular focus on hard-to-reach customers, as they relate to greater program participation and adoption of energy efficiency measures. Additionally, the study sought to identify outreach strategies and program design features to foster program participation and measure adoption.

The study was completed in the summer of 2001 and was provided immediately to residential program managers for use in developing new outreach efforts and targeting hard-to-reach customer groups for the remainder of the program year. It was also

presented in the CALMAC residential studies workshop.

Statewide RCP 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 RCP. It also examines the diffusion of program-promoted measures through key market effects indicators. The study is scheduled for completion in early 2002.

Large Nonresidential Retrofit and Turnover Area

Evaluation of the PY 2000 and PY 2001 Nonresidential SPC Programs

This evaluation has two major objectives: a process evaluation of the program and the development of estimates of eventual program impacts on annual energy use and peak demand. Since the PY 2000 Large SPC program incorporated changes from earlier years, part of the first objective of the evaluation was to determine if the changes had been successfully implemented and had resulted in the desired improvements over the preceding programs.

To meet the second objective, the study developed estimates of the expected load impacts of the program. But because of the findings in the final analysis of the previous year's program, this project was expanded beyond its original scope to include an analysis of the net to gross ratio for the PY2000 program, and the contract was extended to the end of 2001 to permit the additional data collection and analysis.

Based on the results from the process and impact evaluations, recommendations for program improvements were included in the final report, which was posted on the CALMAC website. However, to meet the original objective of providing input to the planning process for the next program, preliminary results were presented at a workshop for utility program managers and planners in August 2001. A similar presentation of the final results was made to other stakeholders at a workshop in October.

Improving the SPC Program: An Examination of the Historical Evidence and Directions for the Future

On the basis of self-report by program participants, the net-to-gross ratios (NTGRs) for the 1998 and 1999 SPC Programs were both estimated as 0.53. Thus, it appears that slightly less than half of the energy savings from the projects associated with these two programs were likely to have occurred in the absence of the program. Since this contradicted the experience of those close to the program, an investigation was conducted into the factors driving these estimates.

The four major research objectives were:

1. To investigate why the SPC Program has such a relatively high rate of free ridership:
   a. To assess how program features or targeting could be changed to reduce the rate of free ridership, and
   b. To investigate which customer and project characteristics seem to be associated with high or low free ridership.
2. To investigate the accuracy and stability of the NTGRs estimated for the 1998 and 1999 SPC Program and assess whether particular survey questions seem to be driving the free ridership result.
3. To determine whether the self-report approach to estimating NTGRs is systematically biased.
4. To assess the affect of the recent, dramatic increase in electricity prices on NTGRs and

the total resource cost (TRC) test .

The quantitative and qualitative methods used to address these research objectives included: an analysis of the 1998 and 1999 SPC data, a meta-analysis of evaluation studies filed with the CPUC by California by investor-owned utilities between 1994 and 1998 (and an analysis of actual evaluation datasets for a subset of 16 of those studies), and a review of the inputs to the TRC. The results included recommendations for both program design and for methodological adjustments.

To assist in planning for PY2002, preliminary findings were presented to utility program managers and planners in August 2001, with a similar presentation of the final results and recommendations at a workshop for other stakeholders in October.

Study of the Decision Process and Strategies for Successful Energy Efficiency Service Providers (EESPs)

This project investigated the business prospects and barriers for new or existing business services companies to become EESPs. It was designed to identify ways in which program planners could broaden trade ally participation in their programs and in the provision of energy efficiency services in general.

This study investigated strategies used by successful companies in related business services fields, focusing on large engineering and facility management firms. These firms currently provide energy-related services to many buildings in California but have, to date, rarely participated in the Large Nonresidential SPC programs offered by the utilities. To better understand these firms and their reasons for non-participation, this study researched other types of services these firms typically provide, and energy service outsourcing in general. The study also examined the current use of performance-based contracts for energy services as they are offered by utilities in performance-based incentive programs, and as they are offered by these energy service firms to their clients. To better understand how the trends affect California's energy service firms, the research team interviewed ten of the largest engineering and 12 of the largest property management/facilities management doing business in California. The final report included recommendations for SPC program changes.

The study was initiated in fall 2000 and was completed in July 2001. To assist in planning for PY2002, the findings were presented to utility program managers and planners in August 2001, with a similar presentation for other stakeholders in October.

Large Nonresidential Customer Wants and Needs Study

This study gathered information on significant energy-related issues affecting five segments of large industrial customers. It investigated the motivations, the issues faced, and the decision processes concerning their choices of whether to implement energy efficiency measures. The industry segments selected include two of California's growth industries (semiconductors and biotechnology), one segment (aerospace) that contains components that can be characterized as growth sectors and more mature industry groups, and two of California's more mature industries – fruit and vegetable processing and hospitals.

In addition to extensive analysis of published information on these segments, the study's innovative methodology involved identifying a set of experts on these issues for each market segment and bringing them to one-

day workshops to share responses to these questions with each other. The goal was to identify opportunities for more effective program design and marketing approaches that administrators could use to increase participation in energy efficiency programs. Results were shared with stakeholders at two workshops, and with others outside California in two papers presented at national professional association meetings.

Nonresidential New Construction (NRNC) Study Area

NRNC Baseline Extension – Whole Building vs. Systems Projects

This project was planned in 1999 and a draft report was completed by year-end 2000, with the final report being produced in January 2001.

One of the hypotheses of the Savings By Design (SBD) program is that integrated whole building design produces significantly greater energy savings than the prescriptive-type measure-by-measure approach (called the Systems Approach in the new program). Using data from the NRNC Baseline study, this project was designed to test that hypothesis by comparing whole building and systems projects along several parameters. Its results support the hypothesis, with the whole building designs producing about 25 percent greater savings than the prescriptively designed ones.

NRNC Baseline Study Extension – Lighting Power Density Measurement Error and Lighting Quality Assessment

According to the NRNC Baseline Study, 73 percent of the energy savings beyond Title 24 in the 667 new buildings studied was attributable to lighting. The estimates are based on on-site survey data which amounted to fixture counts and estimates of fixture wattages. Some parties expressed concern that these large savings estimates could be either the result of measurement error or of poor lighting quality in the high efficiency buildings. This study gathered data to assess these two hypotheses. The project carried out a detailed lighting survey of a sub-sample of the projects in the Baseline Study, including detailed fixture counts and wattage, measurements of illuminance levels, and an occupant satisfaction survey.

The first part of the study calculated the lighting power density measurement error associated with previous on-site data collection activity and found that there was no significant systematic bias. The second part of this study investigated the correlation between the lighting power density of a lighting installation and the lighting quality provided. The analysis shows that there is virtually no correlation between lighting power density and two measures of lighting quality - illuminance uniformity and occupant satisfaction. The study was completed in February 2001.

NRNC Market Characteristics and Program Tracking Project

This project provides quarterly reports of statewide NRNC program activity and of NRNC market activity. Tracking the changing characteristics of the NRNC market over time provides information for refining program design and for assessing program accomplishments. A PY 2000 annual report was prepared analyzing the patterns found in the quarterly reports. A verification report was also prepared to document whether the utilities met their shareholder earnings milestone for PY 2000 of increasing the market share of new building designs that exceed a given efficiency level. The quarterly 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 study quantifies the whole-building and end-use 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 on an annual (or more frequent) basis. Unlike previous studies, however, 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 were built based on detailed on-site surveys of a sample of buildings. Energy savings were calculated by end use and for whole buildings. Quantifiable information was 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.

This project provides quarterly analysis of SBD program participants and non-participants. A draft PY 2000 annual report has been prepared analyzing the sampled projects that were completed in PY 1999 and PY 2000.

Lighting Controls Effectiveness Assessment

This study is intended to examine 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 will estimate the demand and energy savings created by manual switching. It will identify occupant behavior that reduces the savings potential and compare actual savings to Title 24 assumptions of savings.

Other Statewide Study Activity

Summary Study of 2001 Energy Efficiency Programs

In Fall 2001, CALMAC determined that a summary study of utility and state agency programs implemented during 2001 would provide useful input to the long-term planning processes for energy efficiency programs. The Natural Resources Defense Council proposed the study and offered to design and manage it, with utility support. SCE agreed to be the contract manager for the study. The study will summarize and review energy savings and costs of 2001 energy efficiency programs, assess the program estimates, identify lessons learned from running this unprecedented level and variety of programs, and provide recommendations for follow-up research. The planned completion date for the study is summer 2002.

CEC Data Collection and Statewide Studies

SCE transferred funds to a CEC balancing account in 2001 to fund CEC implementation of the following studies: a statewide residential appliance saturation survey; the nonresidential market share tracking study; and the statewide

study of the nonresidential R&R market. These studies are described in detail in the CEC's Appendix to this report.

Conference and Study of Summer 2001 Reliability-Focused Energy Efficiency Programs

SCE, along with the CEC, PG&E, SDG&E, and some out-of-state organizations, supported this American Council for an Energy-Efficient Economy project. The project provides information to policymakers about the contributions and lessons learned about reliability-focused energy efficiency programs. The conference was held October 28-29, 2001, in Berkeley and drew an audience that exceeded its attendance goal of 200. The written report is scheduled for completion in the first half of 2002.

SCE Statewide Study Support

SCE staff members have participated actively in advising other utility and CEC project managers on statewide studies being managed by these other entities, as part of the CALMAC advisory committee for each study.

Among these studies are the ongoing studies of the saturation and energy savings potential of energy efficient equipment that are being managed by PG&E. These studies and this portion of the annual report meet the Commission's requirement in the ALJ Ruling of October 25, 2000, for the utilities to update their saturation estimates at least annually and to report on these in their annual reports. The latest updates are in the Xenergy saturation and potential studies managed by PG&E, described in PG&E's Annual Report, and posted on the CALMAC website.

In addition, SCE co-funded the statewide impact and process evaluation of the 2001 pool pump timer and pool pump rebate programs run by the three electric utilities. This study is managed by PG&E. Its primary purpose is to develop estimates of the energy and demand savings achieved by the program.

SCE UTILITY-SPECIFIC STUDIES

SCE also worked on several projects designed to meet the information needs of SCE program planners and implementation contractors, and to meet the measurement milestone in SCE's shareholder earnings mechanism for PY 2000 programs.

Small Commercial Do-It-Yourself Energy Survey Milestone Study

This study gathered data on the rate of measure and practice implementation achieved from the 1999 survey program and from the 2000 survey program, to determine a basis for estimating energy savings achieved from such a survey program and to see if a goal of increasing the implementation rate has been met. The 1999 implementation data were collected by a telephone survey in 2000; the 2000 implementation data were collected in February 2001. There was no apparent change in implementation rate, but the study documents the types of changes that customers will make as a result of this kind of survey.

Analysis of High Efficiency Window Stocking (Performance Incentives Milestone Memorandum)

This analysis was designed and implemented to develop an estimate of market change identified in SCE's performance incentive milestones. Information was gathered by two surveys of the available stock at samples of stores within the service territory, one undertaken before the program was well underway, and the other late in the program year. The data were

analyzed and the results described in a milestone memorandum submitted for the 2001 Annual Earnings Assessment Proceeding.

Residential Energy-Efficient Window Awareness Study (Performance Indicator)

The requirement for collecting performance indicator information relating to customer awareness of high-efficiency windows was met without the need for a utility-specific study. The Consortium for Energy Efficiency, which SCE supports, undertook a national study of Energy Star awareness among customers. SCE was part of the advisory committee for this study. The study, completed in February 2001, provides helpful information about customer awareness of high efficiency windows.

Analysis of High Efficiency Refrigerator Stocking (Performance Incentives Milestone Memorandum)

The data collection and analysis for this milestone memorandum were carried out as part of the statewide Residential Appliance and Lighting Study. The only additional work required specifically for SCE will be the production of a brief memorandum documenting the data and the analysis. The memorandum was submitted for the 2001 Annual Earnings Assessment Proceeding.

Analysis of Air Conditioner Recycling Programs

This spring 2001 project reviewed existing studies and interviewed appliance retailers and program managers. The purpose was to assess the energy savings achievable from air conditioner recycling programs to identify program design strengths and weaknesses that could impact the savings achieved. The study determined that the savings achievable from a recycling program are limited, because there is a only a very small secondary market for used air conditioners in Southern California, and most programs experienced high rates of turn-ins of old air conditioners that were not being used. The best potential can be gained from a program that is focused on the purchase of new, energy-efficient room air conditioners to replace older ones, with a requirement that the old one be recycled to avoid its being used as a second unit within the dwelling.

Evaluation of SCE Schools Programs

This study examined the three school-related energy efficiency programs that SCE supported as third party initiatives during 2001. The evaluation included review of program materials, interviews with program managers and participating school staff, review of energy savings estimates, and assessment of program strengths and weaknesses. The evaluation made recommendations for program improvements that were welcomed and adopted by all three program implementers. The study was completed by the end of summer 2001 for use in the PY 2002 program planning process.

Residential Audits Programs Evaluation

This study is 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 has gathered program data and program materials as input for the analysis. The goals are to improve the estimates of energy savings achieved by each type of delivery mechanism and to assess customer satisfaction with the audit programs.

Conservation Motivation Study

SCE and the Riverside Public Utilities District are supporting a project to identify different motivations for conserving energy and to link these to differences in conservation behavior by residential customers with the different motivations. In addition, the study offers the opportunity to compare behaviors of customers of a utility threatened with rolling blackouts and price increases with those of a municipal utility that was able to shield its customers from these statewide threats. The author is a professor at the University of California, Riverside.

Refrigerator Recycling Impact Analysis

This project was designed to update earlier studies of program participants and of the energy usage of recycled refrigerators. The primary goal is to provide updated energy savings estimates for the program. The project was initiated in 2001 with efforts to collect 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.

Energy Design Resources Study

This study is intended to provide a qualitative assessment of the impact of SCE's Energy Design Resources Program and to make recommendations for program design and delivery. It will evaluate patterns of usage of the energy design tools developed and provided to design professionals by the program. Research design was the focus of 2001 efforts, with study implementation to occur in 2002.

Unit Energy Savings Analysis

This project is intended 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. Planning and initial work were launched in 2001, with most of the work to occur during 2002.

Strategic Options Analysis of Energy Efficiency Programs

This project develops and tests a model that will use a financial markets methodology (such as the Black-Scholes approach or similar alternatives) to estimate the benefits provided by energy efficiency programs. This methodology estimates the option value of energy efficiency program portfolios in reducing future energy price volatility. The first draft of this work was presented at the Fall 2001 ACEEE Conference on Summer 2001 Reliability-Focused Energy Efficiency Programs. The project will be completed in 2002 with a report and a spreadsheet model as deliverables.

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, EESPs, 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

In the nonresidential customer classification and analysis project, Standard Industrial Classification

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

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.

Support for CEC Data Collection and Analysis

SCE prepared and delivered data from SCE databases as needed for CEC studies and analyses. CEC needs these data to carry out its energy demand forecasting, market monitoring, and statewide study activities. In addition, SCE maintained a commercial load research data collection and database maintenance project for a set of customer to be included in the CEC-managed statewide Commercial Energy Use Survey.

Ad Hoc Analyses

Ad hoc analyses of data from existing saturation survey and end-use load research data sources were undertaken as requested by program managers and utility management. Such analyses are often requested so that program managers and utility managers can 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 design and program implementation.

In 2001, this included providing to program managers data that could be used to classify and target hard-to-reach customers among the participants of the 2001 programs. In 2002, these data are being used to document the level of participation by hard-to-reach customers in the 2001 programs. This Annual Report provides notification that this documentation will be included in the 2002 program plans that will be submitted to the Commission during May. The 2001 participation results will form the baseline for establishing PY 2002 goals for participation by hard-to-reach customers.

Table 5.1
2002 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
MARKET ASSESSMENT & EVALUATION (MA&E)

	2001 Budget	[1]	2001 Recorded	[1,2]
Measurement for Program Admin Incentives:				
Utility Studies/Reports for PY98 Programs	$ -		$ -	
Utility Studies/Reports for PY99 Programs	-		-	
Utility Studies/Reports for PY00 Programs	-		-	
Utility Studies/Reports for PY01 Programs	-		-	
Demand Assessment:				
Customer Data (for CEC): Utility Costs	70,000		70,000	
Customer Data Analysis: CEC costs (cost of studies)	550,000		550,000	
DEER Updates	130,000		130,000	
EE Market Assessment (Res Program Area)	-		-	
EE Market Assessment (Nonres Program Area)	65,000		65,000	
EE Market Assessment (New Const. Program Area)	-		-	
EE Product Assessment (All Markets)	-		-	
Other Program Evaluation Studies:				
General	470,000		470,000	
PY98, Residential	-		-	
PY98, Nonresidential	-		-	
PY98, New Construction	-		-	
PY99, Residential	-		-	
PY99, Nonresidential	-		-	
PY99, New Construction	-		-	
PY00, Residential	-		-	
PY00, Nonresidential	-		-	
PY00, New Construction	-		-	
PY01, Residential	1,215,000		1,215,000	
PY01, Nonresidential	880,000		880,000	
PY01, New Construction	420,000		420,000	
MA&E Total	$ 3,800,000		$ 3,800,000	
Regulatory Compliance and Reporting (utility)	1,200,000		726,466	
Oversight Costs	90,000		9,193	
Total Regulatory Oversight	$ 1,290,000		$ 735,659	
Total MA&E and Regulatory Oversight	$ 5,090,000		$ 4,535,659	

[1] Amounts reflect Program Year 2001 (PY01) funds, including fund shifts during 2001.
[2] All Recorded amounts include payments in 2001 and amounts committed to projects in 2001. Committed amounts may not be fully realized.

2001 Performance Incentives

Summary

The performance incentive mechanism approved by the California Public Utilities Commission's (CPUC) for the 2001 program year[1/] is consistent with the CPUC's preference for tying performance incentives to energy savings. The overall objective of the 2001 performance incentive mechanism is to encourage maximum energy savings and demand reduction while providing a fair balance of risk and reward.

For 2001, the performance mechanism is based on: (1) pre-determined energy savings and demand reduction targets, including a bonus incentive; (2) a set of market effects milestones; and (3) a performance adder mechanism for selective programs.

Energy Savings and Demand Reduction Targets - The mechanism provides for energy savings and demand reduction targets for each program area (i.e., nonresidential, residential, and new construction). Each target has a pre-determined minimum performance threshold that must be met before SCE can begin to accrue incentives against the target. These incentives are scalable which means as SCE's performance increases, above the minimum threshold, the incentive amounts increase. The Commission adopted 2001 energy and demand savings targets for SCE are shown in Table 6.3, along with the minimum performance thresholds and maximum earnings potential.

Market Effects Milestones – The market effects milestones are tied to the performance of key programs within SCE's 2001 energy efficiency portfolio. Ultimately, the impact of these programs may persist over time; nevertheless, the 2001 incentive mechanism measures SCE's performance in achieving these predetermined milestones during the course of calendar year 2001.

Performance Adder - The performance adder mechanism ties incentives directly with the amount of recorded program expenditures for a particular program. In 2001, the Commission limited the application of this type of mechanism to information programs exclusively.

PERFORMANCE INCENTIVES LIMITATIONS

In order to strike a balance between risk and reward for implementing and managing 2001 energy efficiency programs, the performance incentive mechanism includes an earnings cap. For 2001, SCE's earnings cap associated with this mechanism is set at $5.591 million. The program activities conducted under the Summer Initiative and selective Residential Refrigerator Recycling program results are not eligible under the 2001 incentive mechanism.

2001 Performance Incentive Results

Table 6.1 shows SCE's 2001 performance incentive claim by the three program areas (i.e., residential, nonresidential, new construction). Table 6.2 shows 2001 results by each of its major parts. If the CPUC approves SCE's 2001 performance award claim, SCE will recover these shareholder earnings in one installment through funds collected as part of the 2001 public goods charge for energy efficiency.

1/ D.01-01-060, dated January 31, 2001.

Table 6.1
2001 Energy Efficiency Annual Report
COSTS OF SHAREHOLDER PEROFMRANCE INCENTIVES
(Electric)
($ IN MILLIONS)

	Award Potential	Award Claim
Residential	$ 2.076	$ 2.076
Nonresidential	2.555	2.555
New Construction	0.959	0.959
Total	$ 5.591	$ 5.591

Table 6.2
2001 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
SHAREHOLDER INCENTIVE CLAIM
($ IN MILLIONS)

	Award Potential	Award Claim
Energy Savings	$ 3.354	$ 3.354
Demand Reductions	1.118	1.118
Energy Savings/Demand Reduction Bonus	0.280	0.280
Market Changes/Market Effects	0.559	0.559
Performance Adder	0.280	0.280
	$ 5.591	$ 5.591

Shareholder Performance Incentives

Table 6.3
2001 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
ENERGY SAVINGS AND DEMAND REDUCTION GOALS AND RESULTS
($ IN MILLIONS)

Program Area	Energy Savings MWh Target	Energy Savings MWh Actual [1]	Incentive Potential	Incentive Claim
Residential	104,300	119,656	$ 1.219	$ 1.465
Nonresidential	231,700	265,910	1.465	0.670
New Construction	52,600	68,705	0.670	3.354
Subtotal	388,600	454,270	$ 3.354	$ 5.489

	Demand Reductions MW Target	Demand Reductions MW Actual [1]	Incentive Potential	Incentive Claim
Residential	39.7	51.2	$ 0.408	$ 0.490
Nonresidential	37.8	50.5	0.490	0.220
New Construction	13.4	19.4	0.220	1.118
Subtotal	90.9	121.2	$ 1.118	$ 1.828

Totals	$ 4.472

[1] - Residential results do not include energy or demand savings from Summer Initiative programs, part of SCE's Refrigerator Recycling program, or SBX1 5 funded activities.

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.

2001 Results And Achievements

In 2001, SCE rolled out an aggressive program to reach pool owners with information about pool efficiency, incentives, and rebates. Outreach efforts included a bill insert; a direct mailing of over 100,000 PEP! brochures and letters to customers; and delivery of door hangers by field personnel.

Accomplishments included the following:

- A total of 47,044 pool owners participated in the timer program component that included a $40 incentive payment. The timer, or "tripper," program.

- A total of 8,257 customers had replaced older, inefficient, pool pumps or motors with energy-efficient models and were paid a rebate of $50 for a motor and $100 for a pump/motor assembly.

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.

2001 Results and Achievements

Although this SI program is fully committed, SCE continued to offer a similar program to cities through SCE's Express Efficiency Program. Express Efficiency will continue to offer cities financial incentives, up to 50% of estimated hardware costs, to encourage the installation of LED traffic signals.

56 cities reserved the total budget of $7.4 million allocated to the LED Traffic Signal Rebate program.

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.

2001 Results And Achievements

As of September 25, 2000, the utilities had filed and served a draft program design, including program manual, for the HTR program.

Based on concerns regarding implementation issues associated with the initial program design, the Administrative Law Judge ordered that the utilities not accept applications until implementation issues were resolved. This triggered a reworking of the initial proposed program design. The program was redesigned based on Administrative Law Judge's Ruling on Summer 2000 Energy Efficiency Incentives Issues Related to Implementation of the HTR program dated October 12, 2000. The program was open for applications on November 8, 2000.

By February 2001, total program funds of $2.6 million were subscribed with ten contractors. The ten contracts proposed measures in lighting, duct testing and sealing, weatherstripping, water heater blankets, aerators, and low-flow showerheads.

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.

2001 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. By year's end, 8,474 inspections were made, 10,000 rebates coupons issued, with a follow-up of 87 rebate reservations for new air conditioners. To date, one unit has been installed.

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 (third quarter 2001) that it believed it should close down the program and allow the funds to be used for other purposes. As of year's end, no energy savings were achieved, and the contactor has ceased all operations.

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 has been unable to secure any customer agreements or install any pre-cooler systems at customer facilities. A demonstration site was installed near the contractor's facility to demonstrate the technology. The program contractor requested and was granted a time extension past the summer of 2001 to pursue sales leads from continuing marketing efforts, with no results to date.

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.

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.

2001 Results And Achievements

By December 31, 2000, the SI Refrigerator Recycling program had been completed in SCE's service territory. Over 8,800 units were collected.

By August 31, 2001, the SI Refrigerator Recycling program had been completed in both PG&E and SDG&E's service territories. A total of 23,700 units were collected in PG&E's service territory and 12,900 units were collected in SDG&E's service territory.

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.

2001 Results And Achievements

By June 2001, Cal Poly Pomona submitted its final report for the completion of its thermal energy storage expansion project and CSULB submitted its report for its lighting, high efficiency motors, and variable speed drive projects.

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.

2001 Results and Achievement

On September 26, 2001, the Administrative Law Judge ruled that SCE and ECOS should work together to create a program similar to the one designed in the SDG&E territory – an exchange of halogen torchieres for compact fluorescent torchieres at master-metered locations. Using this approach, ECOS, under the guidance of SCE, was able to exchange 731 torchieres.

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.

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.

2001 Results And Achievements

A total of 49 projects were implemented in SCE's territory. They consisted of: 16 projects applying pump-off controller technologies; four projects with water optimization; six projects resizing pump motors; eight projects using variable speed drives; seven projects which increased tankage; and eight projects that used other approved peak demand reduction measures.

SCE's share of funding for this effort is estimated at $1.488 million.

Summer Initiative

Table 7.1
2002 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
SUMMER INITIATIVES

	2001 Budget [1,2]	2001 Recorded [2]
Utility Programs		
Residential Pool Efficiency Program	$ 3,000,000	$ 3,000,000
LED Traffic Signal Rebate Program	7,500,000	7,265,655
Hard To Reach	2,600,000	1,909,411
Third Party Initiatives	1,700,000	883,036
Total Utility Programs	14,800,000	13,058,102
Non-Utility Programs		
Residential Refrigerator Recycling	1,200,000	-
Campus Energy-Efficient Project	3,500,000	1,750,000
Beat The Heat	250,000	-
COPE	1,500,000	1,488,000
Total Non-Utility Programs	6,450,000	3,238,000
Summer Initiative Total	$ 21,250,000	$ 16,296,102

[1] Summer Initiative Authorization is for program years 2000 and 2001.
[2] Amounts do not include utility administrative costs.

Table 7.2
2002 Energy Efficiency Annual Report

SUMMARY OF ENERGY EFFICIENCY PROGRAM EFFECTS: ELECTRIC
SUMMER INITIATIVES

	2001 First Year Net Annualized Capacity Savings (MW) [1,2]	2001 First Year Net Annualized Energy Savings (kWh) [1,2]
Utility Programs		
Residential Pool Efficiency Program	41.65	3,500,000
LED Traffic Signal Rebate Program	10.84	47,753,519
Hard To Reach	7.30	15,000,000
Third Party Initiatives	2.40	3,478,900
Total Utility Programs	62.18	69,732,419
Non-Utility Programs		
Residential Refrigerator Recycling	2.40	14,038,000
Campus Energy-Efficient Project	2.32	7,423,000
Beat The Heat	0.39	3,725,640
COPE	1.67	11,975,249
Total Non-Utility Programs	6.78	37,161,889
Summer Initiative Total	68.96	106,894,308

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

TECHNICAL APPENDIX

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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 2001 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 2001. This forecast is consistent with the forecast utilized in SCE's November 15, 2000 Application for 2001 energy efficiency program funding.

The energy portion of the avoided costs represent the statewide avoided costs as recommended in the October 2, 2000 workshop report and adopted by the Commission in the October 25, 2000 ALJ Ruling. The energy portion of the avoided costs includes on-peak energy multipliers. These multipliers were agreed to as a proxy for the value of these programs to the system, pursuant to the September 14, 2000 Administrative Law Judge's Ruling Concerning Cost-Effectiveness Inputs for 2001 Planning and Assembly Bill 970. These multipliers are intended to be utilized as a proxy value for scenario analysis in 2001 energy efficiency programs, but may not represent the true value of load reduction to the market.

The capacity portion of the avoided costs represents the SCE-area-specific avoided transmission and distribution costs, as provided in the October 2, 2000 workshop report and found reasonable in the October 25, 2000 ALJ Ruling.

The avoided costs for environmental adders are as provided in the October 2, 2000 workshop report.

Table TA 1.1B Avoided Costs for 2002 Programs

The avoided cost forecast in Table TA 1.1B represents those costs utilized in the planning 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 1.1B, 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 2002 program forecast cost effectiveness.

Table TA 1.1A
2002 Energy Efficiency Annual Report
AVOIDED COSTS: ELECTRIC ($/kWh)

2001

Year	Electric Generation ($/kWh)	Electric T&D ($/kW) [1]	Electric Env. Externalitites ($/kWh)
2001	$0.11	$11.92	$0.01
2002	0.11	12.01	0.01
2003	0.07	12.12	0.01
2004	0.06	12.24	0.01
2005	0.06	12.34	0.01
2006	0.06	12.46	0.01
2007	0.06	12.57	0.01
2008	0.06	12.67	0.01
2009	0.07	12.90	0.01
2010	0.07	13.13	0.01
2011	0.06	13.43	0.01
2012	0.06	13.74	0.01
2013	0.07	14.06	0.01
2014	0.07	14.38	0.01
2015	0.07	14.71	0.01
2016	0.07	15.05	0.01
2017	0.08	15.40	0.01
2018	0.08	15.75	0.01
2019	0.09	16.11	0.01
2020	0.09	16.48	0.01

[1] SCE's T&D values are per kW

Table TA 1.1B
2002 Energy Efficiency Annual Report
AVOIDED COSTS: ELECTRIC ($/kWh)

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

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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 2.1A 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 2001 and those costs associated with commitments from 2001 programs.

Program Incentives (Recorded)
Incentive costs represent incentives paid to customers during 2001 (Actual) as well as incentives associated with commitments from the 2001 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 2001 (Actual) as well as administrative costs associated with the handling of commitments from the 2001 residential programs (Committed).

Shareholder Incentives
Costs represented in the Shareholder Incentives column represent an allocated amount of the total performance awards earned during 2001 from all of the 2001 energy efficiency programs.

Other Costs
Costs represented in the Other Costs column represent an allocated amount of the following costs: General Support, MA&E, Regulatory Support, CPUC Staff, and Summer Initiative Administrative recorded during 2001 from all of the 2001 energy efficiency programs.

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 November 15, 2000 Application for 2001 energy efficiency program funding. Each of the Net-to-Gross ratios utilized in the 2001 program cost-effectiveness calculations are set at the levels recommended in the September 25, 2000 CALMAC Report, as adopted or modified by the October 25, 2000 ALJ Ruling.

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

These tables document the costs used in determining the cost-effectiveness of residential energy efficiency programs from program years 2000 (Table TA 2.1B), 1999 (Table TA 2.1C), and 1998 (Table TA 2.1D).

These tables show costs from actual and committed projects, with actual defined as the accumulated completed projects from the program year through 12-31-01 and committed defined as remaining commitments (after 12-31-01) remaining for projects from these program years. This information should be considered preliminary and subject to change because it does reflect only a status of commitments. The status of commitments may change as payments are made.

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 2001. These program costs do not include energy efficiency support costs represented elsewhere in this report, such as Market Assessment & Evaluation and Regulatory Oversight (Section 5), Other Energy Efficiency (Section 1), or Shareholder Performance Incentives (Section 6).

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 2001 in support of 2001 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.

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 November 15, 2000 Application for 2001 Energy Efficiency Program Funding and adopted in Decision 01-01-060. These estimates have been updated, as applicable, to correspond with the actual program implementation during 2001 and to reflect actual program results as of December 31, 2001. Recorded savings amounts reflect all 2001 program impacts, including impacts from measures installed in 2001 and those impacts associated with commitments from 2001 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 November 15, 2000 Application for 2001 Energy Efficiency Program Funding and submitted herein as the 2001 program results are the result of a summation of measure-level savings from the measures installed as a result of the 2001 residential programs. The measure-level savings information used to calculate the 2001 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 amounts recommended in the CALMAC Report, as adopted or modified by the October 25, 2000 ALJ Ruling. These recommendations are in accordance with Decision 00-07-017, Ordering Paragraph 8. In addition, tables reflecting the utilities' response to the Useful Life issues in the October 25, 2000 ALJ Ruling are included in the attachment to this document entitled Compliance.

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 SCE's RCP program 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 2.1A
2002 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
PROGRAM COST ESTIMATES USED FOR COST-EFFECTIVENESS - RESIDENTIAL PROGRAM AREA
2001

	Program Incentives (Recorded) [1]		Program Administrative Costs (Recorded) [1]		Shareholder Incentives [1]	Other Costs [1]	Total Utility Costs	Incremental Measure Costs
	Actual	Committed	Actual	Committed				
Information	$ -	$ -	$ 2,648,263	$ 87,756	$ -	$ -	$ 2,736,019	$ -
EMS	-	-	1,615,538	67,600	87,654	100,970	1,871,761	-
EEI								
SPCs (RCP)	2,647,522	1,236,128	616,300	216,549	203,702	234,648	5,154,849	7,505,000
Rebates	9,936,744	580,529	1,530,725	45,390	560,286	645,405	13,299,080	11,610,000
Loans	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-
Upstream Programs								
Information	-	-	2,042,986	1,291,254	1,349	1,554	3,337,142	169,000
Financial Assistan	2,122,703	94,898	906,362	40,000	178,526	205,648	3,548,136	4,573,000
esidential Total	$ 14,706,970	$ 1,911,554	$ 9,360,174	$ 1,748,549	$ 1,031,516	$ 1,188,224	$ 29,946,988	$ 23,857,000

] All costs, including shareholder incentives exclude results from funding received from Advice 1570-E.

Table TA 2.1B
2001 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
PROGRAM COST ESTIMATES USED FOR COST-EFFECTIVENESS - RESIDENTIAL PROGRAM AREA
2000

	Program Incentives (Recorded)		Program Administrative Costs (Recorded)		Shareholder Incentives [1]	Other Costs	Total Utility Costs	Incremental Measure Costs
	Actual	Committed	Actual	Committed				
Information	$ -	$ -	$ 1,267,602	$ -	$ 108,182	$ -	$ 1,375,784	$ -
EMS	-	-	2,829,402	-	79,545	-	2,908,947	-
EEI								
SPCs (RCP)	3,621,426	705,600	757,802	14,400	222,727	-	5,321,956	14,761,000
Rebates	7,459,277	0	1,146,920	-	245,000	-	8,851,197	11,686,000
Loans	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-
Upstream Programs								
Information	-	-	1,707,145	314,751	-	-	1,902,759	-
Financial Assistan	410,145	-	6,095,194	100,000	0	-	6,605,339	3,266,000
Residential Total	$ 11,490,848	$ 705,600	$ 13,804,065	$ 429,151	$ 655,455	$ -	$ 27,085,119	$ 29,713,000

[1] The incentive amounts shown may not be fully collected. SCE's 2000 Shareholder Performance Award Cap is $5.544 million.

Table TA 2.1C
2000 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
PROGRAM COST ESTIMATES USED FOR COST-EFFECTIVENESS - RESIDENTIAL PROGRAM AREA
1999

	Program Incentives (Recorded)		Program Administrative Costs (Recorded)		Shareholder Incentives [2]	Other Costs	Total Utility Costs	Incremental Measure Costs
	Actual	Committed	Actual	Committed [1]				
Information	-	$ -	$ 1,149,481	$ -	$ 119,731	$ -	$ 1,269,213	$ -
EMS	-	-	2,017,227	-	158,296	-	2,175,523	-
EEI	9,989,476	303,800	4,116,550	6,200	1,072,948	-	15,488,973	12,828,059
Upstream Programs	-	-	7,155,562	110,669	1,752,025	-	9,018,257	-
Residential Total	$ 9,989,476	$ 303,800	$ 14,438,821	$ 116,869	$ 3,103,000	$ -	$ 27,951,966	$ 12,828,059

[1] 1999 unspent balances may be used to support future administrative costs associated with continuing 1999 commitments.
[2] The incentive amounts shown may not be fully collected. SCE's 1999 Shareholder Performance Award Cap is $8.610 million.

Table TA 2.1D
1999 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
PROGRAM COST ESTIMATES USED FOR COST-EFFECTIVENESS - RESIDENTIAL PROGRAM AREA
1998

	Program Incentives (Recorded)		Program Administrative Costs (Recorded)		Shareholder Incentives [2]	Other	Total Utility Costs	Incremental Measure
	Actual	Committed	Actual	Committed [1]				
Information	$ -	$ -	$ 407,400	$ - #	#	#	#	
EMS	-	-	2,008,889	-	90,176	-	2,099,065	-
EEI	8,877,909	1,352,400	2,624,758	27,600	1,054,365	-	13,937,033	6,789,000
Upstream Programs	3,375,151	0	2,038,686	0	465,578	-	5,879,415	-
Residential Total	$ 12,253,060	$ 1,352,400	$ 7,079,733	$ 27,600	$ 1,610,119	$ -	$ 21,915,512	$ 6,789,000

[1] 1998 unspent balances may be used to support future administrative costs associated with continuing 1998 commitments.
[2] The incentive amounts shown may not be fully collected. SCE's 1998 Shareholder Performance Award Cap is $8.104 million

Table TA 2.2
2002 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
DIRECT AND ALLOCATED ADMINISTRATIVE COSTS - RESIDENTIAL PROGRAM AREA
2001

	Actual Labor	Actual Non-Labor	Actual Contract	Actual Allocated	Actual Admin Total
Information	$ 282,345	$ 2,299,345	$ 16,756	$ 49,817	$ 2,648,263
EMS	81,453	1,444,306	22,538	67,241	1,615,538
EEI					
SPCs (RCP)	177,525	300,616	93,811	44,348	616,300
Rebates	364,875	686,154	215,759	263,937	1,530,725
Loans	-	-	-	-	-
Other	-	-	-	-	-
Upstream Programs					
Information	42,231	1,850,558	150,103	95	2,042,986
Financial Assistance	110,067	788,579	7,076	639	906,362
Residential Total	$ 1,058,497	$ 7,369,558	$ 506,043	$ 426,077	$ 9,360,174

Table TA 2.3
2002 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY PROGRAM EFFECTS: ELECTRIC
MARKET EFFECTS: PROJECTED ANNUAL PROGRAM ENERGY REDUCTIONS - RESIDENTIAL PROGRAM AREA
2001

Information

Year	(MW)	(MWH)
2001	0	0
2002	0	0
2003	0	0
2004	0	0
2005	0	0
2006	0	0
2007	0	0
2008	0	0
2009	0	0
2010	0	0
2011	0	0
2012	0	0
2013	0	0
2014	0	0
2015	0	0
2016	0	0
2017	0	0
2018	0	0
2019	0	0
2020	0	0
Total	0	0

EMS

Year	(MW)	(MWH)
2001	0.004	9,261
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
Total	0.004	9,261

EEI
SPCs (RCP)

Year	(MW)	(MWH)
2001	0.001	17,220
2002	0.000	17,220
2003	0.000	17,220
2004	0.000	17,220
2005	0.000	17,220
2006	0.000	17,220
2007	0.000	17,220
2008	0.000	17,220
2009	0.000	17,220
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
Total	0.001	154,979

EEI
Rebates

Year	(MW)	(MWH)
2001	0.019	63,078
2002	0.000	63,078
2003	0.000	63,078
2004	0.000	63,078
2005	0.000	63,078
2006	0.000	63,078
2007	0.000	63,078
2008	0.000	63,078
2009	0.000	63,078
2010	0.000	63,078
2011	0.000	63,078
2012	0.000	63,078
2013	0.000	63,078
2014	0.000	63,078
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
Total	0	883,087

EEI
Loans

Year	(MW)	(MWH)
2001	0	0
2002	0	0
2003	0	0
2004	0	0
2005	0	0
2006	0	0
2007	0	0
2008	0	0
2009	0	0
2010	0	0
2011	0	0
2012	0	0
2013	0	0
2014	0	0
2015	0	0
2016	0	0
2017	0	0
2018	0	0
2019	0	0
2020	0	0
Total	0	0

EEI
Other

Year	(MW)	(MWH)
2001	0	0
2002	0	0
2003	0	0
2004	0	0
2005	0	0
2006	0	0
2007	0	0
2008	0	0
2009	0	0
2010	0	0
2011	0	0
2012	0	0
2013	0	0
2014	0	0
2015	0	0
2016	0	0
2017	0	0
2018	0	0
2019	0	0
2020	0	0
Total	0	0

Upstream Programs
Information

Year	(MW)	(MWH)
2001	0	62
2002	0	0
2003	0	0
2004	0	0
2005	0	0
2006	0	0
2007	0	0
2008	0	0
2009	0	0
2010	0	0
2011	0	0
2012	0	0
2013	0	0
2014	0	0
2015	0	0
2016	0	0
2017	0	0
2018	0	0
2019	0	0
2020	0	0
Total	0	62

Upstream Programs
Financial Assistance

Year	(MW)	(MWH)
2001	0.027	30,035
2002	0.000	30,035
2003	0.000	30,035
2004	0.000	30,035
2005	0.000	30,035
2006	0.000	30,035
2007	0.000	30,035
2008	0.000	30,035
2009	0.000	30,035
2010	0.000	30,035
2011	0.000	30,035
2012	0.000	30,035
2013	0.000	30,035
2014	0.000	30,035
2015	0.000	30,035
2016	0.000	30,035
2017	0.000	30,035
2018	0.000	30,035
2019	0.000	0
2020	0.000	0
Total	0.027	540,637

Table TA 2.4A
2002 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
DISTRIBUTION OF RCP PAYMENTS - RESIDENTIAL PROGRAM AREA
SINGLE-FAMILY PROGRAM AREA
2001

	Lighting	[1]	HVAC	[1]	Other	[1]	Total	[1]
Affiliate 1	$ -		$ -		$ -		$ -	
Total Affiliate	$ -		$ -		$ -		$ -	
ESCO 1			$ 1,534				$ 1,534	
ESCO 2			11,792				11,792	
ESCO 3			3,507				3,507	
ESCO 4			1,703				1,703	
ESCO 5			210				210	
ESCO 6			4,864				4,864	
ESCO 7			576				576	
ESCO 8			2,170				2,170	
ESCO 9			5,253				5,253	
ESCO 10			1,152				1,152	
ESCO 11			2,605				2,605	
ESCO 12			962				962	
ESCO 13	252		1,709				1,961	
ESCO 14			1,185				1,185	
ESCO 15			415				415	
ESCO 16			629				629	
ESCO 17			75				75	
ESCO 18			507				507	
ESCO 19			473				473	
ESCO 20			1,476				1,476	
ESCO 21			16,353				16,353	
ESCO 22			6,081				6,081	
ESCO 23			6,351				6,351	
ESCO 24			246,913				246,913	
ESCO 25			441				441	
ESCO 26			292				292	
ESCO 27			568				568	
ESCO 28			390				390	
ESCO 29			13,572				13,572	
ESCO 30			213				213	
ESCO 31			308				308	
ESCO 32			6,567				6,567	
ESCO 33			91				91	
ESCO 34			9,338				9,338	
ESCO 35			79				79	
ESCO 36			1,143				1,143	
ESCO 37			52,739				52,739	
ESCO 38			428				428	
ESCO 39			1,771				1,771	
ESCO 40			36,529				36,529	
ESCO 41			1,010				1,010	
ESCO 42			256				256	
ESCO 43			1,073				1,073	
ESCO 44			119				119	
ESCO 45			704				704	
ESCO 46			9,550				9,550	
ESCO 47			1,140				1,140	
ESCO 48			2,598				2,598	
ESCO 49			3,360				3,360	
ESCO 50			1,678				1,678	

ESCO 51		40		40
ESCO 52		89		89
ESCO 53		2,615		2,615
ESCO 54		511		511
ESCO 55		1,125		1,125
ESCO 56		23,874		23,874
ESCO 57		85		85
ESCO 58		11,377		11,377
ESCO 59		528		528
ESCO 60		1,176		1,176
ESCO 61		5,467		5,467
ESCO 62		2,128		2,128
ESCO 63		1,511		1,511
ESCO 64		859		859
ESCO 65		29,571		29,571
ESCO 66		4,087		4,087
ESCO 67		4,577		4,577
ESCO 68		26,554		26,554
ESCO 69		150		150
ESCO 70		8,595		8,595
ESCO 71		7,360		7,360
ESCO 72		4,293		4,293
ESCO 73		7,891		7,891
ESCO 74		379		379
ESCO 75		9,359		9,359
ESCO 76		2,359		2,359
ESCO 77		11,853		11,853
ESCO 78		12,848		12,848
ESCO 79		3,345		3,345
ESCO 80		1,294		1,294
ESCO 81		19,237		19,237
ESCO 82		2,722		2,722
ESCO 83		19,985		19,985
ESCO 84		372		372
ESCO 85		1,762		1,762
ESCO 86	2,618	43,826	145	46,589
ESCO 87		1,587		1,587
ESCO 88		2,805		2,805
ESCO 89		59,590		59,590
ESCO 90		460		460
ESCO 91		10,430		10,430
ESCO 92		1,416		1,416
ESCO 93		8,468		8,468
ESCO 94		9,528		9,528
ESCO 95		4,792		4,792
ESCO 96		105		105
ESCO 97		1,594		1,594
ESCO 98		1,237		1,237
ESCO 99		449		449
ESCO 100		186		186
ESCO 101		757		757
ESCO 102		5,095		5,095
ESCO 103		5,460		5,460
ESCO 104		19,699		19,699
ESCO 105		9,082		9,082
ESCO 106		11,481		11,481
ESCO 107		10,086		10,086
ESCO 108		899		899
ESCO 109		2,434		2,434
ESCO 110		75		75
ESCO 111		2,766		2,766
ESCO 112		1,570		1,570
ESCO 113		653		653
ESCO 114		757		757
ESCO 115		23,596		23,596
ESCO 116		12,866		12,866
ESCO 117		9,062		9,062
ESCO 118		9,336		9,336
ESCO 119		404		404

ESCO 120		68		68
ESCO 121		122		122
ESCO 122		1,298		1,298
ESCO 123		2,800		2,800
ESCO 124		10,504		10,504
ESCO 125		499		499
ESCO 126		2,021		2,021
ESCO 127		5,081		5,081
ESCO 128		1,601		1,601
ESCO 129		9,202		9,202
ESCO 130		1,278		1,278
ESCO 131		7,092		7,092
ESCO 132		5,157		5,157
ESCO 133		3,290		3,290
ESCO 134		443		443
ESCO 135		2,636		2,636
ESCO 136		5,114		5,114
ESCO 137		8,332		8,332
ESCO 138		6,353		6,353
ESCO 139		7,029		7,029
ESCO 140		26		26
ESCO 141		547		547
ESCO 142		20,620		20,620
ESCO 143		11,677		11,677
ESCO 144		33,360		33,360
ESCO 145		165		165
ESCO 146		783		783
ESCO 147		10,276		10,276
ESCO 148		5,573		5,573
ESCO 149		2,033		2,033
ESCO 150		1,501		1,501
ESCO 151		20,202		20,202
ESCO 152		112,142		112,142
ESCO 153		14,744		14,744
ESCO 154		929		929
Other Commitments [2]		277,643		277,643
Total ESCO	$ 2,870	$ 1,559,122	$ 145	$ 1,562,137
Customer Project 1	$ -	$ -	$ -	$ -
Total Customer Projects	$ -	$ -	$ -	$ -
Total Payments	$ 2,870	$ 1,559,122	$ 145	$ 1,562,137

[1] Includes Actual and Committed Payments

[2] Committed projects with no contractor-specific information available.

Table TA 2.4B
2002 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
DISTRIBUTION OF RCP PAYMENTS - RESIDENTIAL PROGRAM AREA
MULTI-FAMILY PROGRAM AREA
2001

	Lighting [1,2]	HVAC [1,2]	Other [1,2]	Total [1,2]
Affiliate 1	$ -	$ -	$ -	$ -
Total Affiliate	$ -	$ -	$ -	$ -
ESCO 1	$ 1,239,882	$ -		$ 1,239,882
ESCO 2	295,875	-		295,875
ESCO 3	3,439	-		3,439
ESCO 4		-	19,406	19,406
ESCO 5	67,647	-		67,647
ESCO 6		-	62,547	62,547
ESCO 7	254,316	-		254,316
ESCO 8	378,437	-		378,437
Total ESCO	$ 2,239,596	$ -	$ 81,953	$ 2,321,549
Customer Project 1	$ -	$ -	$ -	$ -
Total Customer Projects	$ -	$ -	$ -	$ -
Total Payments	$ 2,239,596	$ -	$ 81,953	$ 2,321,549

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

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 2001 and those costs associated with commitments from 2001 programs.

Program Incentives (Recorded)
Incentive costs represent incentives paid to customers during 2001 (Actual) as well as incentives associated with commitments from the 2001 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 2001 (Actual) as well as administrative costs associated with the handling of commitments from the 2001 nonresidential programs (Committed).

Shareholder Incentives
Costs represented in the Shareholder Incentives column represent an allocated amount of the total performance awards earned during 2001 from all of the 2001 energy efficiency programs.

Other Costs
Costs represented in the Other Costs column represent an allocated amount of the following costs: General Support, MA&E, Regulatory Support, CPUC Staff, and Summer Initiative Administrative recorded during 2001 from all of the 2001 energy efficiency programs.

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 November 15, 2000 Application for 2001 energy efficiency program funding. Each of the Net-to-Gross ratios utilized in the 2001 program cost-effectiveness calculations are set at the levels recommended in the September 25, 2000 CALMAC Report, as adopted or modified by the October 25, 2000 ALJ Ruling.

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

These tables document the costs used in determining the cost-effectiveness of nonresidential energy efficiency programs from program years 2000 (Table TA 3.1B), 1999 (Table TA 3.1C), and 1998 (Table TA 3.1D)

These tables show costs from actual and committed projects, with actual defined as the accumulated completed projects from the program year through 12-31-01 and committed defined as remaining commitments (after 12-31-01) remaining for projects from these program years. This information should be considered preliminary and subject to change because it does reflect only a status of commitments. The status of commitments may change as payments are made.

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 2001. These program costs do not include energy efficiency support costs represented elsewhere in this report, such as Market Assessment & Evaluation and Regulatory Oversight (Section 5), Other Energy Efficiency (Section 1), or Shareholder Performance Incentives (Section 6).

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 2001 in support of 2001 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.

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 November 15, 2000 Application for 2001 Energy Efficiency Program Funding and adopted in Decision 01-01-060. These estimates have been updated, as applicable, to correspond with the actual program implementation during 2001 and to reflect actual program results as of December 31, 2001. Recorded savings amounts reflect all 2001 program impacts, including impacts from measures installed in 2001 and those impacts associated with commitments from 2001 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 November 15, 2000 Application for 2001 Energy Efficiency Program Funding and submitted herein as the 2001 program results are the result of a summation of measure-level savings from the measures installed as a result of the 2001 nonresidential programs. The measure-level savings information used to calculate the 2001 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 amounts recommended in the CALMAC Report, as adopted or modified by the October 25, 2000 ALJ Ruling. These recommendations are in accordance with Decision 00-07-017, Ordering Paragraph 8. In addition, tables reflecting the utilities' response to the Useful Life issues in the October 25, 2000 ALJ Ruling are included in the attachment to this document entitled Compliance.

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.

Table TA 3.1A
2002 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
PROGRAM COST ESTIMATES USED FOR COST-EFFECTIVENESS - NONRESIDENTIAL PROGRAM AREA
2001

	Program Incentives (Recorded)		Program Administrative Costs (Recorded)		Shareholder Incentives	Other Costs	Total Utility Costs	Incremental Measure Costs
	Actual	Committed	Actual	Committed				
Information	$ -	$ -	$ 3,034,700	$ 38,040	$ -	$ -	$ 3,072,740	$ -
EMS								
Large	-	-	1,038,173	-	-	-	1,038,173	-
Small/Medium	-	-	2,605,812	10,000	165,357	190,478	2,971,648	88,000
EEI: Customized Rebates								
Large	-	-	-	-	-	-	-	-
Small/Medium	-	-	-	-	-	-	-	-
EEI: Prescriptive Rebates								
Large	3,338,558	5,862,266	1,121,652	109,928	1,957,856	2,255,294	14,645,553	14,486,000
Small/Medium	1,840,855	514,335	1,020,894	19,500	523,558	603,097	4,522,239	6,043,000
EEI: SPCs								
Large	1,119,914	4,734,399	581,224	91,193	440,859	507,835	7,475,424	6,576,000
Small/Medium	350,051	1,136,252	303,611	153,087	111,186	128,078	2,182,265	1,397,000
Upstream Programs								
Information	-	-	2,620,863	700,073	-	-	3,320,936	-
Financial Assistan	148,047	-	264,945	19,654	13,222	15,231	461,098	227,000
Nonresidential Total	$ 6,797,425	$ 12,247,252	$ 12,591,872	$ 1,141,475	$ 3,212,038	$ 3,700,012	$ 39,690,075	$ 28,817,000

Table TA 3.1B
2001 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
PROGRAM COST ESTIMATES USED FOR COST-EFFECTIVENESS - NONRESIDENTIAL PROGRAM AREA
2000

	Program Incentives (Recorded)		Program Administrative Costs (Recorded)		Shareholder	Other	Total Utility	Incremental Measure
	Actual	Committed	Actual	Committed	Incentives [1]	Costs	Costs	Costs
Information	$ -	$ -	$ 1,924,973	$ -	$ 238,636.36	$ -	$ 2,163,609	$ -
EMS								
Large	-	-	1,210,711	-	-	-	1,210,711	-
Small/Medium	-	-	2,639,060	-	127,273	-	2,766,333	1,411,000
EEI: Customized Rebates								
Large	-	-	-	-	-	-	-	-
Small/Medium	215,325	-	61,187	-	11,136	-	287,648	686,000
EEI: Prescriptive Rebates								
Large	417,346	-	335,315	-	31,818	-	784,479	4,702,000
Small/Medium	2,130,695	-	992,925	-	95,455	-	3,219,075	1,086,000
EEI: SPCs								
Large	1,193,445	7,000,000	2,006,497	800,000	1,145,455	-	12,145,396	20,562,000
Small/Medium	786,380	490,000	584,634	150,000	238,636	-	2,249,651	2,166,000
Upstream Programs								
Information	-	-	1,814,420	1,320,184	270,455	-	3,405,058	-
Financial Assistan	-	-	1,748,515	-	127,273	-	1,875,787	313,000
Nonresidential Total	$ 4,743,192	$ 7,490,000	$ 13,318,236	$ 2,270,184	$ 2,286,136 [1]	$ -	$ 30,107,748	$ 30,926,000

[1] The incentive amounts shown may not be fully collected. SCE's 2000 Shareholder Performance Award Cap is $5.544 million

Table TA 3.1C
2000 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
PROGRAM COST ESTIMATES USED FOR COST-EFFECTIVENESS - NONRESIDENTIAL PROGRAM AREA
1999

	Program Incentives (Recorded)		Program Administrative Costs (Recorded)		Shareholder	Other	Total Utility	Incremental Measure
	Actual	Committed	Actual	Committed [1]	Incentives [2]	Costs	Costs	Costs
Information	$ -	$ -	$ 1,683,004	$ -	$ 150,654.61	$ -	$ 1,833,658	$ -
EMS								
Large	-	-	620,430	-	17,412	-	637,842	-
Small/Medium	-	-	2,451,011	-	119,870	-	2,570,881	-
EEI: Customized Rebates								
Large	-	-	-	-	-	-	-	-
Small/Medium	213,654	-	83,142	-	8,170	-	304,966	1,203,000
EEI: Prescriptive Rebates								
Large	-	-	-	-	-	-	-	-
Small/Medium	1,833,791	-	737,563	-	317,151	-	2,888,504	4,243,000
EEI: SPCs								
Large	3,085,404	5,500,000	2,447,189	1,300,000	2,564,687	-	19,056,727	28,739,000
Small/Medium	718,749	150,000	955,614	150,000	737,766	-	2,795,117	1,149,000
Upstream Programs								
Information	-	-	1,543,016	596,991	75,289	-	2,797,288	-
Financial Assistance	-	-	-	-	-	-	-	-
Nonresidential Total	$ 5,851,598	$ 5,650,000	$ 10,520,969	$ 2,046,991	$ 3,991,000 [1]	$ -	$ 32,884,984	$ 35,334,000

[1] 1999 unspent balances may be used to support future administrative costs associated with continuing 1999 commitments.
[2] The incentive amounts shown may not be fully collected. SCE's 1999 Shareholder Performance Award Cap is $8.610 million

Table TA 3.1D
1999 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
PROGRAM COST ESTIMATES USED FOR COST-EFFECTIVENESS - NONRESIDENTIAL PROGRAM AREA
1998

	Program Incentives (Recorded)		Program Administrative Costs (Recorded)		Shareholder Incentives [2]	Other	Total Utility Costs	Incremental Measure
	Actual	Committed	Actual	Committed [1]				
Information	$ -	$ -	$ 2,540,285	$ -	$ -	$ -	$ 2,540,285	$ -
EMS								
Large	-	-	5,767,894	-	287,434	-	6,055,328	-
Small/Medium	-	-	2,708,150	-	109,376	-	2,817,526	-
EEI: Customized Rebates								
Large	1,233,563	-	94,475	-	587,525	-	1,915,563	1,994,000
Small/Medium	119,810	-	7,492	-	60,556	-	187,858	219,000
EEI: Prescriptive Rebates								
Large	-	-	-	-	-	-	-	-
Small/Medium	429,339	-	229,322	-	315,599	-	974,260	1,424,000
EEI: SPCs								
Large	5,490,240	3,600,000	1,291,719	400,000	3,456,000	-	15,091,088	19,333,000
Small/Medium	-	-	-	-	-	-	-	-
Upstream Programs								
Information	2,212,644	-	1,583,848	-	181,500	-	4,253,367	-
Financial Assistance	1,625,309	-	308,268	-	584,310	-	2,517,886	5,710,000
Nonresidential Total	$ 11,110,905	$ 3,600,000	$ 14,531,453	$ 400,000	$ 5,582,300 [1]	$ -	$ 36,353,162	$ 28,680,000

[1] 1998 unspent balances may be used to support future administrative costs associated with continuing 1998 commitments.
[2] The incentive amounts shown may not be fully collected. SCE's 1998 Shareholder Performance Award Cap is $8.104 million

= Changes made for DR 3, 2001 AEAP, June 2001
= Changes made for DR 8, 2000 AEAP, October 2000
= Original Estimates, 1999 AEAP, May 1, 1999

Table TA 3.2
2002 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
DIRECT AND ALLOCATED ADMINISTRATIVE COSTS - NONRESIDENTIAL PROGRAM AREA
2001

	Actual Labor	Actual Non-Labor	Actual Contract	Actual Allocated	Actual Admin Total
Information	$ 679,053	$ 2,179,456	$ 67,007	$ 109,185	$ 3,034,700
EMS					
Large	908,229	63,845	26,545	39,554	1,038,173
Small/Medium	2,006,326	360,333	6,502	232,651	2,605,812
EEI: Customized Rebates					
Large	-	-	-	-	-
Small/Medium	-	-	-	-	-
EEI: Prescriptive Rebates					
Large	945,546	87,363	55,990	32,753	1,121,652
Small/Medium	450,133	370,212	76,653	123,895	1,020,894
EEI: SPCs					
Large	364,662	186,750	4,760	25,052	581,224
Small/Medium	38,563	244,619	3,251	17,178	303,611
Upstream Programs					
Information	77,427	2,543,289	146	0	2,620,863
Financial Assistance	63,626	194,334	6,027	957	264,945
Nonresidential Total	$ 5,533,565	$ 6,230,202	$ 246,880	$ 581,225	$ 12,591,872

Table TA 3.3
2002 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY PROGRAM EFFECTS: ELECTRIC
MARKET EFFECTS: PROJECTED ANNUAL PROGRAM ENERGY REDUCTIONS - NONRESIDENTIAL PROGRAM AREA
2001

Information

Year	(MW)	(MWH)
2001	0	0
2002	0	0
2003	0	0
2004	0	0
2005	0	0
2006	0	0
2007	0	0
2008	0	0
2009	0	0
2010	0	0
2011	0	0
2012	0	0
2013	0	0
2014	0	0
2015	0	0
2016	0	0
2017	0	0
2018	0	0
2019	0	0
2020	0	0
Total	0	0

EMS
Large

Year	(MW)	(MWH)
2001	0	0
2002	0	0
2003	0	0
2004	0	0
2005	0	0
2006	0	0
2007	0	0
2008	0	0
2009	0	0
2010	0	0
2011	0	0
2012	0	0
2013	0	0
2014	0	0
2015	0	0
2016	0	0
2017	0	0
2018	0	0
2019	0	0
2020	0	0
Total	0	0

EMS
Small/Medium

Year	(MW)	(MWH)
2001	0.005	15,200
2002	0.000	15,200
2003	0.000	15,200
2004	0.000	15,200
2005	0.000	15,200
2006	0.000	15,200
2007	0.000	15,200
2008	0.000	15,200
2009	0.000	15,200
2010	0.000	15,200
2011	0.000	15,200
2012	0.000	15,200
2013	0.000	15,200
2014	0.000	15,200
2015	0.000	15,200
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
Total	0.005	228,007

EEI: Customized Rebates
Large

Year	(MW)	(MWH)
2001	0	0
2002	0	0
2003	0	0
2004	0	0
2005	0	0
2006	0	0
2007	0	0
2008	0	0
2009	0	0
2010	0	0
2011	0	0
2012	0	0
2013	0	0
2014	0	0
2015	0	0
2016	0	0
2017	0	0
2018	0	0
2019	0	0
2020	0	0
Total	0	0

EEI: Customized Rebates
Small/Medium

Year	(MW)	(MWH)
2001	0	0
2002	0	0
2003	0	0
2004	0	0
2005	0	0
2006	0	0
2007	0	0
2008	0	0
2009	0	0
2010	0	0
2011	0	0
2012	0	0
2013	0	0
2014	0	0
2015	0	0
2016	0	0
2017	0	0
2018	0	0
2019	0	0
2020	0	0
Total	0	0

EEI: Prescriptive Rebates
Large

Year	(MW)	(MWH)
2001	0.028	167,862
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
Total	0.028	167,862

Technical Appendix

EEI: Prescriptive Rebates
Small/Medium

Year	(MW)	(MWH)
2001	0.009	40,572
2002	0.000	40,572
2003	0.000	40,572
2004	0.000	40,572
2005	0.000	40,572
2006	0.000	40,572
2007	0.000	40,572
2008	0.000	40,572
2009	0.000	40,572
2010	0.000	40,572
2011	0.000	40,572
2012	0.000	40,572
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
Total	0.009	486,863

EEI: SPCs
Large

Year	(MW)	(MWH)
2001	0.006	33,647
2002	0.000	33,647
2003	0.000	33,647
2004	0.000	33,647
2005	0.000	33,647
2006	0.000	33,647
2007	0.000	33,647
2008	0.000	33,647
2009	0.000	33,647
2010	0.000	33,647
2011	0.000	33,647
2012	0.000	33,647
2013	0.000	33,647
2014	0.000	33,647
2015	0.000	33,647
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
Total	0.006	504,704

EEI: SPCs
Small/Medium

Year	(MW)	(MWH)
2001	0.002	7,770
2002	0.000	7,770
2003	0.000	7,770
2004	0.000	7,770
2005	0.000	7,770
2006	0.000	7,770
2007	0.000	7,770
2008	0.000	7,770
2009	0.000	7,770
2010	0.000	7,770
2011	0.000	7,770
2012	0.000	7,770
2013	0.000	7,770
2014	0.000	7,770
2015	0.000	7,770
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
Total	0.002	116,551

Upstream Programs
Information

Year	(MW)	(MWH)
2001	0	0
2002	0	0
2003	0	0
2004	0	0
2005	0	0
2006	0	0
2007	0	0
2008	0	0
2009	0	0
2010	0	0
2011	0	0
2012	0	0
2013	0	0
2014	0	0
2015	0	0
2016	0	0
2017	0	0
2018	0	0
2019	0	0
2020	0	0
Total	0	0

Upstream Programs
Financial Assistance

Year	(MW)	(MWH)
2001	0.000	858
2002	0.000	858
2003	0.000	858
2004	0.000	858
2005	0.000	858
2006	0.000	858
2007	0.000	858
2008	0.000	858
2009	0.000	858
2010	0.000	858
2011	0.000	858
2012	0.000	858
2013	0.000	858
2014	0.000	858
2015	0.000	858
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
Total	0.000	12,875

Table TA 3.4A
2002 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
DISTRIBUTION OF SPC PAYMENTS - NONRESIDENTIAL PROGRAM AREA
LARGE SPC
2001

	Lighting [1,2]	HVAC [1,2]	Other [1,2]	Total [1,2]
Edison Source	$ -	$ -	$ -	$ -
Total Affiliate	$ -	$ -	$ -	$ -
ESCO 1	$ 9,744			$ 9,744
ESCO 2			194,987	194,987
ESCO 3			3,153	3,153
ESCO 4			101,805	101,805
ESCO 5		53,521		53,521
ESCO 6		32,981		32,981
ESCO 7			75,398	75,398
ESCO 8			358,651	358,651
ESCO 9			3,059	3,059
ESCO 10		2,888		2,888
ESCO 11	57,756			57,756
ESCO 12	27,601			27,601
ESCO 13			41,180	41,180
ESCO 14		31,770		31,770
ESCO 15	173,139	9,365		182,504
ESCO 16			36,288	36,288
ESCO 17	20,810			20,810
ESCO 18	76,174		9,416	85,590
ESCO 19			127,074	127,074
ESCO 20		62,719		62,719
Total ESCO	$ 365,224	$ 193,244	$ 951,012	$ 1,509,479

Technical Appendix

EEI Prescriptive Rebates
Small/Medium

Year	(MW)	(MWH)
2001	0.009	40,572
2002	0.000	40,572
2003	0.000	40,572
2004	0.000	40,572
2005	0.000	40,572
2006	0.000	40,572
2007	0.000	40,572
2008	0.000	40,572
2009	0.000	40,572
2010	0.000	40,572
2011	0.000	40,572
2012	0.000	40,572
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
Total	0.009	486,863

EEI: SPCs
Large

Year	(MW)	(MWH)
2001	0.006	33,647
2002	0.000	33,647
2003	0.000	33,647
2004	0.000	33,647
2005	0.000	33,647
2006	0.000	33,647
2007	0.000	33,647
2008	0.000	33,647
2009	0.000	33,647
2010	0.000	33,647
2011	0.000	33,647
2012	0.000	33,647
2013	0.000	33,647
2014	0.000	33,647
2015	0.000	33,647
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
Total	0.006	504,704

EEI: SPCs
Small/Medium

Year	(MW)	(MWH)
2001	0.002	7,770
2002	0.000	7,770
2003	0.000	7,770
2004	0.000	7,770
2005	0.000	7,770
2006	0.000	7,770
2007	0.000	7,770
2008	0.000	7,770
2009	0.000	7,770
2010	0.000	7,770
2011	0.000	7,770
2012	0.000	7,770
2013	0.000	7,770
2014	0.000	7,770
2015	0.000	7,770
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
Total	0.002	116,551

Upstream Programs
Information

Year	(MW)	(MWH)
2001	0	0
2002	0	0
2003	0	0
2004	0	0
2005	0	0
2006	0	0
2007	0	0
2008	0	0
2009	0	0
2010	0	0
2011	0	0
2012	0	0
2013	0	0
2014	0	0
2015	0	0
2016	0	0
2017	0	0
2018	0	0
2019	0	0
2020	0	0
Total	0	0

Upstream Programs
Financial Assistance

Year	(MW)	(MWH)
2001	0.000	858
2002	0.000	858
2003	0.000	858
2004	0.000	858
2005	0.000	858
2006	0.000	858
2007	0.000	858
2008	0.000	858
2009	0.000	858
2010	0.000	858
2011	0.000	858
2012	0.000	858
2013	0.000	858
2014	0.000	858
2015	0.000	858
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
Total	0.000	12,875

Table TA 3.4A
2002 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
DISTRIBUTION OF SPC PAYMENTS - NONRESIDENTIAL PROGRAM AREA
LARGE SPC
2001

	Lighting [1,2]	HVAC [1,2]	Other [1,2]	Total [1,2]
Edison Source	$ -	$ -	$ -	$ -
Total Affiliate	$ -	$ -	$ -	$ -
ESCO 1	$ 9,744			$ 9,744
ESCO 2			194,987	194,987
ESCO 3			3,153	3,153
ESCO 4			101,805	101,805
ESCO 5		53,521		53,521
ESCO 6		32,981		32,981
ESCO 7			75,398	75,398
ESCO 8			358,651	358,651
ESCO 9			3,059	3,059
ESCO 10		2,888		2,888
ESCO 11	57,756			57,756
ESCO 12	27,601			27,601
ESCO 13			41,180	41,180
ESCO 14		31,770		31,770
ESCO 15	173,139	9,365		182,504
ESCO 16			36,288	36,288
ESCO 17	20,810			20,810
ESCO 18	76,174		9,416	85,590
ESCO 19			127,074	127,074
ESCO 20		62,719		62,719
Total ESCO	$ 365,224	$ 193,244	$ 951,012	$ 1,509,479

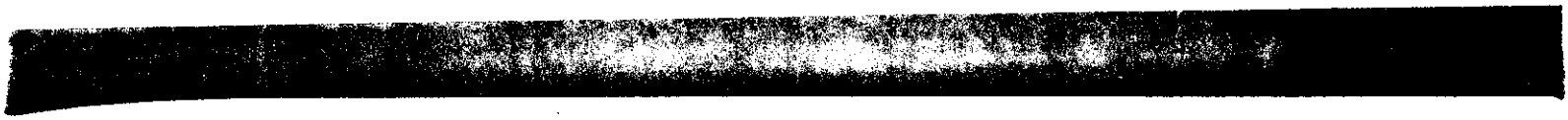
Customer Project 1	$ 4,444			$ 4,444
Customer Project 2			9,653	9,653
Customer Project 3		151,165		151,165
Customer Project 4		155,628		155,628
Customer Project 5		19,387		19,387
Customer Project 6			37,568	37,568
Customer Project 7		164,121		164,121
Customer Project 8			11,719	11,719
Customer Project 9			30,506	30,506
Customer Project 10		44,331		44,331
Customer Project 11		70,889		70,889
Customer Project 12			324,662	324,662
Customer Project 13			129,500	129,500
Customer Project 14			28,307	28,307
Customer Project 15			95,997	95,997
Customer Project 16			111,322	111,322
Customer Project 17		32,877		32,877
Customer Project 18			4,402	4,402
Customer Project 19		1,246		1,246
Customer Project 20		2,786		2,786
Customer Project 21	19,916			19,916
Customer Project 22		24,080		24,080
Customer Project 23	9,039		1,300	10,339
Customer Project 24		36,825		36,825
Customer Project 25		31,022		31,022
Customer Project 26			130,121	130,121
Customer Project 27			500,000	500,000
Customer Project 28		71,177		71,177
Customer Project 29		19,149		19,149
Customer Project 30			22,234	22,234
Customer Project 31		372,318	62,029	434,347
Customer Project 32			22,171	22,171
Customer Project 33			6,110	6,110
Customer Project 34		11,912		11,912
Customer Project 35	8,693	9,006	6,785	24,483
Customer Project 36			12,129	12,129
Customer Project 37			27,433	27,433
Customer Project 38		24,053		24,053
Customer Project 39			25,064	25,064
Customer Project 40			27,933	27,933
Customer Project 41		64,514		64,514
Customer Project 42	32,682			32,682
Customer Project 43			40,954	40,954
Customer Project 44		18,526		18,526
Customer Project 45	142,254			142,254
Customer Project 46		10,500	157,465	
Customer Project 47			24,500	
Customer Project 48	17,060			
Customer Project 49			69,489	
Customer Project 50		210,687		
Customer Project 51			101,592	
Customer Project 52		53,666		
Customer Project 53		17,850		
Customer Project 54			24,500	
Customer Project 55		17,813		
Customer Project 56		159,079	12,844	
Customer Project 57			257,850	
Total Customer Projects	$ 234,087	$ 1,794,608	$ 2,316,139	$ 4,344,834
Total Payments	$ 599,310	$ 1,987,852	$ 3,267,151	$ 5,854,313

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

Table TA 3.4B
2002 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
DISTRIBUTION OF SPC PAYMENTS - NONRESIDENTIAL PROGRAM AREA
SMALL SPC
2001

	Lighting [1,2]	HVAC [1,2]	Other [1,2]	Total [1,2]
Affiliate 1	$ -	$ -	$ -	$ -
Total Affiliate	$ -	$ -	$ -	$ -
ESCO 1	$ 14,439			$ 14,439
ESCO 2	9,884			9,884
ESCO 3		38,254		38,254
ESCO 4		37,043	201,940	238,983
ESCO 5		3,373	94,911	98,284
ESCO 6		32,660	44,563	77,223
ESCO 7	9,633			9,633
ESCO 8	10,081			10,081
ESCO 9		19,315		19,315
ESCO 10			26,131	26,131
ESCO 11	8,606			8,606
ESCO 12	4,558			4,558
ESCO 13	63,024	52,038		115,062
ESCO 14			25,387	25,387
ESCO 15	9,023			9,023
ESCO 16	7,377			7,377
ESCO 17			37,320	37,320
ESCO 18	96,459			96,459
ESCO 19		32,911	51,243	84,154
ESCO 20			123,491	123,491
ESCO 21	12,675			12,675
ESCO 22	14,078			14,078
Total ESCO	$ 259,836	$ 215,594	$ 604,988	$ 1,080,417
Customer Project 1			$ 140,952	$ 140,952
Customer Project 2	5,248			
Customer Project 3		8,716	3,598	
Customer Project 4	13,325			
Customer Project 5			4,046	
Customer Project 6	957			
Customer Project 7			5,091	
Customer Project 8		14,000		
Customer Project 9		5,880		
Customer Project 10		22,490		
Customer Project 11			2,064	
Customer Project 12		15,094		
Customer Project 13			7,855	
Customer Project 14			17,041	
Customer Project 15	704			
Customer Project 16			54,743	
Customer Project 17			6,780	
Customer Project 18			6,988	
Customer Project 19			18,857	
Customer Project 20			8,033	
Customer Project 21	5,559			
Customer Project 22			37,865	
Total Customer Projects	$ 25,793	$ 66,180	$ 313,913	$ 405,886
Nonresidential Total	$ 285,629	$ 281,774	$ 918,901	$ 1,486,303

[1] Includes 110% contingent funds up to defined caps.
[2] Includes Actual and Committed Payments
[2] Percentage ownership by Edison International, holding company



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 2001 and those costs associated with commitments from 2001 programs.

Program Incentives (Recorded)
Incentive costs represent incentives paid to customers during 2001 (Actual) as well as incentives associated with commitments from the 2001 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 2001 (Actual) as well as administrative costs associated with the handling of commitments from the 2001 new construction programs (Committed).

Shareholder Incentives
Costs represented in the Shareholder Incentives column represent an allocated amount of the total performance awards earned during 2001 from all of the 2001 energy efficiency programs.

Other Costs
Costs represented in the Other Costs column represent an allocated amount of the following costs: General Support, MA&E, Regulatory Support, CPUC Staff, and Summer Initiative Administrative recorded during 2001 from all of the 2001 energy efficiency programs.

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 November 15, 2000 Application for 2001 energy efficiency program funding. Each of the Net-to-Gross ratios utilized in the 2001 program cost-effectiveness calculations are set at the levels recommended in the September 25, 2000 CALMAC Report, as adopted or modified by the October 25, 2000 ALJ Ruling.

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 2001. These program costs do not include energy efficiency support costs represented elsewhere in this report, such as Market Assessment & Evaluation and Regulatory Oversight (Section 5), Other Energy Efficiency (Section 1), or Shareholder Performance Incentives (Section 6).

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 2001 in support of 2001 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.

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 November 15, 2000 Application for 2001 Energy Efficiency Program Funding and adopted in Decision 01-01-060. These estimates have been updated, as applicable, to correspond with the actual program implementation during 2001 and to reflect actual program results as of December 31, 2001. Recorded savings amounts reflect all 2001 program impacts, including impacts from measures installed in 2001 and those impacts associated with commitments from 2001 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 November 15, 2000 Application for 2001 Energy Efficiency Program Funding and submitted herein as the 2001 program results are the result of a summation of measure-level savings from the measures installed as a result of the 2001 nonresidential programs. The measure-level savings information used to calculate the 2001 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 amounts recommended in the CALMAC Report, as adopted or modified by the October 25, 2000 ALJ Ruling. These recommendations are in accordance with Decision 00-07-017, Ordering Paragraph 8. In addition, tables reflecting the utilities' response to the Useful Life issues in the October 25, 2000 ALJ Ruling are included in the attachment to this document entitled Compliance.

Table TA 4.1A
2002 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
PROGRAM COST ESTIMATES USED FOR COST-EFFECTIVENESS - NEW CONSTRUCTION PROGRAM AREA
2001

	Program Incentives (Recorded)		Program Administrative Costs (Recorded)		Shareholder Incentives	Other Costs	Total Utility Costs	Incremental Measure Costs
	Actual	Committed	Actual	Committed				
Residential	$ 750,000	$ 1,703,100	$ 2,120,927	$ 663,030	$ 177,444	$ 204,402	$ 5,618,903	$ 1,823,000
Nonresidential	1,131,782	4,476,486	2,555,915	1,640,573	1,170,002	1,347,748	12,322,506	13,459,000
New Construction Total	$ 1,881,782	$ 6,179,586	$ 4,676,841	$ 2,303,603	$ 1,347,446	$ 1,552,150	$ 17,941,408	$ 15,282,000

Table TA 4.1B
2001 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
PROGRAM COST ESTIMATES USED FOR COST-EFFECTIVENESS - NEW CONSTRUCTION PROGRAM AREA
2000

	Program Incentives (Recorded)		Program Administrative Costs (Recorded)		Shareholder Incentives [1]	Other Costs	Total Utility Costs	Incremental Measure Costs
	Actual	Committed	Actual	Committed				
Residential	$ -	$ -	$ 3,108,154	$ 105,577	$ 190,909	$ -	$ 3,404,640	$ 1,500,000
Nonresidential	1,391,396	1,150,440	4,215,605	858,925	525,000	-	8,141,366	6,252,000
New Construction Total	$ 1,391,396	$ 1,150,440	$ 7,323,759	$ 964,502	$ 715,909	$ -	$ 11,546,006	$ 7,752,000

[2] The incentive amounts shown may not be fully collected. SCE's 2000 Shareholder Performance Award Cap is $5.544 million

Table TA 4.1C
2000 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
PROGRAM COST ESTIMATES USED FOR COST-EFFECTIVENESS - NEW CONSTRUCTION PROGRAM AREA
1999

	Program Incentives (Recorded)		Program Administrative Costs (Recorded)		Shareholder Incentives [2]	Other Costs	Total Utility Costs	Incremental Measure Costs
	Actual	Committed	Actual	Committed [1]				
Residential	$ -	$ -	$ 1,977,698	$ 45,802	$ 799,223	$ -	$ 2,822,723	$ -
Nonresidential	1,539,299	-	4,497,253	70,763	978,414	-	7,085,730	9,173,000
New Construction Total	$ 1,539,299	$ -	$ 6,474,951	$ 116,565	$ 1,777,637	$ -	$ 9,908,452	$ 9,173,000

[1] 1999 unspent balances may be used to support future administrative costs associated with continuing 1999 commitments.
[2] The incentive amounts shown may not be fully collected. SCE's 1999 Shareholder Performance Award Cap is $8.610 million

Table TA 4.1D
1999 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
PROGRAM COST ESTIMATES USED FOR COST-EFFECTIVENESS - NEW CONSTRUCTION PROGRAM AREA
1998

	Program Incentives (Recorded)		Program Administrative Costs (Recorded)		Shareholder Incentives [2]	Other	Total Utility Costs	Incremental Measure
	Actual	Committed	Actual	Committed [1]				
Residential	$ 163,625	$ -	$ 1,335,144	$ -	$ 66,757	$ -	$ 1,565,526	$ -
Nonresidential	3,432,241	-	1,851,207	-	1,085,384	-	4,617,979	5,597,000
New Construction Total	$ 3,595,866	$ -	$ 3,186,351	$ -	$ 1,152,141	$ -	$ 6,183,505	$ 5,597,000

[1] 1998 unspent balances may be used to support future administrative costs associated with continuing 1998 commitments.
[2] The incentive amounts shown may not be fully collected. SCE's 1998 Shareholder Performance Award Cap is $8.104 million

Table TA 4.2
2002 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
DIRECT AND ALLOCATED ADMINISTRATIVE COSTS - NEW CONSTRUCTION PROGRAM AREA
2001

	Actual Labor	Actual Non-Labor	Actual Contract	Actual Allocated	Admin Total
Residential	$ 281,793	$ 1,789,151	$ 651	$ 49,332	$ 2,120,927
Nonresidential	871,745	1,578,102	54,559	51,509	2,555,915
New Construction Total	$ 1,153,538	$ 3,367,253	$ 55,211	$ 100,840	$ 4,676,841

Table TA 4.3
2002 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY PROGRAM EFFECTS: ELECTRIC
MARKET EFFECTS: PROJECTED ANNUAL PROGRAM ENERGY REDUCTIONS - NEW CONSTRUCTION PROGRAM ARE
2001

Residential

Year	(MW)	(MWH)
2001	0.009	6,997
2002	0.000	6,997
2003	0.000	6,997
2004	0.000	6,997
2005	0.000	6,997
2006	0.000	6,997
2007	0.000	6,997
2008	0.000	6,997
2009	0.000	6,997
2010	0.000	6,997
2011	0.000	6,997
2012	0.000	6,997
2013	0.000	6,997
2014	0.000	6,997
2015	0.000	6,997
2016	0.000	6,997
2017	0.000	6,997
2018	0.000	6,997
2019	0.000	6,997
2020	0.000	0
Total	0.009	132,941

Nonresidential

Year	(MW)	(MWH)
2001	0.010	61,708
2002	0.000	61,708
2003	0.000	61,708
2004	0.000	61,708
2005	0.000	61,708
2006	0.000	61,708
2007	0.000	61,708
2008	0.000	61,708
2009	0.000	61,708
2010	0.000	61,708
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
Total	0.010	617,077

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

6

Statewide Studies

1999 NONRESIDENTIAL LARGE STANDARD PERFORMANCE CONTRACT PROGRAM EVALUATION STUDY

7

XENERGY, INC.

JANUARY 2001

This report presents results from an ongoing, comprehensive evaluation of California's 1998 Nonresidential Standard Performance Contract program (NSPC) and 1999 Large Nonresidential Standard Performance Contract (LNSPC). Although the 1998 NSPC and 1999 LNSPC programs include both resource-acquisition and market-transformation design intentions, this evaluation focuses more on the latter than on the former. The report includes general program evaluation, follow-up on the 1998 program, and baseline assessment. The study methods used were interviews and assessment of utility program tracking data.

NONRESIDENTIAL NEW CONSTRUCTION (NRNC) BASELINE STUDY EXTENSION: WHOLE BUILDING VS. SYSTEMS PROJECTS

8

RLW ANALYTICS

JANUARY 2001

One of the hypotheses of the Savings By Design (SBD) program is that integrated whole building design produces significantly greater energy savings than the prescriptive-type measure-by-measure approach (called the Systems Approach in the new program). Using data from the NRNC Baseline study, this project was designed to test that hypothesis by comparing whole building and systems projects along several parameters. Its results support the hypothesis, with the whole building designs producing about 25 percent greater savings than the prescriptively designed ones.

NRNC BASELINE EXTENSION STUDY– LIGHTING POWER DENSITY MEASUREMENT ERROR AND LIGHTING QUALITY ASSESSMENT

HESCHONG MAHONE GROUP

FEBRUARY 2001

According to the NRNC Baseline Study, 73 percent of the energy savings beyond Title 24 in the 667 new buildings studied was attributable to lighting. The estimates are based on on-site survey data which amounted to fixture counts and estimates of fixture wattages. Some parties expressed concern that these large savings estimates could be either the result of measurement error or of poor lighting quality in the high efficiency buildings. This study gathered data to assess these two hypotheses. The project carried out a detailed lighting survey of a sub-sample of the projects in the Baseline Study, including detailed fixture counts and wattage, measurements of illuminance levels, and an occupant satisfaction survey.

The first part of the study calculated the lighting power density measurement error associated with previous on-site data collection activity and found that there was no significant systematic bias. The second part of this study investigated the correlation between the lighting power density of a lighting installation and the lighting quality provided. The analysis shows that there is virtually no correlation between lighting power density and two measures of lighting quality - illuminance uniformity and occupant satisfaction.

LARGE NONRESIDENTIAL CUSTOMER WANTS AND NEEDS

QUANTUM CONSULTING

MARCH 2001

This statewide study gathered information on significant energy-related issues affecting five segments of large industrial customers. It investigated the motivations, the issues faced, and the decision processes concerning their choices of whether to implement energy efficiency measures. The industry segments selected include two of California's growth industries (semiconductors and biotechnology), one segment (aerospace) that contains components that can be characterized as growth sectors and more mature industry groups, and two of California's more mature industries – fruit and vegetable processing and hospitals.

In addition to extensive analysis of published information on these segments, the study's innovative methodology involved identifying a set of experts on these issues for each market segment and bringing them to one-day workshops to share responses to these questions with each other. The goal was to identify opportunities for more effective program design and marketing approaches that administrators could use to increase participation in energy efficiency programs. Results were shared with stakeholders at two workshops, and with others outside California in two papers presented at national professional association meetings.

CALIFORNIA LAMP REPORT 2000, VOLUME 1

REGIONAL ECONOMIC RESEARCH

APRIL 2001

This report is part of the ongoing Residential Market Share Tracking Project. It offers a comprehensive look at the residential market for PY2000 light bulb sales, 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.

NRNC MARKET CHARACTERIZATION AND PROGRAM ACTIVITIES TRACKING REPORT: PY2000: FINAL

QUANTUM CONSULTING

APRIL 2001

This section presents a summary of the results from the statewide Market Characterization and Program Activities Tracking (MCPAT) Study. The Market Characterization conducted by the MCPAT Study is an integral part of the statewide Market Assessment and Evaluation activities, and is intended to inform policymakers, regulators, stakeholders, as well as program managers, implementers and evaluators about the characteristics of the California nonresidential new construction market and its segments. The Program Activities Tracking part of the MCPAT study focuses on the accomplishments of the statewide NRNC SBD program, and 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 2000. Study includes Market Characterization (using FW Dodge data) and program tracking of SBD program with penetration estimates. Results for PY2000 indicate that the SBD program captured 6.7% of the nonresidential new construction projects and 4.0% of the renovation and remodeling projects. Significant opportunities remain for increased program penetration into the market.

PROCESS EVALUATION OF PY 2000 RESIDENTIAL CONTRACTOR PROGRAM (RCP)

ENERGY MARKET INNOVATIONS

MAY 2001

The Statewide RCP Evaluation Study Phase III was initiated in the last quarter of 2000. This study was to determine short-term modification needs of the RCP program, both multi-family and single-family elements. This was done by analyzing the status of the PY 2000 program and examining several overarching issues examined through both program staff and contractors' perspectives on various administrative features of the program, including incentive levels, contractor screening and training, and trade specific issues. It documents how the PY 2000 programs were designed to achieve sustainable changes in the market and assesses their performance in doing so.

BUILDING EFFICIENCY ASSESSMENT QUARTERLY REPORT 4TH QUARTER 1999 THROUGH 3RD QUARTER 2000

RLW ANALYTICS

JUNE 2001

This document is the first of three statewide reports for the NRNC program area, covering program years 1999-2000. This report contains summary results for both program participants of the SBD program and program non-participants. SBD is the statewide NRNC energy efficiency program administered by PG&E, SCE, and SDG&E. Included in the report are buildings that were completed and occupied in the 4th Quarter of 1999 through the 3rd Quarter of 2000. The evaluation is based on DOE2 engineering models that are informed by detailed onsite audits and statistically projected to the program population. It employs a customer self-report method for determining participant free-ridership and non-participant spillover. Savings equaled over 100 percent of earlier estimates, and the net-to-gross ratio (NTGR) was 80%.

STATEWIDE RESIDENTIAL NEEDS ASSESSMENT STUDY

TECMRKTWRKS

JULY 2001

This Study is designed as both a report and a resource document. As a report, program planners and policy makers can read the document to obtain a better understanding of hard-to-reach residential customers. Specifically, the report provides an understanding of:

- the size and location of hard-to-reach populations;
- the culture and social characteristics of hard-to-reach populations;
- message channels and content appropriate to hard-to-reach populations
- a profile of energy use characteristics and appliance holdings; and
- possible strategies for reaching hard-to-reach groups, including community-based strategies.

As a resource guide, the study provides detail data on specific ethnic groups including:

- size of the ethnic population;
- social and cultural characteristics; and
- location in California zip code level maps to view the location of the ethnic populations and other hard-to-reach groups;
- information on energy use and needs of the ethnic groups
- strategies for reaching ethnic groups; and
- a listing of community-based organizations in California.

STATEWIDE STUDY OF CUSTOMER REMODELING DECISIONS

PRIMEN, INC.

JULY 2001

This study explored California homeowners' decision-making processes for remodeling, especially with respect to such remodeling projects as kitchen; bathroom; windows; insulation; hardwired lighting; heating, ventilating and air conditioning (HVAC); and roof. This involved modeling key drivers that result in satisfactory completion of projects and factors that influence decisions, including pay-back, comfort and safety, warranty, financing, and choice of contractor. The basic data for the modeling was derived from detailed surveys of a sample of homeowners who had recently remodeled. The analysis developed a profile and segments of remodelers. It explored barriers to energy-efficient choices. It also examined the effectiveness of various consumer information delivery channels, including media, Internet, word-of-mouth, and sales staff, that result in consumers taking action on information.

CALIFORNIA RESIDENTIAL MARKET SHARE TRACKING – NEW CONSTRUCTION 2001

REGIONAL ECONOMIC RESEARCH

JULY 2001

This report is one of many in the ongoing Residential Market Share Tracking Project. This two-year study tracks the market shares of high efficiency measures purchased and installed in California's residential new construction sector over the last several years. These measures include HVAC equipment, water heating equipment, appliances, windows, lighting, gas furnaces, fenestration, and air ducts. This report contains data from new homes built in California between July 1998, and June of 2000.

CALIFORNIA RESIDENTIAL MARKET SHARE TRACKING – EFFICIENCY TRENDS IN NEW CONSTRUCTION, 2001

REGIONAL ECONOMIC RESEARCH

JULY 2001

This eight-page summary report is one product of the ongoing Residential Market Share Tracking Project. This two-year study tracks the market shares of high efficiency measures purchased and installed in California's residential new construction sector over the last several years. These measures include HVAC equipment, water heating equipment, appliances, windows, lighting, gas furnaces, fenestration, and air ducts. This report contains data from new homes built in California between July 1998, and June of 2000.

STUDY OF THE DECISION PROCESS AND STRATEGIES FOR SUCCESSFUL ENERGY EFFICIENCY SERVICE PROVIDERS

ENERGY MARKET INNOVATIONS

AUGUST 2001

This project investigated the business prospects and barriers for new or existing business services companies to become energy efficiency service providers (EESPs). It was designed to identify ways in which program planners could broaden trade ally participation in their programs and in the provision of energy efficiency services in general.

This study investigated strategies used by successful companies in related business services fields, focusing on large engineering and facility management firms. These firms currently provide energy-related services to many buildings in California but have, to date, rarely participated in the LNSPC programs offered by the utilities. To better understand these firms and their reasons for non-participation, this study researched other types of services these firms typically provide, and energy service outsourcing in general. The study also examined the current use of performance-based contracts for energy services as they are offered by utilities in performance-based incentive programs, and as they are offered by these energy service firms to their clients. To better understand how the trends affect California's energy service firms, the research team interviewed ten of the largest engineering and twelve of the largest property management/facilities management doing business in California. The final report included recommendations for SPC program changes.

CALIFORNIA RESIDENTIAL MARKET SHARE TRACKING – APPLIANCES 2001

REGIONAL ECONOMIC RESEARCH

SEPTEMBER 2001

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, highlight key findings of the first two reports that cover appliance data from 1998 through year-end 2000.

CALIFORNIA RESIDENTIAL MARKET SHARE TRACKING – APPLIANCE TRENDS, 2001

REGIONAL ECONOMIC RESEARCH

SEPTEMBER 2001

This eight-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.

NONRESIDENTIAL MARKET CHARACTERIZATION AND PROGRAM ACTIVITIES TRACKING REPORT, QUARTERS 1 AND 2, 2001

QUANTUM CONSULTING

SEPTEMBER 2001

The statewide MCPAT Study was commissioned to track trends in the NRNC market, as well as participation in the SBD 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 1-2, 2001.

CALIFORNIA RESIDENTIAL MARKET SHARE TRACKING – LAMP REPORT 2001, VOL. 1

REGIONAL ECONOMIC RESEARCH

OCTOBER, 2001

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 the state of 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 each of the state's investor-owned utilities: PG&E, SCE, and SDG&E.

CALIFORNIA RESIDENTIAL MARKET SHARE TRACKING – LAMP TRENDS, 2001

REGIONAL ECONOMIC RESEARCH

OCTOBER 2001

This four-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.

IMPROVING THE SPC PROGRAM: AN EXAMINATION OF THE HISTORICAL EVIDENCE AND DIRECTIONS FOR THE FUTURE

XENERGY, INC.

NOVEMBER, 2001

On the basis of self-report by program participants, the NTGRs for the 1998 and 1999 SPC programs were both estimated as 0.53. Thus, it appears that slightly less than half of the energy savings from the projects associated with these two programs were likely to have occurred in the absence of the program. Since this contradicted the experience of those close to the program, an investigation was conducted into the factors driving these estimates.

The four major research objectives were:

1. To investigate why the SPC program has such a relatively high rate of free ridership:
    a. To assess how program features or targeting could be changed to reduce the rate of free ridership, and
    b. To investigate which customer and project characteristics seem to be associated with high or low free ridership.
2. To investigate the accuracy and stability of the NTGRs estimated for the 1998 and 1999 SPC program and assess whether particular survey questions seem to be driving the free ridership result.
3. To determine whether the self-report approach to estimating NTGRs is systematically biased.
4. To assess the affect of the recent, dramatic increase in electricity prices on NTGRs and the total resource cost (TRC) test .

The quantitative and qualitative methods used to address these research objectives included: an analysis of the 1998 and 1999 SPC data, a meta-analysis of evaluation studies filed with the CPUC by California by investor-owned utilities between 1994 and 1998 (and an analysis of actual evaluation datasets for a subset of 16 of those studies), and a review of the inputs to the TRC. The results included recommendations for both program design and for methodological adjustments.

EVALUATION OF THE PY2000 AND PY2001 NSPC PROGRAMS

XENERGY

DECEMBER 2001

This evaluation has two major objectives: a process evaluation of the program and the development of estimates of eventual program impacts on annual energy use and peak demand. Since the PY 2000 Large SPC program incorporated changes from earlier years, part of the first objective of the evaluation was to determine if the changes had been successfully implemented and had resulted in the desired improvements over the preceding programs.

To meet the second objective, the study developed estimates of the expected load impacts of the program. But because of the findings in the final analysis of the previous year's program, this project was expanded beyond its original scope to include an analysis of the NTGR for the PY2000 program, and the contract was extended to the end of 2001 to permit the additional data collection and analysis.

ENERGY EFFICIENCY SERVICE PROVIDER PROGRAM OPPORTUNITIES: LARGE COMMERCIAL/INDUSTRIAL MARKETS IN CALIFORNIA

ENERGY MARKET INNOVATIONS

DECEMBER 2001

The objective of this study was to identify program opportunities that might use public-goods charge funding to support the development of EESPs within the large commercial and industrial (C/I) marketplace of electric consumers in California. The focus was on large engineering firms and facility management firms, which currently provide energy-related services to many buildings in California but have, to date, rarely participated in the Large C/I SPC programs offered by the utilities. To better understand these firms and their reasons for non-participation, this study researched energy service outsourcing and other types of services these firms typically provide. The study also examined the current use of performance-based contracts for energy services as they are offered by California incentive programs, and as they are offered by these energy service firms to their clients. To better understand how the trends affect California's energy service firms, the research team interviewed decision-makers at ten of the largest engineering firms and twelve of the largest property management/facilities management firms doing business in the state. The methods and results of the research are presented in this report, with recommendations concerning the role of the utility customer representative, a framework for program innovation, and recommendations for improving communications with potential EESPs.

SCE Studies

SMALL COMMERCIAL DO-IT-YOURSELF ENERGY SURVEY STUDY

KVDR CONSULTING

MARCH 2001

The purpose of this study was to conduct a baseline study and an evaluation of SCE's Small Commercial Do-It-Yourself Energy Survey (Business Edge) program. It developed baseline estimates from which to measure the market impact of the program, assessed the effectiveness of the overall program design, and evaluated customer expectations and satisfaction. The goal of the study was to evaluate the success of the program in increasing these customers' awareness of energy efficiency opportunities in their businesses, thereby increasing the adoption rate of survey recommendations.

The objectives of this study were accomplished in two phases: the Phase I study measured the implementation rate for Program Year (PY) 1999, treating it as a baseline assessment; the Phase II study entailed a similar study for PY2000, which provided the opportunity to measure any changes in implementation rates between these two program years. In both phases of the study, data were also gathered to assess the general satisfaction of program participants. Results were shared with the program manager after Phase I to inform the program design for PY2000; the final results of the Phase II study, as well as comparisons between Phase I and Phase II results, were presented upon completion of the overall project.

ANALYSIS OF AIR CONDITIONER RECYCLING PROGRAMS

RLW ANALYTICS

MAY 2001

This small and quick study reviewed existing studies and interviewed appliance retailers and program managers. The purpose was to assess the energy savings achievable from air conditioner recycling programs to identify program design strengths and weaknesses that could impact the savings achieved. The study determined that the savings achievable from a recycling program are limited, because there is a only a very small secondary market for used air conditioners in Southern California, and most programs experienced high rates of turn-ins of old air conditioners that were not being used. The best potential can be gained from a program that is focused on the purchase of new, energy-efficient room air conditioners to replace older ones, with a requirement that the old one be recycled to avoid its being used as a second unit within the dwelling.

EVALUATION OF SCE SCHOOLS PROGRAMS

RIDGE & ASSOCIATES

AUGUST 2001

SCE selected three third-party schools-based programs for implementation in 2000 and 2001: the Green Schools program, the LivingWise program, and the PEAK. This study addresses three evaluation objectives for these programs: 1. to develop a baseline market characterization for the schools sector, 2. to monitor the effectiveness of the GSP, LWP, and PEAK programs, and 3. to monitor changes in awareness and behaviors attributable to these programs. The methods used to carry out the study included review of program materials, interviews with program managers and participating teachers, review of energy savings estimates, analysis of strengths and weaknesses. This information provides a basis for determine which program or programs to continue funding, and the study offers recommendations for improving the programs.

The primary focus of the evaluation was a process evaluation with the main objective of improving the programs and the methods for estimating future savings impacts. A second focus of the study entailed an assessment of educational outcomes that include knowledge gains and attitudinal changes with respect to energy efficiency and conservation. Where relevant savings estimates that could be attributed to the different schools programs were estimated. Data for the study consisted of information gathered: through in-depth interviews with program staff, school administrators and facility managers, and teachers; by conducting a survey of workshop participants, teachers and households; and from a review of program information from the various programs.

CEC 2001 Results and Achievements

The California Energy Commission (CEC) continues to manage two statewide study areas, Nonresidential Market Share Tracking and Nonresidential Remodeling and Renovation. The CEC is also conducting data collection activities that provide benefits to cost-effective energy efficiency activities, including commercial and residential customer characteristics surveys and development of energy efficiency measure cost and savings data. In addition, CEC staff will continue to support to MA&E planning and coordination by providing technical expertise on buildings codes and standards, and through dissemination of studies. CEC staff manages the CALMAC website and maintains both physical and on-line libraries of statewide MA&E studies. Under the guidance of the CALMAC, the website was redesigned to improve its use as a means of disseminating CALMAC studies. The database includes more than 500 report citations. Nearly one-half of these reports are available as PDF files for direct downloading from the site. Additional electronic files are being located and added with the assistance of the CALMAC Website Committee. Database search capabilities by keyword in title and abstract as well as by report category, sponsoring entity, program year, report author, market sector and publication date were added in 2001.

Statewide Studies

Nonresidential Remodeling and Renovation

The nonresidential remodeling and renovation study neared completion in 2001. This study seeks to characterize the decision-making process for purchase of energy using equipment during remodeling or renovating events, and to describe the level and types of such activity by market segment. The study will use these results to identify targeted strategies that may facilitate energy efficient investment during remodeling and renovation and identify market segments with high potential for energy savings. All data collection is complete. 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.

A report discussing the qualitative findings has been released. Differences in the way market actors view the remodeling and renovation market are captured in this report. 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. An additional report drawing from the quantitative analysis and a final summary report are expected in early 2002.

Nonresidential Market Share Tracking Study

This study, begun in June 2000, seeks to track and analyze the adoption of commercial and industrial energy efficiency services and products in California. The study is identifying and collecting data on key energy efficiency measures, and processing the data into parameters for an efficiency market share tracking database. The market shares, market characterization attributes, prices and decision factors will inform planning and evaluation of demand-side management and market transformation programs. The current contract provides funding for two years of data collection. Major categories of measures under study include motors, refrigeration, chillers, windows, lighting, compressed air, water re-use and recycling, electronic process controls, lubrications practices, and distributed generation. The first round of raw data has been collected.

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 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. The funding allocation is shown in the table at the end of this section. The Commission adopted this proposal in Decision 01-06-037 in June 2001.

Commercial End Use Survey (CEUS)

The Commercial End Use Survey began in March 2001, and is expected to be completed in 2003. This project will collect and analyze building characteristic information 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 by building type. The CEC will develop site-specific engineering models to simulate energy efficiency technology options and assess the results to the sector as a whole. The individual site models will be combined into a building energy demand analysis model that can analyze hourly energy use for user-defined market segments, for applications such as assessing hourly impacts of load management strategies and building standards. Most of 2001 was spent negotiating the sampling frame and data requirements of the project. Field testing of the on-site survey instrument will begin in early 2002.

Residential Appliance Saturation Survey (RASS)

Work on this project was on hold until CPUC approval of CEC's 2001 MA&E plan. Approval was received on June 14, 2001 in Decision 01-06-037. 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. The analysis will incorporate data provided by utilities and collected through other surveys, including the Statewide Residential Lighting and Appliance Saturation Study completed in 2000.

Improvements to the Database of Energy Efficient Resources (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. An update of the measure cost and residential peak and energy savings portions of the database was completed in August 2001. This update uses measure-specific data collection methods, cost models, and analyses to develop recommended cost values and estimates of energy use savings and peak load impacts. The measures included in the updated database were revised and prioritized in consultation with utilities and other program planning stakeholders and include information to support both Energy Efficiency and Low Income programs. Both the 2001 update and the previous complete edition of DEER, which contains commercial energy savings, are available through the CEC and CALMAC websites.

CEC 2002 MA&E Plans

CEC Data Collection Activities

Database of Energy Efficiency Resources (DEER) – Customized Measures, Load Shape Data Collection and Analysis

The focus of this project is to maintain the value of the DEER to planning and evaluation in the face of evolving energy efficiency programs and strategies. The NRSPC program has a need for development of incremental measure cost data for measures currently not included in the DEER. Because 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. Other program areas may also have new measures for which cost data is needed as well.

With the recent shift in focus to achieving peak savings through energy efficiency, load management, and distributed generation, we also anticipate 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.

The CEC expects to continue with the current DEER contractor for this next round of updating. Delay in the adoption of the PY 2001 MA&E plans means this work will start in spring 2002.

Commercial End-Use Survey (CEUS) and Residential Appliance Saturation Survey (RASS)

Data collection will commence for both of these surveys in 2002.

Statewide Studies

Nonresidential Market Share Tracking Study

Phase II efforts in 2002 will include some modification to the original objectives based on input from CALMAC's Nonresidential Area Managers. One the four preliminary SIC codes selected, petroleum production, will be dropped in favor of a general industrial cross-cutting technology category. The SICs retained in the study are 1) transportation equipment, 2) stone, clay and glass products, and 3) chemical and allied products. Commercial supplier surveys are in preparation.

CEC MA&E Expenditures and Budgets

Table 1: CEC MA&E Expenditures and Budgets

	PY 2001 Authorized	*PY 2001 Actual and Committed*	*2002 Planned Budget*
	$ 2,100,000.00		
CEC Data Collection and Analysis		$ 1,500,000.00	$ 0
Commercial End Use Survey (CEUS)		$ 200,000.00	$ 0
Residential Appliance Saturation Survey (RASS)		$ 400,000.00	$ 0
Database of Energy Efficient Resources (DEER)		$ 2,100,000.00	$ 0
Total			
	$ 0		
CEC-Managed Statewide Studies		$ 0	
Nonresidential Market Share Tracking		$ 0	
Nonresidential Remodeling & Renovation		$ 0	$0
Total			
TOTAL AUTHORIZED	**$ 2,100,000.00**		
TOTAL ACTUAL AND COMMITTED		**$ 2,100,000.00**	

Table 2: Funding Contribution to CEC 2001 Data Collection and Analysis Budget by Utility

	Contribution	Percent
(1) PG&E	$ 680,000.00	0.32
(2) SCE	$ 945,000.00	0.45
(3) SDG&E	$ 287,000.00	0.14
(4) SoCalGas	$ 204,000.00	0.10
Total	$ 2,116,000.00	1.00

Section VI - Shareholder Performance Incentives

This section contains narrative that documents and explains the data shown for Tables TA 6.1 and TA 6.2.

Table TA 6.1 2001 Performance Award Claim By Component

The 2001 performance mechanism is based on: (1) pre-determined energy savings and demand reduction targets, including a bonus incentive; (2) a set of market effects milestones; and (3) a performance adder mechanism for selective programs. Each of the components to the 2001 incentive mechanism is shown in Table TA 6.1.

Table TA 6.2 2001 Energy Savings And Demand Reduction Component

The table shows CPUC's predetermined targets by program area along with SCE's corresponding achievements, by program, towards the energy savings and demand reduction targets.

Table TA 6.3 2001 Market Effects Component

The table lists six market effects milestones associated with various upstream programs in both the nonresidential and residential sectors.

Table TA 6.4 2001 Performance Adder Component

For 2001, the incentive mechanism included a performance adder component. The performance adder component includes selective programs in which a predetermined spending threshold needed to be reached in order for SCE to claim a performance incentives.

Table TA 6.1
2002 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
2001 PERFORMANCE AWARD CLAIM BY COMPONENT
($ in millions)

	Award Potential	Award Claim
Energy Savings	$ 3.354	$ 3.354
Demand Reductions	1.118	1.118
Energy Savings/Demand Reduction Bonus	0.280	0.280
Market Changes/Market Effects	0.559	0.559
Performance Adder	0.280	0.280
	$ 5.591	$ 5.591

Table TA 6.2
2002 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
2001 ENERGY SAVINGS AND DEMAND REDUCTION COMPONENT
($ in millions)

Program Area	Energy Savings MWh	Demand Reductions MW	Total
Residential	9,464	9.7	
Home Efficiency Rebates	9,261	3.6	
Residential Audits	17,220	1.3	
Residential Contractor Program	53,613	9.1	
Refrigerator Recycling	30,035	27.5	
Residential Lighting	62	-	
CHEERS	119,656	51.2	
Residential Area Total	104,300	39.7	
Program Area Target	$ 1.219	$ 0.408	$ 1.627
Program Area Incentive Potential	$ 1.219	$ 0.408	$ 1.627
Program Area Incentive Claim			
Nonresidential	188,863.94	34.2	
Express Efficiency	33,647	6.2	
Standard Performance Contractor - Large	7,770	1.5	
Standard Performance Contractor - Small	739	0.8	
Small Business Energy Use Surveys	14,461	4.3	
Pumping System Efficiency	858	0.2	
Upstream Motors	19,570	3.3	
Savings By Design - Renovation & Remodel	265,910	50.5	
Nonresidential Area Total	231,700	37.8	
Program Area Target	$ 1.465	$ 0.490	$ 1.955
Program Area Incentive Potential	$ 1.465	$ 0.490	$ 1.955
Program Area Incentive Claim			
New Construction	61,031	9.4	
Savings By Design	6,997	9.2	
Residential New Construction	677	0.8	
Local Government Initiatives	68,705	19.4	
New Construction Area Total	52,600	13.4	
Program Area Target	$ 0.670	$ 0.220	$ 0.890
Program Area Incentive Potential	$ 0.670	$ 0.220	$ 0.890
Program Area Incentive Claim			
Total Energy and Demand Savings Targets	388,600	90.9	
Total Energy and Demand Savings Actuals	454,270	121.2	
Total Program Portfolio Incentive Potential	$ 3.354	$ 1.118	$ 4.472
Total Program Portfolio Incentive Claim	$ 3.354	$ 1.118	$ 4.472
Bonus			$ 0.280
Total Incentive Claim			$ 4.752

Table TA 6.3
[illegible] Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
[illegible] MARKET EFFECTS COMPONENT
($ in millions)

Code	Program	Milestone	Performance Award Levels: Level 1		Level 2		Verified Claim
Residential:							
SCER-1	Residential Contractor	Increase by 20 the number of single-family RCP contractors who are actively participating in the program over the 2000 participation level. Actively participating in the program is defined as installing one or more measures/services for at least 5 customers. (Level 2 Performance – 14)	20	$ 0.100	14	$ 0.070	$ 0.100
SCER-2	Residential Lighting	Increase by 1 the number of eligible retailers (companies) participating in the co-op program over the 2000 participation level. (Level 2 Performance – none)	1	0.100	-	-	0.100
SCER-3	Residential Appliance	Of the 6 major appliance manufacturers that produce ENERGY STAR® qualified products (clothes washers, dishwasher, and refrigerators), sign-up 2 of these major manufacturers to the 2001 co-op program. (Level 2 Performance –1)	2	0.100	1	0.070	0.100
	Residential Subtotal			$ 0.300		$ 0.140	$ 0.300
Nonresidential:							
SCENR-1	Small Standard Performance Contract	Increase by 5 the number of energy efficiency service providers (EESPs) participating in the program compared to 2000. The combined kWh savings of new EESP projects must be greater than or equal to: [# of new EESPs x 25,000 kWh/yr] (Level 2 Performance – 3)	5	$ 0.150	3	$ 0.105	$ 0.150
SCENR-2	Express - HVAC Upstream	Increase by 12 the number of actively participating HVAC contractors over the 2000 participation level. (Level 2 Performance – 8)	12	0.050	8	0.035	0.050
SCENR-3	Express - Motor Upstream	Increase by 7 the number of actively participating motor dealers (companies), distributors (companies) and manufacturers (companies) over the 2000 participation level. (Level 2 Performance – 5)	7	0.059	5	0.041	0.059
	Nonresidential Subtotal			$ 0.259		$ 0.181	$ 0.259
	Market Effects Totals			$ 0.559		$ 0.321	$ 0.559

Table TA 6.4
2002 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
2001 PERFORMANCE ADDER COMPONENT
($ in millions)

Programs	12-Month Authorized Budget	Total	% of Budget
Res. EE Procurement Program [1]	$ -	$ -	-
CHEERS	0.300	0.296	99%
Mass Market Information	1.047	0.853	82%
Mass Market Info. - Information Mobil Unit	0.535	0.526	98%
Emerging Technologies	1.135	1.135	100%
Energy Centers - CTAC/AgTAC	2.593	2.415	93%
Third Party Initiatives	6.390	6.390	100%
Commercial EE Information Services	0.485	0.483	100%
Industrial EE Information Services	0.575	0.555	97%
Small Business Space Rental Upgrade [2]	-	-	-
Energy Design Resources	0.102	0.101	99%
Total	$ 13.161	$ 12.755	97%

Performance Adder, Target	$ 0.280
Performance Adder, Claim	**$ 0.280**

[1] - program funds shifted to the Third Party Initiative program.
[2] - program funds shifted to the Small Standard Performance Contract program.

Section VII - Summer Initiative

This section contains narrative that documents and explains the data shown for Tables TA 7.1 and TA 7.2.

Table TA 7.1 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 2001 and those costs associated with commitments from 2001 programs.

Program Incentives (Recorded)
Incentive costs represent incentives paid to customers during 2001 (Actual) as well as incentives associated with commitments from the 2001 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 7.2). These costs represent administrative costs expended during 2001 (Actual) as well as administrative costs associated with the handling of commitments from the 2001 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 2001 summer initiative programs were delineated in the remaining categories. SCE does not have any 2001 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 7.2 Direct and Allocated Administrative Costs – Summer Initiative Program Area

This table documents the breakdown of the actual administrative costs used in determining the cost-effectiveness of the summer initiative energy efficiency programs. These tables provide detail of all actual program administrative costs expended in 2000. 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 2001 in support of 2001 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 7.1
2002 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
PROGRAM EXPENDITURES - SUMMER INITIATIVES
2001

	Program Incentives (Recorded)		Program Administrative Costs (Recorded) [1]		Other Costs	Total Utility Costs
	Actual	Committed	Actual	Committed		
Utility Programs						
Residential Pool Efficiency Program	$ 2,656,664	$ 343,336	$ 321,598	$ -	$ -	3,321,598
LED Traffic Signal Rebate Program	6,045,691	1,219,964	69,164	-	-	7,334,818
Hard To Reach	1,231,062	678,349	78,422	-	-	$ 1,987,833
Third Party Initiatives	107,812	775,224	36,608	-	-	919,644
Total Utility Programs						
Non-Utility Programs						
Residential Refrigerator Recycling	-	-	76,610	-	-	76,610
Campus Energy-Efficient Project	-	1,750,000	3,794	-	-	1,753,794
Beat The Heat	-	-	11,089	-	-	11,089
COPE	-	1,488,000	14,334	-	-	1,502,334
Total Non-Utility Programs						
Summer Initiative Total	$ 1,338,874	$ 4,691,573	$ 220,857	$ -	$ -	$ 6,251,304

[1] Administrative costs represent utility administrative costs only, as represented in Table TA 7.2.

Table TA 7.2
2002 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
DIRECT AND ALLOCATED ADMINISTRATIVE COSTS - SUMMER INITIATIVES
2001

	Actual Labor [1]	Actual Non-Labor [1]	Actual Contract [1]	Actual Allocated [1]	Actual Admin Total
Utility Programs					
Residential Pool Efficiency Program	$ 43,121	$ 133,220	$ 73,954	$ 71,302	$ 321,598
LED Traffic Signal Rebate Program	53,645	-	282	15,237	69,164
Hard To Reach	52,914	25,507	-	-	78,422
Third Party Initiatives	23,860	12,399	349	-	36,608
Total Utility Programs	173,540	171,127	74,585	86,539	505,791
Non-Utility Programs					
Residential Refrigerator Recycling	33,811	17,122	25,102	575	76,610
Campus Energy-Efficient Project	3,783	-	12	-	3,794
Beat The Heat	8,203	123	2,443	320	11,089
COPE	4,430	466	422	9,016	14,334
Total Non-Utility Programs	50,227	17,711	27,978	9,911	105,827
Summer Initiative Total	$ 223,767	$ 188,838	$ 102,563	$ 96,450	$ 611,618

[1] Administrative costs represent utility administrative costs only.

Section VIII - Balancing Accounts For Post-1997 Energy Efficiency Activities And CBEE Program Information

This section contains narrative that documents and explains the data shown for Table TA 8.1 through TA 8.4.

Table TA 8.1 Demand-Side Balancing Accounts

The balancing accounts described in Table TA 8.1 were authorized in Decision 97-12-103, the Interim Opinion on 1998 Utility Energy Efficiency Programs. 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 compliance with this decision SCE filed Advice 1288-E, which established the appropriate balancing accounts as described in TA 8.1.

Table TA 8.2 Program Portfolio Budgets and Benefits - 2001

The program budgets, recorded expenditures, and corresponding energy savings resulting from the 2001 energy efficiency programs are documented in Table TA 8.2. The budgets and results are presented by Program and Program Element, as categorized in SCE's November 15, 2000 Application for 2001 Energy Efficiency Program Funding.

Program Budgeted and Recorded Amounts

Total energy efficiency funds budgeted for 2001 were the result of Decision 01-01-060. The program element budgets provided in Table TA 8.2 correspond to the budgets resulting from this authorization as well as any fund shifts performed in 2001 related to the 2001 energy efficiency programs. Recorded amounts reflect all 2001 program costs, including costs expended in 2001 and those costs associated with commitments from 2001 programs. Budgeted and Recorded amounts in Table TA 8.2 do not include allocated administrative costs such as General Support, MA&E, Regulatory Support, CPUC Staff, and Summer Initiative Administrative costs recorded during 2001.

Program Energy Reductions

The annual program energy reductions presented in TA 8.2 are derived from ex ante estimates of energy savings. Annual program energy reduction estimates supplied in the November 15, 2000 Application for 2001 Energy Efficiency Program Funding and submitted herein as the 2001 program results are the result of a summation of measure-level savings from the measures installed as a result of the 2001 residential programs. The measure-level savings information used to calculate the 2001 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. Recorded savings amounts reflect all 2001 program impacts, including impacts from measures installed in 2001 and those impacts associated with commitments from 2001 programs.

Table TA 8.3 Program Portfolio Cost Effectiveness – 2001 (Without non-energy and market effects benefits)

The program energy and demand impacts, resource benefits, PPT costs, PPT net benefits, PPT and TRC ratios resulting from the 2001 energy efficiency programs are documented in Table TA 8.3. The results are presented by Program Area and Program, as categorized in SCE's November 15, 2000 Application for 2001 Energy Efficiency Program Funding.

Program Energy and Demand Reductions
The annual program energy reductions presented in TA 8.3 are derived from ex ante estimates of energy savings. Annual program energy reduction estimates supplied in the November 15, 2000 Application for 2001 Energy Efficiency Program Funding and submitted herein as the 2001 program results are the result of a summation of measure-level savings from the measures installed as a result of the 2001 residential programs. The measure-level savings information used to calculate the 2001 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. Recorded savings amounts reflect all 2001 program impacts, including impacts from measures installed in 2001 and those impacts associated with commitments from 2001 programs.

PPT Energy Benefits (RBn)
The resource benefits presented in TA 8.3 are derived from energy and capacity savings estimates, as applied to the 2001 avoided costs shown in TA 1.1A. The avoided cost forecast in Table TA 1.1A is consistent with the forecast utilized in SCE's November 15, 2000 Application for 2001 energy efficiency program funding. The forecast represents avoided cost forecasts for energy, transmission and distribution, and environmental externalities.

PPT Costs
The administrative costs included in the PPT costs reflect all 2001 administrative costs, including costs expended in 2001 and those costs associated with commitments from 2001. Budgeted and Recorded amounts in Table TA 8.2 do not include allocated administrative costs such as General Support, MA&E, Regulatory Support, CPUC Staff, and Summer Initiative Administrative costs recorded during 2001.

The incremental measurement costs included in the PPT costs generally represent the incremental costs of energy efficiency measures over the standard replacement measures. The gross amounts of these costs are reduced by appropriate net-to-gross ratios for the particular measure or end-use. SCE's incremental measure costs are typically derived from the latest cost source available for the particular measure(s), including recent measure cost studies.

PPT Net Benefits, PPT Ratio, and TRC Ratio
The Net Benefits are the results of the subtraction of the PPT Costs from the PPT Energy Benefits (RBn). The PPT and TRC Ratio are each a ratio of the PPT Energy Benefits (RBn) to the PPT Costs. There is no difference between the PPT and TRC ratio in table TA 8.3.

Table TA-8.4 Program Portfolio Cost Effectiveness – 2001 (With non-energy and market effects benefits)

The program energy and demand impacts, resource benefits, PPT costs, PPT net benefits, PPT and TRC ratios resulting from the 2001 energy efficiency programs are documented in Table TA 8.4. The results are presented by Program Area and Program, as categorized in SCE's November 15, 2000 Application for 2001 Energy Efficiency Program Funding.

Program Energy and Demand Reductions
The annual program energy reductions presented in TA 8.4 are derived from ex ante estimates of energy savings. Annual program energy reduction estimates supplied in the November 15, 2000 Application for 2001 Energy Efficiency Program Funding and submitted herein as the 2001 program results are the result of a summation of measure-level savings from the measures installed as a result of the 2001 residential programs. The measure-level savings information used to calculate the 2001 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. Recorded savings amounts reflect all 2001 program impacts, including impacts from measures installed in 2001 and those impacts associated with commitments from 2001 programs.

No Market Effects Benefits or Non-Energy Benefits are claimed for 2001.

PPT Energy Benefits (RBn)
The resource benefits presented in TA 8.3 are derived from energy and capacity savings estimates, as applied to the 2001 avoided costs shown in TA 1.1A. The avoided cost forecast in Table TA 1.1A is consistent with the forecast utilized in SCE's November 15, 2000 Application for 2001 energy efficiency program funding. The forecast represents avoided cost forecasts for energy, transmission and distribution, and environmental externalities.

No Market Effects Benefits or Non-Energy Benefits are claimed for 2001.

PPT Costs
The administrative costs included in the PPT costs reflect all 2001 administrative costs, including costs expended in 2001 and those costs associated with commitments from 2001. Budgeted and Recorded amounts in Table TA 8.2 do not include allocated administrative costs such as General Support, MA&E, Regulatory Support, CPUC Staff, and Summer Initiative Administrative costs recorded during 2001.

The incremental measurement costs included in the PPT costs generally represent the incremental costs of energy efficiency measures over the standard replacement measures. The gross amounts of these costs are reduced by appropriate net-to-gross ratios for the particular measure or end-use. SCE's incremental measure costs are typically derived from the latest cost source available for the particular measure(s), including recent measure cost studies.

PPT Net Benefits, PPT Ratio, and TRC Ratio
The Net Benefits are the results of the subtraction of the PPT Costs from the PPT Energy Benefits (RBn). The PPT and TRC Ratio are each a ratio of the PPT Energy Benefits (RBn) to the PPT Costs. There is no difference between the PPT and TRC ratio in table TA 8.4. The PPT ratio does not include any market effects benefits.

Table TA 8.1
2002 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
PUBLIC PURPOSE PROGRAM BALANCING ACCOUNTS
2001

Balancing Account	Description	Authorized by
Demand Side Management Adjustment Clause (DSMAC)	Records costs incurred after January 1, 1998 for pre-1998 program expenditures.	Decision 97-12-103
Energy Efficiency Programs Balancing Account (EEPBA)	Tracks the Public Purpose Program Charge (PPPC) funds allocable to the 1998 energy efficiency programs and the 1998 energy efficiency program expenses.	Decision 97-12-103
Low Income Energy Efficiency Programs Balancing Account (LIEEPBA)	Tracks the Public Purpose Program Charge (PPPC) funds allocable to the 1998 low income energy efficiency programs and the 1998 low income energy efficiency program expenses.	Decision 97-12-103

Table TA 8.2
Southern California Edison Company
2001 Energy Efficiency Budgets and Benefits
May 1, 2002
($ in millions)

Table TA 8.2: 2001 Program Portfolio Budgets and Benefits (without Non-energy and Market Effects Benefits)

PROGRAM AREAS / Programs / *Program Elements*	PROGRAM BUDGETS ($000) Budgeted Amount Electric [1]	PROGRAM BUDGETS ($000) Recorded Amount Electric [1]	BENEFITS MWh	BENEFITS MW
RESIDENTIAL				
Residential Heating & Cooling System	$ 1,817.462	$ 1,726.009	2,625	1.00
Residential Audits	478.000	473.672	2,609	1.00
Local Government Initiative	200.000	200.000	-	-
CA Home EE Rating System (CHEERS)	80.000	78.997	17	-
Mass Market Information	614.750	566.212	-	-
Emerging Technologies	135.000	135.000	-	-
Energy Centers - CTAC and AgTAC	139.712	102.128	-	-
Third Party Initiatives	170.000	170.000	-	-
Residential Lighting	5,185.321	5,093.618	31,435	28.04
Residential Audits	255.000	251.785	1,383	0.54
Local Government Initiative	300.000	300.000	-	-
CA Home EE Rating System (CHEERS)	80.000	78.997	17	-
Mass Market Information	593.500	545.038	-	-
Energy Centers - CTAC and AgTAC	123.821	90.252	-	-
Third Party Initiatives	873.000	873.000	-	-
Residential Lighting	2,960.000	2,954.546	-	-
Residential Appliances	14,343.571	14,229.462	30,035	27.50
Residential Audits	223.000	221.884	64,318	19.30
Local Government Initiative	200.000	200.000	1,224	0.46
CA Home EE Rating System (CHEERS)	80.000	78.997	-	0.00
Mass Market Information	854.500	805.097	17	0.00
Energy Centers - CTAC and AgTAC	82.821	60.574	-	0.00
Third Party Initiatives	560.000	560.000	-	0.00
Residential Refrigerator Recycling	7,500.000	7,500.139	-	0.00
Residential Appliance (D)	4,593.250	4,593.355	53,613	9.09
Residential Appliance (U)	250.000	209.417	9,465	9.75
Residential Retrofit & Renovation	6,758.646	6,678.333	-	0.00
Residential Audits	744.000	735.797	21,278	2.89
Residential Contractor	4,716.500	4,716.570	4,046	1.56
Local Government Initiative	200.000	200 000	17,220	1.33
CA Home EE Rating System (CHEERS)	60.000	59.248	-	0.00
Mass Market Information	552.500	504.186	12	0.00
Energy Centers - CTAC and AgTAC	85.646	62.531	-	0.00
Third Party Initiatives	400.000	400.000	-	0.00
Residential Total	$28,105.000	$27,727.423	119.656	51.22
PROGRAM AREA TOTAL [1]	**$76,819.000**	**$75,547.261**	**454,270**	**121.19**

[1] Does not include allocated administrative costs (e.g., MA&E, other overhead)

Table TA 8.2
Southern California Edison Company
2001 Energy Efficiency Budgets and Benefits
May 1, 2002
($ in millions)

Table TA 8.2: 2001 Program Portfolio Budgets and Benefits (without Non-energy and Market Effects Benefits)

PROGRAM AREAS Programs *Program Elements*	PROGRAM BUDGETS ($000) Budgeted Amount Electric	 Recorded Amount Electric	BENEFITS MWh	 MW
NONRESIDENTIAL				
Large Nonresidential Comprehensive	$5,918.905	6,171.589	73,370	12.57
Emerging Technologies	-	-	-	0.00
Mass Market Information	170.000	169.387	-	0.00
Energy Centers - CTAC and AgTAC	470.655	470.304	-	0.00
Agricultural/Pumping Services	1,058.000	992.926	7,286	2.19
Express Efficiency (Large)	2,250.000	2,573.318	57,215	8.74
Large Std. Perf. Contracting (SPC)	1,720.500	1,720.500	8,870	1.64
Commercial EE Information Services	129.750	129.352	-	0.00
Industrial EE Information Services	120.000	115.802	-	0.00
Small Nonresidential Comprehensive	15,187.286	14,174.592	87,488	20.20
Emerging Technologies	300.000	300.000	-	0.00
Mass Market Information	988.250	973.509	-	0.00
Energy Centers - CTAC and AgTAC	309.414	309.099	-	0.00
Third Party Initiatives	1,910.122	1,910.122	-	0.00
Small Business Survey & Services	722.500	644.976	739	0.81
Small Std. Perf. Contracting (SPC)	1,943.000	1,943.001	7,770	1.54
Agricultural/Pumping Services	536.000	503.033	3,691	1.11
Express Efficiency (Sm/Med)	3,441.000	3,337.391	40,026	8.84
Express Efficiency (Large)	4,737.000	3,953.463	35,261	7.89
Local Government Initiative	300.000	300.000	-	0.00
Small Business Space Rental Upgrade	-	-	-	0.00
Nonresidential HVAC Equipment Turn	4,727.978	4,863.755	36,055	5.91
Emerging Technologies	-	-	-	0.00
Mass Market Information	50.000	49.820	-	0.00
Energy Centers - CTAC and AgTAC	264.414	264.262	-	0.00
Third Party Initiatives	810.814	810.814	-	0.00
Express Efficiency - Upstream HVAC	70.000	70.000	-	0.00
Large Std. Perf. Contracting (SPC)	1,980.000	1,980.000	10,207	1.89
Express Efficiency (Sm/Med)	60.000	58.193	545	0.15
Express Efficiency (Large)	995.000	1,137.978	25,302	3.87
HVAC Commissioning Pilot	200.000	200.000	-	0.00
Commercial EE Information Services	167.750	167.235	-	0.00
Industrial EE Information Services	130.000	125.452	-	0.00

[1] Does not include allocated administrative costs (e.g., MA&E, other overhead)

Table TA 8.2
Southern California Edison Company
2001 Energy Efficiency Budgets and Benefits
May 1, 2002
($ in millions)

Table TA 8.2: 2001 Program Portfolio Budgets and Benefits (without Non-energy and Market Effects Benefits)

PROGRAM AREAS Programs *Program Elements*	PROGRAM BUDGETS ($000) Budgeted Amount Electric	 Recorded Amount Electric	BENEFITS MWh	 MW
NONRESIDENTIAL (cont'd)				
Nonresidential Motor Turnover	1,492.440	1,440.844	5,446	1.24
Emerging Technologies	-	-	-	0.00
Mass Market Information	15.000	14.946	-	0.00
Energy Centers - CTAC and AgTAC	135.690	135.295	-	0.00
Agricultural/Pumping Services	262.000	245.885	1,804	0.54
Express Efficiency - Upstream Motors	395.000	362.645	858	0.18
Large Std. Perf. Contracting (SPC)	540.000	540.000	2,784	0.52
Commercial EE Information Services	74.750	74.521	-	0.00
Industrial EE Information Services	70.000	67.551	-	0.00
NONRESIDENTIAL (cont'd)				
Nonresidential Process	1,327.068	1,308.033	5,804	1.27
Emerging Technologies	-	-	-	0.00
Mass Market Information	15.000	14.946	-	0.00
Energy Centers - CTAC and AgTAC	163.068	162.767	-	0.00
Agricultural/Pumping Services	244.000	228.992	1,680	0.50
Large Std. Perf. Contracting (SPC)	800.000	800.000	4,124	0.76
Industrial EE Information Services	105.000	101.327	-	0.00
Nonresidential Remodeling/Renovatio	4,652.907	4,819.213	57,746	9.34
Emerging Technologies	-	-	-	0.00
Mass Market Information	66.168	65.929	-	0.00
Energy Centers - CTAC and AgTAC	442.759	442.476	-	0.00
Large Std. Perf. Contracting (SPC)	1,486.230	1,486.230	7,662	1.42
Express Efficiency (Large)	1,200.000	1,372.436	30,515	4.66
Commercial EE Information Services	112.525	112.180	-	0.00
Industrial EE Information Services	150.000	144.753	-	0.00
Savings By Design	1,195.225	1,195.209	19,570	3.26
NonResidential Total	$33,306.584	32,778.025	265,910	50.53
PROGRAM AREA TOTAL [1]	**$76,819.000**	**75,547.261**	**454,270**	**121.19**

[1] Does not include allocated administrative costs (e.g., MA&E, other overhead)

Table TA 8.2
Southern California Edison Company
2001 Energy Efficiency Budgets and Benefits
May 1, 2002
($ in millions)

Table TA 8.2: 2001 Program Portfolio Budgets and Benefits (without Non-energy and Market Effects Benefits)

PROGRAM AREAS Programs *Program Elements*	PROGRAM BUDGETS ($000) Budgeted Amount Electric	 Recorded Amount Electric	BENEFITS MWh	 MW
NEW CONSTRUCTION				
Residential New Construction	$5,257.000	5,237.057	6,997	9.18
Emerging Technologies	-	-	-	0.00
Mass Market Information	355.000	353.720	-	0.00
Energy Centers - CTAC and AgTAC	136.000	119.337	-	0.00
Third Party Initiatives	892.000	892.000	-	0.00
Local Government Initiative	800.000	800.000	-	0.00
Residential New Construction	3,074.000	3,072.000	6,997	9.18
Commercial New Construction	7,834.416	7,770.316	53,853	9.43
Emerging Technologies	-	-	-	0.00
Mass Market Information	76.832	76.555	-	0.00
Energy Centers - CTAC and AgTAC	108.000	88.471	-	0.00
Third Party Initiatives	473.584	473.584	-	0.00
Savings By Design	7,074.000	7,030.513	53,853	9.43
Energy Design Resources	102.000	101.194	-	0.00
Industrial & Agricultural New Construc	884.000	611.381	7,178	0.00
Emerging Technologies	-	-	-	0.00
Energy Centers - CTAC and AgTAC	84.000	69.391	-	0.00
Savings By Design	800.000	541.989	7,178	0.00
Codes & Standards Support, Local Go	1,432.000	1,423.059	677	0.83
Emerging Technologies	700.000	700.000	-	0.00
Energy Centers - CTAC and AgTAC	47.000	38.593	-	0.00
Third Party Initiatives	300.000	300.000	-	0.00
Local Government Initiative	385.000	384.467	677	0.83
New Construction Total	$15,407.416	15,041.813	68,705	19.44
PROGRAM AREA TOTAL [1]	**$76,819.000**	**75,547.261**	**454,270**	**121.19**

[1] Does not include allocated administrative costs (e.g., MA&E, other overhead)

Table TA 8.3
Southern California Edison Company
2001 Energy Efficiency Budgets and Benefits
May 1, 2002
($ in millions)

Table TA 8.3: 2001 Program Portfolio Cost Effectiveness (without Non-energy and Market Effects Benefits)

PROGRAM AREAS Programs	MWh	MW	PPT Energy Benefits (RBn) ($000)	PPT Costs ($000) [1]	PPT Net Benefits ($000) [2]	PPT Ratio	TRC Ratio
RESIDENTIAL							
Residential Heating & Cooling Systems	2,625	1	$ 1,876	$ 1,825	$ 51	1.03	1.03
Residential Lighting	31,435	28	14,374	7,907	6,467	1.82	1.82
Residential Appliances	64,318	19	42,845	16,598	26,247	2.58	2.58
Residential Retrofit & Renovation	21,278	3	18,139	10,855	7,284	1.67	1.67
Residential Total	119,656	51	77,234	37,185	40,049	2.08	2.08
NONRESIDENTIAL							
Large Nonresidential Comprehensive Retrofit	73,370	13	$ 68,141	$ 8,466	$ 59,675	8.05	8.05
Small Nonresidential Comprehensive Retrofit	87,488	20	64,294	24,537	39,757	2.62	2.62
Nonresidential HVAC Equipment Turnover	36,055	6	34,070	5,983	28,087	5.69	5.69
Nonresidential Motor Turnover	5,446	1	5,264	1,749	3,515	3.01	3.01
Nonresidential Process	5,804	1	5,487	1,562	3,925	3.51	3.51
Nonresidential Remodeling/Renovation	57,746	9	63,243	7,165	56,078	8.83	8.83
Nonresidential Total	265,910	51	240,499	49,462	191,037	4.86	4.86
NEW CONSTRUCTION							
Residential New Construction	6,997	9	$ 13,286	$ 4,989	$ 8,297	2.66	2.66
Commercial New Construction	53,853	9	76,666	16,536	60,130	4.64	4.64
Industrial & Agricultural New Construction	7,178	0	9,793	2,129	7,664	4.60	4.60
Codes & Standards Support, Local Gov't. Initiatives	677	1	1,144	1,508	(364)	0.76	0.76
New Construction Total	68,705	19	100,889	25,162	75,727	4.01	4.01
PROGRAM AREA TOTAL	**454,270**	**121**	**$ 418,622**	**$ 111,810**	**$ 306,812**	**3.74**	**3.74**

[1] Includes allocated costs: Shareholder Incentives, MA&E, Regulatory, Other Energy Efficiency Costs.
[2] PPT Net Benefits = Total PPT Benefits - PPT Costs

Table TA 8.4
Southern California Edison Company
2001 Energy Efficiency Budgets and Benefits
May 1, 2002
($ in millions)

Table TA 8.4: 2001 Program Portfolio Cost Effectiveness (with Non-energy and Market Effects Benefits)

PROGRAM AREAS Programs	MWh	MW	PPT Benefits Market Effects Benefits ($000) [1]	PPT Benefits Non-Energy Benefits ($000) [1]	PPT Benefits Energy Benefits (RBn) ($000)	PPT Costs ($000) [2]	PPT Net Benefits ($000) [3]	PPT Ratio
RESIDENTIAL								
Residential Heating & Cooling Systems	2,625	1	$ -	$ -	$ 1,876	$ 1,825	$ 51	1.03
Residential Lighting	31,435	28	-	-	14,374	7,907	6,467	1.82
Residential Appliances	64,318	19	-	-	42,845	16,598	26,247	2.58
Residential Retrofit & Renovation	21,278	3	-	-	18,139	10,855	7,284	1.67
Residential Total	119,656	51	-	-	77,234	37,185	40,049	2.08
NONRESIDENTIAL								
Large Nonresidential Comprehensive Retrofit	73,370	13	$ -	$ -	$ 68,141	$ 8,466	$ 59,675	8.05
Small Nonresidential Comprehensive Retrofit	87,488	20	-	-	64,294	24,537	39,757	2.62
Nonresidential HVAC Equipment Turnover	36,055	6	-	-	34,070	5,983	28,087	5.69
Nonresidential Motor Turnover	5,446	1	-	-	5,264	1,749	3,515	3.01
Nonresidential Process	5,804	1	-	-	5,487	1,562	3,925	3.51
Nonresidential Remodeling/Renovation	57,746	9	-	-	63,243	7,165	56,078	8.83
Nonresidential Total	265,910	51	-	-	240,499	49,462	191,037	4.86
NEW CONSTRUCTION								
Residential New Construction	6,997	9	$ -	$ -	$ 13,286	$ 4,989	$ 8,297	2.66
Commercial New Construction	53,853	9	-	-	76,666	16,536	60,130	4.64
Industrial & Agricultural New Construction	7,178	0	-	-	9,793	2,129	7,664	4.60
Codes & Standards Support, Local Gov't. Initiatives	677	1	-	-	1,144	1,508	(364)	0.76
New Construction Total	68,705	19	-	-	100,889	25,162	75,727	4.01
PROGRAM AREA TOTAL	**454,270**	**121**	$ -	$ -	$ 418,622	$ 111,810	$ 306,812	**3.74**

[1] No Non-Energy Benefits are claimed for 2001.
[2] Includes allocated costs: Shareholder Incentives, MA&E, Regulatory, Other Energy Efficiency Costs.
[3] PPT Net Benefits = Total PPT Benefits - PPT Costs