ANNUAL REPORT AND TECHNICAL APPENDIX OF ENERGY EFFICIENCY PROGRAMS

1999 Results-2000 Plans
May 2000

SDGE®

A Sempra Energy™ company

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Executive Summary

Overview

San Diego Gas & Electric (SDG&E) continued to administer energy efficiency programs in 1999, under the oversight of the California Public Utilities Commission (CPUC or Commission) and its advisory board, the California Board for Energy Efficiency (CBEE). These programs were designed to: (1) help foster the growth of a competitive private market for energy efficiency services and products; (2) change or transform the "upstream" marketplace before energy efficiency measures are made available to the customer or end user, and (3) place customers in increasingly more direct contact with private energy efficiency firms and the marketplace. Recognizing the need for certain efforts to be addressed at the local level, the 1999 portfolio of programs included programs that were operated individually by SDG&E in addition to programs coordinated on a statewide level.

In 1999, SDG&E's expenditures (actual and commitments) totaled $25.42 million. Through the 1999 program accomplishments, SDG&E achieved performance incentives of $3.523 million. SDG&E also tracked expenditures associated with the outsourcing of program activity during 1999. These costs are reported in Table 1.5.

SDG&E administered low-income energy efficiency programs that provided energy education and weatherization services to qualifying low-income customers within SDG&E's service territory. The 1999 low-income activities resulted in $78,765 in performance incentives.

SDG&E will continue to operate energy efficiency programs in 2000, with *all 1999 programs continuing in 2000, unless otherwise noted*. SDG&E remains committed to the Commission's objectives of market transformation and the promotion of a private energy efficiency market.

To address state concerns of system reliability, SDG&E is investigating possible modifications in 2000 to various programs that can be made to achieve peak energy and demand savings as early as this summer.

SDG&E will continue its low-income programs, which are aimed at providing energy education and weatherization services to qualifying customers.

Residential

The 1999 energy efficiency Residential Program Area included both statewide and local efforts that were designed to encourage customers to improve energy efficiency behaviors and to increase the installation of energy efficient products and appliances. Activities in the Residential Program Area included upstream and downstream incentives, training, education, and information. These programs, which were designed to provide more energy efficiency options to residential customers, also encouraged them to work directly with key market players to encourage market transformation and to help them make smarter energy efficiency choices.

In 1999, SDG&E worked with the other California utilities to develop the Statewide Energy Guide, the Statewide Upstream Lighting and Appliance program, and the Statewide Residential Energy Efficiency Contractor program. The Statewide Energy Guide was designed to provide customers with immediate steps they can take to save energy and improve the efficiency of their appliances. In 1999, the guide was available in English and Spanish. A Chinese translation will

be added in 2000. The Statewide Upstream Lighting and Appliance programs target the residential upstream (manufacturers) and midstream markets (retailers, vendors) for energy efficiency. The Lighting and Appliance programs were implemented by a contractor who was selected through a formal competitive bid process. The main focus of the Lighting & Appliance programs is to encourage upstream players to support the increase of energy efficient products and appliances at the local retail level. The Residential Energy Efficiency Contractor program was developed through an extensive cooperative effort with other California utilities and input from interested parties and contractors. It is designed to promote the development of a self-sustaining contractor market for multiple energy-efficiency services in the retrofit, remodeling/renovation, heating ventilation and air conditioning (HVAC) equipment and appliance replacement markets. The Statewide Energy Guide, Upstream Lighting and Appliance, and Residential Energy Efficiency Contractor programs will continue in 2000 to focus on the coordination of energy efficiency messages at the statewide level.

SDG&E also offered the following Residential programs in 1999: Information and Education, Energy Efficient Mortgage, In-Store Demonstration, Energy Management Services, Downstream Appliance Incentives, Contractor Training, Upstream Distributor program, ENERGY STAR® Windows, Targeted Third Party Training, and an interim Lighting Fixture program.

Under Information and Education, SDG&E promotes energy efficiency messages and programs through a variety of outreach efforts to include direct mailings, seminars and local community events. The Energy Efficient Mortgage program promotes energy efficient mortgages to homebuyers for improving the energy efficiency of there new home. In-Store Demonstration provides targeted information on energy efficiency products and appliances to consumers who frequent home improvement centers. Information is contained in Kiosks strategically located throughout the store. Under Energy Management Services, three types of audits are available: Mail-In, On-line, and In-Home. Downstream Appliance Incentives provides incentives to customers for the purchase of ENERGY STAR® rated dishwashers and clothes washers. The Contractor Training program provides no cost training to licensed contractors on proper sizing and installation practices. The Upstream Distributor Program provides upstream incentives to local distributors for stocking high efficiency 12SEER and above Air Conditioning units. ENERGY STAR® Windows is an upstream incentive program that targets key players who influence purchasing habits of residential customers. A Targeted Third Party training RFP was issued to support training already underway in the Residential Contractor program. The 1999 Lighting Fixture program was an interim program in effect for the first six months of 1999. The program was integrated into the statewide Upstream Lighting program upon its introduction in June of 1999. A new Targeted Third Party Initiative will be issued in early 2000.

Nonresidential

SDG&E's Nonresidential Program Area continues to provide education and increased awareness, promote energy efficiency improvements through the private market, and target stocking practices of commercial distributors through a series of upstream and downstream incentives, training seminars and public input meetings. Program designs incorporate market transformation efforts as well as opportunities for competitive bidding where applicable.

SDG&E offers a Small Business Standard Performance Contract (SBSPC) program, developed by the utilities to be consistent on a statewide basis, in which energy efficiency service providers (EESPs) sponsor projects to serve commercial/industrial/agricultural customers under 500kW of

connected load and /or 250,000 annual therms of usage. This statewide program offers fixed incentives for energy savings from the installation of energy efficient equipment. In 1999, Basic Project Applications were received from 21 customers, with only one dropout by year-end. The Large Nonresidential SPC program is designed for large commercial, industrial, and agricultural customers and is a key element of the Commission's goals of market transformation. Thirty-three (33) Basic Project Applications were active in 1999. Statewide standardized incentives were also provided for 972 applications which were received for the installation of energy efficient equipment (e.g. heating, ventilation, refrigeration, lighting and cooking) through the Express Efficiency program. These three programs will continue in 2000.

In 1999, through the Statewide Information program, SDG&E and the other utilities jointly developed and distributed "Smarter Business Energy Use, Saving Energy & Money", a Statewide Energy Guide designed to give customers information to empower them to better manage their business energy costs. This guide provides small businesses with energy efficiency information and will continue to be available through various promotional events and the SDG&E website. SDG&E's Nonresidential Information Program provided information on energy efficient technologies and services to almost 600 customers through five separate workshops in 1999, and will continue in 2000.

The Energy Cents program promotes the availability of low-cost financing for energy efficiency projects to small/medium customers. In 1999, four applications were received for this financing program, which will continue to be available for most cost-effective energy efficiency projects.

SDG&E will continue in 2000 its Nonresidential Energy Management Services program, which provided 857 energy efficiency audits in 1999 to customers with energy usage of less than 250 kW. The Small Comprehensive Technical Assistance program offers technical assistance to small customers by reviewing projects and providing energy efficiency recommendations related to process, HVAC and motors applications. During 1999, eleven customers participated in the Process Technical Assistance pilot that provides large commercial customers with on-site information and support needed to make decisions regarding energy efficiency retrofits.

The Building Operator Certification program is comprised of five courses designed to establish a standard of professional competence in energy efficiency. This program, offered through the University of California San Diego, awarded certifications to 35 students in September 1999.

SDG&E's will continue its third party initiative Horizontal Clothes Washer program in 2000. This program is implemented by the San Diego County Water Authority, and had 598 rebates issued in1999 for the replacement of existing clothes washers with high efficiency horizontal clothes washers. Another third party initiative that will continue is the Small Cities Energy Efficiency Demonstration Project**.** This program is designed to address market barriers faced by small cities, such as the availability of funding for energy efficiency measures.

A new Request for Proposals ("RFP") will be issued in 2000, to solicit creative and innovative proposals from interested third parties to address market barriers faced by existing small/medium commercial customers. The RFP will be issued for the Nonresidential Retrofit Targeted Third Party Initiative program.

Two incentive programs that will continue in 2000 are the Upstream Motor Dealer Incentive program and the HVAC Distributor Incentive program. The Upstream Motor Dealer Incentive program achieved 220 units stocked and sold during 1999. In **t**he HVAC Distributor Incentive

program, only one distributor elected to participate in the program, stocking 966 high efficiency HVAC units in the San Diego area.

The Tenant Improvement program, which pays incentives to builders and design teams for the inclusion of energy efficiency systems and equipment in remodel and renovations, achieved 102 projects, with 38 of those being installed and completed by yearend. This program will continue to be implemented through the Nonresidential New Construction programs: Savings By Design, and Energy Design Resources.

Six new pilot programs will be initiated in 2000. Two of the pilots, the Purchase Savings Pilot and the Procure Savings Pilot, are directed to either facility owners and managers of small businesses or to purchasing agents of large commercial companies, and provide them with essential information needed to determine cost-savings in the replacement of equipment. A Small Commercial Turnkey Pilot, aimed at the smallest nonresidential customers, is designed to promote the installation of multiple energy efficient measures by providing an increase in incentives for additional measures. The Commercial Dishwasher Pilot will assess and evaluate the effectiveness of new emerging dishwasher technologies. The FasTrac Performance Contracting Pilot is designed to test the feasibility of using performance contracting for smaller energy efficiency retrofit projects which are not addressed in the Large Standard Performance Contract program.

New Construction

The New Construction Program Area provides design assistance services aimed at identifying and capturing energy savings opportunities in new construction projects. New construction programs also offer incentives to encourage the installation of energy efficient design and equipment that exceed Title 24 standards.

Under nonresidential new construction, interest remained strong in Nonresidential Design Assistance, Savings Through Design (using 1995 Title 24 Standards) and Savings By Design (using the new 1998 Title 24 Standards) programs. Savings By Design was implemented on June 15, 1999, as a statewide program in coordination with the other California utilities. This program provides financial incentives to owners and design teams of new commercial, industrial, and agricultural construction projects for incorporating high energy efficient systems and equipment into the design and construction of new buildings. By December 31, 1999, 45 nonresidential new construction agreements were signed, with 48 projects completed and inspected as part of either the Savings Through Design program or the Savings By Design program. As Savings By Design continues in 2000 as a statewide effort, schools will be one of the specific areas focused on in this program.

By year-end the Nonresidential Design Assistance program provided design reviews and recommendations on 33 projects. "Progress Through Design", a publication showcasing successful projects was produced and distributed to approximately 3000 Architects, Engineers and Building Owners. In 2000, this program will become statewide under the name, "Energy Design Resources" (EDR). It will be an information based program designed to work in concert with the Savings By Design program. Many of the tools and training that are needed to optimize customer participation in Savings By Design are offered through this program.

Activity in Codes and Standards Support and Local Government Initiatives program will continue and will utilize local government agencies and San Diego's Regional Energy Office for

promotion and implementation. The activities involve working with state and local governments to facilitate, educate, train and support those who implement and develop energy codes, standards and initiatives.

The Residential New Construction Design Assistance program includes various activities such as providing design assistance services, promoting the adoption of energy efficiency at the design level, and training and marketing support to architects, sales agents and consumers. Efforts are coordinated statewide in offering training classes to ensure that a consistent message is being delivered. Within Design Assistance is "ComfortWise" program, which is directed at new single family housing. This program obtains builder commitments to install energy efficient space conditioning measures (heating, air conditioning, and windows) in residential new home construction projects. It also provides financial incentives to market participants for each home that is committed to incorporating the ComfortWise standards. In 1999, commitments for 2,016 residential units were obtained.

In a statewide effort, the utilities joined together to conduct a market characterization and baseline study on Manufactured Housing. Based on the study results, a new upstream program for manufactured housing will be implemented by SDG&E in 2000, with the goal of having 30 qualified homes from different manufacturers participate in the program by year end.

In 1999, a residential new construction third party initiative was competitively bid and awarded. This third party initiative created "Designed for Comfort", a multi-family housing program. This market transformation program addresses specific market barriers in the effort to get builders to incorporate energy efficiency at the design level. It also compliments the ComfortWise program as it is directed at multi-family housing, single family attached housing, military housing, and some custom homes, areas which are not covered by ComfortWise.

SDG&E will continue to support the California Home Energy Rating System (CHEERS) which performs quality control inspections on new housing, and the Public Interest Energy Research (PIER) program to assess emerging technologies and promote the benefits of those technologies with the building community.

Market Assessment & Evaluation

Market Assessment and Evaluation completed three residential baseline analysis reports, and three residential evaluations. For the nonresidential programs, a baseline study was completed for the Small Nonresidential Comprehensive Retrofit program, and the measurement plan was implemented and evaluated. A baseline study was completed for Nonresidential New Construction with the measurement plan implemented and evaluated.

Market Assessment and Evaluation activities will continue in 2000, conducting studies as specified in SDG&E's adopted 2000 performance incentive mechanism, managing statewide studies, and participating in 2000 CEC data collection and analysis efforts.

Low Income

The Energy Education for Low-Income (EELI) program continued to provide information and education to low income customers to enable them to reduce their energy needs. Energy education was provided to over 23,000 low-income customers in 10 languages. Direct Assistance provided the “Big Six” weatherization measures, and several new measures (e.g.

water heater pipe wrap, faucet aerators, furnaces, refrigerators, and evaporative coolers) to 7,761 low-income homes. These programs will be continued in 2000.

TABLE 1.1
SUMMARY OF COSTS

Electric and Gas Combined					
	1999			2000	
	Authorized[1]	Budgeted	Recorded	Authorized	Budgeted
Residential	$12,152,000	$12,152,000	$10,382,615	$12,521,000	$12,521,000
Nonresidential	$17,650,000	$17,650,000	$10,647,992	$17,981,000	$17,981,000
New Construction	$4,800,000	$4,800,000	$4,907,091	$4,913,000	$4,913,000
MA&E & Reg Oversight[2]	$1,627,000	$1,677,000	$1,539,935	$1,621,000	$1,621,000
Shareholder Incentives[3]	$3,975,000	$3,975,000	$3,522,850	$3,896,000	$3,896,000
Unallocated/CBEE	$2,126,000	$2,076,000	$2,075,000	$291,000	$291,000
EE Total	$42,330,000	$42,330,000	$33,075,483	$41,223,000	$41,223,000
DAP & EELI	$7,392,444	$7,392,444	$4,257,310	$5,197,445	$5,197,445
MA&E & Reg Oversight	$0	$0	$0	$0	$0
Shareholder Inc	$164,795	$164,795	$78,765	$0	$0
Low Income Total	$7,557,239	$7,557,239	$4,336,075	$5,197,445	$5,197,445

Electric Only					
	1999			2000	
	Authorized1	Budgeted	Recorded	Authorized	Budgeted
Residential	$10,477,000	$10,477,000	$9,053,567	$10,570,000	$10,570,000
Nonresidential	$13,891,000	$13,891,000	$8,686,527	$15,185,000	$15,185,000
New Construction	$3,845,000	$3,845,000	$3,977,920	$4,147,000	$4,147,000
MA&E & Reg Oversight[2]	$1,382,950	$1,425,450	$1,308,945	$1,377,850	$1,377,850
Shareholder Incentives	$3,330,926	$3,330,926	$2,959,194	$3,289,000	$3,289,000
Unallocated/CBEE	$1,849,400	$1,806,900	$1,798,400	$291,000	$291,000
EE Total	$34,776,276	$34,776,276	$27,784,553	$34,859,850	$34,859,850
DAP & EELI	$2,021,840	$2,021,840	$684,603	$548,852	$548,852
MA&E & Reg Oversight	$0	$0	$0	$0	$0
Shareholder Inc	$45,072	$45,072	$74,188	$0	$0
Low Income Total	$2,066,911	$2,066,911	$758,791	$548,852	$548,852

Gas Only					
	1999			2000	
	Authorized1	Budgeted	Recorded	Authorized	Budgeted
Residential	$1,675,000	$1,675,000	$1,329,048	$1,951,000	$1,951,000
Nonresidential	$3,759,000	$3,759,000	$1,961,465	$2,796,000	$2,796,000
New Construction	$955,000	$955,000	$929,171	$766,000	$766,000
MA&E & Reg Oversight[2]	$244,050	$251,550	$230,990	$243,150	$243,150
Shareholder Incentives	$644,074	$644,074	$563,656	$607,000	$607,000
Unallocated/CBEE	$276,600	$269,100	$276,600	$0	$0
EE Total	$7,553,724	$7,553,724	$5,290,930	$6,363,150	$6,363,150
DAP & EELI	$5,370,605	$5,370,605	$3,572,707	$4,648,594	$4,648,594
MA&E & Reg Oversight	$0	$0	$0	$0	$0
Shareholder Inc	$119,723	$119,723	$4,577	$0	$0
Low Income Total	$5,490,328	$5,490,328	$3,577,284	$4,648,594	$4,648,594

1) As authorized by Resolutions E-3578 and E-3592
2) Does not includes CBEE Allocation, regulatory oversight costs are distributed among the program areas.
3) Shareholder Incentives authorized cap in 1999 is $ 3.806 million. These numbers represent total Level 1 achievements.

Table 1.2
Summary of Energy Efficiency Program Effects
Program Year: 1999

(Annual Energy Reductions, Electric, MWH)

	1999 (Recorded)	2000 (Planned)	2000 (Planned) With Indirect Benefits*
Residential	17,415	29,129	30,497
Nonresidential	81,403	61,272	64,433
New Construction	22,065	12,915	13,216
Total EE	120,883	103,315	108,146
Low Income	2,204	1,460	N/A
Total EE and LI	123,087	104,775	108,146

* Market Effects benefits only.

(Annual Energy Reductions, Natural Gas, Therms, 000's)

	1999 (Recorded)	2000 (Planned)	2000 (Planned) With Indirect Benefits*
Residential	507	556	895
Nonresidential	921	3,154	3,154
New Construction	37	293	294
Total EE	1,466	4,002	4,343
Low Income	260	176	N/A
Total EE and LI	1,726	4,178	4,343

* Market Effects benefits only.

Table 1.3
Summary of Cost-Effectiveness
(Benefit-Cost Ratios)
Program Year: 1999

(Benefit-Cost Ratios)

	1999 (Recorded)		2000 (Planned)			
	Utility Cost Test	Total Resource Cost Test	Utility Cost Test	Total Resource Cost Test	Public Purpose Test[1]	PPT with Indirect Costs and Benefits[1]
Residential	0.89	0.64	1.11	0.67	0.73	0.78
Non-Residential	3.87	1.66	2.23	2.03	2.06	1.91
New Construction	1.80	1.10	1.49	1.30	1.29	1.29
Total EE Portfolio	2.29	1.36	1.73	1.33	1.38	1.35
Low Income	0.41	0.50	0.23	N/A	0.23	N/A

1. PPT includes MA&E and Shareholder Earnings.

Table 1.4
Summary of Cost-Effectiveness
(Net Benefits; $ Mil)
Program Year: 1999

	1999 (Recorded)	2000 Planned TRC	2000 Planned PPT	2000 Planned With Indirect Benefits[1]
Residential	$9,270	$14,228	$16,421	$17,868
Non-Residential	$41,217	$39,773	$45,906	$46,675
New Construction	$8,818	$7,274	$8,373	$8,531
Total EE	$59,305	$61,275	$70,700	$73,073
Low Income	$1,667	N/A	$1,173	N/A
Total EE and LI	$60,972	$62,448	$70,700	$73,073

1. Market Effects benefits only.

Table 1.5
Summary of Outsource Costs

Program Year: 1999

	1999 (Recorded)
Residential	$4,874,207
Non-Residential	$4,971,741
New Construction	$2,460,615
Total EE	$12,306,563

Residential Programs

Residential Information

Information

Program Description

The Residential Information program provides energy efficiency information to customers through various means such as local community events, advertising, publications, and targeted information.

1999 Results & Achievements

In 1999, SDG&E offered targeted energy efficiency information to residential customers through several approaches. Information was distributed through district offices, home audits, telephone center contacts and community events such as the Del Mar Fair and Earth Day. SDG&E reached approximately 400,000 customers through a diverse range of distribution channels. Over 350,000 conservation brochures were distributed to consumers in 1999.

2000 Program Plans

In 2000, SDG&E will continue to provide energy efficiency information to residential customers through a targeted direct market approach to include conservation brochures, kiosks and local community events. The development of new channels/avenues for marketing energy efficiency information will be a primary objective in PY2000. Targeted efforts being considered include media advertising, brochures, fact sheets, and videos. These efforts will be closely coordinated with the Statewide Energy Guide, Energy Management Services (Audits), Energy Efficient Mortgage, Downstream Appliances and other related activities. Customers will benefit from Information & Education efforts by having access to a variety of informational and educational events.

Statewide Energy Guide

Program Description

The Statewide Energy Guide provides residential customers with information to help them identify and implement changes to make their home more energy efficient. The guide, named the “Big Picture”, was designed to assist consumers with immediate and effective steps they can take to save energy throughout their house. Topics include “Learn where your Energy Dollars Go”, “Consumer Tips”, and “Financial Assistance and Resources”. The Statewide Energy Guide was developed by the four California utilities.

1999 Results & Achievements

The guide, which is available in different languages, was distributed through various channels. SDG&E used the following mechanisms: mailings as a result of calls to its call center, distribution at public activities and consumer events, and direct mail pieces. SDG&E introduced a Spanish version of the guide in late 1999. A residential survey was also developed to track

changes in consumer behavior as a result of the Energy Guide and was completed in late 1999, with implementation of the survey planned for mid-year 2000.

2000 Program Plans

Development of a statewide action plan to distribute energy guides to customers and other market actors to reach under-served communities and customer groups is underway for 2000. Information on the guide and other energy efficiency products and services is also available on SDG&E's website. The guide will be integrated with other program offerings and distributed through the web site, utility call centers, home shows, exhibits, fairs, community-based organizations, and home improvement stores. A Chinese version of the guide will be available in SDG&E service territory in 2000.

Energy Efficient Mortgage (EEM) Housing Resale

Program Description

SDG&E's Energy Efficient Mortgage program promotes energy efficient mortgages to residential customers for the purchase and refinance of existing homes. The program, which is marketed to realtors and lenders, unites homebuyers with lending institutions that offer EEM's. Through the EEM process, customers can include the purchase of energy efficient upgrades in their mortgage at the time of purchase. To participate, customers must have a Home Energy Efficiency Rating (H.E.R.S.) completed on their home which is used to evaluate pre-existing equipment and recommend upgraded energy efficient measures. Energy efficient improvements which may qualify under the EEM include: high efficiency central heating and cooling systems, high efficiency water heaters, wall insulation, high performance windows, and compact fluorescent lighting.

1999 Results & Achievements

Due to a low level of awareness about energy efficient mortgages among the professional real estate community in San Diego, a professional mortgage training company was hired to conduct workshops for real estate agents and lenders. These workshops provided detailed information and instructions on how to process an energy efficient mortgage. These real estate professionals were also supplied with energy efficient mortgage promotional materials to provide to their customers. Other activities included 14 Energy Efficient Mortgage workshops for 288 real estate professionals and certification for 7 California Home Energy Efficiency(CHEERS)and Rated Energy Plus home energy rating systems raters.

2000 Program Plans

Efforts will focus on building alliances with the professional real estate community and on promotional activities targeted to potential homebuyers. A list of mortgage lenders and real estate agents that have committed to offering EEM's to their customers will be developed for distribution to potential homebuyers. EEM workshops will be held on a monthly basis to educate and promote awareness among mortgage lenders and real estate agents. Free home energy ratings will be offered to real estate professionals to help them understand the EEM process. Consideration will also be given to offering cash incentives to real estate professionals

who actively participate in the program. A second incentive approach, targeted to the homebuyer, is also under consideration.

In-Store EE Demonstration Co-op

Program Description

The In-Store Energy Efficient Demonstration Co-op incorporates kiosks at various home improvement centers which provide energy efficiency messages and information to customers. The strategy, which includes the design, development and production of multiple in-store kiosks for placement at various stores and independent window dealers, allows customers to select information related to their specific home projects.

1999 Results & Achievements

Seventy-five (75) Kiosk units were installed in 1999. The goal of the program to design and produce a multiple product kiosk was achieved in mid 1999. The application was designed for home improvement retail locations that provide products, such as windows and lighting discussed in the Kiosks. The digital audio interactive Kiosk incorporates four essential elements: the structural display, the feature graphic element, a digital audio repeater w/speaker and actuator, and the audio message and recording. SDG&E's contractor maintains these free standing battery-operated units. A consumer-oriented brochure detailing the lifestyle benefits of the featured products is also available. The primary focus of the 1999 project was energy efficient windows, lighting, and insulation products sold at home improvement stores.

2000 Program Plans

SDG&E will continue to work with the third party contractor to improve and maintain the current 75 kiosks that were produced and displayed at DIY(Do It Yourself) retailers in 1999. The program will continue to offer consumer education and retailer training on windows, lighting, insulation and other energy efficient products. Training sessions will be offered in an effort to improve retailer knowledge and ultimately to benefit the customer through a pass down effect. Training will focus on the benefits of energy efficient products and how to select properly sized equipment when making buying decisions. For 2000, the In-Store program will explore the next layer of interactive digital kiosks that will be designed and developed to be a smaller, aisle mounted, product specific kiosk. Rather than one unit (with all the messages), each energy efficient product featured will have its own specific kiosk. The kiosks will be designed to mount on the aisle system, off of the retail floor space, and more consistent with product marketing. Consumer brochures will be designed that compliment the kiosk design. The 2000 kiosks will focus on air conditioning products as well as energy efficient windows and lighting products.

Energy Management Services

In-Home, Mail-In, and On-Line Audits

Program Description

The Residential Energy Management Services program provides three types of audits to customers: Low Cost/No Cost In Home Audit, Mail-In Audit, and an On-Line Audit. These services promote energy efficiency and conservation in customer's homes, focusing on measures that will have the greatest impact on energy use reduction.

- Low Cost/No Cost Service provides customers with a physical inspection of their appliances and a questionnaire about their energy use habits. Customers receive verbal as well as written recommendations for implementing energy saving practices and measures which require little or no cost.
- Mail-In Audit uses a survey mailed to customers, which asks specific questions about their home and individual energy use habits. After the survey is completed and returned to SDG&E, a computer generated report is sent to the customer showing monthly energy consumption, the approximate cost of using major appliances, and specific recommendations for energy saving measures and practices.
- On-Line Audit is similar to the Mail-In Audit and is completed through a survey located on SDG&E's website.

1999 Results & Achievements

Availability of these services was promoted through the Customer Service Telephone Center, direct mail, and different community events. A total of 16,708 audits were completed as of 12/31/99. Of the total, 11,568 were Mail-In, 3,338 were Low Cost/No Cost, and 1,802 were On-Line audits.

2000 Program Plans

SDG&E continues to provide a variety of audit services to residential customers in 2000. Changes in 2000 may include adding a Spanish version of the mail-in audit in order to offer this service to a larger portion of SDG&E’s diverse residential community. Integrating/promoting other residential energy efficient programs within the recommendation area of the In-home, On-line and Mail-in audit programs are also being considered.

Energy Efficiency Incentives

Residential Contractor Program (RCP)

Program Description

The Residential Contractor program (RCP), a statewide effort, was developed by the four California utilities with input from various agencies and public parties. The program provides incentives to customers to encourage them to work directly with contractors to achieve energy efficient upgrades. The program is targeted at the single family (SF-RCP), multifamily (MF-RCP), and mobile home market sectors. The SF-RCP is designed to provide benefits to customers with older houses that have significant energy savings potential. In order to participate in the SF-RCP element, the customer must hire a contractor from the League of California Homeowners.

The Multi-Family element is designed to foster energy efficiency improvements in apartment buildings by promoting sustaining relationships between apartment building owners/property managers and contractors/Energy Service Providers. Financial incentives are available through standard performance contracts (SPC), for retrofits performed by contractors/EESP's. The Multifamily Element supports financial incentives based on the energy savings from virtually any energy efficiency measure. In order to participate in the MF-RCP component, the dwelling must be an existing unit in an apartment building with five or more units (common areas are also eligible).

1999 Results & Achievements

The utilities completed a draft statewide design; six public input workshops and the RCP program roll out during the first quarter of 1999. A number of workshops were held throughout the state with customers and contractors who provided valuable input to the program design. Although the RCP program had a late program roll out, over 800 vouchers including single and multi-family elements were processed for payment in SDG&E's service territory. In addition, the League of California Homeowners, an independent third party hired by the utilities to screen contractors for the program, screened 20 contractors/technicians for participation in San Diego. An additional 200 contractors were trained under the Targeted Third Party effort which was released by SDG&E as a training component of the RCP program in July 1999.

2000 Program Plans

The utilities will proactively implement program improvements, which stemmed from public feedback from various workshops in late 1999 and early 2000. In April of 2000, the following improvements were introduced: simplification of paperwork, increased incentives for specific measures, addition of eligible climate zones in certain service territories, additional information meetings for local residential contractors/ESCO's and elimination of a cap minimum. The utilities are also evaluating a simplified format for calculated savings based on public feedback.

Downstream Appliance Incentives

Program Description

The Downstream Appliance Incentives program is a statewide effort which promotes dishwashers, clothes washers, room air conditioners and refrigerators that qualify under the Department of Energy's criteria for energy efficiency. Under this program customers may receive rebates for purchasing certain ENERGY STAR® qualified products from participating retailers

1999 Results & Achievements

Under the 1999 Downstream Appliance Incentives program, 3868 dishwashers and 3456 clothes washers were rebated. In addition, eighty-one retailers participated by displaying point of purchase materials in their stores. Retailers also participated in training and education on the benefits of owning energy efficient appliances.

2000 Program Plans

SDG&E will continue to coordinate with other California utilities. A variety of strategies will be used to promote and increase awareness of the four ENERGY STAR® rated appliances (dishwashers, clothes washers, room air conditioners and refrigerators) The following activities are planned:

- Retailer sales training will be conducted on the benefits of ENERGY STAR® rated dishwashers, room air conditioners, refrigerators and clothes washers
- ENERGY STAR® collateral materials and appliance directories will be distributed to help customers better understand the benefits of these energy efficient appliances
- Customer rebates on ENERGY STAR® rated clothes washers and 2001 DOE compliant refrigerators will be available to address the first high cost and encourage customers to purchase the appliances
- Point of purchase materials will be promptly displayed at retailers carrying the ENERGY STAR® messages
- Field services will be provided to assist retailers in recognition and proper labeling of the qualified appliances

Upstream Programs

Contractor Training Program

Program Description

The Contractor Training program provides no cost training to local contractors on the importance of employing industry standard practices for the installation of HVAC systems. The program was specifically designed to increase the number of licensed contractors who regularly use Manuals "J" and "S" to determine accurate sizing of air conditioning units. Contractors who attend training are given manuals "J" and "S" for their business use. All licensed HVAC contractors in SDG&E's service territory are eligible to attend training.

1999 Results & Achievements

On April 16,1999, SDG&E conducted the first training session on improved HVAC sizing and installation practices. A series of targeted training efforts to include proper sizing and installation techniques were provided to interested contractors at no cost. Over 125 contractors/technicians were trained in San Diego in 1999. In order to measure existing baseline, attending contractors were given pre and post-tests to determine their level of knowledge before training. In December 1999, a third party selected by competitive bid completed an evaluation report of contractors, which indicated that there was an increase in the use of Manuals "J" and "S" in the sizing of air conditioning by approximately 90% of those contractors surveyed.

2000 Program Plans

Program plans include continued training of residential HVAC contractors in the area of proper sizing of air conditioning units and duct systems in accordance with Manuals J, S and D. There will be an added emphasis on the use of computer tools for assisting the contractor in properly sizing air conditioning systems in 2000.

Statewide Upstream Appliances

Program Description

The Statewide Upstream Appliance program promotes improved distribution, stocking practices and product availability of qualifying ENERGY-STAR® rated appliance models at participating retailers. The program targets upstream retailers and manufacturers to encourage increased ENERGY-STAR® appliance shipments to local retail stores. In order to participate, retailers and manufacturers must sign an agreement with SDG&E agreeing to abide by program procedures and guidelines. By participating, retailers and manufacturers receive the following benefits:

- Eligibility for Sales Person Incentive Fund (SPIFS) and Co-op promotional incentives.
- No cost training for employees
- Free ENERGY-STAR® product materials
- No cost Point of Purchase materials (POP's)
- Increased demand for ENERGY-STAR® products/increased sales

- Free advertising

1999 Results & Achievements

The utilities selected a short list of bidders and signed a contract with a third party implementer on April 12,1999 and June 12,1999 respectively. As of December 31, 1999, eighty-one (81) retailers were signed for program participation. In cases where water and utility rebates were available, utilities coordinated with local water agencies to advertise and promote both rebates to the customer. In 1999, SDG&E coordinated with three agencies: The San Diego County Water Authority, the Metropolitan Water District of Southern California and Bureau of Water Reclamation. In total these agencies service approximately 90% of SDG&E's total customer base, ensuring that the majority of customers received additional rebates. A major endeavor was also aimed at increasing customer awareness on the benefits of buying ENERGY-STAR® rated appliances. Retailers were invited to participate in promoting these products by displaying point of purchase materials, labeling products and conducting sales associate training. To further enhance the coordinated nature of the program, the program endeavored to keep other relevant organizations informed of the proposed program plans and activities so that other similar programs could be implemented. In 1999, this statewide effort focused on ENERGY-STAR® qualified dishwashers and clothes washers.

2000 Program Plans

SDG&E will continue to coordinate with the other California utilities. A variety of strategies will be used to promote and increase awareness of the four energy efficient appliances, which includes dishwashers, clothes washers, room air conditioners and refrigerators. The following activities are planned:

- *Implement* ENERGY STAR® advertising campaign to include radio, print and Co-op.
- *Conduct* retailer sales training on the benefits of ENERGY STAR® dishwashers, room air conditioners, refrigerators and clothes washers.
- *Distribute* ENERGY STAR® collateral materials and appliance directories to help customers better understand the benefits of these energy efficient appliances.
- *Provide* sales SPIF on ENERGY STAR® rated room air conditioners and clothes washers to retailers to encourage them to educate consumers and sell these appliances
- *Display* ENERGY STAR® rated appliances at trade shows and local events to educate consumers
- *Display* point of purchase materials at retailers, which carry the ENERGY STAR® message.
- *Provide* field services to assist retailers in recognition and proper labeling of the qualified appliances
- *Promote* Co-op funding efforts
- *Develop* Statewide resume

Targeted Third Party Initiative

Program Description

The 1999 Residential Targeted Third Party Initiative (TTPI) was designed to facilitate efforts in the statewide single family element of the Residential Contractor program. A third party contractor selected by competitive bid conducted the training in SDG&E's service territory. Although the main focus of the training was to support training efforts in the Residential Contractor Training program, the TTPI also supported training efforts in the Upstream Contractor Training program. Training classes offered under this TTPI included Basic Heating and Cooling Tune-up, Duct testing, Combustion Appliance Safety Testing (CAS), Installation of High Performance Windows, and Installation of Wall and Ceiling Insulation. A "test out" approach was used in order to provide a mechanism for experienced contractors to qualify for certification without having to take the class. Once certified, contractors are eligible to participate in the single-family element of the RCP program.

1999 Results & Achievements

Two hundred contractors attended training in 1999 in the following areas: Basic Heating and Cooling Tune-up, Duct testing, Combustion Appliance Safety Testing (CAS), Installation of High Performance Windows, and Installation of Wall and Ceiling Insulation.

2000 Program Plans

In 2000, SDG&E will continue the RCP support training under the 1999 TTPI. In addition, SDG&E plans on releasing a TTPI for innovative/new ideas for a residential energy efficiency program. In issuing the TTPI, consideration will be given to leveraging and integrating new programs with other energy efficiency programs currently in place.

Lighting Fixture Program

Program Description

SDG&E's Lighting Fixture program was a continuation of the 1998 Fixture program for the first six months of 1999, as an interim lighting program in effect until the Statewide Lighting program began in June 1999. Under the program, fixture manufacturers were eligible to receive financial incentives for increasing shipments of ENERGY STAR® lighting products to local retailers. The program utilized the Environmental Protection Agency's (EPA) ENERGY STAR® residential fixture technical specifications as the criteria for manufacturer participation. Manufacturers who expressed interest in participating were required to sign an agreement with the EPA to produce energy efficient products. By partnering with the EPA, manufacturers were able to package their products with the ENERGY STAR® logo.

1999 Results & Achievements

A contract was signed in early 1999 for the interim program while the Statewide Lighting program was being bid. The program was discontinued in mid 1999 when the Statewide Upstream Lighting program was implemented. A total of 51,988 fixtures were shipped into SDG&E's service territory in 1999, during the six months the interim program was in effect.

2000 Program Plans

The Lighting Fixture program was discontinued in June 1999 when the Statewide Upstream Lighting program was implemented.

Distributor Program

Program Description

The Upstream Residential Distributor program provides local distributors with financial incentives for stocking and promoting high efficiency (12 SEER and above) split-system HVAC units. In order to participate local distributors are required to sign a contract with SDG&E agreeing to program guidelines and requirements. Distributors are required to provide documentation to verify the number of high efficiency (12 SEER and above) units, which are stocked at any given time for sale in SDG&E service territory.

1999 Results & Achievements

Four distributors who participated in the Residential Upstream HVAC Distributor program in 1999 were responsible for stocking 2,374 high efficiency (12 SEER and above) units for sale in SDG&E service territory.

2000 Program Plans

Continued focus will be placed on increased stocking efforts, with an emphasis on expanding the list of participating distributors above 1999 levels. Increased participation by more dealers will be necessary in order to achieve 2000 program objectives.

ENERGY STAR® Windows

Program Description

The ENERGY STAR® Windows program, designed to target window manufactures, component suppliers, and retailers, was implemented in 1999 through a third party. This program provides upstream financial incentives to window manufacturers for stocking and supplying ENERGY STAR® Windows at the retail level. A second component is downstream support, which includes training for sales associates at home improvement stores, and consumer training, interactive point-of-purchase materials, advertising support, and reporting and tracking of sales for participating retailers.

1999 Results & Achievements

As of December 31, 1999, three window manufacturers signed agreements to participate in the SDG&E ENERGY STAR® Windows program. A third party contractor hired by SDG&E held 20 training sessions with manufacturer employees to encourage them to promote the benefits of ENERGY STAR® Windows to retailers and customers. At least one company actively promoted products with banners, shelf takers, and signage. The same company also conducted 35 ENERGY STAR® Window trainings and built retrofit window carts for home improvement stores to demonstrate window replacement with ENERGY STAR® Windows. A total of 25 training sessions

were conducted for customers. A second manufacturer held 4 customer ENERGY STAR® Windows demonstrations at retail stores and developed cooperative in-store advertising. In addition, an SDG&E ENERGY STAR® Windows brochure was developed for residential customers.

2000 Program Plans

SDG&E will pursue adding more ENERGY STAR® compliant manufacturers and retail establishments in 2000. In addition, consideration is being given to increasing upstream incentives in order to encourage increased participation.

Statewide Upstream Lighting

Program Description

The Statewide Upstream Lighting program, which replaced SDG&E's Lighting Fixture program in June 1999 is a cooperative effort of the four utilities. SDG&E worked closely with the utilities to develop the statewide program, which promotes ENERGY STAR® lighting to manufacturers and retailers. The Statewide Lighting program is aimed at the residential upstream market (manufacturers) and the midstream market (retailers, vendors) for energy efficiency. In order to participate, manufacturers and retailers must sign an agreement with SDG&E. As with the Statewide Appliance program, benefits to manufacturers and retailers include: No cost training for employees, free ENERGY-STAR® products/ materials, no cost Point of Purchase materials (POP's), increased demand for ENERGY STAR® products/increased sales and free advertising.

1999 Results & Achievements

On April 12,1999 the utilities selected a short list of bidders for the Statewide Upstream Lighting program, and on June 12,1999 a contract was signed with the selected third party implementer. Three lighting manufacturers were also selected to participate in the program via a competitive bid process. A major component of the lighting program in 1999 was monthly field visits and training. Training efforts conducted by SDG&E consisted of periodic field visits that supported retail promotional events. Regular training was incorporated as an ongoing function of the program design. In developing the program strategy, the utilities obtained input from various market participants on the scope of work specified in the request for proposal. Technologies addressed by this intervention strategy included replacement fixtures and screw-in bulbs, interior and exterior hard-wired fixtures, and high efficiency portable lighting fixtures (torchieres). Over 120,000 lighting fixtures were shipped for sale in SDG&E's service territory in 1999. The program achieved a 30% increase in the number of energy efficient fixtures shipped over the 1998 baseline.

2000 Program Plans

In 2000, SDG&E has reduced the manufacturer incentives for ENERGY STAR® qualified torchieres (previously rebated under the Lighting Fixture program) in an effort to transform the market in such a way that energy efficiency improvements will continue even when programs and subsidies are withdrawn. An ENERGY STAR® advertising campaign will be implemented and will include radio, print and Co-op. Retailer sales training will be conducted on the benefits of ENERGY STAR® qualified lighting products. ENERGY STAR® collateral materials will be distributed to

help customers better understand the benefits of these energy efficient lighting products. ENERGY STAR® rated lighting products will be displayed at trade shows and local events to educate consumers. Point of purchase materials will be promptly displayed at retailers carrying the ENERGY STAR® messages. Field services will be provided to assist retailers in recognition and proper labeling of the qualified lighting products. The following activities are planned:

- Cooperative Promotional Approach
- Cross Allocation of Financial Incentives
- Statewide Advertising Campaign Effort
- Field Services
- Salesperson Training
- Outreach & Promotions
- Development of a Statewide Resume

TABLE 2.1
SUMMARY OF COSTS:
RESIDENTIAL PROGRAM AREA

Electric and Gas Combined

	1999			2000	
	Authorized	Budgeted	Recorded	Authorized	Budgeted
Information	$1,502,000	$1,502,000	$1,753,854	$1,802,000	$1,802,000
EMS	$1,650,000	$1,650,000	$1,396,467	$1,365,000	$1,365,000
EEI					
SPCs	$3,000,000	$3,000,000	$1,430,226	$3,080,000	$3,080,000
Rebates	$1,100,000	$1,100,000	$1,006,722	$1,130,000	$1,130,000
Loans	$0	$0	$0	$0	$0
Other	$0	$0	$0	$0	$0
Upstream					
Information	$2,000,000	$2,000,000	$1,486,211	$1,890,000	$1,890,000
Other	$2,900,000	$2,900,000	$3,309,135	$3,254,000	$3,254,000
Total	$12,152,000	$12,152,000	$10,382,615	$12,521,000	$12,521,000

Electric Only

	1999			2000	
	Authorized	Budgeted	Recorded	Authorized	Budgeted
Information	$1,091,000	$1,091,000	$1,290,259	$1,301,000	$1,301,000
EMS	$1,185,000	$1,185,000	$1,059,967	$903,000	$903,000
EEI					
SPCs	$2,850,000	$2,850,000	$1,358,715	$2,926,000	$2,926,000
Rebates	$1,100,000	$1,100,000	$1,006,722	$1,130,000	$1,130,000
Loans	$0	$0	$0	$0	$0
Other	$0	$0	$0	$0	$0
Upstream					
Information	1610000	1610000	$1,029,598	$1,437,000	$1,437,000
Fin Assistance	$2,641,000	$2,641,000	$3,308,307	$2,873,000	$2,873,000
Total	$10,477,000	$10,477,000	$9,053,567	$10,570,000	$10,570,000

Gas Only

	1999			2000	
	Authorized	Budgeted	Recorded	Authorized	Budgeted
Information	$411,000	$411,000	$463,595	$501,000	$501,000
EMS	$465,000	$465,000	$336,500	$462,000	$462,000
EEI					
SPCs	$150,000	$150,000	$71,511	$154,000	$154,000
Rebates	$0	$0	$0	$0	$0
Loans	$0	$0	$0	$0	$0
Other	$0	$0	$0	$0	$0
Upstream					
Information	390000	390000	456613	453000	453000
Fin Assistance	$259,000	$259,000	$829	$381,000	$381,000
Total	$1,675,000	$1,675,000	$1,329,048	$1,951,000	$1,951,000

Table 2.2
Summary of Energy Efficiency Program Effects: Residential Program Area
Program Year: 1999

(Annual Energy Reductions, Electric, mWh)

	1999 (Recorded)	2000 (Planned)	2000 (Planned) With Indirect Benefits*
Information	N/A	N/A	1,281
EMS	N/A	883	972
EEI			
SPC	250	1,745	1,745
Rebates	692	2,446	2,446
Loans	N/A	N/A	N/A
Other	N/A	N/A	N/A
Upstream Programs			
Information	N/A	N/A	N/A
Financial Assistance	16,473	24,055	24,055
Total	17,415	29,129	30,497

* Market Effects benefits only.

(Annual Energy Reductions, Natural Gas, Therms, 000's)

	1999 (Recorded)	2000 (Planned)	2000 (Planned) With Indirect Benefits*
Information	N/A	N/A	317
EMS	N/A	219	241
EEI			
SPC	53	287	287
Rebates	454	-	-
Loans	N/A	N/A	N/A
Other	N/A	N/A	N/A
Upstream Programs			
Information	N/A	N/A	N/A
Financial Assistance	0	50	50
Total	507	556	895

* Market Effects benefits only.

Table 2.3
Summary of Cost-Effectiveness: Residential Program Area
Program Year: 1999

(Benefit-Cost Ratios)

	1999 (Recorded)		2000 (Planned)			
	Utility Cost Test	Total Resource Cost Test	Utility Cost Test	Total Resource Cost Test	Public Purpose Test[1]	PPT with Indirect Costs and Benefits[1,2]
Information	N/A	N/A	0.75	N/A	N/A	0.48
EMS	N/A	N/A	0.68	0.56	0.65	0.52
EEI						
SPCs	0.24	0.21	0.69	0.36	0.43	0.43
Rebates	1.60	0.70	0.99	0.57	0.65	0.65
Loans	N/A	N/A	N/A	N/A	N/A	N/A
Other	N/A	N/A	N/A	N/A	N/A	N/A
Upstream Programs						
Information	N/A	N/A	N/A	N/A	N/A	N/A
Financial Assistance	2.21	1.73	4.20	1.39	1.59	1.59

1. PPT does not include MA&E and Shareholder Earnings.
2. Market Effects benefits and costs only.

Table 2.4
Summary of Cost-Effectiveness: Residential Program Area
Program Year: 1999

(Net Benefits, $MILL)

	1999 Recorded	2000 Planned TRC	2000 Planned PPT	2000 Planned With Indirect Benefits*
Information	N/A	N/A	N/A	$1,353
EMS	N/A	$803	$933	$1,027
EEI				
SPCs	$340	$1,801	$2,131	$2,131
Rebates	$1,613	$973	$1,120	$1,120
Loans	N/A	N/A	N/A	N/A
Other	N/A	N/A	N/A	N/A
Upstream Programs				
Information	N/A	N/A	N/A	N/A
Financial Assistance	$7,317	$10,650	$12,236	$12,236
Total	$9,270	$14,228	$16,421	$17,868

* Market Effects benefits only.

Nonresidential Programs

Nonresidential Information

Information

Program Description

The Nonresidential Information program provides information about energy efficiency and services and introduces customers to state-of the art efficient technologies and practices through workshops and seminars. Facility managers of large businesses (greater then 500 kW demand and/or 250, 000 therms) are notified of the workshops and seminars through mailed invitations. Business owners and property managers of small/ medium businesses (less than 500 kW and/or 250,000 therms) are notified through direct mail invitations and through business and trade associations.

1999 Results & Achievements

In 1999, five energy awareness seminars (Adjustable Speed Drives, Boiler Efficiency, Compressed Air, Motor Systems, and HVAC Efficiency) were conducted as part of SDG&E's nonresidential customer education program. Two of the seminars were DOE partnerships and third-party presenters conducted three seminars. Five hundred seventy-nine (579) customers attended.

Seminar participants were asked a series of market transformation questions. A large percentage of the respondents (67% to 85%) felt that there were many things their company could do to lower energy usage and between 48% to 72% felt that a small five-percent reduction in kilowatt usage would have a huge impact on their profit margin.

Customers were asked if, as a direct result of participating in the seminar, they planned to change their company's business practices to gain greater energy efficiencies within the ensuing twelve months. Results varied considerably between the seminars, from 12% to 43% favoring energy efficiency changes in their companies.

There is a very noticeable upward trend in overall satisfaction of the seminars since 1997 (from 55% in 1997 to 70% in 1999). Strong anecdotal data suggests that seminars that provided 'tips of the trade' or ways to do projects cheaper and more efficiently were the best received.

2000 Program Plans

SDG&E will offer six technology seminars for large nonresidential customers and four technology seminars for small nonresidential customers during 2000, which will be provided by SDG&E and independent consultants.

Statewide Energy Guide

Program Description

The Statewide Energy Guide " Smarter Business Energy Use, Saving Energy & Money" is an energy information and education guide designed by the California utilities to give customers

information that will empower them to better manage their business energy costs. Development of the guide represents specific energy efficiency information to both customers and other market actors, such as energy efficiency service providers and contractors. Customers can call SDG&E's Customer Service to request the Statewide Energy Guide or they can access the electronic version of the energy guide on SDG&E's website.

1999 Results & Achievements

The guide was delivered July 15, 1999, as scheduled. SDG&E distributed the guide through a communications campaign and also provided the guide in response to energy use related questions from small and medium businesses.

2000 Program Plans

A statewide distribution effort for the guide in 2000 will include providing information to English and Spanish-speaking customers. (A Spanish language Energy Guide will be completed in early 2000.) A survey, performed by a third party, will measure the success of the various distribution channels.

Energy Efficiency Financing (Energy Cents)

Program Description

The Energy Cents program is a cooperative effort between SDG&E and SAFE-BIDCO, a non-profit state organization offering low-cost financing to customers interested in installing energy efficient projects. Through this project, there is no initial cash outlay by the customer. SAFE-BIDCO agreed to waive their usual application-processing fee for SDG&E's customers with a qualifying small/medium commercial audit. This financing can be used by customers, in addition to other SDG&E incentives, to facilitate installation of energy efficiency projects. SAFE BIDCO defines a small business customer as one with a net worth less than $6 million with average net annual income less than $2 million. For eligibility requirements and an application customers can contact SDG&E, or may call SAFE-BIDCO directly.

1999 Results & Achievements

In 1999, four applications were submitted to SAFE-BIDCO for processing and approval. Program materials were distributed to customers through the Small Commercial Audit program, small customer workshops, and other energy efficiency programs. Energy service representatives also distributed program materials to customers who requested energy efficiency information by telephone or through SDG&E's website. In addition program advertisements were run in the San Diego Union-Tribune, the San Diego Business Journal and the San Diego Daily Transcript.

2000 Program Plans

SDG&E will continue to promote SAFE-BIDCO's energy efficiency financing program. SDG&E will include information on this program in communications and activities for other energy efficiency programs, and the program will also be promoted through audits for small/medium commercial customers.

Building Operator Certification

Program Description

The Building Operator Certification program aims to promote energy efficient operations and maintenance practices in nonresidential buildings by establishing a training and certification program for building operators. The program establishes a standard of professional competence in energy efficiency by focusing on practice oriented education where skill development is more likely to be attained. Upon successful completion and approval of all qualifying segments, participants receive a certificate. The certification program is comprised of five courses, which are conducted by the University of California San Diego (UCSD). To encourage individuals to participate in the program, SDG&E funds half of the certification tuition. To enroll, customers must register through the Extended Studies Department at UCSD.

1999 Results & Achievements

In 1999, 62 students enrolled in the program. Thirty-five students were awarded certification in a September 1999 graduation, the first group to complete all three-course requirements. SDG&E encouraged program participation through newspaper advertisements, distribution of program brochures through the San Diego Regional Energy Office, and by promotion of the program through communications targeted to nonresidential customers.

2000 Program Plans

SDG&E will continue to fund one-half the tuition fee of facility managers enrolled in the Building Operator Certification program. In addition to the scholarship funding, the SDG&E program manager will participate in a steering committee to provide course materials in an educational forum focused on energy efficiency products, technologies, programs and services.

Small Comprehensive Technical Assistance

Program description

The Technical Assistance program provides technical consulting expertise to small business customers from a pool of independent consultants offering specialized services for specific end uses related to retrofit applications. A detailed analysis of a customer's energy use patterns is provided to help identify potential energy savings gained by changing processes or upgrading equipment. This analysis often serves as the first step to customer participation in the Small Business Standard Performance Contract program.

1999 Results & Achievements

SDG&E worked with the San Diego Manufacturing Extension Center (SanMEC) and the San Diego Regional Technology Alliance (SDRTA) to develop a baseline analysis of the targeted small manufacturing customer segment with a load of less than 500 kW. In 1999, SanMEC completed a baseline analysis of 200 of its 1,200 members to determine their general knowledge of energy efficiency and to measure their awareness of SBSPC and other energy efficiency programs.

2000 Program Plans

The information from the SanMEC study of the small-manufacturing customers will be used to target this segment to educate and encourage them to participate in the Technical Assistance and SBSPC programs. Small manufacturers will be encouraged to utilize EESP's who provide energy efficiency recommendations and services. Third party engineering firms and other technical alliances will implement this program.

HVAC Technical Assistance

Program Description

SDG&E will provide technical consulting expertise to customers from a pool of independent consultants offering specialized services related to HVAC retrofit.

1999 Results & Achievements

There were no requests for technical assistance in HVAC in 1999.

2000 Program Plans

This program will not be continued in 2000.

Motors Technical Assistance

Program Description

SDG&E will provide technical consulting expertise to customers from a pool of independent consultants offering specialized services related to motors retrofit.

1999 Results & Achievements

There were no requests for technical assistance in Motors in 1999.

2000 Program Plans

This program will not be continued in 2000.

Process Technical Assistance

Program Description

As an integral part of the Process Overhaul program, Technical Assistance provides customers with on-site information and support needed to make decisions regarding energy efficiency retrofits. This also encourages customers to participate in the Large Nonresidential Standard Performance Contract (LNSPC). Additional information and assistance are an important element for this program as the Large SPC does not always directly address the issues that a commercial/industrial/ agricultural process customer may encounter. This program addresses high-efficiency nonresidential processes, customized systems or equipment, as well as emerging technologies.

1999 Results & Achievements

In 1999, SDG&E piloted a Process Technical Assistance program that used third party consultants to assist customers retrofitting process load applications. Eleven customers participated in the Process Technical Assistance program. The technologies addressed included compressed air analysis, chilled water distribution (pumping and distribution, not chiller replacement), fume hood studies for clean rooms, engine driven chillers technology, and water filtration studies. Technical Specialists studied these technologies at the request of the customers, and generated a report to each customer showing the energy savings as a result of installing the specific technology.

2000 Program Plans

This program will be promoted through customer technical workshops, and other customer contacts, and through direct mail.

Purchase- Savings Pilot Program

Program Description

The Purchase Savings Pilot program is a new program for 2000 targeted to the small/medium sized facility owner or manager who is responsible for replacing non-performing or burned-out equipment with little or no advance notice. Purchase Savings will give them the information they need to realize cost-savings before they have to make a replacement decision. Small businesses under 500 kW are eligible for this program. The program is limited to 10 or fewer customers within a pilot study group.

2000 Program Plans

As part of this pilot effort, SDG&E will perform an equipment survey of the customer's facility, identify older equipment, provide the customer with a list of their current equipment, and specify their high efficiency alternatives. A market study will be performed. Promotional efforts will include direct mail, presentations to small business groups, and/or phone solicitations to a selected target

SDG&E will evaluate the results of this pilot in order to determine the feasibility to continue or discontinue the program.

Procure-Savings Pilot Program

Program Description

Although energy efficiency programs have been available for years, the vast majority of purchasing agents in large companies still are not aware of energy efficiency efforts. The criterion for a purchasing agent's performance is how well they contain or reduce capital outlays. Energy efficiency equipment often has a higher first cost than standard efficiency units. This pilot program for 2000 has been developed with large business in mind to help simplify and expedite their Energy efficiency purchasing decisions. The Procure-Savings Pilot program will identify potential long-term cost savings when replacing equipment. Customers with more than

500 kW load are eligible. The program is limited to 10 or fewer customers within a pilot study group.

2000 Program Plans

SDG&E will perform an equipment survey of the customer's facilities, identify older equipment, provide the customer a list of their current equipment, and specify their high efficiency alternatives. In addition to a planned promotion directed to small business customers, an awareness campaign will be developed to provide contractors with the necessary tools to offer energy efficient equipment as a viable alternative when recommending replacements.

SDG&E will evaluate the results of this pilot in order to determine the feasibility to continue or discontinue the program.

Energy Management Services

Energy Audits

Program description

Audits that identify energy efficient opportunities are offered to small commercial customers. The audit program helps customers identify energy-savings opportunities at their facilities. Customers receive a comprehensive analysis of their energy use, plus specific recommendations on energy-saving measures that can significantly lower their energy use. In addition, auditors give customers information regarding all events occurring in the electric industry, and programs for which they may be eligible. Small commercial customers whose demand is less than 250 kW or whose gas usage is less than 250,000 therms are eligible for the audits.

1999 Results & Achievements

By year-end, 857 audits were completed for customers with usage under 250 kW. Total energy savings recommended was 33,515,004 kWh. Total kW demand savings recommended were 6,414 kW.

Auditors distributed deregulation, energy efficiency and program information to customers. These materials included the California Energy Efficiency Guide, information on restructuring and fact sheets that provided an explanation of the various energy efficiency programs available to the small/medium commercial customer.

2000 Program Plans

This strategy is designed to complement the Small Customer Standard Performance Contract (SPC) and Rebate programs, and to help customers benefit from low interest financing through the Energy Cents program. HVAC, lighting, water heating, and other premise-specific end uses will be targeted.

SDG&E is planning to issue an RFP to design and install an on-line audit for small/medium business customers.

Third Party Initiative - Small Cities Energy Efficiency Retrofit Demonstration Program

Program Description

SDG&E issued a request for proposal for programs that would address market barriers that limit the adoption and installations of energy efficient measures by small cities in San Diego County. SDG&E requested that the bidders address market barriers faced by small cities, such as the availability of funding for energy efficiency measures, which limit the adoption and installation of energy efficient measures.

1999 Results & Achievements

On September 10, 1999 SDG&E issued a request for proposal (RFP) for creative and innovative proposals. The contract was awarded to San Diego State University Foundation on behalf of the

San Diego Regional Energy Office. The contract was signed in December 1999 with implementation scheduled to begin in January 2000.

2000 Program Plans

SDREO, through the San Diego State University (SDSU) Foundation, will direct comprehensive audits for the facilities within three small cities. SDREO will evaluate city procurement practices, facilitate the adoption of energy efficiency retrofits as identified in the audits above, determine the benefits of retrofitting LED traffic signals in two of the cities, and identify emerging technology potential within the HVAC system at the City Hall of one city.

Energy Efficiency Incentives

Tenant Improvement Program

Program Description

This program is implemented through the nonresidential new construction Savings By Design and Energy Design Resources programs. It is designed to encourage and assist building owners, developers, or occupants of tenant improvement projects to incorporate energy efficiency technologies into the building design. It also provides financial resources, information and incentives. Refer to Nonresidential New Construction for program details.

1999 Results and Achievements

The tenant improvement program included 102 projects by year-end. Out of this total, 38 projects were completed and installed during 1999, with 64 commitments remaining. Design Team Incentives, a new strategy that offers incentives to design teams that utilize the whole building approach, were given to two design teams.

2000 Program Plans

SDG&E will continue to implement this program through its nonresidential new construction programs. SDG&E will work with new construction decision makers, such as architects, engineers, energy consultants and their trade organizations (American Institute of Architects, American Society of Heating, Refrigeration and Air-conditioning Engineers, etc.) to promote energy efficient systems design and the installation of high efficiency equipment in tenant improvement projects. This program includes all end-uses, but primarily addresses high-efficiency lighting and HVAC systems.

Emerging Technologies

Program Description

New energy efficient technologies are not often implemented by customers and energy efficiency service providers (EESPs) because of low awareness of the availability of emerging technologies, uncertainty of the benefits of the technologies or prohibitive cost. In 2000, SDG&E will work with large customers to develop demonstration projects that will showcase emerging technologies.

In addition, SDG&E will also work with the Emerging Technologies Coordinating Council (ETCC), a new organization currently comprised of members from SDG&E, Southern California Edison (S), Pacific Gas &Electric (PG&E), Southern California Gas (SoCalGas), and the California Energy Commission (CEC), to identify emerging technologies.

2000 Program Plans

SDG&E is working with large customers to develop demonstration projects that showcase emerging technologies.

SDG&E will work with the Emerging Technologies Coordinating Council (ETCC) to coordinate the efforts in the area of emerging technologies to insure that these efforts are not duplicated and that all parties take advantage of the opportunities to cooperate.

Express Efficiency

Program Description

Through the Express Efficiency statewide program, an alliance of Trade Allies (contractors and distributors) helps market the benefits of energy efficiency. Financial incentives for lighting, air conditioning, refrigeration, food service, and gas equipment are offered to small commercial customers (less than 250 kW and 250,000 therms) through a direct rebate process. The contractors and distributors provide rebate incentives to customers on qualifying equipment at the point of sale. For each qualifying piece of equipment purchased, SDG&E reimburses contractors for the amount of the incentive they provided to the customer. In order to encourage the contractors to promote energy efficiency measures, midstream incentives are provided to participating contractors. Measures, technical requirements, and most rebate levels are consistent statewide and are published in statewide program materials.

1999 Results & Achievements

The Express Efficiency statewide program was implemented on April 7, 1999, to accept applications from program participants within SDG&E's service territory. Information and applications were available to be downloaded from SDG&E's website.

To enhance program participation, the statewide team developed a "Summer Sale" promotion to encourage contractors to focus on underserved markets. Customers under 100 kW were eligible to receive double rebates between July 15 and October 1999. SDG&E also extended the sale to December 31, 1999 for underserved customers who retrofitted to T-8 4-foot lamps with electronic ballasts. Other efforts to promote the program included three small/medium commercial customer workshops that were held on April 20, and 21, and on August 24, 1999, to promote Express Efficiency and the Small Business Standard Performance program. A total of 93 participants attended the workshops. Program information was mailed to customers unable to attend. Follow-up telephone calls were made to all workshop attendees, including those customers who requested follow-up on the seminar evaluation form.

In early September, targeted direct mail was sent to 450 small grocery stores whose demand was under 500 kW. Approximately 450 letters were sent to all small business customers (200 kW to 500 kW) on October 4, 1999, to promote the program.

Consequently, 972 applications were received as of December 31. At year-end, 35 contractors had signed up to participate in the Express Efficiency program.

2000 Program Plans

The Express Efficiency program will be implemented through participating distributors, contractors and EESP's. The California utilities will work together to develop program materials in a cooperative effort and will continue to refine the program as needed. Workshops will be held to educate small/medium customers on energy efficiency measures and the benefits of installing energy-efficient equipment.

Small Commercial Turnkey Pilot Program

Program Description

The Small Commercial Turnkey pilot program for 2000 is designed to reach SDG&E's smallest nonresidential customers. Eligible customers are those on SDG&E's Rate Schedule A (e.g. monthly demand less than 20 kW). The Small Commercial Turnkey Pilot program is designed to promote the installation of multiple energy efficient measures by providing an increase in rebate levels if more than one type of measure is installed. Rebate levels are designed to discount a significant portion of the cost of energy efficiency improvements, thereby providing an incentive for contractors to address this market in a comprehensive manner.

2000 Program Plans

SDG&E will evaluate the results of this pilot in order to determine the feasibility to continue or discontinue the program.

Commercial Dishwasher Pilot Program

Program Description

The Commercial Dishwasher Pilot program for 2000 will assess the effectiveness, including the costs and benefits, of emerging dishwashing technologies. The potential target market includes an estimated 4,800 restaurants, hotels, medical facilities, schools, colleges and universities. SDG&E plans to work with a limited number of customers to demonstrate these technologies.

2000 Program Plans

SDG&E will evaluate this program in order to determine the feasibility to continue or discontinue the program.

Third Party Initiative - Horizontal Washers Program

Program Description

This program targets the commercial market to promote the purchase of energy efficient horizontal clothes washers for laundromats and common-use laundry rooms in apartments, dormitories and barracks. SDG&E contracted with the San Diego County Water Authority (SDCWA), through the 1998 third party program, to augment their Commercial Industrial, Institutional (CII) Voucher Incentive Program (VIP) toward the purchase of coin-operated washers by providing a larger incentive than the current voucher offered by the SDCWA.

1999 Results & Achievements

After a brief hiatus and changes in SDCWA's fiscal year 1999/2000-budget, and a revised contract, the program re-started on August 4, 1999. To test the market, the voucher incentive was lowered from the prior $450/unit incentive to $300 for the 1200 voucher requests on the waiting list. Additional plans were made to lower the incentive to $225 per unit for subsequent units. Due

to low interest in the lower incentive, it was decided to keep the incentive at $300. As of December 31, 1999, there were 598 washer vouchers redeemed.

2000 Program Plans

SDG&E expects to provide 800 vouchers for horizontal clothes washers in PY2000.

Energy Efficiency Incentives-Standard Performance Contract

Large Nonresidential Standard Performance Contract

Program Description

The Large Nonresidential Standard Performance Contract program (LNSPC) is a performance-based statewide retrofit program that offers incentive payments for projects delivering verified energy savings at large commercial, industrial and agricultural customers facilities. The fixed price, performance measurement protocols, payment terms, and all other operating rules of the program are specified in the program procedures manual. The program was developed with guidance from the CBEE and its Technical Advisory Committee.

The 1999 LNSPC program modifies some aspects of the 1998 SPC program. Differences of note include revised incentive rates, reclassified end-use measures, and eligibility of gas measures. A detailed list of the changes is described in California's 1999 Large Nonresidential Standard Performance Contract Program Procedures manual that is available in hard copy or on the SDG&E website. Customers with a load of over 500 kW or 250,000 therms are eligible for this program.

1999 Results & Achievements

The program officially began accepting applications on March 23, 1999. Program information and applications along with the statewide procedure manual and a statewide agreement were available on SDG&E's website. This information could also be mailed to interested parties. The statewide utilities developed a system to track the incentive commitments of corporate parents on a statewide level.

As of December 31, 1999, there were 33 active Basic Project Applications. Six agreements were signed in 1999 and 2000 and one 40% incentive payment was processed. Six Detailed Project Applications were in the review process and 21 approved Basic Project Applications were pending submittal of the Detailed Project Applications in 2000. Of the active Basic Project Applications, ten projects were HVAC, two were motors, and five were process overhaul. The remaining 16 projects were funded from the Large Comprehensive Retrofit Program Area.

2000 Program Plans

SDG&E will continue working with the other utilities to maintain a uniform statewide program design and implementation. SDG&E and the other utilities have incorporated input from stakeholders on the redesign of the PY2000 program. The improved LNSPC program will be offered to program participants after CPUC approval, which is expected in June 2000. These changes were based on input from 1999 statewide workshops and included simplifying program measurement and verification requirements, and streamlining the SPC application process to reduce paperwork and speed project approvals. In addition, creation of simplified SPC application packages will allow project sponsors to participate more easily.

SDG&E plans to increase marketing efforts in 2000 to increase the number of third-party sponsors participating in the program.

FasTrac Performance Contracting Pilot Program

Program Description

The FasTrac Pilot is a pilot program for 2000, formulated to test the feasibility of using performance contracting for large customers with smaller energy efficiency retrofit projects not suited for the Large Standard Performance Contract (LNSPC) program. The FasTrac pilot will preserve many of the essential features of the LNSPC program while providing a more streamlined and simplified application, measurement and verification (M & V), and funds disbursement process. Large customers (equal to or greater than 500 kW) and chain accounts (two or more SDG&E accounts), with energy efficient lighting or HVAC projects, are eligible to participate in this project. Project Applications must be submitted through a third party project sponsor, (such as an energy efficiency service provider, a lighting contractor, an HVAC contractor, etc).

2000 Program Plans

The FasTrac Performance Contracting Pilot program officially began on February 14, 2000. Promotional efforts will focus on third party project sponsors (energy efficiency service providers), who must submit the project application on behalf of the customer and who will implement the program. SDG&E will evaluate the results of this pilot in order to determine the feasibility to continue or discontinue the program.

Small Business Standard Performance Contract (SBSPC)

Program Description

The Small Business Standard Performance Contract (SBSPC) program is a performance-based, statewide retrofit program that offers incentive payments for energy efficient projects that deliver verified energy savings at small/medium sized customer facilities (less than 500 kW demand or 250,000 annual therms of usage). This program offers fixed incentives for documented energy savings achieved by installing specific energy-efficient measures. The fixed price, performance measurement protocols, payment terms, and all other operating rules of the program are specified in the program procedure manual. The Project Application must be submitted through a third party project sponsor, (such as an energy efficiency service provider, a lighting contractor, an HVAC contractor, etc).

1999 Results & Achievements

SDG&E officially opened its Small Business Standard Performance Contract program to accept applications on April 2, 1999. The statewide procedures manual, including a statewide agreement and application forms, were available on SDG&E's website. This information was also available by mail to interested parties.

A combined large and small nonresidential customer kick-off meeting with EESPs on April 14 was the beginning of promotional activities for the SBSPC. All registered EESPs were invited by mail. In addition, e-mail notices of the opening of the SPC programs and the Energy Efficiency program were sent to all registered EESP's. SDG&E contacted approximately 190 contractors to discuss the program.

Small/Medium Commercial customer focus groups were held on August 5, 1999. Efforts to promote the program included three small/medium commercial customer workshops held on April 20, and 21, and on August 24, to promote the SBSPC program and Express Efficiency. A total of 93 participants attended. Program information was mailed to customers who were unable to attend. Follow-up telephone calls were made to all workshop attendees, including those customers who requested follow-up on the evaluation form.

By year-end, 21 Basic Project Applications had been received with 20 of these remaining in the active project status. Additionally, seven agreements were signed in 1999 and two 40% incentive payments were processed. Four Detailed Project Applications were in the review process, and nine approved Basic Project Applications were pending submittal of the Detailed Project Applications in 2000.

2000 Program Plans

In 2000, SDG&E will continue working with the other utilities to improve the program's design and implementation. SDG&E and the other utilities have incorporated input from stakeholders on the redesign of the 2000 program. SBSPC program processes will be redesigned to reduce application preparation and process time. Streamlined program materials will be created to stimulate increased participation by EESPs and contractors. The improved SBSPC program will be offered to program participants after CPUC approval, which is expected in June 2000. SDG&E plans to increase promotional efforts in 2000 to increase the number of third-party sponsors participating in the program.

Upstream Programs

Upstream HVAC Incentives

Program Description

SDG&E will offer standard upstream incentives to manufacturing distributors to encourage the promotion of premium efficient package A/C units instead of units with standard efficiencies. The Nonresidential Upstream HVAC Distributor Incentive program is designed to improve the current stocking practices of local HVAC distributors by increasing the inventory stock of split and package system air conditioning units to the Consortium for Energy Efficiency (CEE) Tier 1 energy efficiency level. This strategy is expected to achieve its goals by providing a financial incentive to distributors for stocking CEE Tier 1 high-efficiency HVAC (HEHVAC) units.

1999 Results & Achievements

Through this program, one distributor was responsible for selling all of the high efficiency HVAC units in the San Diego area. This Los Angeles-based distributor, with a San Diego sales force, developed a special computer-based tracking system to report sales in San Diego. By year-end 1999, Nonresidential Upstream HVAC Incentives were paid to that distributor for stocking 966 units. Two other distributors of nonresidential equipment elected not to participate in the program in 1999 for various reasons. The other participating distributors concentrate on residential equipment.

2000 Program Plans

Continued focus will be placed on increased stocking efforts, with an emphasis on expanding the list of participating distributors above 1999 levels. Increased participation by dealers will be necessary to achieve 2000 program objectives.

Upstream Motors Incentive

Program Description

The Upstream Motor Dealer Incentive program is designed to improve the current stocking practices of local motors dealers by increasing the inventory stock of premium efficiency motors that meet the Consortium for Energy Efficiency (CEE) rating for premium-efficient motors. It addresses high efficiency motors, pumps, fans, and selected equipment. SDG&E provides financial incentives to dealers for stocking premium efficient motors.

Program Description

The Upstream Motor Dealer Incentive program is designed to improve the current stocking practices of local motors dealers by increasing the inventory stock of premium efficiency motors that meet the Consortium for Energy Efficiency (CEE) rating for premium-efficient motors.

SDG&E will provide a financial incentive for 1 horsepower to 200 horsepower motors to dealers for stocking premium efficient motors. This approach supports the overall motor market transformation strategy by encouraging key upstream market players to facilitate change in the market place.

1999 Results & Achievements

Results in 1999 were below SDG&E's expectations. By late September 1999, only 42 premium energy efficient motors were stocked and sold. To contend with these issues, SDG&E implemented strategies to improve customer response. Between October 1 and December 15, 1999, SDG&E provided motor dealers a 50% bonus incentive (above the standard incentive) for replacing their stock of EPAct motors with CEE-rated premium-efficient motors. By December 31, 1999, 198 units were stocked and sold in 1999.

In order to access reasons for the lower than expected results, SDG&E held two focus group meetings with dealers and end-users. The results of those focus groups were presented to representatives from five motor manufacturers for comments and recommendations. The motor manufacturers reviewed the focus group results and recommended additional end-user promotions, dealer identification on SDG&E's website, and contact with high-level customer executives.

2000 Program Plans

Continued focus will be placed on increased stocking efforts, with an emphasis on removing barriers and expanding the list of participating distributors above 1999 levels. Increased participation by dealers will be necessary to achieve 2000 program objectives. SDG&E will continue working with motor manufacturers to encourage dealer participation. SDG&E is investigating methods to implement the motor manufacturers' recommendations and will use this information to direct efforts for the program in 2000.

Targeted Third Party Initiative

Program Description

A Request For Proposal (RFP) to solicit creative and innovative proposals from interested third parties to address market barriers, such as funding, faced by existing small/medium commercial customers has been issued in 2000 for the Nonresidential Retrofit Targeted Third Party Initiative Program. Small/medium customers are defined as commercial customers using less than 500 kW demand per month. Due to their size, these customers are limited in the availability, adoption and installation of energy efficient equipment measures. The scope of work under this RFP is designed to address the needs of small/medium customers as a sector of the nonresidential energy efficiency retrofit market.

This program supports SDG&E's effort to continue to offer energy efficiency options to its customers through Targeted Third Party Initiatives and to ensure that program offerings are available to underserved communities and customer groups.

2000 Program Plans

The selected bidder will implement the program.

TABLE 3.1
SUMMARY OF COSTS:
NONRESIDENTIAL PROGRAM AREA

Electric and Gas Combined

	1999			2000	
	Authorized	Budgeted	Recorded	Authorized	Budgeted
Information	$1,250,000	$1,250,000	$808,933	$1,723,000	$1,723,000
EMS					
Large	$0	$0	$0	$0	$0
Small/Medium	$600,000	$600,000	$743,809	$598,000	$598,000
EEI: Custom Rebates					
Large	$0	$0	$0	$0	$0
Small/Medium	$2,000,000	$2,000,000	$0	$0	$0
EEI: Pres Rebates					
Large	$900,000	$900,000	$884,019	$1,058,000	$1,058,000
Small/Medium	$0	$0	$2,604,419	$1,700,000	$1,700,000
EEI: SPCs					
Large	$10,300,000	$10,300,000	$4,664,898	$10,300,000	$10,300,000
Small/Medium	$1,600,000	$1,600,000	$524,360	$1,600,000	$1,600,000
Upstream Programs					
Information					
Financial	$1,000,000	$1,000,000	$417,555	$1,002,000	$1,002,000
Total	$17,650,000	$17,650,000	$10,647,992	$17,981,000	$17,981,000

Electric Only

	1999			2000	
	Authorized	Budgeted	Recorded	Authorized	Budgeted
Information	$796,000	$796,000	$575,849	$1,723,000	$1,723,000
EMS					
Large	$0	$0	$0	$0	$0
Small/Medium	$480,000	$480,000	$517,372	$598,000	$598,000
EEI: Custom Rebates					
Large	$0	$0	$0	$0	$0
Small/Medium	$1,900,000	$1,900,000	$0	$0	$0
EEI: Pres Rebates					
Large	$765,000	$765,000	$751,416	$1,058,000	$1,058,000
Small/Medium	$0	$0	$2,479,956	$1,700,000	$1,700,000
EEI: SPCs					
Large	$7,790,000	$7,790,000	$3,498,673	$7,790,000	$7,790,000
Small/Medium	$1,360,000	$1,360,000	$445,706	$1,382,000	$1,382,000
Upstream Programs					
Information	$0	$0	$0	$0	$0
Financial	$800,000	$800,000	$417,555	$934,000	$934,000
Total	$13,891,000	$13,891,000	$8,686,527	$15,185,000	$15,185,000

Gas Only

	1999			2000	
	Authorized	Budgeted	Recorded	Authorized	Budgeted
Information	$454,000	$454,000	$233,084	$0	$0
EMS					
Large	$0	$0	$0	$0	$0
Small/Medium	$120,000	$120,000	$226,437	$0	$0
EEI: Custom Rebates					
Large	$0	$0	$0	$0	$0
Small/Medium	$100,000	$100,000	$0	$0	$0
EEI: Pres Rebates					
Large	$135,000	$135,000	$132,603	$0	$0
Small/Medium	$0	$0	$124,463	$0	$0
EEI: SPCs					
Large	$2,510,000	$2,510,000	$1,166,224	$2,510,000	$2,510,000
Small/Medium	$240,000	$240,000	$78,654	$218,000	$218,000
Upstream Programs					
Information	$0	$0	0	$0	$0
Financial	$200,000	$200,000	$0	$68,000	$68,000
Total	$3,759,000	$3,759,000	$1,961,465	$2,796,000	$2,796,000

Table 3.2
Summary of Energy Efficiency Program Effects: Nonresidential Program Area
Program Year: 1999

(Annual Energy Reductions, Electric, mWh)

	1999 (Recorded)	2000 (Planned)	2000 (Planned) With Indirect Benefits*
Information	N/A	N/A	1,569
EMS			
Large	N/A	N/A	N/A
Small/Medium	N/A	N/A	972
EEI: Customized Rebates			
Large	N/A	N/A	N/A
Small/Medium	N/A	N/A	N/A
EEI: Prescriptive Rebates			
Large	8,516	5,000	5,000
Small/Medium	30,537	7,813	7,813
EEI: SPCs			
Large	39,527	41,943	41,943
Small/Medium	2,425	6,515	6,515
Upstream Programs			
Information	N/A	N/A	N/A
Financial Assistance	399	N/A	620
Total	81,403	61,272	64,433

* Market Effects benefits only.

(Annual Energy Reductions, Natural Gas, Therms, 000's)

	1999 (Recorded)	2000 (Planned)	2000 (Planned) With Indirect Benefits*
Information	N/A	N/A	0
EMS			
Large	N/A	N/A	N/A
Small/Medium	N/A	N/A	0
EEI: Customized Rebates			
Large	N/A	N/A	N/A
Small/Medium	N/A	N/A	N/A
EEI: Prescriptive Rebates			
Large	63	100	100
Small/Medium	78	128	128
EEI: SPCs			
Large	765	2,532	2,532
Small/Medium	14	393	393
Upstream Programs			
Information	N/A	N/A	N/A
Financial Assistance	0	N/A	0
Total	921	3,154	3,154

* Market Effects benefits only.

Table 3.3
Summary of Cost-Effectiveness: Nonresidential Program Area
Program Year: 1999

(Benefit-Cost Ratios)

	1999 (Recorded)		2000 (Planned)			
	Utility Cost Test	Total Resource Cost Test	Utility Cost Test	Total Resource Cost Test	Public Purpose Test[1]	PPT with Indirect Costs and Benefits[1,2]
Information	N/A	N/A	0.30	N/A	N/A	0.16
EMS						
Large	N/A	N/A	N/A	N/A	N/A	N/A
Small/Medium	N/A	N/A	0.46	N/A	N/A	0.19
EEI: Customized Rebates						
Large	N/A	N/A	N/A	N/A	N/A	N/A
Small/Medium	N/A	N/A	N/A	N/A	N/A	N/A
EEI: Prescriptive Rebates						
Large	4.51	1.95	2.85	2.00	2.30	2.30
Small/Medium	5.98	2.09	2.06	1.25	1.47	1.47
EEI: SPCs						
Large	4.36	1.74	3.22	2.62	3.01	3.01
Small/Medium	2.52	0.75	3.22	2.65	3.05	3.05
Upstream Programs						
Information	N/A	N/A	N/A	N/A	N/A	N/A
Financial Assistance	0.48	0.55	0.65	0.57	0.66	0.66

1. PPT does not include MA&E and Shareholder Earnings.
2. Market Effects benefits and costs only.

Table 3.4
Summary of Cost-Effectiveness: Nonresidential Program Area
Program Year: 1999

(Net Benefits, $MILL)

	1999 Recorded	2000 Planned TRC	2000 Planned PPT	2000 Planned With Indirect Benefits*
Information	N/A	N/A	N/A	495
EMS				
Large	N/A	N/A	N/A	N/A
Small/Medium	N/A	N/A	N/A	273
EEI: Customized Rebates				
Large	N/A	N/A	N/A	N/A
Small/Medium	N/A	N/A	N/A	N/A
EEI: Prescriptive Rebates				
Large	$3,988	$2,622	$3,020	$3,020
Small/Medium	$15,580	$3,567	$4,192	$4,192
EEI: SPCs				
Large	$20,326	$28,825	$33,212	$33,212
Small/Medium	$1,323	$4,478	$5,159	$5,159
Upstream Programs				
Information	N/A	N/A	N/A	N/A
Financial Assistance	N/A	281	323	323
Total	$41,217	$39,773	$45,906	$46,675

* Market Effects benefits only.

New Construction Programs

Residential

Design Assistance

Program Description

The Design Assistance program incorporates many different activities, some of which overlap other areas under residential new construction. These activities are described below.

Design

SDG&E provides design assistance services, training and marketing support to architects, sales agents, and consumers. Working through a number of energy efficiency consultants, SDG&E promotes the adoption of energy efficiency at the design level. This intervention strategy incorporates statewide training, design assistance and information efforts to ensure a consistent message is delivered through multiple channels.

SDG&E provides training seminars to builders and architects on topics such as HVAC sizing and installation, duct installation techniques, lighting, windows, selling energy efficiency upgrades, and Title 24 issues. The training is coordinated with the Building Industry Association (BIA) and the American Institute of Architects (AIA) to increase participation.

Promotion

This program offers promotional support which includes an advertising campaign featuring builders committed to energy efficiency and quality construction. In addition, SDG&E provides advertising collateral to builders, designers and contractors to help promote purchase decisions on energy efficiency.

Statewide Sales Agent Training

The statewide Sales Agent Training program provides information about energy use and energy efficiency to the people directly interacting with new homebuyers.

Statewide Builder Resource Guide

The Builder Resource Guide is used to provide builders with up-to-date information on new building technologies and practices, statewide information, energy efficient appliance and lighting technical advice, Title 24 compliance tips, and general design guidelines. The Guide reaches a broad audience, including homeowners building new homes, custom homebuilders, lower income housing developers, and production builders.

Statewide Training

The statewide training program is a coordinated effort to to provide technical assistance to builders and HVAC subcontractors on new technologies and building practices. These efforts offer enhanced HVAC duct training and high performance window training on a statewide basis. This is an important step in providing a consistent message to the building industry.

Furthermore, as emerging technologies are identified, the utilities look for additional opportunities to develop statewide training classes. Targeted measures include integrated energy efficient design, air conditioners, heat pumps, furnaces, boilers, water heaters, integrated systems, ventilation equipment, efficient lighting and appliances, and solar heating and cooling.

ComfortWise

"ComfortWise", a program implemented by ConSol , targets new construction for single family homes.. ComfortWise covers all aspects of home construction with an emphasis on quality control. The program provides a variety of services, including engineered HVAC system layout, design and sizing, third-party inspections and diagnostics ranging from framing techniques and insulation installation to home energy ratings, ENERGY STAR® marketing support, and promotion of Energy Efficient Mortgages.

This program offers financial incentives to market participants for each home that incorporates the ComfortWise standards. Integrated energy efficient design, air conditioners, water heaters, integrated systems, and efficient lighting and appliances are targeted.

1999 Results & Achievements

The Design Assistance program held five training sessions throughout the year for HVAC, Title 24 Duct and Title 24 Windows, and two Builder Energy Code training sessions. These were part of 49 residential new construction training sessions held statewide during 1999.

SDG&E participated in the statewide Sales Agent Training by assisting in the design and review of the program. This program was not incorporated into SDG&E Residential New Construction programs, as this activity was already part of its third party program, ComfortWise.

SDG&E held several focus groups to clarify what would prompt builders to participate in its Residential New Construction programs and to learn more about the residential new construction market in San Diego. Information derived from these focus sessions was used in refining the programs throughout the year and in preparing new programs for 2000.

The statewide Builder Resource Guide was completed on July 16, 1999. The Guide is designed as a reference guide for builders to assist them in understanding energy codes (Title 24 and Building Energy Efficiency Standards), installation protocols, new and emerging technologies, and the marketing benefits of quality construction. These books were distributed at various seminars, workshops, and upon request.

The ComfortWise program was implemented on May 7, 1999. This program exceeded its target of 2000 units by attaining commitments from 2,016 residential single family units to participate in the program. A total of twenty communities were committed to the program by year end 1999.

ComfortWise was promoted through newsprint, radio, consumer magazines and builder magazines. In conjunction with the ComfortWise program, two pilot studies were performed: Aeroseal and CheckMe! These techniques were studied to determine if they were suited to the residential new construction program. It was determined that they were redundant if customers participated in the ComfortWise program.

2000 Program Plans

The utilities will update the statewide Builder Resource Guide which is used to provide builders with up-to-date information on new building technologies and practices, statewide information, energy efficient appliance and lighting technical advice, Title 24 compliance tips, and general design guidelines.

The utilities will continue to coordinate efforts to offer enhanced HVAC duct training and high performance window training on a statewide basis. Additional program sessions for builders, contractors and developers will be held to promote participation in the residential new construction programs.

Demonstration projects will be set up in two new construction housing design centers to educate and influence potential home buyers on the benefits of high energy efficient appliances, and energy efficiency technologies such as high performance windows.

SDG&E plans to continue the ComfortWise program implemented by ConSol energy consultants. Modifications have been made to the program, the most significant being the reduction of incentives paid to ConSol for the commitments generated in 2000. ComfortWise has a goal of attaining commitments for 1,500 single-family homes. Advertising of this program will be done at various events, including the Del Mar Fair and the Carlsbad 5000, as well as a substantial print media campaign.

Manufactured Housing

Program Description

The California utilities agreed to work together to conduct a statewide market characterization and baseline study for the manufactured housing market. Previously there had been no manufactured housing program implemented in California. This market may have a significant potential for capturing energy savings and lost opportunities. When the evaluation of the study was completed, the utilities discussed the findings to determine the best course of action to take in 2000.

1999 Results & Achievements

A baseline and market assessment study was competitively bid to a third party and the final report issued on August 12, 1999. The study identified market barriers and recommended various intervention strategies designed to overcome them. The results of the study revealed that this market would benefit from an energy efficiency program.

2000 Program Plans

The Manufactured Housing program will be outsourced to a third party in 2000. This pilot program will be focused on upstream market transformation by directing the efforts of incorporating high energy efficiency options in manufactured housing toward the producers of that housing. Most of the manufacturers are located in Northern California; however, even though there are no manufacturers in SDG&E's service territory, manufactured homes are located in San Diego.

Manufactured homes can qualify for this program either by having incorporated a pre-qualified package of efficiency measures into the home or by installing a custom package of measures selected by the manufacturer that will meet the program's efficiency requirements. These requirements are designed to reduce the total energy used for space heating, space cooling, and water heating by approximately 30% compared with a standard home that only meets code.

The benefit to the manufacturers in participating in this program is the increased marketability of the qualifying homes through promotion by the program of their housing. This will be done through co-op advertising for dealers, promotional materials for dealers highlighting the benefits of energy efficient homes, press releases at the manufacturer's plant and other promotional events.

Under this pilot, SDG&E seeks to have 30 qualified homes from different manufacturers participate in the program in PY2000.

California Home Energy Rating System (CHEERS)

Program Description

The California Home Energy Rating System (CHEERS) is a very important element in the quality assurance of new buildings. A CHEERS certification also provides additional value to customers at the time of resale as proof that the home has added energy efficiency features. Targeted measures include integrated energy efficient design, air conditioners, heat pumps, furnaces, boilers, water heaters, integrated systems, ventilation equipment, efficient lighting and appliances, solar heating and cooling, and rooftop PV's.

1999 Results & Achievements

The statewide utilities agreed to jointly participate in the continued development of CHEERS as it moves toward becoming a self-sustaining entity. 1999 was the first year that CHEERS was available on a statewide basis. The level of commitment in 1999 ensured that CHEERS could continue to provide C-HERS (ENERGY STAR® New Homes Compliance tool) to Title 24 consultants and others throughout the state. SDG&E held discussions with CHEERS representatives with the aim of holding a CHEERS training/certification class in San Diego in 2000.

2000 Program Plans

Currently most CHEERS training sessions are held in Stockton, California, at the CHEERS center. In order to increase the number of C-HERS raters within San Diego, SDG&E will host a CHEERS training session in San Diego.

CEC's Public Interest Energy Research (PIER)

Program Description

The CEC's Public Interest Energy Research (PIER)program is dedicated to the advancement of new energy efficient technologies, improved building performance evaluation methods, and development and improvement of building energy practices. SDG&E, through the San Diego

Regional Energy Office, coordinates with the CEC's PIER and Renewable Energy (RE) programs. Various technologies identified by the CEC as qualified under this program are targeted with the intent of introducing the technologies to the appropriate market implementers. Efforts are focused on the optimization of buildings and equipment that are uniquely suited to the Southern California climate.

1999 Results & Achievements

SDG&E worked with the San Diego Regional Energy Office (SDREO) in accessing the availability of new and emerging technologies as they occurred. These technologies were evaluated and ranked according to cost-effectiveness.

2000 Program Plans

SDG&E will continue to work with PIER through SDREO. Several of the technologies assessed during 1999 will be demonstrated in local building projects. These demonstration projects will be implemented and case studies will be developed that describe the benefits of utilizing the new technologies. Appropriate hardware technologies identified for demonstrations in the residential new construction program are: Alternative to Compressor Cooling (CIEE & Davis Energy Group projects), Dual Source Heat Pump, Integrated New Home Design, Improved Efficiency Air Conditioning Compressors, High R (>4) Windows, Indirect-Direct Evaporative Coolers, and Evaporative Condenser Air Conditioning. Design tools appropriate for program introduction as emerging technologies are the Building Design Advisor, Tool for Comprehensive Analysis of Low-Rise Residential Buildings, and Instrumented Home Energy Rating & Commissioning.

Targeted Third Party Initiatives: Designed for Comfort

Program Description

Designed for Comfort is a targeted third party initiative which addresses multi-family housing needs, single family attached housing, military housing, and some custom homes. This is primarily a market transformation program that targets specific market barriers to bring about a change in the way multi-family homes are built so that energy efficiency becomes a design intent, thus making it easier to incorporate energy efficiency options into the building process. Minimal incentives are paid to the developer and design team for incorporating energy efficiency into the homes.

1999 Results & Achievements

A Request for Proposal for a targeted third party initiative was issued in August 1999. The winning bid contracted was for a program concept of addressing energy efficiency in the design of residential multi-family housing, single family attached housing, and some custom homes.

The new program has been titled "Designed for Comfort", and complements the existing ComfortWise residential new construction program for single family housing. During 1999, the program design was completed. This program will be implemented in March 2000.

2000 Program Plans

Specific brochures will be developed and distributed that are aimed at the various parties (developers, designers, renters), explaining the benefits of the program in terms of those interested parties.

Design team seminars will be held during the year to assist and encourage exploration of energy efficiency alternatives. Direct assistance and tools will be provided to energy consultants and other members of the design team and developers.

This program provides for reviews of contractor plans in new construction of military housing. By providing plan check of contractor plans prior to construction, compliance with Title 24 requirements can be verified and areas for energy efficiency improvement can be identified.

A new Request for Proposal open to residential and nonresidential new construction will be issued for a new targeted third party initiative in 2000.

Nonresidential

Savings Through Design

Program Description

The Savings Through Design program is designed to encourage the incorporation of energy efficient technologies into the design of commercial buildings by (1) assisting architects and engineers with the design of energy efficient nonresidential new construction projects, (2) creating awareness of cost effective commercial new construction energy efficiency options within the architectural and building owner communities, and (3) offering incentives to building owners/developers to encourage the installation of energy efficient equipment which perform better than Title 24 standards.

The earlier the program is introduced into the project's design process the more likely it is that energy efficient options will be adopted. To facilitate this integration, the establishment and maintenance of close working relationships between program representatives and all market players in the design community (such as architects, designers, engineers, contractors, and developers) is essential. Technical expertise and assistance helps facilitate the design process by identifying energy saving opportunities and offering financial analyses to the building owners. Offsetting higher first-costs directly associated with high efficiency equipment and systems is also essential to energy efficiency integration.

1999 Results & Achievements

This program was operated until mid-year in 1999 when the new statewide "Savings By Design" nonresidential new construction program was implemented and California's 1998 Energy Efficiency Standards for Nonresidential Buildings (Title 24) became effective. After June 15, 1999, participants were only allowed into the earlier program if their project was permitted using the prior Title 24 standards. Projects need to be completed within 24 months from the contracts' sign date. In 1999, 94 participants in Savings Through Design committed to achieve energy savings of 20.1 gWh. All customers who have signed agreements to participate in the program are considered eligible to receive incentives based on this program's criteria.

2000 Program Plans

This program closed to new participants as of June 15, 1999. No new activities are planned.

Savings By Design

Program Description

Savings By Design is a statewide nonresidential new construction program that is closely coordinated with the other California utilities. This program is dedicated to achieving greater savings than those required under California's 1998 Energy Efficiency Standards for Nonresidential Buildings (Title 24) that became effective on July 1, 1999. Design assistance, access to tools and training, and financial incentives are offered to promote the design and installation of high efficiency building systems that perform better than Title 24 by a minimum specified amount.

The Savings By Design program targets the primary decision-makers involved with new construction projects, including architects, engineers, contractors, builders, developers, energy consultants, and building owners. Together they address all of the following: equipment efficiencies for lighting, heating, ventilation and air-conditioning; performance characteristics for glazing and other envelope components; and inclusion of energy efficient equipment such as controls, sensors, and drives. This program offers project-specific information and assistance to these decision-makers throughout the construction process.

Design Team Incentives is a strategy within Savings By Design involving energy simulation modeling and the whole building approach. This element includes a process by which design teams can document their efforts to integrate high energy efficiency systems, simulate and evaluate their energy efficient designs, identify successful installations, and be paid for their efforts and achievements. Maximized comprehensive savings will be the outcome of this "dollars to designers" approach that relies on whole building simulation. Architects and engineers who spend additional design time on projects will be paid in relation to the energy saving options modeled and actual measures that are installed in the completed project. Utilizing the whole building approach, greater savings can be achieved by integrating the design of the building's energy systems.

The Savings By Design program also assists owners of new construction projects with financial information and incentives. The choice to include highly efficient equipment is facilitated by offering financial information regarding return-on-investment, simple-payback, and long-term savings associated with high efficiency equipment. Financial incentives, to help offset the increased first costs, are made available to owners/end-users that choose to implement energy efficiency measures. All building sizes are eligible to participate in the Savings By Design program. All new construction end uses and technologies are eligible.

1999 Results & Achievements

Under the Savings By Design program, which uses 1998 Title 24 Standards as the base-case, this program has committed to achieve energy savings of 7.4 gWh. Design Team Incentive agreements were signed and monies committed for eight projects using the whole building approach.

Activity in the program was promoted through statewide workshops and seminars. Three workshops were held in San Diego with 211 architects, contractors, engineers, and designers attending overall.

2000 Program Plans

SDG&E will continue to administer and implement this program in coordination with the other California utilities to ensure statewide consistency for design teams and other market participants. Schools will be one of the areas that this program will focus activity in 2000. Along with cooperatively developing design guides for schools, each utility will identify a school in a specific climate zone to develop as a demonstration project to highlight energy efficiency in school buildings.

Nonresidential Design Assistance

Program Description

The Design Assistance program targets design teams working on large (over 10,000 square feet), new construction projects. Increased opportunities for the incorporation of energy efficiency occur early in the design process, with the greatest energy savings achieved by coordinated design team efforts. To effectively influence and integrate the design process, a commitment to aid the team throughout the construction project is also necessary.

Design assistance includes providing access to tools, resources, and experts in the energy efficiency field. Assistance provided by SDG&E can include reviewing conceptual plans, providing energy simulation modeling, and recommending enhancements in equipment and building systems. Seminars dedicated to training design teams to use energy evaluation tools are provided, as well as updates regarding changes to the energy standards. Promotional publications and trade journal articles are created and circulated to recognize successful projects and coordinated design team efforts.

1999 Results & Achievements

By year-end, 33 major projects had been reviewed with recommendations provided to the project design teams. Promotion of SDG&E's program at seminars and workshops further increased awareness of the benefits of adopting energy efficient technologies. "Progress Through Design", a publication of successful project testimonials and energy efficiency resource information, was distributed in the fall of 1999 to approximately 3,000 architects, engineers, and building owners.

2000 Program Plans

Beginning in 2000, the Nonresidential Design Assistance program will be incorporated into a statewide program entitled, "**Energy Design Resources**". This new statewide program provides benefits for all market actors by making the resources developed available through a variety of media, including a website where existing tools and enhanced resources are made available for free downloading. Quarterly industry newsletters are published, targeting key decision-makers in six strategic segments of the new construction industry that highlight and promote the advantages of energy efficient facilities. Also offered are on-going seminars and educational opportunities aimed at design professionals desiring to upgrade their energy efficiency knowledge and skills.

This information-based program is designed to work in concert with the Savings By Design program that provides incentives directly to designers who undertake an integrated energy design process to increase the energy efficiency of the buildings they design. Many of the tools and training that designers need to optimize their participation in Savings By Design are offered through Energy Design Resources.

SDG&E and the other utilities will coordinate activities in this program to further enhance the tools, case studies, and training made available through Energy Design Resources. Consistent training, applicable tools, distribution of design briefs and informational newsletters will be expanded and offered throughout the participating utilities' service territories.

Efficient Relocatable Class Demo Program (PERC)

Program Description

Program efforts are aimed at influencing the selection process used by school districts to obtain relocatable classrooms. Efforts by other utilities have targeted the manufacturers of relocatable classrooms, while activities by SDG&E have been dedicated to the incorporation of high efficiency equipment. Additional work is necessary to encourage school districts to value, select and specify these more efficient products.

1999 Results & Achievements

Program efforts in 1999 worked to demonstrate the value and savings associated with the utilization of premium efficiency relocatable classrooms. Various school districts were presented with information regarding the benefits of energy efficiency and provided with incentives in their district for their commitments to purchase and install enhanced relocatables.

2000 Program Plans

After review and discussion with the statewide utilities, this program was incorporated into the Savings By Design program.

Other

Codes and Standards Support, Local Government Initiatives

Program Description

This program involves working with state and local governments to facilitate, educate, train and support people who implement and develop energy codes, standards and initiatives. It utilizes local government agencies and the San Diego Regional Energy Office ("SDREO") for promotion and implementation. SDREO promotes the new construction programs under the title, "Community Energy Efficiency Programs". All residential and nonresidential new construction end uses and technologies are eligible.

The Codes and Standards element of this program involves a range of activities supporting implementation of existing codes.

The Local Government Initiatives program element recognizes the importance of city and county enforcement authorities and their ability to guide standards change and introduce energy initiatives into their General Plans.

1999 Results & Achievements

Utilizing the services of the San Diego Regional Energy Office, approximately 90 agencies were contacted during 1999 and informed about SDG&E's energy efficiency programs. Additionally, 33 leads were submitted by SDREO as potential Savings By Design program participants. Presentations regarding residential and nonresidential programs were given to organizations and local government agency personnel, such as the Port of San Diego, City of San Diego, and at various San Diego city and county school districts.

2000 Program Plans

Under the Codes and Standards element, techniques to improve availability and use of code training will be developed and implemented. New, voluntary design guidelines that exceed current efficiency requirements will be developed. Participation in local, state and national code and standards development and upgrade efforts will be supported.

Since the public benefit of any standard or code is only realized if it is implemented, opportunities to increase compliance among practitioners and enforcement officials will be encouraged through Local Government Initiatives. Additionally, efforts will be directed at influencing local governments to incorporate energy efficiency policies.

The SDREO will continue to conduct a targeted program of information dissemination, outreach and training of local government entities to increase the rate of adoption of nonresidential new construction design practices that deliver energy efficiency and high performance building design. This program's goal is to have eight distinct government or public agencies sign Savings By Design contracts showing their support and intention to pursue high performance energy standards during 2000. Four Building Official Energy Code Training workshops will be held during the year that target applications specific to governmental and public agencies.

TABLE 4.1
SUMMARY OF COSTS:
NEW CONSTRUCTION PROGRAM AREA

Electric and Gas Combined

	1999			2000	
	Authorized	Budgeted	Recorded	Authorized	Budgeted
Residential	$1,900,000	$1,900,000	$2,150,492	$2,248,000	$2,248,000
Nonresidential	$2,500,000	$2,500,000	$2,358,818	$2,216,000	$2,216,000
Other	$400,000	$400,000	$397,781	$449,000	$449,000
Total	$4,800,000	$4,800,000	$4,907,091	$4,913,000	$4,913,000

Electric Only

	1999			2000	
	Authorized	Budgeted	Recorded	Authorized	Budgeted
Residential	$1,625,000	$1,625,000	$1,808,793	$1,937,000	$1,937,000
Nonresidential	$2,020,000	$2,020,000	$1,970,237	$1,828,000	$1,828,000
Other	$200,000	$200,000	$198,891	$382,000	$382,000
Total	$3,845,000	$3,845,000	$3,977,920	$4,147,000	$4,147,000

Gas Only

	1999			2000	
	Authorized	Budgeted	Recorded	Authorized	Budgeted
Residential	$275,000	$275,000	$341,699	$311,000	$311,000
Nonresidential	$480,000	$480,000	$388,581	$388,000	$388,000
Other	$200,000	$200,000	$198,891	$67,000	$67,000
Total	$955,000	$955,000	$929,171	$766,000	$766,000

Table 4.2
Summary of Energy Efficiency Program Effects: New Construction Program Area
Program Year: 1999

(Annual Energy Reductions, Electric, mWh)

	1999 (Recorded)	2000 (Planned)	2000 (Planned) With Indirect Benefits*
Residential	3,043	3,465	3,766
Nonresidential	19,022	9,450	9,450
Total	22,065	12,915	13,216

(Annual Energy Reductions, Natural Gas, Therms, 000's)

	1999 (Recorded)	2000 (Planned)	2000 (Planned) With Indirect Benefits*
Residential	20	30	32
Nonresidential	17	263	263
Total	37	293	294

* Market Effects benefits only.

Table 4.3
Summary of Cost-Effectiveness: New Construction Program Area
Program Year: 1999

(Benefit-Cost Ratios)

	1999 (Recorded)		2000 (Planned)			
	Utility Cost Test	Total Resource Cost Test	Utility Cost Test	Total Resource Cost Test	Public Purpose Test[1]	PPT with Indirect Costs and Benefits[1,2]
Residential	0.84	0.44	1.42	1.06	1.21	0.87
Nonresidential	2.68	1.25	2.96	1.98	2.28	2.28

1. PPT does not include MA&E and Shareholder Earnings.
2. Market Effects benefits and costs only.

Table 4.4
Summary of Cost-Effectiveness: New Construction Program Area
Program Year: 1999

(Net Benefits, $MILL)

	1999 Recorded	2000 Planned TRC	2000 Planned PPT	2000 Planned With Indirect Benefits*
Residential	$1,962	$2,056	$2,359	$2,517
Nonresidential	$6,856	$5,218	$6,014	$6,014
Total	$8,818	$7,274	$8,373	$8,531

* Market Effects benefits only.

Market Assessment & Evaluation and Regulatory Oversight

The primary purposes and contents of the Market Assessment &Evaluation (MA&E) section is: (1) record costs (previous calendar year and current calendar year) associated with MA&E activities; and, (2) to highlight the status of various market assessment and evaluation studies. Studies used to demonstrate performance per an adopted shareholder performance incentive, studies that measure the status and or changes in the energy efficiency industry and/or energy efficiency products, and studies that measure other effects of identified programs.

Measurement for Program Administrative Incentives

These studies are designed primarily to support performance incentives milestones. These studies also provide valuable information to enhance continuing program design.

Residential Programs—1999 Programs

Baseline Study for Residential HVAC

1999 SDG&E Upstream HVAC Program & Training Baseline Analysis Report

Proctor Engineering Group

August 1999

Proctor Engineering Group (PEG) was retained by San Diego Gas & Electric (SDG&E) to establish a baseline for the residential air conditioner replacement market in SDG&E's service territory. This report details the findings of this investigation, which was designed to establish the status of the existing HVAC infrastructure within SDG&E's service territory. The goal of the investigation was to establish a baseline from which the SDG&E 1999 Upstream HVAC program started. Specifically the investigation focused on the process by which replacement air conditioners are currently sold and installed, and barriers to influencing the market to choose higher SEER, properly sized and installed equipment.

The SDG&E 1999 Upstream HVAC program encompassed two strategies. The first strategy has the goal of influencing the market by providing an incentive for distributors to stock higher efficiency air conditioners. This program is available to distributors that sell HVAC equipment within SDG&E territory for residential and commercial uses. The incentive covers package and split system air conditioners both air-cooled and water or evaporatively cooled.

The second strategy involved providing training for the installing contractors on the proper sizing, selection, installation and commissioning of air conditioners and duct systems. The goal of the training is to not only to inform the contractors of the proper design, sizing and installation of air conditioners but to get them to change the way that they design, size, and install systems.

The current air conditioning replacement market involves four prime actors; homeowners, manufacturers, distributors, and HVAC contractors. SDG&E is concentrating its efforts to change the market by incenting the distributors to stock higher efficiency air conditioners with the anticipation that these incentives will be passed on to both the contractors and homeowners in the form of lower cost high SEER air conditioners. The level of incentive is established at $20

per ton per SEER point upgrade for residential air conditioners. The minimum SEER level to qualify for the program is SEER 12.

The study included contacting the players involved in the process leading to the replacement of a central air conditioner. The goal was to establish how the current infrastructure operates and barriers that exist to market transformation. This report presents the results of this investigation and the baseline from which program impacts can be judged.

Evaluation of Residential HVAC

Evaluation of the 1999 SDG&E Residential Upstream HVAC Training: Air Conditioner Sizing

Proctor Engineering Group

December 1999

Proctor Engineering Group (PEG) was retained by SDG&E to evaluate the effectiveness of a program aimed at changing the way residential contractors calculate the cooling load and select an air conditioner for new and replacement installations. This report details the findings of this investigation.

Numerous studies (eleven listed in Neme et al. 1999[1]) have shown that residential air conditioners are consistently selected improperly (oversized) and that proper cooling load calculations have not been completed. These errors are responsible for many problems including: high static pressures in the ducts and low air flow across the coil, high watt draw from the indoor fan, elevated cooling costs, distribution problems resulting in discomfort, higher initial equipment cost, noise, and durability issues.

Adoption of proper load calculation procedures and equipment selection would make a major improvement in this situation.

The SDG&E 1999 Residential Upstream HVAC Training program intervened into the market by providing training and follow up contact with installation contractors. The training included proper load calculation according to Air Conditioning Contractors of America (ACCA) Manual J (Manual J) and proper equipment selection according to ACCA Manual S (Manual S).

Baseline Study for Residential Lighting

The 1999 SDG&E Residential Lighting Milestones

Xenergy

September 1999

XENERGY used a combination of approaches to describe and quantify the target market for hard-wired fixtures and torchieres in the SDG&E territory. XENERGY's integrated approach relied on both primary and secondary data sources. The steps implemented to develop the information necessary to meet this milestone consisted of the following: identification of relevant reports in the baseline data sources study conducted by XENERGY for the California Board for Energy Efficiency (CBEE); supplementing identified reports with additional relevant studies, articles, and reports, interviewing a random sample of lighting retailers, wholesalers/distributors

[1] "National Energy Savings Potential from Addressing Residential HVAC Installation Problems" is a comprehensive compilation of studies on AC installation problems (including sizing).

and customers in the SDG&E service territory; compiling lighting product manufacturer information from program implementers; and extracting and synthesizing relevant data and information from these sources.

Evaluation of Residential Lighting

The 1999 SDG&E Residential Lighting Milestone Measurement

SDG&E

March 2000

One of the milestones for this program was to increase the number of participating ENERGY-STAR® lighting fixtures and torchieres shipped to local retailers. In 1998, 91,886 qualified lighting fixtures and torchieres were shipped to local retailers. In 1999, this number increased to 120,656 which represents an increase of 31% in of the number of shipped ENERGY-STAR® lighting fixtures and torchieres from 1998 to 1999.

Baseline Study for Residential Appliances

The 1999 SDG&E Residential Appliance Milestone

Xenergy

September 1999

XENERGY used a combination of approaches to describe the residential appliance market in the SDG&E territory, relying on both primary and secondary data sources. The steps implemented to develop the information necessary to meet this milestone consisted of the following: identification of relevant reports in the baseline data sources study conducted by XENERGY for the CBEE; supplementing identified reports with additional relevant studies, articles, and reports, interviewing a random sample of lighting retailers, wholesalers/distributors and customers in the SDG&E service territory; compiling lighting product manufacturer information from program implementers; and extracting and synthesizing relevant data and information from these sources.

Evaluation of Residential Appliances

The 1999 SDG&E Residential Appliances Milestone Measurement

SDG&E

January 2000

One of the milestones for this program was to continue building a bigger base of retailer participation. As participants, retailers agree to promote the appliances in their stores with point of purchase materials. They also agree to conduct ongoing training to sales staff who in turn can better inform consumers of the benefits of buying and energy efficient appliances. SDG&E's goal was to increase the number of participating retailers over the 1998 participation level. In 1998, 57 retailers participated in our program efforts. Through field visits and the development of retailer relationships, more department and store managers became supportive of this program. By the end of 1999, a total of 81 retailers in the San Diego market were participating in SDG&E's appliance program, representing an increase of 42% of the number of local participating ENERGY STAR® dealers.

Residential Programs—2000 Programs

Evaluation of Residential Lighting Program

SDG&E will conduct a study to determine the change in the number of indoor/outdoor fixture manufacturers offering ENERGY STAR® rated products in San Diego County over the 1999 baseline. This study will be coordinated within the planned statewide study on lighting and appliances which SDG&E will project-manage. The study will be completed by April 2001.

SDG&E will also conduct a study to determine the effectiveness of training lighting sales associates on ENERGY STAR® products. Information will be collected on an on-going basis parallel with program implementation/training. This study will be coordinated within the planned statewide study on lighting and appliances which SDG&E will project-manage. The study will be completed by April 2001.

Evaluation of Residential Appliances Program

SDG&E will conduct the following three studies.

A study to determine the change in the floor stock of ENERGY STAR® rated clothes washers, room air conditioners, and dishwashers over the 1999 baseline. This study will be coordinated within the planned statewide study on lighting and appliances which SDG&E will project-manage. The study will be completed by April 2001.

A study to determine the change in the floor stock of qualifying 2001 DOE compliant refrigerators over the 1999 baseline. This study will be coordinated within the planned statewide study on lighting and appliances which SDG&E will project-manage. The study will be completed by April 2001.

A study to determine the effectiveness of training appliance sales associates on ENERGY STAR® products to determine the increase in the number of associates who are knowledgeable and aware of energy efficient appliance technologies over the 1999 baseline. Information will be collected on an on-going basis parallel with program implementation/training. This study will be coordinated within the planned statewide study on lighting and appliances which SDG&E will project-manage. The study will be completed by April 2001.

Evaluation of Residential Crosscutting Programs

SDG&E will conduct follow-up surveys to determine if there has been an increase in the number of customers who implement one or more of the recommendations received from energy efficient materials or audits. The study will be completed by April 2001.

Evaluation of Residential HVAC Program

SDG&E will conduct follow-up surveys to determine if there has been an increase in the number of contractors who use ACCA Manuals J & S over the 1999 baseline or the increase in knowledge and awareness of diagnostic and maintenance techniques. The study will be completed by April 2001.

Evaluation of Residential Renovation & Retrofit Program

SDG&E will determine if there has been an increase in the number of Residential Contractor Program contractors with expertise in duct testing/whole system approach. Information will be collected on an on-going basis parallel with program implementation. The study will be completed by April 2001.

Evaluation of Other Residential Programs

SDG&E will determine the number of contractors that offer services to multi-family property owners/property managers through performance contracting. The study will be completed by April 2001.

SDG&E will also determine the number of customers that applied for an energy efficiency mortgage in 2000. The study will be completed by April 2001.

Nonresidential Programs—1999

Baseline Study for Small Nonresidential Comprehensive Retrofit Program

Small Business Standard Performance Contract Program: Market Characterization
RER
September 1999

This report presents a market characterization of the small business sector market for energy efficiency in SDG&E's service territory. It is designed to meet the small business standard performance contract (SBSPC) market characterization milestone.[2] For the purposes of this study, a small business is defined as one with less than 500 kW in peak demand.

This market characterization includes a description of the number of market actors participating in the market, the role of each of the market actors, and customer attitudes and perceptions of performance contract programs including SDG&E's SBSPC program.

The remainder of this report provides a brief overview of the data used in the analyses, a summary of the key market characteristics identified during the study, and a description of the small commercial sector customers and other market actors.

Small Nonresidential Comprehensive Retrofit Program Measurement Plan

Small Standard Performance Contract—Milestone Measurement Plan
SDG&E
September 1999

SDG&E held three workshops for small and medium sized customers (those with load of less than 500 kW) to educate them on performance contracting options for the installation of energy efficient measures. SDG&E had program milestones adopted to formulate its earnings awards for the program and to provide useful measurements of the workshops' effectiveness (see Resolution E-3578, dated March 18, 1999). One two-part milestone was to conduct a baseline

[2]As adopted in Resolution E-3578, March 18, 1999.

study to estimate the size of the target market for the program and to then develop (by September 1999) and implement (during the spring of 2000) the measurement plan presented here.

The measurement plan is to directly estimate the change, due to the workshops, in the level of customers' willingness to consider offers from performance contractors. The data for the plan will come from direct survey-based questioning of attendees at the latest of the three workshops. Details follow regarding the measurement milestone (the second part of the first milestone and the second milestone in its entirety), the questioning of the workshop attendees and the resulting data, and the specifics of the measurement method in light of the milestones.

Evaluation of the Small Nonresidential Comprehensive Retrofit Program

Small Standard Performance Contract—Milestone Measurement Plan Results
SDG&E
December 1999

The measurement plan was to directly estimate the change, due to the workshops, in the level of customers' willingness to consider offers from performance contractors. The data for the plan came from direct survey-based questioning of attendees at the latest of the three workshops. Details follow regarding the measurement milestone (the second part of the first milestone and the second milestone in its entirety), the questioning of the workshop attendees and the resulting data, and the specifics of the measurement method in light of the milestones.

Nonresidential Programs—2000

Evaluation of Small Nonresidential Comprehensive Retrofit Program

SDG&E will conduct a study to estimate the increase in saturation of high efficiency clothes washers (commercial) over the 1999 level. The study will be completed by April 2001.

Evaluation of Large Nonresidential Comprehensive Retrofit Program

SDG&E will conduct a study to estimate the change in seminar workshop attendees that indicate a willingness to adopt measures and techniques discussed at the workshops. Information will be collected on an on-going basis parallel with program implementation. The study will be completed by April 2001.

Evaluation of Nonresidential High Efficiency HVAC Equipment Program

SDG&E will conduct a study to estimate the change in high efficiency HVAC units stocked over the 1999 level. The study will be completed by April 2001.

Evaluation of Nonresidential High Efficiency Motors Program

SDG&E will conduct a study to determine the market share of Consortium of Energy Efficiency rated motors. The study will be completed by April 2001.

New Construction Programs—1999

Baseline Study for Non-Residential New Construction

SDG&E Market Actors Study - Final Report

RLW Analytics

July 1999

This report describes the community of architectural and engineering firms that worked on nonresidential new construction (NRNC) projects in California and in SDG&E's service territory between 1995 to 1998, using the F. W. Dodge New Construction Project Starts data for the four years. The report describes: statewide construction trends, construction trends in the SDG&E area, market actors in California and in the SDG&E area.

Here are some highlights of the study.

1. There were about 5,000 new projects in the California NRNC market per year, involving about 18 billion dollars of construction per year.
2. The NRNC market experienced a slump in new project starts in 1996, especially for smaller projects that responded more quickly to the changes in the economic conditions. Due to the momentum of large projects, the total valuation of construction starts did not fall until 1997. The NRNC market enjoyed a very strong recovery in 1998.
3. Offices dominated the valuation and square footage of the NRNC market, followed by the 'other' category, retail and schools. In terms of the number of projects, the market was equally divided between new and alteration/renovation. But new projects dominate the market in terms of valuation and square footage. Over 70% of all valuation was in private projects.
4. The NRNC market was served by over 7,100 architectural and engineering firms, including over 5,100 architectural firms, almost 1,500 engineering firms, and about 500 joint firms.
5. Extra large firms who work primarily on new projects served almost 85% of the total valuation in the NRNC market.

Non-Residential New Construction Measurement Plan

Commercial, Industrial and Agricultural New Construction —Milestone Measurement Plan

SDG&E

September 1999

The measurement plan is to estimate whether energy design workshop attendees plan to increase the efficiency of their designs by 10% or more, due to the training. The data for the plan will come from direct survey-based questioning of attendees. Details follow in the report regarding the measurement milestone, the questioning of the workshop attendees and the resulting data, and the specifics of the measurement method in light of the milestone.

Evaluation of the Non-Residential New Construction Program

Commercial, Industrial and Agricultural New Construction —Milestone Measurement Plan Report
SDG&E
January 2000

The measurement plan was to estimate whether energy design workshop attendees plan to increase the efficiency of their designs by 10% or more, due to the training. The data for the plan came from direct survey-based questioning of attendees. Details follow in the report regarding the measurement milestone, the questioning of the workshop attendees and the resulting data, the specifics of the measurement method in light of the milestone, and results.

New Construction Programs—2000

Evaluation of Nonresidential New Construction Program

SDG&E will conduct follow-up surveys to the whole building approach seminar to estimate the percent of decision makers and design professionals that understand the key concepts from the training. Information will be collected on an on-going basis parallel with program implementation/training. The study will be completed by April 2001.

SDG&E will conduct a study to determine the increase of market share of new building designs that exceed the 1998 Title 24 Standards. The study will be completed by April 2001.

Demand Assessment

These studies include the CEC Data Collection, Database of Energy Efficient Resources updates and energy efficiency market assessment studies.

CEC Data Collection And Analysis[3]

These activities are significantly impacted by California Energy Commission (CEC) regulations which mandate various kinds of specific data to be collected and transmitted to the CEC for use in energy planning proceedings, California Code of Regulations (CCR), Title 20, §1344 regarding Data Collection and Analyses Plans.

Resolution E-3592 provided the CEC with funds to conduct these studies on a statewide basis. In 1999 and 2000, SDG&E provides the CEC with its share of the statewide funds on a semi-annual basis.

Energy end-use data gathered through customer surveys have long been used for market monitoring, policy analysis, energy demand forecasting, measuring energy efficiency within the marketplace, and can help identify the key market transformation information elements of market size and market share for efficient technologies and practices by customer class, climate area, and building type. The CEC historically has collected this information from the state's regulated utilities as required by the California Code of Regulations, Title 20. Funding of these data collection efforts by investor owned utilities was through Public Utilities Commission approval of utility Demand Side Management program evaluation efforts, until AB1890 failed to identify a funding mechanism for Title 20 data collection efforts. Transfer of Public Goods Charge funds to the CEC for residential and commercial surveys maintains data fundamental to state energy policy, and provides a way for utilities to comply with Title 20 survey requirements for the residential and commercial sectors. The CEC is also evaluating strategies to meet industrial sector survey needs. At the same time, however, the CEC is committed to pursuing a source of funding to ensure that all data fundamental to sound state energy policy analysis will be available over time.

Commercial End Use Survey (CEUS)

The Commercial End Use Survey will collect and analyze appliance and 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. In addition to collecting individual building characteristic data, 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 engineering models will also be used to analyze the impacts of different load management options across the commercial sector. Year 1999 funding approved for the commercial survey effort ($1.7 million) only covers one-half the cost of this survey. The remaining half is expected to be funded in the year 2001.

[3] The following write-up on the CEC Data Collection and Analysis was provided by the CEC.

Residential Appliance Saturation Survey (RASS)

The RASS will gather basic information on building characteristic, appliance holdings, demographic data, billing history, awareness of energy efficiency measures and programs and on load shifting opportunities and behavior. It is anticipated that the residential survey design will incorporate mail, telephone, and in-person elements. An on-site element would be used to verify results from the mail survey and collect data not reliably collected in mail surveys. Implementation of the RASS in 2000 is contingent upon the expectation of energy efficiency Public Goods Charge funding of CEC data collection in 2001. If this funding is not expected to be forthcoming, the CEUS will be fully funded in 2000 and the RASS will be delayed indefinitely.

Improvements to the Database of Energy Efficient Resources (DEER)

The DEER was designed to be a repository of costs and energy impacts for all known commercially available efficiency measures, but its estimates of costs and energy savings are now outdated. An update of the measure cost and residential peak and energy savings portions of the database is beginning, thus accelerating activities that were previously planned for 2001. This update will use 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 to be included in the database will be revised and prioritized in consultation with utilities and other program planning stakeholders. In the second half of 2000, we will evaluate ways to enhance access to and usability of the DEER.

Energy Efficiency Market Assessment Studies

Residential Programs—1999 Programs

Residential Lighting & Appliance Programs

Phase I Baseline Assessment for the Statewide Residential Lighting and Appliance Program Final Report

Xenergy

December 1999

Summaries of the key findings from the Phase I Study:

The *volume of purchases* within the scope of the program *is enormous.* Annual purchase rates for target appliances range from 1.8% of the population for room air conditioners (168,000 units total) to 7.6% of the population for refrigerators (710,000 units total). For targeted lighting products, a third of the population purchase roughly 60 million light bulbs per year, 6.6% of the population purchase about 1 million torchieres per year, and 7.4% of the population purchase approximately 2.3 million hard-wired fixtures.

Most appliance purchasers are aware that there are different levels of efficiency available. However, based on telephone surveys, customers continue to significantly misreport the efficiency levels of appliances purchased. Lighting purchasers are currently much less aware that there are a range of efficiency levels available. Interestingly, *customers are ignorant with respect to whether or not they purchased high-efficiency appliances*, but are often unaware of that ignorance. Half of customers believe they purchased a high-efficiency appliance, one

quarter believe they did not, and about one quarter say that they do not know. However, *there is no correlation between whether customers report they purchased high-efficiency appliances and whether they actually did* (as determined by model numbers obtained for a sub-sample of phone respondents).

Buyers are much more concerned about price and features than energy efficiency. Operating costs are rarely considered one of the most important factors in appliance and lighting purchase decisions. In addition, c*ustomers tend to underestimate incremental costs and overestimate savings* for high-efficiency lighting and appliances, resulting in implied payback estimates that are significantly less than actual.

Residential Programs—2000 Programs

Statewide Residential Lighting and Appliance Market Transformation Programs: Market Effects Study

This study is divided into four phases. The first phase was completed in 1999. The second phase of the study will consist of the completion of a series of market effects studies that evaluate the progress of these programs towards market transformation. The study will collect pertinent data necessary track the market indicators identified in Phase 1 of the study; assess the market effects of these energy efficiency programs. XENERGY is the selected contractor while SDG&E manages the project.

Statewide Residential Lighting and Appliance Inventory Study

This study will develop a statewide database of lighting and appliance saturation by efficiency from 1,000 on-site residential surveys. This requires the auditor to record the manufacturer, model number and other characteristics and then match that information with efficiency databases sponsored by the CEC and others. This study will also determine market barriers to residential lighting efficiency and provide the sponsoring utilities with analysis software to access the efficiency database. RLW Analytics is the selected contractor while SDG&E manages the project.

Nonresidential Programs—1999

SDG&E did not conduct any utility-specific market assessment studies in the non-residential program area. SDG&E co-funded two of the statewide studies on Energy Efficiency Market Assessment that were conducted by the CEC.

Nonresidential Remodeling and Renovation[4]

The nonresidential remodeling and renovation study will characterize the decision-making process and types of activity within this market event and define its distinct features. The study will use these results to identify targeted strategies to facilitate energy efficient investment during remodeling and renovation and identify market segments with high potential for energy savings. The target audience is policy makers, utility program managers and other participants in

[4] The following write-up on the CEC Data Collection and Analysis was provided by the CEC.

the program planning and evaluation process. For the second half of 2000, other plans include a study of opportunities for market transformation of high efficiency gas appliances during renovation and remodeling, and an analysis of remodeling and renovation sites in the recent new construction survey. New information on attitudes and barriers specific to the remodeling and renovation market will be combined with survey results and DOE-2 simulations to evaluate distinctions between the new construction and remodeling and renovation markets. Also, an in-house literature review is underway to collate information from studies that have touched on the market on a piecemeal basis.

These plans are expected to evolve as a result of the 2001 planning process; while funding delays slowed the start of research, the CEC is now in a position to initiate 2001 research projects and avoid future delays.

Nonresidential Market Share Tracking Study[5]

This study will track and analyze the adoption of commercial and industrial energy efficiency services and products in California. The study will identify key measures, collect data on these measures, and process the data into parameters for an efficiency market share tracking database. These market shares will be used as indicators of both the effectiveness of individual programs as well as the extent to which markets have been transformed. The initial contract will begin in June 2000 and provides funding for two years of data collection. Major categories of measures to be tracked include motors, refrigeration, chillers, energy management systems, windows, lighting, and compressed air.

Nonresidential Programs—2000

SDG&E does not plan to conduct any utility-specific market assessment studies in the non-residential program area.

The CEC will continue the statewide studies that were begun in 1999.

New Construction—1999

SDG&E did not conduct any utility-specific market assessment studies in the new construction program area.

New Construction—2000

SDG&E does not plan to conduct any utility-specific market assessment studies in the new construction program area.

[5] The following write-up on the CEC Data Collection and Analysis was provided by the CEC.

Regulatory Oversight

Regulatory Compliance and Reporting

Regulatory Compliance and Reporting is designed to capture activities that are undertaken to meet regulatory reporting oversight, and other obligations and that are not included in Market Assessment & Evaluation activities. It consists of those activities needed to verify, collect, and report descriptive and technical information related to the achievements and scope of all authorized energy efficiency programs. Examples are advice letter filings, annual energy efficiency reports, filings for performance incentives, and other energy efficiency proceedings including attendance at CBEE meetings, workshop participation, testimony, hearings, and data requests and responses.

CBEE Oversight Costs

Oversight costs include SDG&E's allocation for the CBEE's budget and expenditures. In 1999, SDG&E paid $231,175 of the CBEE's expenditures. This also includes monies that the CBEE set aside and that SDG&E did not have authorization to spend.

TABLE 5.1
MARKET ASSESSMENT & EVALUATION EXPENDITURES (MA&E)

Electric and Natural Gas Combined

	1999 ($000)			2000 ($000)	
Cost Category and Element	Authorized	Budgeted	Recorded [1]	Authorized	Budgeted
Measurement for Program Admin Incentives					
1. Utility Studies Reports for PY 98 Programs	$0	$0	$0	$0	$0
2. Utility Studies Reports for PY 99 Programs	$435	$435	$117	$210	$210
Total Measurement for Program Admin Incentives	$435	$435	$117	$210	$210
Demand Assessment					
1. Customer Data for CEC: Utility Costs	$0	$50	$0	$0	$0
2. Customer Data Analysis: CEC costs (cost of studies) [2]					
3. DEER Updates [3]					
Total CEC Data Collection Costs	$287	$337	$287	$287	$287
4. EE Market Assessment (Res Program Area)	$731	$731	$962	$535	$535
5. EE Market Assessment (NonRes Program Area) [4]	$174	$174	$174	$414	$414
6. EE Market Assessment (NC Program Area)	$0	$0	$0	$175	$175
7. EE Product Assessment (all Markets) [4]	$0	$0	$0	$0	$0
Total Demand Assessment	$1,192	$1,242	$1,423	$1,411	$1,411
Total EE Market Assessment Costs	$1,627	$1,677	$1,540	$1,621	$1,621
Other Program Evaluation Studies:					
1. General	$0	$0	$0	$0	$0
2. PY98, Residential	$0	$0	$0	$0	$0
3. PY98 Nonresidential	$0	$0	$0	$0	$0
4. PY98 New Construction	$0	$0	$0	$0	$0
5. PY99, Residential	$0	$0	$0	$0	$0
6. PY99 Nonresidential	$0	$0	$0	$0	$0
7. PY99 New Construction	$0	$0	$0	$0	$0
M&E Total	$1,627	$1,677	$1,540	$1,621	$1,621
Regulatory Oversight					
Regulatory Compliance and Reporting (utility) [6]	$0	$0	$46	$0	$0
Oversight Costs					
1. CBEE Operating Costs [5]	$282	$282	$231	$0	$0
2. Other [7]	$0	$0	$0	$282	$282
Total MA&E and Oversight	$1,909	$1,959	$1,817	$1,903	$1,903

Notes:
[1] Recorded costs include actual and committed costs.
[2] See Table 5.3
[3] see Table 5.3
[4] This includes both SDG&E and CEC Nonres studies. (See Table 5.3 for CEC statewide studies.)
[5] The CBEE will no longer function in 2000 per D.00-02-045.

TABLE 5.1 (Cont.)
MARKET ASSESSMENT & EVALUATION EXPENDITURES (MA&E)

Electric Only

	1999 ($000)			2000 ($000)	
Cost Category and Element	Authorized	Budgeted	Recorded	Authorized	Budgeted
Measurement for Program Admin Incentives					
1. Utility Studies Reports for PY 98 Programs	$0	$0	$0	$0	$0
2. Utility Studies Reports for PY 98 Programs	$370	$370	$99	$179	$179
Total Measurement for Program Admin Incentives	$370	$370	$99	$179	$179
Demand Assessment					
1. Customer Data for CEC: Utility Costs.	$0	$43	$0	$0	$0
2. Customer Data Analysis: CEC costs (cost of studies)	$0	$0	$0	$0	$0
3. DEER Updates	$0	$0	$0	$0	$0
Total CEC Data Collection Costs	$244	$286	$244	$244	$244
4. EE Market Assessment (Res Program Area)	$621	$621	$818	$455	$455
5. EE Market Assessment (NonRes Program Area)	$148	$148	$148	$352	$352
6. EE Market Assessment (NC Program Area)	$0	$0	$0	$149	$149
7. EE Product Assessment (all Markets)	$0	$0	$0	$0	$0
Total Demand Assessment	$1,013	$1,056	$1,210	$1,199	$1,199
Total EE Market Assessment Costs	$1,383	$1,425	$1,309	$1,378	$1,378
Other Program Evaluation Studies:					
1. General	$0	$0	$0	$0	$0
2. PY98, Residential	$0	$0	$0	$0	$0
3. PY98 Nonresidential	$0	$0	$0	$0	$0
4. PY98 New Construction	$0	$0	$0	$0	$0
5. PY99, Residential	$0	$0	$0	$0	$0
6. PY99 Nonresidential	$0	$0	$0	$0	$0
7. PY99 New Construction	$0	$0	$0	$0	$0
M&E Total	$1,383	$1,425	$1,309	$1,378	$1,378
Regulatory Oversight					
Regulatory Compliance and Reporting (utility) Oversight Costs	$0	$0	$39	$0	$0
1. CBEE Operating Costs	$282	$282	$231	$0	$0
2. Other	$0	$0	$0	$282	$282
Total MA&E and Oversight	$1,665	$1,707	$1,540	$1,660	$1,660

TABLE 5.1 (Cont.)
MARKET ASSESSMENT & EVALUATION EXPENDITURES (MA&E)

Gas Only

	1999 ($000)			2000 ($000)	
Cost Category and Element	Authorized	Budgeted	Recorded	Authorized	Budgeted
Measurement for Program Admin Incentives					
1. Utility Studies Reports for PY 98 Programs	$0	$0	$0	$0	$0
2. Utility Studies Reports for PY 98 Programs	$65	$65	$18	$32	$32
Total Measurement for Program Admin Incentives	$65	$65	$18	$32	$32
Demand Assessment					
1. Customer Data for CEC: Utility Costs.	$0	$8	$0	$0	$0
2. Customer Data Analysis: CEC costs (cost of studies)	$0	$0	$0	$0	$0
3. DEER Updates	$0	$0	$0	$0	$0
Total CEC Data Collection Costs	$43	$51	$43	$43	$43
4. EE Market Assessment (Res Program Area)	$110	$110	$144	$80	$80
5. EE Market Assessment (NonRes Program Area)	$26	$26	$26	$62	$62
6. EE Market Assessment (NC Program Area)	$0	$0	$0	$26	$26
7. EE Product Assessment (all Markets)	$0	$0	$0	$0	$0
Total Demand Assessment	$179	$186	$213	$212	$212
Total EE Market Assessment Costs	$244	$252	$231	$243	$243
Other Program Evaluation Studies:					
1. General	$0	$0	$0	$0	$0
2. PY98, Residential	$0	$0	$0	$0	$0
3. PY98 Nonresidential	$0	$0	$0	$0	$0
4. PY98 New Construction	$0	$0	$0	$0	$0
5. PY99, Residential	$0	$0	$0	$0	$0
6. PY99 Nonresidential	$0	$0	$0	$0	$0
7. PY99 New Construction	$0	$0	$0	$0	$0
M&E Total	$244	$252	$231	$243	$243
Regulatory Oversight					
Regulatory Compliance and Reporting (utility) Oversight Costs	$0	$0	$7	$0	$0
1. CBEE Operating Costs	$0	$0	$0	$0	$0
2. Other	$0	$0	$0	$0	$0
Total MA&E and Oversight	$244	$252	$231	$243	$243

TABLE 5.2
MEASUREMENT FORECASTING, REGULATORY REPORTING AND CBEE OPERATING BUDGET

	1999 ($000)		2000 ($000)
Cost Category	Authorized	Recorded	Authorized
PY99 Market Assessment and Evaluation	$1,340	$1,253	$1,334
CEC Data Collection (Demand Assessment)	$287	$287	$287
Regulatory Reporting	$0	$46	$0
Other (Management Support)	$0	$0	$282
Subtotal	**$1,627**	**$1,586**	**$1,903**
CBEE Operating Budget	$282	$231	$0
Total	**$1,909**	**$1,817**	**$1,903**

Notes:
[1] Recorded costs include actual and committed costs.

TABLE 5.3
CEC MARKET ASSESSMENT & EVALUATION EXPENDITURES (MA&E)

Electric and Natural Gas Combined

	1999/2000 Transferred (2 years @ $2.9 million/year)	2000 Commited (CEC FY 99/00) [2]	2001 Planned (CEC FY 00/01) [3]	Planned Expenditures (1999-2000 Calendar Years)
Data Collection				
Commercial Building Survey			$1,700,000	$1,700,000
DEER Update		$299,780	$100,000	$399,780
Residential Survey			$3,900,000	$3,900,000
Total Data Collection	**$4,200,000**	**$299,780**	**$5,700,000**	**$5,999,780**
MA&E Statewide Studies [4]				
Nonresidential Market Share Tracking Study		$1,009,054		
Nonresidential Remodelling & Renovation Study		$250,000	$280,000	
Total MA&E Statewide Studies	**$1,600,000**	**$1,259,054**	**$280,000**	**$1,539,054**

Notes:
[1] This table was provided by the CEC and represents the total statewide funds from PG&E, SDG&E, SCE and SoCalGas.
[2] Committed = Contract signed, or RFP released and contractor soon to be selected.
[3] Planned = RFPs to be released in Summer 2000.
[4] Funds are expected pending approval of advice letter filings.
[5] SDG&E's portion is $461,000 annually for 1999 and 2000 per Resolution E-3592.

Administrative Performance Incentives

Performance Incentives Structure For 1999 Energy Efficiency Activities

SDG&E 1999 performance incentive structure was adopted by the Commission in Resolution E-3578. The milestones and awards contained in this mechanism are contingent on a fixed maximum incentives award (cap) of $3.806 million. All elements of this structure are part of a complete package, which includes the incentives cap amount.

General

SDG&E's incentives structure provides milestones for four areas as defined by the California Board for Energy Efficiency (CBEE):

- **Base Award** – Milestones in this section focus on the timing of the roll-out of programs, particularly statewide efforts.
- **Market Changes/Market Effects** – Milestones are provided for five programs to measure changes in the market associated with program activities.
- **Administrative Award** – Milestones in this section address performance in processing program activities and results achieved in certain programs.
- **Aggressive Implementation** – This section of the structure is based on the amount of authorized funds that are spent or committed during 1999.

Two levels for results (Timing/Activity) are provided for each milestone, with corresponding awards for each level. If a milestone is reached in fewer days than the lower number of days in Level 2, then the Level 1 goal has been reached. If a milestone is reached in more days than the higher number of days in Level 2, then the award is zero for the milestone. The total award amount for Level 1 awards is set at 105% of the awards cap, and the total award amount for Level 2 awards is set at 70% of the awards cap.

Unless otherwise indicated, number of days used in the Timing/Activity levels refers to calendar days.

SDG&E filed revised milestones' rollout dates in Advice Letter 1132-E-B/1124-G-B, dated May 5, 1999.

All milestones associated with MA&E or market effects studies assume that SDG&E has adequate funding for these activities.

Small/medium nonresidential customers are defined as those with connected electric loads of less than 500 kW at a contiguous site.

For purposes of determining energy savings for certain milestones and accounting for expenditures/commitments for the Aggressive Implementation award, SDG&E will include the savings and costs associated with all activities conducted in 1999, except for those related to 1998 programs (commitments for multi-year 1998 programs and close-out/reporting of 1998 programs). The following activities in 1999 are therefore included for energy savings under certain milestones and for costs to meet the Aggressive Implementation requirements and awards:

- 1999 program planning conducted under "bridge funding".
- 1999 program operation after Commission approval of 1999 proposals. This includes instances where current programs are operated until the new programs are operational (such as Nonresidential New Construction and ENERGY STAR®), as provided for in 1999 program proposals and program descriptions.
- 1998 programs operated in 1999 under "bridge funding": Residential Audits, Small Commercial Audits, Residential Lighting Fixtures, and Nonresidential New Construction.

The bridge funding activities must be included towards award goals to provide a fair opportunity to meet the goals, particularly those associated with Aggressive Implementation. Activities conducted under bridge funding are expected to utilize 1999 funds (although any unspent 1998 funds are added to 1999 authorized funds, so it really is not an issue). They also involve activities that would normally be done in 1999 if the Commission's decision on 1999 proposals had occurred in 1998 as originally scheduled. Finally, including the savings and costs for bridge funding activities as part of the performance structure avoids creating a perverse incentive to pursue minimal levels of activity in the first two months of the year to avoid losing award opportunities.

Base Award

Qualifying Criteria

To be eligible for the base award, the following criteria must be met:

- **Program Definitions**: For its November 16 Advice Letter, SDG&E utilized the CBEE's new program definitions (program areas, programs, program elements, intervention strategies). These new definitions will continue to be used to report on and track the programs throughout the year.
- **Reporting**: Program activities, status reports, etc. are to be reported in the following manners:
  - Using two systems – the "old" program definitions used for 1998 programs, and the CBEE's new program definitions.
  - Administration vs implementation – program expenditures will be tracked using these categories, once definitions are determined that are clear and consistent for the programs – this will need to occur in early 1999.
  - Outsourcing – SDG&E will track expenditures that are associated with outsourcing program activities.
- **Program Descriptions**: SDG&E has agreed to provide the CBEE with more information on its 1999 proposals through program descriptions to be submitted during January. These descriptions follow a format agreed to by the CBEE and will address plans at the program element and implementation strategy levels.

Base Award

- **Residential Lighting: Statewide**: SDG&E and the other electric utilities are coordinating a statewide upstream program for residential lighting. The milestones for this program are tied to 1) issuing the RFP and selecting the short list of bidders, and 2) signing a contract with the winning bidder. Less weight is placed on contract signing, to avoid placing the utilities in the position of being adversely impacted if they choose to forego the award for this milestone to avoid signing an unacceptable agreement.
- **Residential Appliances: Statewide**: The milestones for this program are the same as for the Residential Lighting Statewide program described above.
- **Residential Lighting**: SDG&E will operate an interim lighting program while the statewide program is being competitively bid. SDG&E will work with the consulting team involved in its 1998 Lighting Fixtures program to develop and operate the interim program.
- **Residential Retrofit & Renovation: Residential Contractor Program**: In this statewide program, the utilities propose to conduct workshops and field a questionnaire to obtain public input on the recently CBEE-adopted Residential Contractor program development guidelines. After receiving public input, the utilities will develop a draft statewide program by the specified dates.

A second milestone is included for this program related to having the program available for participation, assuming no protests. Due to the uncertainties associated with this program, the utilities are cautious about an exact date when the new program can be on the street. Therefore, this milestone carries a lower value than the milestone for the draft program development. To achieve this milestone, SDG&E must be able to accept and begin processing projects from participants. In the event of protests that significantly delay adoption and implementation of this program, the dates for this milestone will need to be reexamined and changes may be proposed to the Commission.

- **Residential Heating & Cooling: Residential HVAC Training**: SDG&E will operate a new program in which it will work with local contractors and supply houses to promote high efficiency heating and cooling systems. In this program, SDG&E will provide training on proper sizing and system optimization to the contractors and suppliers. The milestone is associated with implementation of this program, which will involve conducting at least one training session for contractors and/or suppliers within the specified timeframes.
- **Large Nonresidential Comprehensive Retrofit: Large SPC**: In order to achieve this milestone, the following will be in place when SDG&E's program is open to take applications:
  - A revised procedures manual incorporating program changes adopted by the Commission.
  - A system consistent across the utilities to track customer applications and monitor corporate parent information.
  - A statewide contract for project sponsors to be used by each of the utilities.
- **Small Nonresidential Comprehensive Retrofit: Small/Medium SPC**: In order to achieve this milestone, the following will be in place when SDG&E's program is open to take applications:

- A procedures manual incorporating the Commission-adopted program guidelines and design elements (such as pricing and participation limits).
- A streamlined set of M&V protocols appropriate for this size of customer.

- **Small Nonresidential Comprehensive Retrofit: Small/Medium Rebates:** The utilities are developing a statewide rebate program for small/medium nonresidential customers. To achieve this roll-out milestone, the statewide program design will be developed and SDG&E will have its program open to process rebates by the dates specified.
- **Residential New Construction**: The utilities are working on a statewide effort to have window/duct training available in this program. SDG&E will achieve the first milestone for this program by conducting at least one training session within the specified timeframes.

The utilities are also developing a statewide Builder Guide Book. The second milestone is based on completion of this book by a specified date and having it available for builders in SDG&E's service territory.

SDG&E will operate a program with ConSol based on the ComfortWise program operated by ConSol in 1998 as a third party initiative. The third milestone will be achieved when the new program is open to accept applications.

- **Commercial/Industrial & Agricultural New Construction**: Since there are a number of significant changes to the Title 24 nonresidential building standards and these changes are not expected to be in place until May, 1999, the new statewide program cannot be operational until the CEC formally adopts the revised standards. SDG&E will operate its 1998 new construction program until the new program can begin.

The milestone is associated with the new statewide program, incorporating the new Title 24 standards. The milestone date is estimated to occur only a few weeks after the expected adoption date of the new standards. To achieve this milestone, SDG&E will begin accepting applications in its service territory under the new statewide program.

Market Changes/Market Effects

All statistically significant increases contained in the milestones in this section will be at the 90% confidence level.

- **Residential Heating & Cooling : Residential HVAC Training**: For the first milestone, SDG&E will conduct a baseline analysis to establish the size of the target market for this program. In addition, the post-measurement plan for the program's market change will be determined.

For the second milestone, SDG&E must show that the program training resulted in a statistically significant increase of 20% from the baseline number of contractors who employ the methods learned from the training in order for SDG&E to achieve the Level 2 award. A statistically significant increase of 30% will merit the Level 1 award.

- **Residential Lighting**: For the first milestone, SDG&E will conduct a baseline analysis of ENERGY STAR® lighting fixtures (hardwired fixtures and portable torchieres) in its service territory. In addition, an analysis of the market share of ENERGY STAR® lighting shipment data

from SDG&E's 1998 residential lighting program will be completed to establish a baseline indicator for use in estimating the level of market change influenced by the program.

To earn the Level 2 award for the second milestone, SDG&E must show that the combined efforts of its interim lighting fixture program and the statewide upstream lighting program has led to an increase of 20% from the 1998 baseline in the number of ENERGY STAR® lighting fixtures shipped to its service territory. An increase of 30% above the baseline will merit the Level 1 award.

- **Residential Appliances**: For the first milestone, SDG&E will conduct a baseline analysis to describe and quantify the market for ENERGY STAR® appliances in its service territory. In addition, the number of local ENERGY STAR® dealers who participated in the 1998 ENERGY STAR® program will be determined to establish the baseline for this program's market change. A dealer is defined as an individual store. A chain of 20 stores will be counted as 20 dealers.

To earn the Level 2 award for the second milestone, SDG&E must demonstrate that the combined efforts of its ENERGY STAR® program and the statewide upstream appliance program led to an increase of 20% from the baseline in the number of participating local ENERGY STAR® dealers. An increase of 30% above the baseline will merit the Level 1 award.

- **Small Nonresidential Comprehensive Retrofit: Small/Medium SPC**: Workshops will be held for small/medium customers (defined as those with an electric connected load of less than 500 kWh at a contiguous site) to educate them on performance contracting options for installation of energy efficient measures. For the first milestone, SDG&E will conduct a baseline study to describe and establish the size of the target market for this program. In addition, SDG&E will develop a measurement plan designed to estimate any changes in this level of customer awareness of performance contracting after the workshops are completed.

For the second milestone, SDG&E must show that these workshops resulted in a statistically significant increase of 5% from the baseline number of workshop participants who are willing to consider offers from performance contractors for future jobs involving the installation of energy efficient measures in order to achieve the Level 2 award. A statistically significant increase of 10% above the baseline will merit the Level 1 award. These percentages were based on feedback SDG&E has received from these customers indicating their current resistance to performance contracting.

- **Commercial/Industrial & Agricultural New Construction**: SDG&E will conduct a baseline study to establish the current design practices for nonresidential new construction buildings and identify potential success indicators in its service territory. In addition, the post-measurement plan for this program's market change will be determined.

SDG&E, together with the other utilities, will conduct training workshops on the new Title 24 standards. For the second milestone, SDG&E must demonstrate that these workshops resulted in a statistically significant increase of 20% in the number of workshop participants who indicate that they plan to increase the efficiency of their building designs by 10% over the new Title 24 standards in order to achieve the Level 2 award. A statistically significant increase of 40% of the workshop participants indicating that they plan to increase the efficiency of their designs by 10% over the new Title 24 standards will merit the Level 1 award.

Administrative Program Process Award

- **Residential Retrofit & Renovation: Residential Contractor Program**: The utilities will conduct six planning workshops for market participants throughout the state to obtain input on the draft program. Some of these will be customer workshops conducted by individual utilities, which are expected to be conducted in more of a focus group format.

A second milestone for this program involves the number of contractors who participate in SDG&E's new program. Less weight is given to this milestone because of the uncertainties related to program design and timing. Based on its knowledge and experience in this area and the uncertainties, SDG&E believes that having eight participating contractors in its service territory is an aggressive goal.

- **Residential Appliances**: SDG&E is planning to provide incentives for the purchase of high efficiency appliances while the statewide upstream appliance program is competitively bid. SDG&E's program will then be incorporated into the statewide program. SDG&E must provide incentives to produce a threshold number of high efficiency clothes washer sales to receive the award for this milestone. The numbers of washers for the two levels were determined based on the expected timing associated with this effort and SDG&E's past experience.
- **Large Nonresidential Comprehensive Retrofit: Large SPC**: The processing milestones are not significantly different from the processing elements of SDG&E's 1998 SPC performance incentives structure. These milestones require SDG&E to meet specified dates for inspections and payments for SPC projects. The timing is based on a simple average of all projects inspected or paid for both the 1998 and 1999 programs.
- **Small Nonresidential Comprehensive Retrofit: Small/Medium SPC**: The processing milestones are similar to those for the Large SPC program. The number of days specified for inspections is greater than for the Large SPC program because of the higher volume of inspections expected to occur. The type of inspection will be determined as the program design is finalized.
- **Small Nonresidential Comprehensive Retrofit**: SDG&E will conduct workshops for its small/medium nonresidential customers to provide them with information on the new Small/Medium SPC and Rebate programs. In these workshops, all services available to these customers will be covered. The milestone is based on the number and timing of workshops.
- **Commercial Remodeling/Renovation**: SDG&E will obtain commitments (through signed contracts with customers or builders) for gross energy savings associated with remodeling and renovation projects. These projects involve commitments of savings in the same manner as new construction projects, since they require meeting Title 24 standards. They are currently part of SDG&E's new construction program, and savings from projects committed under bridge funding in 1999 will be counted toward this milestone. Ex ante assumptions for energy savings estimates will be used to determine estimated savings.
- **Residential New Construction**: The first milestone for this program involves obtaining a specified number of homes that qualify for the Comfortwise program home rating based on meeting program requirements.

SDG&E and the other utilities will conduct a market assessment of the manufactured housing market. Completion of the study by the specified dates will demonstrate achievement of the second milestone. At the completion of the study, the utilities will make a recommendation regarding any future program or program design.

- **Commercial/Industrial & Agricultural New Construction**: SDG&E will obtain commitments (through signed contracts with customers or builders) for gross energy savings associated with new construction projects. Ex ante assumptions for energy savings estimates will be used to determine estimated savings. Committed savings associated with all new construction contracts signed in 1999 (under bridge funding and under the 1999 program, both before and after new Title 24 standards go into effect) will be counted toward this milestone.
- **Third Party Initiatives**: SDG&E has included in its 1999 proposals targeted third party solicitations in the residential, nonresidential, and new construction program areas. This milestone involves defining the programs to be targeted and conducting the third party solicitations.
- **MA&E**: SDG&E will issue RFP(s) for and manage statewide MA&E projects in cooperation with the CBEE.

Aggressive Implementation

- SDG&E will earn its award in this section by incurring program expenditures and commitments by the end of 1999. Commitments are defined as follows:
  - Funds committed to customers or project sponsors in multi-year programs, where installations or other activities can occur in future years for projects accepted or contracts signed in 1999, such as New Construction and SPC programs.
  - Funds identified for administrative activities occurring in future years associated with projects accepted or contracts signed in 1999 in multi-year programs, such as New Construction and SPC programs, except for such future administrative activities in the Large Nonresidential Comprehensive Retrofit and Small Nonresidential Comprehensive Retrofit programs.
  - Commitments to contractors or suppliers for services or products where all or the large majority of services are provided in 1999, but paid for in early 2000. This will mainly occur for services or products provided in 1999 but invoiced late in the year or early the next year.
  - Commitments under contracts to third parties to manage or implement programs for services provided during 1999, such as the statewide Residential Lighting and Appliance programs and the Third Party programs.
- As discussed earlier under "General", expenditures and commitments for all 1999 activities except those related to 1998 programs (commitments for multi-year 1998 programs and close-out/reporting of 1998 programs) will be counted towards the requirements and achievements for this award.

- Authorized program funding or budgets as used in this description will be the budgets adopted by the Commission in its resolution on SDG&E's November 16 Advice Letter. These budgets will change only if the Commission adopts revised budgets during 1999, in which case all requirements and calculations will incorporate the new revised budgets adopted by the Commission.
- The award for this area is calculated as follows:
  - Maximum award for Aggressive Implementation ($952,000) is 25% of total awards cap of $3.806 million.
  - The $952,000 maximum award for Aggressive Implementation is allocated to the three program areas based on each program area's percentage of the total adjusted program budget. For the Residential and New Construction program areas, total adopted program budgets for each area is used.
  - The Nonresidential program area authorized budget is adjusted to take out estimated administrative costs for the Large Nonresidential Comprehensive Retrofit and the Small Nonresidential Comprehensive Retrofit programs. The administrative costs removed include a portion of future estimated administrative costs to process projects in the Large SPC intervention strategy and estimated future administrative costs to process projects in the Small/Medium SPC intervention strategy. These future administrative costs are estimated for the purposes of determining the adjusted Nonresidential program area budget only for this portion of the performance incentives structure. SDG&E will determine actual amounts to be committed for future administrative activities for the SPC programs based on the volume and type of projects received in those programs during 1999.

Program Area	Adjusted Program Budget	% of Total Budget	Aggressive Implementation Award Cap
Residential	$12,150,000	38%	$362,000
Nonresidential	$14,880,000	47%	$447,000
New Construction	$4,800,000	15%	$143,000
Total	$32,500,000	100%	$952,000

  - In order to allow SDG&E to manage its expenditures so that the awards can be achieved without exceeding authorized budgets, for each program area 100% of the Aggressive Implementation award can be earned once 90% of the adjusted program budget is spent/committed.
  - For each program area there is a threshold requirement of 70% of the adjusted program area budget to be expended/committed. If the 70% threshold is not met, there will be no Aggressive Implementation award for that program area only. Once the 70% threshold is met, SDG&E will earn awards on the total expenditures/commitments incurred for that program area based on the table below. This table was developed by using a simple linear interpolation of the values in one percent increments between 70% and 90%, where 90% equals 100% of the Aggressive Implementation award value.

% of Achieved Spending/ Commitments	% of Program Area Award	Residential Program Area Award	Non Residential Program Area Award	New Construction Program Area Award
70%	70%	$253,400	$312,900	$100,100
71%	72%	$258,830	$319,605	$102,245
72%	73%	$264,260	$326,310	$104,390
73%	75%	$269,690	$333,015	$106,535
74%	76%	$275,120	$339,720	$108,680
75%	78%	$280,550	$346,425	$110,825
76%	79%	$285,980	$353,130	$112,970
77%	81%	$291,410	$359,835	$115,115
78%	82%	$296,840	$366,540	$117,260
79%	84%	$302,270	$373,245	$119,405
80%	85%	$307,700	$379,950	$121,550
81%	87%	$313,130	$386,655	$123,695
82%	88%	$318,560	$393,360	$125,840
83%	90%	$323,990	$400,065	$127,985
84%	91%	$329,420	$406,770	$130,130
85%	93%	$334,850	$413,475	$132,275
86%	94%	$340,280	$420,180	$134,420
87%	96%	$345,710	$426,885	$136,565
88%	97%	$351,140	$433,590	$138,710
89%	99%	$356,570	$440,295	$140,855
90%	100%	$362,000	$447,000	$143,000

- To ensure minimum levels of activity in each of the fourteen programs, the following will also be applied to the Aggressive Implementation award:
  - For each program area, an adjustment will be made to the Aggressive Implementation award for that program area if 50% of authorized funding for each program within that program area is not spent/committed.
  - For each program within a program area where the 50% level is not achieved, the Aggressive Implementation award for that program area only will be reduced by 10%.

The following table summarizes SDG&E's 1999 performance incentives mechanism.

SDG&E's 1999 MILESTONES AND AWARD LEVELS

Program	Milestone	Activity/Timing	Award	Activity/Timing	Award
		LEVEL 1		**LEVEL 2**	
BASE AWARD Qualifying Criteria					
To be Eligible for Base Award:	Program definitions	ongoing		ongoing	
	Reporting: 2 systems, admin/imp, outsourcing	ongoing		ongoing	
	Program descriptions	ongoing		ongoing	
Base Award					
Residential Lighting: Statewide	1) Select short list of bidders for lighting	within 45 days after resolution	$77,000	within 46-75 days after resolution	$51,000
	2) Sign contract	within 120 days after resolution	$24,000	within 121-150 days after resolution	$16,000
Residential Appliances: Statewide	1) Select short list of bidders for appliances	within 45 days after resolution	$77,000	within 46-75 days after resolution	$51,000
	2) Sign contract	within 120 days after resolution	$24,000	within 121-150 days after resolution	$16,000
Residential Lighting	Sign contract for interim lighting program to operate while statewide program is competitively bid	within 15 days after resolution	$37,000	within 16-45 days after resolution	$24,000
Res Retrofit & Renovation--Res Contractor Program	1) Complete draft statewide program design based on input from public workshop	within 60 days after last workshop or March 15, 1999 whichever is sooner	$155,000	within 61-90 days after last workshop or April 15, 1999 whichever is sooner	$101,000
	2) Have program available for participation	by May 1	$33,000	by June 1	$21,000
Res Heating & Cooling--Res HVAC Training	Implement training program	within 30 days after resoluton	$49,000	within 31-45 days after resolution	$32,000
Large Nonres Comp Retrofit—Large SPC	Have program open to accept applications, including: statewide procedures manual; a system consistent across the utilities to track customer applications; statewide contract	within 5 days after resolution	$224,000	within 6-35 days after resolution	$147,000
Small Nonres Comp Retrofit—Small/Medium SPC	Have program open to accept applications, including: statewide procedures manual; statewide M&V procedures	within 15 days after resolution	$224,000	within 16-45 days after resolution	$147,000
Small Nonres Comp Retrofit—Small/Medium Rebates	Develop statewide program and have program available for participation	within 30 days after resolution	$102,000	within 31-60 days after resolution	$67,000
Residential New Construction	1) Have window/duct training available	within 60 days after resolution	$29,000	within 61-90 days after resolution	$19,000

Program	Milestone	Activity/Timing	Award	Activity/Timing	Award
		LEVEL 1		**LEVEL 2**	
	2) Complete statewide Builder Guide Book	within 120 days after resolution	$29,000	within 121-180 days after resolution	$19,000
	3) Have Comfortwise program available to builders	within 60 days after resolution	$49,000	within 61-90 days after resolution	$32,000
Commercial/Industrial & Agricultural New Construction	Develop statewide program and have program open to accept applications.	within 90 days after resolution or 30 days after new CEC standards adopted	$90,000	within 91-120 days after resolution 31-45 days after or new CEC standards adopted	$59,000
Base Award Total			**$1,223,000**		**$802,000**
Market Changes/Market Effects					
Res Heating & Cooling Res HVAC Training	1) Conduct baseline analysis to describe target market, quantify number of key actors, and design measurement plan	by September 15	$40,000	by December 15	$30,000
	2) Increase number of trained contractors who employ the methods learned from training	increase by 30% over baseline	$80,000	increase by 20% over baseline	$50,000
Residential Lighting	1) Conduct baseline analysis to describe and quantify target market for hardwired fixtures and torchieres and design pre- and post-measurement plans	by September 15	$40,000	by December 15	$30,000
	2) Increase number of participating ENERGY STAR® lighting fixtures and torchieres shipped to local retailers	increase by 30% over baseline	$80,000	increase by 20% over baseline	$50,000
Residential Appliances	1) Conduct baseline analysis to describe target market quantify number of key actors, and design measurement, plan	by September 15	$40,000	by December 15	$30,000
	2) Increase number of local participating ENERGY STAR® dealers	increase by 30% over baseline	$80,000	increase by 20% over baseline	$50,000
Small Nonres Comp Retrofit--Small/Medium SPC	1) Conduct baseline analysis to describe target market, quantify number of key actors, and design measurement plan	by September 15	$40,000	by December 15	$30,000
	2) Increase awareness of performance contracting of the workshop participants	increase by10% over baseline	$80,000	increase by 5% over baseline	$50,000
Commercial/Industrial & Agricultural New Construction	1) Conduct baseline analysis to describe target market, quantify number of key actors, and design measurement plan	by September 15	$40,000	by December 15	$30,000
	2) Demonstrate that a number of participants in Title 24 training will increase the efficiency of their designs by 10% over new standards	40% of participants indicate they plan to increase efficiency of	$80,000	20% of participants indicate they plan to increase efficiency of	$50,000

Program	Milestone	Activity/Timing	Award	Activity/Timing	Award
		LEVEL 1		**LEVEL 2**	
		designs		designs	
Market Changes / Market Effects Subtotal			**$600,000**		**$400,000**
Adimistrative/Process					
Res Retrofit & Renovation-- Res Contractor Program	1) Conduct 6 planning workshops throughout the state	within 45 days after resolution	$61,000	within 46-60 days after resolution	$40,000
	2) Have specified number of participating contractors by 12/31/99	8 participating contractors	$37,000	5 participating contractors	$24,000
Residential Appliances	Provide incentives for specified number of high efficiency clothes washers	1450 washers	$81,000	1200 washers	$53,000
Large Nonres Comp Retrofit-- Large SPC	1) Conduct pre-installation inspections of both 1998 and 1999 programs within specified number of working days after complete detailed application is received	within a simple average of 15 working days	$139,000	within a simple average of 16-30 working days	$91,000
	2) Conduct post-installation inspections of both 1998 and 1999 programs within specified number of working days after complete installation report is received	within a simple average of 15 working days	$139,000	within a simple average of 16-30 working days	$91,000
	3) Provide payment within specified number of working days after complete invoice is received for approved1998 and 1999 projects	within a simple average of 15 working days	$139,000	within a simple average of 16-30 working days	$91,000
Small Nonres Comp Retrofit-- Small/Medium SPC	1) Conduct inspections (for a statistically significant number, but no less than 20%) within specified number of working days after complete detailed application or installation report is received	within a simple average of 21 working days	$106,000	within a simple average of 22-33 working days	$69,000
	2) Provide payment within specified number of working days after complete invoice is received	within a simple average of 15 working days	$24,000	within a simple average of 16-30 working days	$16,000
Small Nonres Comp Retrofit	Conduct workshops on Small/Med SPC, Rebate, and other programs for small/medium customers	2 workshops within30 days of SPC program implementation plus a 3rd workshop by August 31	$65,000	2 workshops within 31-60 days of SPC program implementation	$43,000
Com Remodeling / Renovation	Obtain commitments for specified levels of gross energy savings from non-SPC remodeling/renovation projects by 12/31/99	5 million kWh	$114,000	4 million kWh	$75,000

Program	Milestone	Activity/Timing	Award	Activity/Timing	Award
		LEVEL 1		**LEVEL 2**	
Residential New Construction	1) Obtain commitments for specified number participating homes of	2000 homes	$41,000	1500 homes	$27,000
	2) Complete market assessment study for manufactured housing	by August 15	$16,000	by September 1	$11,000
Commercial/Industrial & Agricultural New Construction	Obtain commitments for specified levels of gross energy savings	9 million kWh	$102,000	6 million kWh	$67,000
Third Party Initiatives	Conduct specified number of third party solicitations	1 residential, 1 nonresidential, and1 new construction	$81,000	1 residential and1 nonresidential	$53,000
MA&E	For specified number of statewide MA&E projects, issue RFPs and manage projects	2 projects	$77,000	1 project	$51,000
Administrative & Program Process Subtotal			**$1,222,000**		**$802,000**
Aggressive Implementation					
Residential Programs	Spend or commit specified percentage of authorized program area budget by 12/31/99	spend/commit 90%	$362,000	spend/commit 70%	$253,400
Non Residential Programs	Spend or commit specified percentage of adjusted program area budget by 12/31/99	spend/commit 90%	$447,000	spend/commit70%	$312,900
New Construction Programs	Spend or commit specified percentage of authorized program area budget by 12/31/99	spend/commit 90%	$143,000	spend/commit70%	$100,100
Aggressive Implementation Subtotal			**$952,000**		**$666,400**
Total Incentives			**$3,997,000**		**$2,670,400**

Performance Incentives For 1999 Low-Income Energy Efficiency Activities

SDG&E filed Advice Letter 1124-E/1119-G requesting approval of its 1999 Low-Income Energy Efficiency (LIEE) program plans and budgets. The Commission approved SDG&E's advice letter through Resolutions E-3583, E-3585, and E-3586. The LIEE program lifecycle earnings claim for 1999 is $78,765 as shown in the Earnings Claim Summary Table 6.2.

Performance Incentives Structure For 2000 Energy Efficiency Activities

SDG&E proposed its 2000 performance incentives structure in its "Request for Approval of 2000 and 2001 Energy Efficiency Programs" (A.99-09-057). The proposed incentives structure is consistent with the Commission direction provided in D.99-08-021. Program-specific adjustments in the award mechanisms that shift the priority or weights among program incentive design elements to emphasize effective program administration and market transformation and reduce reliance on program roll-out milestones were made to the performance incentives structure for 2000.

As of May 1, 2000, no final decision on SDG&E's application has been issued by the Commission.

TABLE 6.1
COST OF PERFORMANCE INCENTIVES

Electric and Gas Combined					
	1999			2000	
	Authorized	Budgeted	Claimed	Authorized	Budgeted
Residential Program Area	$1,457,000	$1,457,000	$1,451,850	$1,377,427	$1,377,427
Nonresidential Program Area	$1,822,000	$1,822,000	$1,375,000	$1,978,030	$1,978,030
New Construction	$619,000	$619,000	$619,000	$540,543	$540,543
General/Other	$77,000	$77,000	$77,000	NA	NA
Total[1]	$3,975,000	$3,975,000	$3,522,850	$3,896,000	$3,896,000

Electric Only					
	1999			2000	
	Authorized	Budgeted	Claimed	Authorized	Budgeted
Residential Program Area	$1,269,552	$1,269,552	$1,219,554	$1,162,654	$1,162,654
Nonresidential Program Area	$1,497,275	$1,497,275	$1,155,000	$1,670,237	$1,670,237
New Construction	$498,649	$498,649	$519,960	$456,109	$456,109
General/Other	$65,450	$65,450	$64,680	NA	NA
Total	$3,330,926	$3,330,926	$2,959,194	$3,289,000	$3,289,000

Gas Only					
	1999			2000	
	Authorized	Budgeted	Claimed	Authorized	Budgeted
Residential Program Area	$187,448	$187,448	$232,296	$214,773	$214,773
Nonresidential Program Area	$324,725	$324,725	$220,000	$307,793	$307,793
New Construction	$120,351	$120,351	$99,040	$84,434	$84,434
General/Other	$11,550	$11,550	$12,320	NA	NA
Total	$644,074	$644,074	$563,656	$607,000	$607,000

Table 6.2
Earnings Claim Summary Table: Non-Mandatory Direct Assistance Program
Program Year: 1999

		Direct Assistance (Non-Mandatory)
a	Electricity Expenditures ($000)	$1,640
b	Electricity Savings (mWh)	2,204
c	Electricity Program Cost Ratio (a/b)	0.744
d	Previous Year's Electricity Cost Ratio [1]	0.922
e	Relative Electricity Program Cost Ratio (c/d)	0.807
f	Gas Expenditures ($000)	$101
g	Gas Savings (000s therms)	19
h	Gas Program Cost Ratio (f/g)	5.422
i	Previous Year's Gas Program Cost Ratio [1]	0.941
j	Relative Gas Program Cost Ratio (h/i)	5.764
k	Total expenditures (a+f) ($000)	$1,741
l	Weighted Relative Program Cost Ratio [e*(a/k)+j*(f/k)]	1.095
m	Performance factor (2-l) [2]	0.905
n	Lifecycle Earnings ($000) [k*0.05*m]	$79

Notes:
[1] Previous year costs are escalated to current year dollars.
[2] The performance factor is required to be no smaller than 0.8 and no greater than 1.2.

Low Income Energy Efficiency Programs

Residential Programs

Direct Assistance

Program Description

The Direct Assistance Program is designed to help low-income residential customers control energy costs by providing free weatherization, education, and appliance services.

Communities targeted for program participation are those where a majority of the households are at or below income guidelines established for SDG&E's California Alternate Rates for Energy (CARE) program. An outside consultant, under contract to SDG&E, operates the program and provides in-home energy education, needs assessment, and installation of the needed "Big-Six" weatherization measures as follows: ceiling insulation, caulking, weatherstripping, low-flow showerheads, water heater blankets, and minor structural repairs.

As some of the proposed measures have not yet demonstrated cost effectiveness or the provision of other demonstrable benefits in California, Resolution (Res.) E-3586, directed SDG&E to implement the following measures on a trial basis, beginning June 1, 1999: (1) water heater pipe wrap, (2) faucet aerators, (3) outlet gaskets, (4) evaporative coolers, (5) evaporative cooler covers, and (6) furnaces. The Resolution also determined that utilities would be required to replace refrigerators for all customer-owned refrigerators and customers in rental units would be required to provide proof of ownership before replacement. Utilities were to track the costs to perform verification and any complaints associated with this procedure and present the results with their proposals for 2000. Finally, Res. E-3586 directed SDG&E to implement the installation of attic ventilation as a stand-alone measure, and to track the costs, energy savings, number of call backs and complaints, and any additional legal responsibilities associated with the measure, and the costs of sending staff back to the premises to mitigate any problems, and to report the information in its requests for program year 2000.

SDG&E filed Application (A.) 99-07-004 on July 1, 1999. Since these new measures (listed above) had only recently been implemented, SDG&E notified the Commission that it would continue to perform these tasks through the end of 1999 and through 2000, and report the results in its request for authorization of its 2001program.

SDG&E also increased its limits for home repairs to $750 per home, and for homes with furnace replacement, the home repair limit was increased to $1500 per home. Attic ventilation as a stand-alone measure was implemented on a trial basis with SDG&E identifying 75 single family homes as having the potential for participation in this pilot.

1999 Results & Achievements

Beginning June 1, 1999, SDG&E implemented, on a trial basis, new measures which included water heater pipe wrap, faucet aerators, outlet gaskets, evaporative coolers, evaporative cooler covers, gas furnace adjustment, repair and replacement and refrigerator replacement. Refrigerators, furnaces and evaporative coolers were only installed in owner-occupied units, if rewiring was not required, they met the utility's installation criteria, and it was reasonable and appropriate.

Attic ventilation as a stand-alone measure was implemented June 1, 1999, on a trial basis. SDG&E surveyed 609 homes from June 1, 1999, through December 21, 1999. SDG&E identified 75 homes in which attic venting was inadequate and did not meet current venting standards as defined in the DAP Residential Weatherization Installation Standards Manual.

A further breakdown of the 609 homes surveyed revealed that 287 homes had adequate venting, 75 homes had no attic (i.e., flat roof, cathedral ceiling), 31 homes had no access to the attic area, 68 homes were unfeasible (i.e., knob & tube wiring present, roof leaks), 11 homes the customer refused attic work, and 62 homes needed additional assessment.

Due to additional feasibility inspections needed for the 75 homes identified, as well as obtaining customer or landlord agreement to participate in the pilot, no attic ventilation was installed as a stand-alone measure during the 1999 program year.

During 1999, weatherization measures were installed in 7,761 low-income homes. Energy education was provided to 10,993 customers in the following languages: English – 44.7%, Spanish – 38.5%, and Laotian - 4.5%.

In addition, 15,342 compact fluorescent light bulbs were installed in low-income households. 4,016 gas appliance inspections and 687 gas furnace repairs were completed, 100 gas furnaces were replaced, 200 refrigerators were replaced, 291 evaporative cooler covers were installed and 1 evaporative cooler was replaced in 1999.

2000 Program Plans

During 2000, SDG&E will provide the “Big Six” weatherization measures to 8,500 low income homes. In accordance with Res. E-3586, SDG&E will continue to offer the measures that were implemented on June 1, 1999 per Res. E-3586.

SDG&E will retain its limits for home repairs at $750 per home and for homes with furnace replacement the home repair limit will remain at $1500 per home. Attic ventilation as a stand-alone measure will continue to be offered to customers and SDG&E will move forward with the effort to install this measure in homes identified in 1999, as well as any homes identified during the 2000 program year. SDG&E will track the costs, energy savings, number of call backs and complaints, any additional legal responsibilities associated with the installation of attic ventilation as a stand-alone measure, and the cost of sending staff back to the premises to mitigate any problems, per Res. E-3586. SDG&E will report on the pilot project results in its request for authorization of its 2001 program.

Energy Education for Low-Income (EELI)

Program Description

The objective of the Energy Education for Low–Income program ("EELI") is to provide information and education to low-income customers that will enable them to reduce their energy needs. This is achieved through a continued presence in the community, dissemination of written informational materials, and networking with community-based agencies. SDG&E will continue to work with an outside consultant as needed to operate the program through service and community-based agencies. This program is comprised of the following components:

The **Energy Practices Survey** which consists of a simple energy-use checklist that provides immediate feedback on the cost of various energy-use practices.

Energy Conservation Videos that focus on energy practices and provide the cost of many day-to-day energy usages.

1999 Results and & Achievements

During 1999, energy education was provided to 23,279 low-income customers in the following languages: English – 18,202, Spanish – 7,676, Vietnamese – 325, African – 708, Laotian – 20, Eastern European – 240, Arabic – 105, Asian – 17, Middle Eastern – 62, Russian – 55.

2000 Program Plans

In 2000, this program will provide energy education to 25,000 low-income and elderly customers through the Energy Practices Survey and Energy Conservation Videos. SDG&E will continue to expand its network of community-based agencies to meet the energy education needs of its increasingly culturally diverse low-income community.

TABLE 7.1
SUMMARY OF COSTS: LOW INCOME

Electric and Gas Combined					
	1999			2000	
	Authorized	Budgeted	Recorded	Authorized	Budgeted
DAP & EELI	$7,392,444	$7,392,444	$4,257,310	$5,197,445	$5,197,445
Shareholder Performance Incentives	$164,795	$164,795	$78,765	$100,497	$100,497
MA&E	$0	$0	$0	$0	$0
Regulatory Oversight	$0	$0	$0	$0	$0
Total	$7,557,239	$7,557,239	$4,336,075	$5,297,943	$5,297,943

Electric Only					
	1999			2000	
	Authorized	Budgeted	Recorded	Authorized	Budgeted
DAP & EELI	$2,021,840	$2,021,840	$684,603	$548,852	$548,852
Shareholder Performance Incentives	$45,072	$45,072	$74,188	$27,443	$27,443
MA&E	$0	$0	$0	$0	$0
Regulatory Oversight	$0	$0	$0	$0	$0
Total	$2,066,911	$2,066,911	$758,791	$576,294	$576,294

Gas Only					
	1999			2000	
	Authorized	Budgeted	Recorded	Authorized	Budgeted
DAP & EELI	$5,370,605	$5,370,605	$3,572,707	$4,648,594	$4,648,594
Shareholder Performance Incentives	$119,723	$119,723	$4,577	$73,055	$73,055
MA&E	$0	$0	$0	$0	$0
Regulatory Oversight	$0	$0	$0	$0	$0
Total	$5,490,328	$5,490,328	$3,577,284	$4,721,649	$4,721,649

Table 7.2
Summary of Energy Efficiency Program Effects: DAP
Program Year: 1999

(Annual Energy Reductions, Electric, MWh or Natural Gas, Therms, 00

	1999 (Recorded)	2000 (Planned)
mWh	2,204	1,460
Therms	260	176

Table 7.3
Cost-Effectiveness
Program Year: 1999

(Benefit-Cost Ratios)

	1999 (Recorded)		2000 (Planned)	
	Utility Cost Test	Total Resource Cost Test	Utility Cost Test	Total Resource Cost Test
DAP	0.41	0.50	0.23	0.23

Table 7.4
Summary of Cost-Effectiveness: DAP
Program Year: 1999

(Net Benefits, $MILL)

	1999 Recorded	2000 Planned
DAP	$1,667	$1,173

1999 ENERGY EFFICIENCY PROGRAM PLANS—TECHNICAL APPENDIX

EXECUTIVE SUMMARY

This Technical Appendix provides additional supporting documentation for SDG&E's "Annual Summary of Energy Efficiency Programs," dated May 2000, which reviews the progress of activities during 1999. We are reporting these results using the Reporting Requirements Manual agreed to by the utilities and the Office of Ratepayers Advocates ("ORA") and discussed at the Energy Division Workshop on Reporting Requirements held on March 8th and 9th, 1999.

SDG&E's 1999 Energy Efficiency Program plans were filed on November 16, 1998 in Advice Letter 1132-E/1124-G and updated by Advice Letter 1132-E-A/1124-G-A on March 25, 1999. The Application was approved in Resolution E-3578, dated March 18, 1999, and Resolution E-3592, dated April 1,1999. SDG&E's 1999 Low Income Program plans were filed in Advice Letter 1124-E/1119-G and approved in Resolution E-3585.

The Administrative costs are categorized into actual and committed costs. The committed administrative costs were estimated to be 10% of the committed program incentive costs.

Incremental Measure Costs are based on the costs documented in the 1996 Statewide Measure Cost Study (Project 2044C) or measure cost data collected from the programs.

Table TA 1.1
Avoided Costs
Program Year: 1999

1999 Avoided Costs (Cumulative and Discounted)

Year	Gen $/MWh	T&D $/MWh	Env Ext $/MWh	Total $/MWh	Gas $/therm	Env Ext $/therm	Total $/therm
1999	33.1	4.7	6.0	43.8	0.319	0.053	0.372
2000	64.6	9.2	11.7	85.6	0.624	0.104	0.728
2001	94.5	13.6	17.2	125.3	0.914	0.152	1.066
2002	123.9	17.8	22.4	164.0	1.189	0.198	1.387
2003	152.0	21.8	27.4	201.1	1.451	0.241	1.692
2004	179.1	25.7	32.1	236.8	1.700	0.283	1.983
2005	205.0	29.4	36.6	271.0	1.938	0.323	2.260
2006	230.0	33.0	40.9	303.9	2.164	0.360	2.524
2007	254.1	36.5	45.0	335.5	2.379	0.396	2.776
2008	277.2	39.8	48.9	365.8	2.585	0.430	3.015
2009	299.4	43.0	52.6	395.0	2.781	0.463	3.244
2010	320.9	46.1	56.1	423.1	2.968	0.493	3.461
2011	341.6	49.1	59.4	450.1	3.144	0.523	3.667
2012	361.5	51.9	62.6	476.1	3.311	0.551	3.862
2013	380.8	54.7	65.6	501.2	3.468	0.578	4.046
2014	399.4	57.3	68.5	525.4	3.617	0.604	4.221
2015	417.3	59.9	71.3	548.6	3.758	0.628	4.386
2016	434.6	62.4	73.9	571.0	3.891	0.651	4.542
2017	451.2	64.7	76.4	592.5	4.017	0.673	4.690
2018	467.3	67.0	78.8	613.2	4.136	0.694	4.830

2000 Avoided Costs (Cumulative and Discounted)

Year	Gen $/MWh	T&D $/MWh	Env Ext $/MWh	Total $/MWh	Gas $/therm	Env Ext $/therm	Total $/therm
2000	34.1	4.9	6.2	45.2	0.330	0.055	0.385
2001	66.4	9.6	12.1	88.1	0.643	0.107	0.750
2002	98.2	14.1	17.7	130.0	0.941	0.156	1.097
2003	128.6	18.5	23.1	170.2	1.224	0.204	1.428
2004	157.8	22.6	28.2	208.7	1.494	0.249	1.743
2005	185.9	26.7	33.1	245.7	1.751	0.292	2.042
2006	213.0	30.6	37.7	281.3	1.995	0.332	2.327
2007	239.0	34.3	42.1	315.4	2.228	0.371	2.599
2008	264.0	37.9	46.3	348.2	2.451	0.408	2.859
2009	288.0	41.4	50.3	379.8	2.663	0.443	3.106
2010	311.2	44.8	54.1	410.2	2.864	0.476	3.341
2011	333.6	48.0	57.8	439.4	3.055	0.508	3.564
2012	355.2	51.1	61.2	467.5	3.235	0.539	3.774
2013	376.1	54.1	64.5	494.7	3.406	0.568	3.974
2014	396.2	57.0	67.7	520.8	3.567	0.595	4.162
2015	415.5	59.7	70.7	545.9	3.719	0.622	4.341
2016	434.2	62.4	73.5	570.1	3.863	0.647	4.510
2017	452.2	65.0	76.2	593.3	3.999	0.671	4.670
2018	469.5	67.4	78.8	615.7	4.128	0.693	4.821
2019	486.3	69.8	81.2	637.3	4.250	0.715	4.965

TABLE TA 2.1
PROGRAM COST ESTIMATES USED FOR COST-EFFECTIVENESS (RESIDENTIAL)
TOTAL GAS AND ELECTRIC

PROGRAM	UTILITY COSTS						
	Program Incentives (Recorded)		Admin		Shareholder Inc	Other	Total
	Actual	Committed	Actual	Committed			
Information							
Statewide Energy Guide	$0	$0	$92,605	$0	$0	$0	$92,605
Energy Efficient Mortgage Program	$1,200	$0	$201,121	$0	$0	$0	$202,321
Information & Education	$0	$0	$1,285,169	$0	$0	$0	$1,285,169
In-Store EE Demonstration Co-op Program	$0	$0	$173,759	$0	$0	$0	$173,759
Total Information	$1,200	$0	$1,752,654	$0	$0	$0	$1,753,854
EMS							
Energy Management Services	$0	$0	$1,205,778	$0	$0	$0	$1,205,778
Time of Sale Home Energy Rating	$0	$0	$190,689	$0	$0	$0	$190,689
Total EMS	$0	$0	$1,396,467	$0	$0	$0	$1,396,467
EEI							
SPC							
Res Energy Eff Prog (RCP)	$154,024	$0	$1,276,202	$0	$188,000	$0	$1,618,226
Rebates							
Downstream appliance Incentives	$504,540	$0	$502,182	$0	$0	$0	$1,006,722
Loans	$0	$0	$0	$0	$0	$0	$0
Other	$0	$0	$0	$0	$0	$0	$0
Total EEI	$658,564	$0	$1,778,384	$0	$188,000	$0	$2,624,948
Upstream Programs							
Information							
Contractor Training Program (HVAC)	$0	$0	$149,226	$0	$267,000	$0	$416,226
Statewide Upstream Appliances	$39,800	$0	$699,120	$0	$404,000	$0	$1,142,920
Energywise Contractor Program	$84,338	$0	$430,377	$0	$0	$0	$514,715
Energy Star Windows Program	$0	$0	$83,350	$0	$0	$0	$83,350
Financial Assistance							
Upstream Distributor Incentive Prog	$427,992	$0	$55,064	$0	$0	$0	$483,056
Statewide Upstream Lighting	$870,964	$0	$731,600	$0	$221,000	$0	$1,823,564
Residential Lighting Fixtures	$956,791	$0	$265,067	$0	$37,000	$0	$1,258,858
Targeted Third Party Initiatives	$0	$0	$1,657	$0	$0	$0	$1,657
Total Upstream	$2,379,885	$0	$2,415,461	$0	$929,000	$0	$5,724,346
Aggressive Implementation (earnings only)					$335,000		$335,000
TOTAL RESIDENTIAL	$3,039,649	$0	$7,342,966	$0	$1,452,000	$0	$11,834,615

TABLE TA 2.1
PROGRAM COST ESTIMATES USED FOR COST-EFFECTIVENESS (RESIDENTIAL)
ELECTRIC ONLY

PROGRAM	UTILITY COSTS						
	Program Incentives (Recorded)		Admin		Shareholder Inc	Other	Total
	Actual	Committed	Actual	Committed			
Information							
Statewide Energy Guide	$0	$0	$74,084	$0	$0	$0	$74,084
Energy Efficient Mortgage Program	$600	$0	$100,561	$0	$0	$0	$101,161
Information & Education	$0	$0	$1,028,135	$0	$0	$0	$1,028,135
In-Store EE Demonstration Co-op Progra	$0	$0	$86,880	$0	$0	$0	$86,880
Total Information	$600	$0	$1,289,659	$0	$0	$0	$1,290,259
EMS							
Energy Management Services	$0	$0	$964,622	$0	$0	$0	$964,622
Time of Sale Home Energy Rating	$0	$0	$95,345	$0	$0	$0	$95,345
Total EMS	$0	$0	$1,059,967	$0	$0	$0	$1,059,967
EEI							
SPC							
Res Energy Eff Prog (RCP)	$146,323	$0	$1,212,392	$0	$177,684	$0	$1,536,398
Rebates							
Downstream appliance Incentives	$504,540	$0	$502,182	$0	$0	$0	$1,006,722
Loans	$0	$0	$0	$0	$0	$0	$0
Other	$0	$0	$0	$0	$0	$0	$0
Total EEI	$650,863	$0	$1,714,574	$0	$177,684	$0	$2,543,120
Upstream Programs							
Information							
Contractor Training Program (HVAC)	$0	$0	$149,226	$0	$267,000	$0	$416,226
Statewide Upstream Appliances	$31,840	$0	$559,296	$0	$323,316	$0	$914,452
Energywise Contractor Program	$33,735	$0	$172,151	$0	$0	$0	$205,886
Energy Star Windows Program	$0	$0	$83,350	$0	$0	$0	$83,350
Financial Assistance							
Upstream Distributor Incentive Prog	$427,992	$0	$55,064	$0	$0	$0	$483,056
Statewide Upstream Lighting	$870,964	$0	$731,600	$0	$221,000	$0	$1,823,564
Residential Lighting Fixtures	$956,791	$0	$265,067	$0	$37,000	$0	$1,258,858
Targeted Third Party Initiatives	$0	$0	$829	$0	$0	$0	$829
Total Upstream	$2,321,322	$0	$2,016,582	$0	$848,316	$0	$5,186,221
Aggressive Implementation (earnings only)					$291,901		$291,901
TOTAL RESIDENTIAL	$2,972,785	$0	$6,080,782	$0	$1,317,901	$0	$10,371,468

TABLE TA 2.1
PROGRAM COST ESTIMATES USED FOR COST-EFFECTIVENESS (RESIDENTIAL)
GAS ONLY

PROGRAM	UTILITY COSTS						
	Program Incentives (Recorded)		Admin		Shareholder Inc	Other	Total
	Actual	Committed	Actual	Committed			
Information							
Statewide Energy Guide	$0	$0	$18,521	$0	$0	$0	$18,521
Energy Efficient Mortgage Program	$600	$0	$100,561	$0	$0	$0	$101,161
Information & Education	$0	$0	$257,034	$0	$0	$0	$257,034
In-Store EE Demonstration Co-op Progra	$0	$0	$86,880	$0	$0	$0	$86,880
Total Information	$600	$0	$462,995	$0	$0	$0	$463,595
EMS							
Energy Management Services	$0	$0	$241,156	$0	$0	$0	$241,156
Time of Sale Home Energy Rating	$0	$0	$95,345	$0	$0	$0	$95,345
Total EMS	$0	$0	$336,500	$0	$0	$0	$336,500
EEI							
SPC							
Res Energy Eff Prog (RCP)	$7,701	$0	$63,810	$0	$10,316	$0	$81,828
Rebates							
Downstream appliance Incentives	$0	$0	$0	$0	$0	$0	$0
Loans	$0	$0	$0	$0	$0	$0	$0
Other	$0	$0	$0	$0	$0	$0	$0
Total EEI	$7,701	$0	$63,810	$0	$10,316	$0	$81,828
Upstream Programs							
Information							
Contractor Training Program (HVAC)	$0	$0	$0	$0	$0	$0	$0
Statewide Upstream Appliances	$7,960	$0	$139,824	$0	$80,684	$0	$228,468
Energywise Contractor Program	$50,603	$0	$258,226	$0	$0	$0	$308,829
Energy Star Windows Program	$0	$0	$0	$0	$0	$0	$0
Financial Assistance							
Upstream Distributor Incentive Prog	$0	$0	$0	$0	$0	$0	$0
Statewide Upstream Lighting	$0	$0	$0	$0	$0	$0	$0
Residential Lighting Fixtures	$0	$0	$0	$0	$0	$0	$0
Targeted Third Party Initiatives	$0	$0	$829	$0	$0	$0	$829
Total Upstream	$58,563	$0	$398,879	$0	$80,684	$0	$538,125
Aggressive Implementation (earnings only)					$43,099		$43,099
TOTAL RESIDENTIAL	$66,864	$0	$1,262,184	$0	$134,099	$0	$1,463,147

TABLE TA 2.2
DIRECT AND ALLOCATED ADMINISTRATIVE COSTS
RESIDENTIAL: TOTAL GAS & ELECTRIC

PROGRAM	Administrative Cost Elements				
	Labor (direct)	Non-Labor (direct	Contract (direct)	Allocated	Total
Information					
Statewide Energy Guide	$26,009	$61,837	$0	$4,759	$92,605
Energy Efficient Mortgage Program	$30,304	$160,418	$0	$10,399	$201,121
Information & Education	$156,049	$1,063,065	$0	$66,055	$1,285,169
In-Store EE Demonstration Co-op Program	$19,020	$145,808	$0	$8,931	$173,759
Energy Star Windows Program	$33,310	$45,756	$0	$4,284	$83,350
Total Information	$264,692	$1,476,884	$0	$94,428	$1,836,004
EMS					
Energy Management Services	$314,387	$829,417	$0	$61,974	$1,205,778
Time of Sale Home Energy Rating	$27,932	$152,956	$0	$9,801	$190,689
Total EMS	$342,319	$982,373	$0	$71,775	$1,396,467
EEI					
SPC					
Res Energy Eff Prog (RCP)	$179,144	$1,013,150	$0	$83,908	$1,276,202
Rebates					
Downstream Appliance Incentives	$83,712	$366,727	$0	$51,743	$502,182
Loans	$0	$0	$0	$0	$0
Other	$0	$0	$0	$0	$0
Total EEI	$262,856	$1,379,877	$0	$135,651	$1,778,384
Upstream Programs					
Information					
Contractor Training Program (HVAC)	$7,086	$134,470	$0	$7,670	$149,226
Statewide Upstream Appliances	$61,301	$588,899	$0	$48,920	$699,120
Energywise Contractor Program	$27,088	$376,834	$0	$26,455	$430,377
Financial Assistance					
Upstream Distributor Incentive Prog	$26,761	$3,475	$0	$24,828	$55,064
Statewide Upstream Lighting	$99,746	$549,487	$0	$82,367	$731,600
Residential Lighting Fixtures	$55,382	$146,885	$0	$62,800	$265,067
Targeted Third Party Initiatives	$1,572	$0	$0	$85	$1,657
Total Upstream	$278,936	$1,800,050	$0	$253,125	$2,332,111
TOTAL RESIDENTIAL	$1,148,803	$5,639,184	$0	$554,979	$7,342,966

TABLE TA 2.2
DIRECT AND ALLOCATED ADMINISTRATIVE COSTS
RESIDENTIAL ELECTRIC ONLY

PROGRAM	Administrative Cost Elements				
	Labor (direct)	Non-Labor (direct	Contract (direct)	Allocated	Total
Information					
Statewide Energy Guide	$20,807	$49,470	$0	$3,807	$74,084
Energy Efficient Mortgage Program	$15,152	$80,209	$0	$5,200	$100,561
Information & Education	$124,839	$850,452	$0	$52,844	$1,028,135
In-Store EE Demonstration Co-op Program	$9,510	$72,904	$0	$4,466	$86,880
Energy Star Windows Program	$33,310	$45,756	$0	$4,284	$83,350
Total Information	$203,618	$1,098,791	$0	$70,600	$1,373,009
EMS					
Energy Management Services	$251,510	$663,534	$0	$49,579	$964,622
Time of Sale Home Energy Rating	$13,966	$76,478	$0	$4,901	$95,345
Total EMS	$265,476	$740,012	$0	$54,480	$1,059,967
EEI					
SPC					
Res Energy Eff Prog (RCP)	$170,187	$962,493	$0	$79,713	$1,212,392
Rebates					
Downstream Appliance Incentives	$83,712	$366,727	$0	$51,743	$502,182
Loans	$0	$0	$0	$0	$0
Other	$0	$0	$0	$0	$0
Total EEI	$253,899	$1,329,220	$0	$131,456	$1,714,574
Upstream Programs					
Information					
Contractor Training Program (HVAC)	$7,086	$134,470	$0	$7,670	$149,226
Statewide Upstream Appliances	$49,041	$471,119	$0	$39,136	$559,296
Energywise Contractor Program	$10,835	$150,734	$0	$10,582	$172,151
Financial Assistance					
Upstream Distributor Incentive Prog	$26,761	$3,475	$0	$24,828	$55,064
Statewide Upstream Lighting	$99,746	$549,487	$0	$82,367	$731,600
Residential Lighting Fixtures	$55,382	$146,885	$0	$62,800	$265,067
Targeted Third Party Initiatives	$786	$0	$0	$43	$829
Total Upstream	$249,637	$1,456,170	$0	$227,426	$1,933,232
TOTAL RESIDENTIAL	$972,630	$4,624,192	$0	$483,961	$6,080,782

TABLE TA 2.2
DIRECT AND ALLOCATED ADMINISTRATIVE COSTS
RESIDENTIAL GAS

PROGRAM	Administrative Cost Elements				
	Labor (direct)	Non-Labor (direct	Contract (direct)	Allocated	Total
Information					
Statewide Energy Guide	$5,202	$12,367	$0	$952	$18,521
Energy Efficient Mortgage Program	$15,152	$80,209	$0	$5,200	$100,561
Information & Education	$31,210	$212,613	$0	$13,211	$257,034
In-Store EE Demonstration Co-op Program	$9,510	$72,904	$0	$4,466	$86,880
Energy Star Windows Program	$0	$0	$0	$0	$0
Total Information	$61,074	$378,093	$0	$23,828	$462,995
EMS					
Energy Management Services	$62,877	$165,883	$0	$12,395	$241,156
Time of Sale Home Energy Rating	$13,966	$76,478	$0	$4,901	$95,345
Total EMS	$76,843	$242,361	$0	$17,295	$336,500
EEI					
SPC					
Res Energy Eff Prog (RCP)	$8,957	$50,658	$0	$4,195	$63,810
Rebates					
Downstream Appliance Incentives	$0	$0	$0	$0	$0
Loans	$0	$0	$0	$0	$0
Other	$0	$0	$0	$0	$0
Total EEI	$8,957	$50,658	$0	$4,195	$63,810
Upstream Programs					
Information					
Contractor Training Program (HVAC)	$0	$0	$0	$0	$0
Statewide Upstream Appliances	$12,260	$117,780	$0	$9,784	$139,824
Energywise Contractor Program	$16,253	$226,100	$0	$15,873	$258,226
Financial Assistance					
Upstream Distributor Incentive Prog	$0	$0	$0	$0	$0
Statewide Upstream Lighting	$0	$0	$0	$0	$0
Residential Lighting Fixtures	$0	$0	$0	$0	$0
Targeted Third Party Initiatives	$786	$0	$0	$43	$829
Total Upstream	$29,299	$343,880	$0	$25,700	$398,879
TOTAL RESIDENTIAL	$176,173	$1,014,993	$0	$71,018	$1,262,184

Table TA 2.3
Market Effects: Residential Projected Annual Program Energy Reductions
SPC Program -- Residential Contractor Program (Single Family Component)
Program Year: 1999

Average Load Impacts Per Unit (Gross)

	HVAC			Lighting			Misc		
Year	kW	kWh	Therms	kW	kWh	Therms	kW	kWh	Therms
1999		243,909	39,820	1	5,856			265	649
2000		243,909	39,820	1	5,856			265	649
2001		243,909	39,820	1	5,856			265	649
2002		243,909	39,820	1	5,856			265	649
2003		243,909	39,820	1	5,856			265	649
2004		243,909	39,820	1	5,856			265	649
2005		243,909	39,820	1	5,856			265	649
2006		243,909	39,820	1	5,856			265	649
2007		243,909	39,820	1	5,856			265	649
2008		243,909	39,820	0	1,586			265	649
2009		174,640	39,820	0	1,586			0	483
2010		174,640	39,820	0	1,586			0	483
2011		160,425	33,475	0	1,586			0	483
2012		160,425	33,475	0	1,586			0	483
2013		160,425	33,475	0	1,586			0	483
2014		68,165	26,883	0	1,586				
2015		68,165	26,883	0	1,586				
2016		68,165	26,883						
2017		60,195	22,893						
2018		60,195	22,893						
SUM (Lifecycle)		3,594,530	704,704	1	65,392			2,645	8,901

Table TA 2.3
Market Effects: Residential Projected Annual Program Energy Reductions
SPC Program -- Residential Contractor Program (Multi Family Component)
Program Year: 1999

Average Load Impacts Per Unit (Gross)

	HVAC			Lighting			Misc		
Year	kW	kWh	Therms	kW	kWh	Therms	kW	kWh	Therms
1999							0	0	12,890
2000							0	0	12,890
2001							0	0	12,890
2002							0	0	12,890
2003							0	0	12,890
2004							0	0	12,890
2005							0	0	12,890
2006							0	0	12,890
2007							0	0	12,890
2008							0	0	12,890
2009									
2010									
2011									
2012									
2013									
2014									
2015									
2016									
2017									
2018									
SUM (Lifecycle)							0	0	128,900

Table TA 2.3
Market Effects: Residential Projected Annual Program Energy Reductions
Rebates Program -- Downstream Appliance Incentives Program
Program Year: 1999

Average Load Impacts Per Unit (Gross)

	HVAC			Lighting			Misc		
Year	kW	kWh	Therms	kW	kWh	Therms	kW	kWh	Therms
1999							31	691,740	454,118
2000							31	691,740	454,118
2001							31	691,740	454,118
2002							31	691,740	454,118
2003							31	691,740	454,118
2004							31	691,740	454,118
2005							31	691,740	454,118
2006							31	691,740	454,118
2007							31	691,740	454,118
2008							0	378,432	454,118
2009									
2010									
2011									
2012									
2013									
2014									
2015									
2016									
2017									
2018									
SUM (Lifecycle)							31	6,604,092	4,541,184

Table TA 2.3
Market Effects: Residential Projected Annual Program Energy Reductions
Upstream Programs: Financial Assistance -- Lighting Fixtures Program*
Program Year: 1999

Average Load Impacts Per Unit (Gross)

	HVAC			Lighting			Misc		
Year	kW	kWh	Therms	kW	kWh	Therms	kW	kWh	Therms
1999				1,193	16,221,529	0			
2000				1,193	16,221,529	0			
2001				1,193	16,221,529	0			
2002				1,193	16,221,529	0			
2003				1,193	16,221,529	0			
2004				1,193	16,221,529	0			
2005				1,193	16,221,529	0			
2006				1,193	16,221,529	0			
2007				1,193	16,221,529	0			
2008				155	6,238,619	0			
2009				155	6,238,619	0			
2010				155	6,238,619	0			
2011				155	6,238,619	0			
2012				155	6,238,619	0			
2013				155	6,238,619	0			
2014				155	6,238,619	0			
2015				155	6,238,619	0			
2016				155	6,238,619	0			
2017				155	6,238,619	0			
2018				155	6,238,619	0			
SUM (Lifecycle)				1,193	214,618,576	0			

* Includes both SDG&E Lighting Fixture Program and Statewide Upstream Lighting Program.

Table TA 2.3
Market Effects: Residential Projected Annual Program Energy Reductions
Upstream Programs: Financial Assistance -- HVAC Distributor Incentives Program
Program Year: 1999

Average Load Impacts Per Unit (Gross)

	HVAC			Lighting			Misc		
Year	kW	kWh	Therms	kW	kWh	Therms	kW	kWh	Therms
1999	180	251,647	0						
2000	180	251,647	0						
2001	180	251,647	0						
2002	180	251,647	0						
2003	180	251,647	0						
2004	180	251,647	0						
2005	180	251,647	0						
2006	180	251,647	0						
2007	180	251,647	0						
2008	180	251,647	0						
2009	180	251,647	0						
2010	180	251,647	0						
2011	180	251,647	0						
2012	180	251,647	0						
2013	180	251,647	0						
2014	180	251,647	0						
2015	180	251,647	0						
2016	180	251,647	0						
2017									
2018									
SUM (Lifecycle)	180	4,529,651	0						

Table TA 2.4
Market Effects: Distribution of Residential Single-Family Contractor Payments
Program Year: 1999

	Commitments	Lighting Payments	HVAC Payments	Other Payments	Total Payments
Sempra EnergySolutions	$ -	$ -	$ -	$ -	$ -
Total Affiliate	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*
Contractor #1	$ 70,631	$ -	$ -	$ -	$ -
Contractor #2	$ 9,075	$ -	$ 925	$ -	$ 925
Contractor #3	$ 1,650	$ -	$ -	$ -	$ -
Contractor #4	$ 5,000	$ -	$ 2,700	$ -	$ 2,700
Contractor #5	$ 1,829	$ -	$ 1,829	$ -	$ 1,829
Contractor #6	$ 19,650	$ -	$ 10,150	$ -	$ 10,150
Contractor #7	$ 10,275	$ -	$ 9,600	$ -	$ 9,600
Contractor #8	$ 300	$ -	$ -	$ -	$ -
Contractor #9	$ 8,650	$ -	$ 1,500	$ -	$ 1,500
Contractor #10	$ 3,525	$ -	$ 900	$ -	$ 900
Contractor #11	$ 359	$ -	$ -	$ -	$ -
Contractor #12	$ 4,250	$ -	$ -	$ -	$ -
Contractor #13	$ 6,203	$ -	$ -	$ -	$ -
Contractor #14	$ 682	$ -	$ -	$ -	$ -
Contractor #15	$ 3,175	$ -	$ 650	$ -	$ 650
Contractor #16	$ 450	$ -	$ -	$ -	$ -
Contractor #17	$ 600	$ -	$ -	$ -	$ -
Contractor #18	$ 1,525	$ -	$ -	$ -	$ -
Contractor #19	$ 237	$ -	$ -	$ -	$ -
Contractor #20	$ 204	$ -	$ -	$ -	$ -
Contractor #21	$ 2,850	$ -	$ 600	$ -	$ 600
Contractor #22	$ 2,506	$ -	$ 800	$ -	$ 800
Contractor #23	$ 1,587	$ -	$ 148	$ -	$ 148
Total Contractors	*$ 155,213*	*$ -*	*$ 29,802*	*$ -*	*$ 29,802*
Totals	**$ 155,213**	**$ -**	**$ 29,802**	**$ -**	**$ 29,802**

Table TA 2.4
Market Effects: Distribution of Residential Multi-Family Contractor Payments
Program Year: 1999

	Commitments	Lighting Payments	HVAC Payments	Other Payments	Total Payments
Sempra Energy Solutions	$ -	$ -	$ -	$ -	$ -
Total Affiliate	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*
ESCO #1	$ 10,312	$ -	$ -	$ -	$ -
Total ESCO	*$ 10,312*	*$ -*	*$ -*	*$ -*	*$ -*
Totals	**$ 10,312**	**$ -**	**$ -**	**$ -**	**$ -**

Table TA 2.5
Measure Detail: Residential Program Area
SPC Program -- Residential Contractor Program (Single Family Component)
Program Year: 1999

Year	Measure Code	Measure Description	Recorded Qty	Total Customer Cost	Average Unit Cost	Total KWH Savings	Average kWh Savings	Total Therm Savings	Average Therm Savings	Measure Life	Measure End Use
1999	RC01	Basic HVAC Diagnostic/Tuneup	613	$ 95,628	$ 156.00	69,269	113	0	0	10	HVAC
1999	RC02	Advanced HVAC Diagnostic/Tuneup	163	$ 100,082	$ 614.00	92,144	565	6,520	40	15	HVAC
1999	RC03	Duct Testing	57	$ 26,129	$ 458.40	12,996	228	2,280	40	20	HVAC
1999	RC04	Duct Testing and Sealing	45	$ 7,128	$ 158.40	10,260	228	1,800	40	20	HVAC
1999	RC05	Energy Star Gas Furnace	38	$ 12,350	$ 325.00	0	0	885	23	20	HVAC
1999	RC06	Energy Star Central Heat Pump	10	$ 7,060	$ 706.00	2,277	228	3,990	399	18	HVAC
1999	RC07	Energy Star Central Air Conditioner	25	$ 13,168	$ 526.70	5,693	228	0	0	18	HVAC
1999	RC08	Programmable Thermostat	135	$ 21,870	$ 162.00	14,216	105	6,345	47	12	HVAC
1999	RC09	Attic Insulation (attic area per SqFt.)	78221	$ 40,320	$ 0.52	19,359	0	16,016	0	20	HVAC
1999	RC10	Wall Insulation (wall area per SqFt.)	33149	$ 26,061	$ 0.79	-340	0	2,798	0	20	HVAC
1999	RC12	High Performance Windows (window area per SqFt.)	8001	$ 10,560	$ 1.32	17,920	2	-886	0	20	HVAC
1999	RC13	High Efficiency Gas Water Heater	23	$ 345	$ 15.00	0	0	483	21	15	Misc
1999	RC14	Pipe Insulation	20	$ 115	$ 5.75	116	6	72	4	15	HVAC
1999	RC15	Water Saving Showerheads	23	$ 322	$ 14.00	265	12	166	7	10	Misc
1999	RC16	Hardwired Fluorescent Lighting Fixtures	26	$ 1,375	$ 52.90	1,586	61	0	0	17	Lighting
1999	RC17	Screw In Compact Fluorescent Lamps	70	$ 1,036	$ 14.80	4,270	61	0	0	9	Lighting

Table TA 2.5
Measure Detail: Residential Program Area
SPC Program -- Residential Contractor Program (Multi Family Component)
Program Year: 1999

Year	Measure Code	Measure Description	Recorded Qty	Total Customer Cost	Average Unit Cost	Total KWH Savings	Average kWh Savings	Total Therm Savings	Average Therm Savings	Measure Life	Measure End Use
1999	MISC	Boiler retrofit	1	$ 10,500	$ 10,500	0	0	12,890	12,890	10	Misc

Table TA 2.5
Measure Detail: Residential Program Area
Rebates Program -- Downstream Appliance Incentives Program
Program Year: 1999

Year	Measure Code	Measure Description	Recorded Qty	Total Customer Cost	Average Unit Cost	Total KWH Savings	Average kWh Savings	Total Therm Savings	Average Therm Savings	Measure Life	Measure End Use
1999	DR	Dishwasher	3868	$ 81,460	$ 21.06	313,308	81	0	0	9	Misc
1999	HR	Horizontal Axis Clothes Washer	3456	$ 1,730,000	$ 500.58	378,432	110	454,118	131	10	Misc

Table TA 2.5
Measure Detail: Residential Program Area
Upstream Programs: Financial Assistance -- Lighting Fixtures Program*
Program Year: 1999

Year	Measure Code	Measure Description	Recorded Qty	Total Customer Cost	Average Unit Cost	Total KWH Savings	Average kWh Savings	Total Therm Savings	Average Therm Savings	Measure Life	Measure End Use
1999	16	13W Rplc. Lamp	1045	$ 4,013	$ 3.84	51,964	50	0	0	9	Lighting
1999	17	18W Rplc. Lamp	1582	$ 6,075	$ 3.84	95,404	60	0	0	9	Lighting
1999	19	27W Rplc. Lamp	3956	$ 15,191	$ 3.84	305,538	77	0	0	9	Lighting
1999	20	30W Rplc. Lamp	9137	$ 35,086	$ 3.84	1,160,034	127	0	0	9	Lighting
1999	22	RETAIL LOA-C(2027) NEW	7113	$ 66,435	$ 9.34	469,707	66	0	0	9	Lighting
1999	23	RETAIL LOA-D(2030) NEW	11011	$ 102,843	$ 9.34	1,195,253	109	0	0	9	Lighting
1999	26	RETAIL FIXTURES	15697	$ 613,910	$ 39.11	1,494,668	95	0	0	20	Lighting
1999	31	13W Outdoor Fixture Jelly Jar (brz) (Retail)	3299	$ 178,773	$ 54.19	420,426	127	0	0	20	Lighting
1999	32	13W Outdoor Fixture Jelly Jar (wht) (Retail)	2863	$ 155,146	$ 54.19	364,862	127	0	0	20	Lighting
1999	35	27W Outdoor Fixture Panorama (brz) (Retail)	6268	$ 339,663	$ 54.19	1,580,598	252	0	0	20	Lighting
1999	36	27W Outdoor Fixture Panorama (wht) (Retail)	7227	$ 391,631	$ 54.19	1,822,429	252	0	0	20	Lighting
1999	39	13W Lamp w/Reflector (Retail)	2533	$ 17,832	$ 7.04	141,231	56	0	0	9	Lighting
1999	43	RETAIL 9027 27W Flood Light dusk-dawn	2091	$ 113,311	$ 54.19	555,635	266	0	0	20	Lighting
1999	48	RETAIL 1050 55W (Blk) Torchiere	396	$ 18,458	$ 46.61	87,250	220	0	0	9	Lighting
1999	49	RETAIL 1051 55W (Wht) Torchiere	472	$ 22,000	$ 46.61	103,995	220	0	0	9	Lighting
1999	55	RETAIL 1052 55W (blk) Torchiere	10711	$ 499,240	$ 46.61	2,359,939	220	0	0	9	Lighting
1999	56	RETAIL 1053 55W (blk) Torchiere	14219	$ 662,748	$ 46.61	3,132,851	220	0	0	9	Lighting
1999	91	LOA2315 15-Watt	7869	$ 30,217	$ 3.84	318,447	40	0	0	9	Lighting
1999	92	LOA2325 25-Watt	8322	$ 31,956	$ 3.84	561,298	67	0	0	9	Lighting

* Includes both SDG&E Lighting Fixture Program and Statewide Upstream Lighting Program.

Table TA 2.5
Measure Detail: Residential Program Area
Upstream Programs: Financial Assistance -- HVAC Distributor Incentives Program
Program Year: 1999

Year	Measure Code	Measure Description	Recorded Qty	Total Customer Cost	Average Unit Cost	Total KWH Savings	Average kWh Savings	Total Therm Savings	Average Therm Savings	Measure Life	Measure End Use
1999	AC02	HVAC Split Unit, Air Cooled	2374	$ 137,020	$ 57.72	251,647	106	0	0	18	HVAC

TABLE TA 3.1
PROGRAM COST ESTIMATES USED FOR COST-EFFECTIVENESS (NONRESIDENTIAL)
GAS AND ELECTRIC TOTAL

PROGRAM	UTILITY COSTS						
	Program Incentives (Recorded)		Admin		Shareholder Inc	Other	Total
	Actual	Committed	Actual	Committed			
Information							
Small	$0	$0	$157,439	$0	$0	$0	$157,439
Large	$0	$0	$81,808	$0	$0	$0	$81,808
Process	$0	$0	$49,218	$0	$0	$0	$49,218
HVAC	$0	$0	$140,088	$0	$0	$0	$140,088
Technical Assistance HVAC	$0	$0	$21,580	$0	$0	$0	$21,580
Motors	$0	$0	$48,778	$0	$0	$0	$48,778
Technical Assistance Motors	$0	$0	$33,360	$0	$0	$0	$33,360
Emerging Technologies	$0	$0	$0	$0	$0	$0	$0
Energy Efficiency Financing (Energy Cents)	$0	$0	$126,033	$0	$0	$0	$126,033
Technical Assistance, Small Comprehensive	$49,807	$0	$36,544	$0	$0	$0	$86,351
Building Operator Certificate	$0	$0	$0	$0	$0	$0	$0
Technical Assistance Process	$0	$0	$64,278	$0	$0	$0	$64,278
Total Information	$49,807	$0	$759,126	$0	$0	$0	$808,933
EMS							
Large	$0	$0	$0	$0	$0	$0	$0
Small/Medium							
Energy Management Services	$0	$0	$484,891	$0	$0	$0	$484,891
Targeted 3rd Party (TPI)	$0	$0	$258,918	$0	$81,000	$0	$339,918
Total EMS	$0	$0	$743,809	$0	$81,000	$0	$824,809
EEI: Customized Rebates							
Large	$0	$0	$0	$0	$0	$0	$0
Small/Medium	$0	$0	$0	$0	$0	$0	$0
EEI: Prescriptive Rebates							
Large							
Tenant Improvements	$157,857	$340,781	$351,303	$34,078	$114,000	$0	$998,019
Small/Medium							
Express Efficiency	$1,880,758	$0	$608,496	$0	$0	$0	$2,489,254
Commercial Horizontal Washers	$89,700	$0	$25,465	$0	$0	$0	$115,165
EEI: SPCs							
Large							
Nonresidential SPC (NRSPC)	$92,370	$3,444,235	$783,869	$344,424	$641,000	$0	$5,305,898
Small/Medium							
Small Business SPC (SBSPC)	$0	$257,815	$240,763	$25,782	$459,000	$0	$983,360
Total EEI	$2,220,685	$4,042,831	$2,009,896	$404,283	$1,214,000	$0	$9,891,695
Upstream Programs							
Information	$0	$0	$0	$0	$0	$0	$0
Financial Assistance							
Food Services Dishwashing Technologies	$0	$0	$0	$0	$0	$0	$0
Upstream HVAC Incentives	$255,105	$0	$59,080	$0	$0	$0	$314,185
Upstream Motors Incentives	$21,625	$0	$81,745	$0	$0	$0	$103,370
Total Upstream	$276,730	$0	$140,825	$0	$0	$0	$417,555
Aggressive Implementation (earnings only)					$0		$0
TOTAL NONRESIDENTIAL	$2,547,222	$4,042,831	$3,653,656	$404,283	$1,295,000	$0	$11,942,992

TABLE TA 3.1
PROGRAM COST ESTIMATES USED FOR COST-EFFECTIVENESS (NONRESIDENTIAL)
ELECTRIC ONLY

PROGRAM	UTILITY COSTS						
	Program Incentives (Recorded)		Admin		Shareholder Inc	Other	Total
	Actual	Committed	Actual	Committed			
Information							
Small	$0	$0	$94,463	$0	$0	$0	$94,463
Large	$0	$0	$49,085	$0	$0	$0	$49,085
Process	$0	$0	$29,531	$0	$0	$0	$29,531
HVAC	$0	$0	$84,053	$0	$0	$0	$84,053
Technical Assistance HVAC	$0	$0	$21,580	$0	$0	$0	$21,580
Motors	$0	$0	$48,778	$0	$0	$0	$48,778
Technical Assistance Motors	$0	$0	$33,360	$0	$0	$0	$33,360
Emerging Technologies	$0	$0	$0	$0	$0	$0	$0
Energy Efficiency Financing (Energy Cents)	$0	$0	$100,826	$0	$0	$0	$100,826
Technical Assistance, Small Comprehensive	$47,317	$0	$34,717	$0	$0	$0	$82,033
Building Operator Certificate	$0	$0	$0	$0	$0	$0	$0
Technical Assistance Process	$0	$0	$32,139	$0	$0	$0	$32,139
Total Information	$47,317	$0	$528,532	$0	$0	$0	$575,849
EMS							
Large	$0	$0	$0	$0	$0	$0	$0
Small/Medium							
Energy Management Services	$0	$0	$387,913	$0	$0	$0	$387,913
Targeted 3rd Party (TPI)	$0	$0	$129,459	$0	$41,179	$0	$170,638
Total EMS	$0	$0	$517,372	$0	$41,179	$0	$558,551
EEI: Customized Rebates							
Large	$0	$0	$0	$0	$0	$0	$0
Small/Medium	$0	$0	$0	$0	$0	$0	$0
EEI: Prescriptive Rebates							
Large							
Tenant Improvements	$134,178	$289,664	$298,608	$28,966	$96,876	$0	$848,292
Small/Medium							
Express Efficiency	$1,786,720	$0	$578,071	$0	$0	$0	$2,364,791
Commercial Horizontal Washers	$89,700	$0	$25,465	$0	$0	$0	$115,165
EEI: SPCs							
Large							
Nonresidential SPC (NRSPC)	$69,278	$2,583,176	$587,902	$258,318	$480,566	$0	$3,979,239
Small/Medium							
Small Business SPC (SBSPC)	$0	$219,143	$204,649	$21,914	$390,271	$0	$835,976
Total EEI	$2,079,876	$3,091,983	$1,694,694	$309,198	$967,713	$0	$8,143,464
Upstream Programs							
Information	$0	$0	$0	$0	$0	$0	$0
Financial Assistance							
Food Services Dishwashing Technologies	$0	$0	$0	$0	$0	$0	$0
Upstream HVAC Incentives	$255,105	$0	$59,080	$0	$0	$0	$314,185
Upstream Motors Incentives	$21,625	$0	$81,745	$0	$0	$0	$103,370
Total Upstream	$276,730	$0	$140,825	$0	$0	$0	$417,555
Aggressive Implementation (earnings only)					$0		$0
TOTAL NONRESIDENTIAL	$2,403,923	$3,091,983	$2,881,423	$309,198	$1,008,892	$0	$9,695,418

TABLE TA 3.1
PROGRAM COST ESTIMATES USED FOR COST-EFFECTIVENESS (NONRESIDENTIAL)
GAS ONLY

PROGRAM	UTILITY COSTS						
	Program Incentives (Recorded)		Admin		Shareholder Inc	Other	Total
	Actual	Committed	Actual	Committed			
Information							
Small	$0	$0	$62,976	$0	$0	$0	$62,976
Large	$0	$0	$32,723	$0	$0	$0	$32,723
Process	$0	$0	$19,687	$0	$0	$0	$19,687
HVAC	$0	$0	$56,035	$0	$0	$0	$56,035
Technical Assistance HVAC	$0	$0	$0	$0	$0	$0	$0
Motors	$0	$0	$0	$0	$0	$0	$0
Technical Assistance Motors	$0	$0	$0	$0	$0	$0	$0
Emerging Technologies	$0	$0	$0	$0	$0	$0	$0
Energy Efficiency Financing (Energy Cents)	$0	$0	$25,207	$0	$0	$0	$25,207
Technical Assistance, Small Comprehensive	$2,490	$0	$1,827	$0	$0	$0	$4,318
Building Operator Certificate	$0	$0	$0	$0	$0	$0	$0
Technical Assistance Process	$0	$0	$32,139	$0	$0	$0	$32,139
Total Information	$2,490	$0	$230,594	$0	$0	$0	$233,084
EMS							
Large	$0	$0	$0	$0	$0	$0	$0
Small/Medium							
Energy Management Services	$0	$0	$96,978	$0	$0	$0	$96,978
Targeted 3rd Party (TPI)	$0	$0	$129,459	$0	$39,821	$0	$169,280
Total EMS	$0	$0	$226,437	$0	$39,821	$0	$266,258
EEI: Customized Rebates							
Large	$0	$0	$0	$0	$0	$0	$0
Small/Medium	$0	$0	$0	$0	$0	$0	$0
EEI: Prescriptive Rebates							
Large							
Tenant Improvements	$23,679	$51,117	$52,695	$5,112	$17,124	$0	$149,727
Small/Medium							
Express Efficiency	$94,038	$0	$30,425	$0	$0	$0	$124,463
Commercial Horizontal Washers	$0	$0	$0	$0	$0	$0	$0
EEI: SPCs							
Large							
Nonresidential SPC (NRSPC)	$23,092	$861,059	$195,967	$86,106	$160,434	$0	$1,326,658
Small/Medium							
Small Business SPC (SBSPC)	$0	$38,672	$36,114	$3,867	$68,729	$0	$147,383
Total EEI	$140,809	$950,848	$315,202	$95,085	$246,287	$0	$1,748,231
Upstream Programs							
Information	$0	$0	$0	$0	$0	$0	$0
Financial Assistance							
Food Services Dishwashing Technologies	$0	$0	$0	$0	$0	$0	$0
Upstream HVAC Incentives	$0	$0	$0	$0	$0	$0	$0
Upstream Motors Incentives	$0	$0	$0	$0	$0	$0	$0
Total Upstream	$0	$0	$0	$0	$0	$0	$0
Aggressive Implementation (earnings only)					$0		$0
TOTAL NONRESIDENTIAL	$143,299	$950,848	$772,233	$95,085	$286,108	$0	$2,247,574

TABLE TA 3.2
DIRECT AND ALLOCATED ADMINISTRATIVE COSTS
NONRESIDENTIAL TOTAL

PROGRAM	Administrative Cost Elements				
	Labor (direct)	Non-Labor (direct)	Contract (direct)	Allocated	Total
Information					
Small	$38,823	$109,728	$0	$8,888	$157,439
Large	$17,377	$60,226	$0	$4,205	$81,808
Process	$5,386	$41,302	$0	$2,530	$49,218
HVAC	$5,386	$127,502	$0	$7,200	$140,088
Technical Assistance HVAC	$14,510	$5,961	$0	$1,109	$21,580
Motors	$5,335	$40,936	$0	$2,507	$48,778
Technical Assistance Motors	$30,991	$654	$0	$1,715	$33,360
Emerging Technologies	$0	$0	$0	$0	$0
Energy Efficiency Financing (Energy Cents)	$31,589	$87,966	$0	$6,478	$126,033
Technical Assistance, Small Comprehensive	$20,985	$11,917	$0	$3,642	$36,544
Building Operator Certificate	$0	$0	$0	$0	$0
Technical Assistance Process	$14,293	$46,681	$0	$3,304	$64,278
Total Information	$184,675	$532,873	$0	$41,578	$759,126
EMS					
Large	$0	$0	$0	$0	$0
Small/Medium					
Energy Management Services	$437,590	$22,379	$0	$24,922	$484,891
Targeted 3rd Party (TPI)	$17,576	$240,370	$0	$972	$258,918
Total EMS	$455,166	$262,749	$0	$25,894	$743,809
EEI: Customized Rebates					
Large	$0	$0	$0	$0	
Small/Medium	$0	$0	$0	$0	$0
EEI: Prescriptive Rebates					
Large					
Tenant Improvements	$193,568	$114,050	$0	$43,685	$351,303
Small/Medium					
Express Efficiency	$267,772	$218,683	$0	$122,041	$608,496
Commercial Horizontal Washers	$15,242	$1,868	$0	$8,355	$25,465
EEI: SPCs					
Large					
Nonresidential SPC (NRSPC)	$304,060	$257,749	$0	$222,060	$783,869
Small/Medium					
Small Business SPC (SBSPC)	$188,948	$39,440	$0	$12,375	$240,763
Total EEI	$969,590	$631,790	$0	$408,516	$2,009,896
Upstream Programs					
Information	$0	$0	$0	$0	$0
Financial Assistance					
Food Services Dishwashing Technologies	$0	$0	$0	$0	$0
Upstream HVAC Incentives	$41,471	$1,461	$0	$16,148	$59,080
Upstream Motors Incentives	$47,337	$28,047	$0	$6,361	$81,745
Total Upstream	$88,808	$29,508	$0	$22,509	$140,825
TOTAL NONRESIDENTIAL	$1,698,239	$1,456,920	$0	$498,497	$3,653,656

TABLE TA 3.2
DIRECT AND ALLOCATED ADMINISTRATIVE COSTS
NONRESIDENTIAL ELECTRIC ONLY

	Administrative Cost Elements				
PROGRAM	Labor (direct)	Non-Labor (direct	Contract (direct)	Allocated	Total
Information					
Small	$23,294	$65,837	$0	$5,333	$94,463
Large	$10,426	$36,136	$0	$2,523	$49,085
Process	$3,232	$24,781	$0	$1,518	$29,531
HVAC	$3,232	$76,501	$0	$4,320	$84,053
Technical Assistance HVAC	$14,510	$5,961	$0	$1,109	$21,580
Motors	$5,335	$40,936	$0	$2,507	$48,778
Technical Assistance Motors	$30,991	$654	$0	$1,715	$33,360
Emerging Technologies	$0	$0	$0	$0	$0
Energy Efficiency Financing (Energy Cents)	$25,271	$70,373	$0	$5,182	$100,826
Technical Assistance, Small Comprehensive	$19,936	$11,321	$0	$3,460	$34,717
Building Operator Certificate	$0	$0	$0	$0	$0
Technical Assistance Process	$7,147	$23,341	$0	$1,652	$32,139
Total Information	$143,373	$355,840	$0	$29,319	$528,532
EMS					
Large	$0	$0	$0	$0	$0
Small/Medium					
Energy Management Services	$350,072	$17,903	$0	$19,938	$387,913
Targeted 3rd Party (TPI)	$8,788	$120,185	$0	$486	$129,459
Total EMS	$358,860	$138,088	$0	$20,424	$517,372
EEI: Customized Rebates					
Large					
Small/Medium	$0	$0	$0	$0	$0
EEI: Prescriptive Rebates					
Large					
Tenant Improvements	$164,533	$96,943	$0	$37,132	$298,608
Small/Medium					
Express Efficiency	$254,383	$207,749	$0	$115,939	$578,071
Commercial Horizontal Washers	$15,242	$1,868	$0	$8,355	$25,465
EEI: SPCs					
Large					
Nonresidential SPC (NRSPC)	$228,045	$193,312	$0	$166,545	$587,902
Small/Medium					
Small Business SPC (SBSPC)	$160,606	$33,524	$0	$10,519	$204,649
Total EEI	$822,809	$533,395	$0	$338,490	$1,694,694
Upstream Programs					
Information	$0	$0	$0	$0	$0
Financial Assistance					
Food Services Dishwashing Technologies	$0	$0	$0	$0	$0
Upstream HVAC Incentives	$41,471	$1,461	$0	$16,148	$59,080
Upstream Motors Incentives	$47,337	$28,047	$0	$6,361	$81,745
Total Upstream	$88,808	$29,508	$0	$22,509	$140,825
TOTAL NONRESIDENTIAL	$1,413,850	$1,056,832	$0	$410,742	$2,881,423

TABLE TA 3.2
DIRECT AND ALLOCATED ADMINISTRATIVE COSTS
NONRESIDENTIAL GAS ONLY

	Administrative Cost Elements				
PROGRAM	Labor (direct)	Non-Labor (direct	Contract (direct)	Allocated	Total
Information					
Small	$15,529	$43,891	$0	$3,555	$62,976
Large	$6,951	$24,090	$0	$1,682	$32,723
Process	$2,154	$16,521	$0	$1,012	$19,687
HVAC	$2,154	$51,001	$0	$2,880	$56,035
Technical Assistance HVAC	$0	$0	$0	$0	$0
Motors	$0	$0	$0	$0	$0
Technical Assistance Motors	$0	$0	$0	$0	$0
Emerging Technologies	$0	$0	$0	$0	$0
Energy Efficiency Financing (Energy Cents)	$6,318	$17,593	$0	$1,296	$25,207
Technical Assistance, Small Comprehensive	$1,049	$596	$0	$182	$1,827
Building Operator Certificate	$0	$0	$0	$0	$0
Technical Assistance Process	$7,147	$23,341	$0	$1,652	$32,139
Total Information	$41,302	$177,033	$0	$12,259	$230,594
EMS					
Large	$0	$0	$0	$0	$0
Small/Medium					
Energy Management Services	$87,518	$4,476	$0	$4,984	$96,978
Targeted 3rd Party (TPI)	$8,788	$120,185	$0	$486	$129,459
Total EMS	$96,306	$124,661	$0	$5,470	$226,437
EEI: Customized Rebates					
Large	$0	$0	$0	$0	
Small/Medium	$0	$0	$0	$0	$0
EEI: Prescriptive Rebates					
Large					
Tenant Improvements	$29,035	$17,108	$0	$6,553	$52,695
Small/Medium					
Express Efficiency	$13,389	$10,934	$0	$6,102	$30,425
Commercial Horizontal Washers	$0	$0	$0	$0	$0
EEI: SPCs					
Large					
Nonresidential SPC (NRSPC)	$76,015	$64,437	$0	$55,515	$195,967
Small/Medium					
Small Business SPC (SBSPC)	$28,342	$5,916	$0	$1,856	$36,114
Total EEI	$146,781	$98,395	$0	$70,026	$315,202
Upstream Programs					
Information	$0	$0	$0	$0	$0
Financial Assistance					
Food Services Dishwashing Technologies	$0	$0	$0	$0	$0
Upstream HVAC Incentives	$0	$0	$0	$0	$0
Upstream Motors Incentives	$0	$0	$0	$0	$0
Total Upstream	$0	$0	$0	$0	$0
TOTAL NONRESIDENTIAL	$284,389	$400,088	$0	$87,755	$772,233

Table TA 3.3
Market Effects: Nonresidential Projected Annual Program Energy Reductions
Large Prescriptive Rebates -- Tenant Improvement Program
Program Year: 1999

Average Load Impacts Per Unit (Gross)

	HVAC			Lighting			Misc		
Year	kW	kWh	Therms	kW	kWh	Therms	kW	kWh	Therms
1999	1,096	3,817,124	59,788	1,135	3,486,426	0	403	1,212,419	3,665
2000	1,096	3,817,124	59,788	1,135	3,486,426	0	403	1,212,419	3,665
2001	1,096	3,817,124	59,788	1,135	3,486,426	0	403	1,212,419	3,665
2002	1,096	3,817,124	59,788	1,135	3,486,426	0	403	1,212,419	3,665
2003	1,096	3,817,124	59,788	1,135	3,486,426	0	403	1,212,419	3,665
2004	1,096	3,817,124	59,788	1,135	3,486,426	0	403	1,212,419	3,665
2005	1,096	3,817,124	59,788	1,135	3,486,426	0	403	1,212,419	3,665
2006	1,096	3,817,124	59,788	1,135	3,486,426	0	403	1,212,419	3,665
2007	1,096	3,817,124	59,788	1,135	3,486,426	0	403	1,212,419	3,665
2008	1,096	3,817,124	59,788	1,132	3,464,824	0	403	1,212,419	3,665
2009	1,096	3,817,124	59,788	1,124	3,416,608	0	403	1,212,419	3,665
2010	1,096	3,817,124	59,788	1,124	3,416,608	0	403	1,212,419	3,665
2011	1,096	3,817,124	59,788	1,124	3,416,608	0	403	1,212,419	3,665
2012	1,096	3,817,124	59,788	1,124	3,416,608	0	403	1,212,419	3,665
2013	1,096	3,817,124	59,788	949	2,659,813	0	403	1,212,419	3,665
2014	178	708,423	-2	669	1,814,103	0			
2015	178	708,423	-2	669	1,814,103	0			
2016	178	708,423	-2	552	1,399,536	0			
2017	178	708,423	-2	5	40,703	0			
2018	178	708,423	-2	5	40,703	0			
SUM (Lifecycle)	1,096	60,798,977	896,810	1,135	56,278,056	0	403	18,186,285	54,975

Table TA 3.3
Market Effects: Nonresidential Projected Annual Program Energy Reductions
Small/Medium Prescriptive Rebates -- Express Efficiency Program
Program Year: 1999

Average Load Impacts Per Unit (Gross)

	HVAC			Lighting			Misc		
Year	kW	kWh	Therms	kW	kWh	Therms	kW	kWh	Therms
1999	93	182,753	16	5,719	30,288,317	0			
2000	93	182,753	16	5,719	30,288,317	0			
2001	93	182,753	16	5,719	30,288,317	0			
2002	93	182,753	16	5,719	30,288,317	0			
2003	90	178,571	16	5,719	30,288,317	0			
2004	87	175,244	16	5,719	30,288,317	0			
2005	87	175,244	16	5,719	30,288,317	0			
2006	87	175,244	16	5,492	29,113,757	0			
2007	82	168,174	16	5,479	27,462,100	0			
2008	82	168,174	16	5,479	27,462,100	0			
2009	78	92,966	16	5,479	27,462,100	0			
2010	68	52,036	16	5,479	27,462,100	0			
2011	68	52,036	16	5,479	27,462,100	0			
2012	68	52,036	16	5,479	27,462,100	0			
2013	68	52,036	16	5,479	27,462,100	0			
2014	4	6,781	0	5,479	27,462,100	0			
2015									
2016									
2017									
2018									
SUM (Lifecycle)	93	2,079,553	240	5,719	460,828,778	0			

Table TA 3.3
Market Effects: Nonresidential Projected Annual Program Energy Reductions
Small/Medium Prescriptive Rebates -- TPI Horizontal Washers Program
Program Year: 1999

Average Load Impacts Per Unit (Gross)

	HVAC			Lighting			Misc		
Year	kW	kWh	Therms	kW	kWh	Therms	kW	kWh	Therms
1999								65,780	78,338
2000								65,780	78,338
2001								65,780	78,338
2002								65,780	78,338
2003								65,780	78,338
2004								65,780	78,338
2005								65,780	78,338
2006								65,780	78,338
2007								65,780	78,338
2008								65,780	78,338
2009									
2010									
2011									
2012									
2013									
2014									
2015									
2016									
2017									
2018									
SUM (Lifecycle)								657,800	783,380

Table TA 3.3
Market Effects: Nonresidential Projected Annual Program Energy Reductions
EEI SPC: Large -- Large SPC
Program Year: 1999

Average Load Impacts Per Unit (Gross)

	HVAC			Lighting			Misc		
Year	kW	kWh	Therms	kW	kWh	Therms	kW	kWh	Therms
1999	657	5,992,962	0	1,491	13,016,587	0	1,404	20,517,210	765,364
2000	657	5,992,962	0	1,491	13,016,587	0	1,404	20,517,210	765,364
2001	657	5,992,962	0	1,491	13,016,587	0	1,404	20,517,210	765,364
2002	657	5,992,962	0	1,491	13,016,587	0	1,404	20,517,210	765,364
2003	657	5,992,962	0	1,491	13,016,587	0	1,404	20,517,210	765,364
2004	657	5,992,962	0	1,491	13,016,587	0	1,404	20,517,210	765,364
2005	657	5,992,962	0	1,491	13,016,587	0	1,404	20,517,210	765,364
2006	657	5,992,962	0	1,491	13,016,587	0	1,404	20,517,210	765,364
2007	657	5,992,962	0	1,491	13,016,587	0	1,404	20,517,210	765,364
2008	657	5,992,962	0	1,491	13,016,587	0	1,404	20,517,210	765,364
2009	657	5,992,962	0	1,491	13,016,587	0			
2010	657	5,992,962	0	1,491	13,016,587	0			
2011	657	5,992,962	0	1,491	13,016,587	0			
2012	657	5,992,962	0	1,491	13,016,587	0			
2013	657	5,992,962	0	1,491	13,016,587	0			
2014	657	5,992,962	0	1,491	13,016,587	0			
2015	657	5,992,962	0						
2016	657	5,992,962	0						
2017	657	5,992,962	0						
2018	657	5,992,962	0						
SUM (Lifecycle)	657	119,859,240	0		208,265,392	0	1,404	205,172,100	7,653,640

Table TA 3.3
Market Effects: Nonresidential Projected Annual Program Energy Reductions
EEI SPC: Small/Medium -- Small Business SPC
Program Year: 1999

Average Load Impacts Per Unit (Gross)

	HVAC			Lighting			Misc		
Year	kW	kWh	Therms	kW	kWh	Therms	kW	kWh	Therms
1999	52	504,989	0	254	1,685,938	0	0	233,748	14,134
2000	52	504,989	0	254	1,685,938	0	0	233,748	14,134
2001	52	504,989	0	254	1,685,938	0	0	233,748	14,134
2002	52	504,989	0	254	1,685,938	0	0	233,748	14,134
2003	52	504,989	0	254	1,685,938	0	0	233,748	14,134
2004	52	504,989	0	254	1,685,938	0	0	233,748	14,134
2005	52	504,989	0	254	1,685,938	0	0	233,748	14,134
2006	52	504,989	0	254	1,685,938	0	0	233,748	14,134
2007	52	504,989	0	254	1,685,938	0	0	233,748	14,134
2008	52	504,989	0	254	1,685,938	0	0	233,748	14,134
2009	52	504,989	0	254	1,685,938	0			
2010	52	504,989	0	254	1,685,938	0			
2011	52	504,989	0	254	1,685,938	0			
2012	52	504,989	0	254	1,685,938	0			
2013	52	504,989	0	254	1,685,938	0			
2014	52	504,989	0	254	1,685,938	0			
2015	52	504,989	0						
2016	52	504,989	0						
2017	52	504,989	0						
2018	52	504,989	0						
SUM (Lifecycle)	52	10,099,780	0	254	26,975,013	0		2,337,480	141,340

Table TA 3.3
Market Effects: Nonresidential Projected Annual Program Energy Reductions
Upstream Programs: Financial Assistance -- Upstream HVAC Incentives Program
Program Year: 1999

Average Load Impacts Per Unit (Gross)

	HVAC			Lighting			Misc		
Year	kW	kWh	Therms	kW	kWh	Therms	kW	kWh	Therms
1999	131	130,962	0						
2000	131	130,962	0						
2001	131	130,962	0						
2002	131	130,962	0						
2003	131	130,962	0						
2004	131	130,962	0						
2005	131	130,962	0						
2006	131	130,962	0						
2007	131	130,962	0						
2008	131	130,962	0						
2009	131	130,962	0						
2010	131	130,962	0						
2011	131	130,962	0						
2012	131	130,962	0						
2013	131	130,962	0						
2014									
2015									
2016									
2017									
2018									
SUM (Lifecycle)	131	1,964,428	0						

Table TA 3.3
Market Effects: Nonresidential Projected Annual Program Energy Reductions
Upstream Programs: Financial Assistance -- Upstream Motor Incentives Program
Program Year: 1999

Average Load Impacts Per Unit (Gross)

	HVAC			Lighting			Misc		
Year	kW	kWh	Therms	kW	kWh	Therms	kW	kWh	Therms
1999							42	268,278	0
2000							42	268,278	0
2001							42	268,278	0
2002							42	268,278	0
2003							42	268,278	0
2004							42	268,278	0
2005							42	268,278	0
2006							42	268,278	0
2007							42	268,278	0
2008							42	268,278	0
2009							42	268,278	0
2010							42	268,278	0
2011							42	268,278	0
2012							42	268,278	0
2013							42	268,278	0
2014									
2015									
2016									
2017									
2018									
SUM (Lifecycle)							42	4,024,170	0

Table TA 3.4
Market Effects: Distribution of Large Nonresidential SPC Payments
Program Year: 1999

	Commitments	Lighting Payments	HVAC Payments	Other Payments	Total Payments
Sempra Energy Solutions	$ -	$ -	$ -	$ -	$ -
Total Affiliate	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*
ESCO #1	$ 26,464	$ -	$ -	$ -	$ -
ESCO #2	$ 400,000	$ -	$ -	$ -	$ -
ESCO #3	$ 96,557	$ -	$ -	$ -	$ -
ESCO #4	$ 709,892	$ -	$ -	$ -	$ -
ESCO #5	$ 160,987	$ -	$ -	$ -	$ -
ESCO #6	$ 116,155	$ -	$ -	$ -	$ -
ESCO #7	$ 51,719	$ -	$ -	$ -	$ -
ESCO #8	$ 38,570	$ -	$ -	$ -	$ -
Total ESCO	*$ 1,600,343*	*$ -*	*$ -*	*$ -*	*$ -*
Customer #1	$ 33,880	$ -	$ -	$ -	$ -
Customer #2	$ 122,454	$ -	$ -	$ -	$ -
Customer #3	$ 28,782	$ -	$ -	$ -	$ -
Customer #4	$ 249,777	$ -	$ -	$ -	$ -
Customer #5	$ 79,821	$ -	$ -	$ -	$ -
Customer #6	$ 64,563	$ -	$ -	$ -	$ -
Customer #7	$ 13,975	$ -	$ -	$ -	$ -
Customer #8	$ 96,571	$ -	$ -	$ -	$ -
Customer #9	$ 164,601	$ -	$ -	$ -	$ -
Customer #10	$ 294,576	$ -	$ -	$ -	$ -
Customer #11	$ 68,920	$ -	$ -	$ -	$ -
Customer #12	$ 125,721	$ -	$ -	$ -	$ -
Customer #13	$ 113,412	$ -	$ -	$ -	$ -
Customer #14	$ 48,270	$ -	$ -	$ -	$ -
Customer #15	$ 117,081	$ -	$ -	$ -	$ -
Customer #16	$ 24,960	$ -	$ -	$ -	$ -
Customer #17	$ 50,751	$ -	$ -	$ -	$ -
Customer #18	$ 254,020	$ -	$ 37,872	$ 54,499	$ 92,370
Total Customer	*$ 1,952,133.81*	*$ -*	*$ 37,871.70*	*$ 54,498.75*	*$ 92,370.45*
Totals	**$ 3,552,476.81**	**$ -**	**$ 37,871.70**	**$ 54,498.75**	**$ 92,370.45**

Table TA 3.4
Market Effects: Distribution of Small Nonresidential SPC Payments
Program Year: 1999

	Commitments	Lighting Payments	HVAC Payments	Other Payments	Total Payments
Sempra Energy Solutions	$ -	$ -	$ -	$ -	$ -
Total Affiliate	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*
ESCO #1	$ 41,443	$ -	$ -	$ -	$ -
ESCO #2	$ 22,329	$ 5,395	$ -	$ -	$ 5,395
ESCO #3	$ 5,661	$ -	$ 4,558	$ -	$ 4,558
ESCO #4	$ 16,811	$ -	$ -	$ -	$ -
ESCO #5	$ 10,618	$ -	$ -	$ -	$ -
ESCO #6	$ 61,376	$ -	$ -	$ -	$ -
ESCO #7	$ 57,096	$ -	$ -	$ -	$ -
Total ESCO	*$ 215,333*	*$ 5,395*	*$ 4,558*	*$ -*	*$ 9,954*
Customer #1	$ 17,173	$ -	$ -	$ -	$ -
Total Customer	*$ 17,173*	*$ -*	*$ -*	*$ -*	*$ -*
Totals	**$ 232,506**	**$ 5,395**	**$ 4,558**	**$ -**	**$ 9,954**

Table TA 3.5
Measure Detail: Nonresidential Program Area
Large Prescriptive Rebates -- Tenant Improvement Program
Program Year: 1999

Year	Measure Code	Measure Description	Recorded Qty	Total Customer Cost	Average Unit Cost	Total KWH Savings	Average kWh Savings	Total Therm Savings	Average Therm Savings	Measure Life	Measure End Use
1999	AC00	2-speed cooling tower motor 50 hp	3	$ 9,146	$ 3,048.67	355,734	118,578	0	0	20	HVAC
1999	AC00	40 Ton Packaged AC VAV/AFD Carrier 50EK 044 510ED	2	$ 5,400	$ 2,700.00	33,457	16,729	-13	-7	15	HVAC
1999	AC00	550 ton injection molding w/ASD 60 hp	1	$ 10,800	$ 10,800.00	54,532	54,532	0	0	15	Misc
1999	AC00	550 ton injection molding w/thermal blanket	1	$ 688	$ 688.00	29,752	29,752	0	0	15	Misc
1999	AC00	Carrier 50HJQ005	4	$ 2,408	$ 602.00	2,742	686	0	0	15	HVAC
1999	AC00	Carrier 50HJQ006	2	$ 1,306	$ 653.00	1,684	842	0	0	15	HVAC
1999	AC00	Chiller Air Cooled	2	$ 8,392	$ 4,196.00	27,958	13,979	0	0	15	HVAC
1999	AC00	Enhanced computer room air condidtioner, 10.6E	1	$ 750	$ 750.00	3,627	3,627	0	0	15	HVAC
1999	AC00	Guardian U Value .89 SC .25	1	$ 22,403	$ 22,403.00	40,977	40,977	7,153	7,153	15	HVAC
1999	AC00	Hi Eff Water Cld Chill VAV/ASD ah 2-1200t 2-600t	1	$ 61,570	$ 61,570.00	252,390	252,390	-2	-2	20	HVAC
1999	AC00	Lennox LGA240H 20 ton A/C	7	$ 8,260	$ 1,180.00	37,644	5,378	0	0	15	HVAC
1999	AC00	Package AC CAV Carrier 48EJD024	1	$ 1,957	$ 1,957.00	4,843	4,843	0	0	15	HVAC
1999	AC00	Package AC CAV Carrier 48HJE004	9	$ 396	$ 44.00	6,572	730	0	0	15	HVAC
1999	AC00	Pkgd rooftop unit Carrier 48HJD005	3	$ 1,953	$ 651.00	2,859	953	0	0	15	HVAC
1999	AC00	Pkgd rooftop unit Carrier 48HJD006	1	$ 690	$ 690.00	1,217	1,217	0	0	15	HVAC
1999	AC00	Pkgd rooftop unit Carrier 48HJD008	1	$ 1,281	$ 1,281.00	1,697	1,697	0	0	15	HVAC
1999	AC00	Pkgd rooftop unit Carrier 48HJD012	1	$ 1,567	$ 1,567.00	2,131	2,131	0	0	15	HVAC
1999	AC00	Pkgd rooftop unit Carrier 48HJE004	1	$ 396	$ 396.00	730	730	0	0	15	HVAC
1999	AC00	Pkgd rooftop unit Carrier 48SX024	1	$ 304	$ 304.00	352	352	0	0	15	HVAC
1999	AC00	Pkgd rooftop unit Trane YCD037	2	$ 556	$ 278.00	1,196	598	0	0	15	HVAC
1999	AC00	Pkgd rooftop unit Trane YCD037C	2	$ 556	$ 278.00	1,242	621	0	0	15	HVAC
1999	AC00	Pkgd rooftop unit Trane YCD037C3LB	3	$ 556	$ 185.33	1,196	399	0	0	15	HVAC
1999	AC00	Pkgd rooftop unit Trane YCD049C	2	$ 640	$ 320.00	1,504	752	0	0	15	HVAC
1999	AC00	Pkgd rooftop unit Trane YCD049C3LB	2	$ 640	$ 320.00	1,442	721	0	0	15	HVAC
1999	AC00	Pkgd rooftop unit Trane YCD049C3LO	1	$ 320	$ 320.00	721	721	0	0	15	HVAC
1999	AC00	Pkgd rooftop unit Trane YCD061	3	$ 1,071	$ 357.00	2,637	879	0	0	15	HVAC
1999	AC00	Pkgd rooftop unit Trane YCD061C	2	$ 714	$ 357.00	1,830	915	0	0	15	HVAC
1999	AC00	Pkgd rooftop unit Trane YCD061C3LB	1	$ 357	$ 357.00	879	879	0	0	15	HVAC
1999	AC00	Pkgd rooftop unit Trane YCD061C3LO	1	$ 357	$ 357.00	879	879	0	0	15	HVAC
1999	AC00	Pkgd rooftop unit Trane YCD074	1	$ 461	$ 461.00	733	733	0	0	15	HVAC
1999	AC00	Pkgd rooftop unit Trane YCD074C	1	$ 461	$ 461.00	733	733	0	0	15	HVAC
1999	AC00	Pkgd rooftop unit Trane YCD074C2LA	1	$ 461	$ 461.00	703	703	0	0	15	HVAC
1999	AC00	Pkgd rooftop unit Trane YCD074C3LC	1	$ 461	$ 461.00	703	703	0	0	15	HVAC
1999	AC00	Pkgd rooftop unit Trane YCD121C3LC	1	$ 1,333	$ 1,333.00	2,548	2,548	0	0	15	HVAC
1999	AC00	Pkgd rooftop unit Trane YCH091	1	$ 784	$ 784.00	999	999	0	0	15	HVAC
1999	AC00	Pkgd rooftop units Carrier 48HJD006	6	$ 4,140	$ 690.00	7,302	1,217	0	0	15	HVAC
1999	AC00	Pkgd rooftop units Carrier 48HJD007	37	$ 31,154	$ 842.00	49,270	1,332	0	0	15	HVAC
1999	AC00	Pkgd rooftop units Carrier 48HJD012	4	$ 4,052	$ 1,013.00	8,524	2,131	0	0	15	HVAC
1999	AC00	Pkgd rooftop units Carrier 48HJD017	3	$ 5,592	$ 1,864.00	9,413	3,138	0	0	15	HVAC
1999	AC00	Pkgd rooftop units Carrier 48SX024	4	$ 1,216	$ 304.00	1,406	352	0	0	15	HVAC
1999	AC00	Pkgd rooftop units Carrier48HJD006	16	$ 11,040	$ 690.00	19,473	1,217	0	0	15	HVAC
1999	AC00	Pkgd rooftop units Trane YCD037C	4	$ 1,112	$ 278.00	2,483	621	0	0	15	HVAC
1999	AC00	Pkgd rooftop units Trane YCD049C3LB	5	$ 1,600	$ 320.00	3,604	721	0	0	15	HVAC
1999	AC00	Pkgd rooftop units Trane YCD049C3LO	12	$ 3,840	$ 320.00	8,650	721	0	0	15	HVAC
1999	AC00	Pkgd rooftop units Trane YCD049CLO	2	$ 640	$ 320.00	1,442	721	0	0	15	HVAC
1999	AC00	Pkgd rooftop units Trane YCD061C	13	$ 4,641	$ 357.00	11,884	914	0	0	15	HVAC
1999	AC00	Pkgd rooftop units Trane YCD061C3LB	2	$ 714	$ 357.00	1,758	879	0	0	15	HVAC
1999	AC00	Pkgd rooftop units Trane YCD074C3LC	2	$ 922	$ 461.00	1,406	703	0	0	15	HVAC
1999	AC00	Pkgd rooftop units Trane YCD091C3LC	2	$ 1,568	$ 784.00	1,688	844	0	0	15	HVAC
1999	AC00	Pkgd rooftop units Trane YCD121C3LC	2	$ 2,666	$ 1,333.00	5,096	2,548	0	0	15	HVAC
1999	AC00	Pkgd rooftop units Trane YCH049	4	$ 320	$ 80.00	753	188	0	0	15	HVAC
1999	AC00	Pkgd rooftop units Trane YCH181C	2	$ 1,950	$ 975.00	4,459	2,230	0	0	15	HVAC
1999	AC00	Pkgd rooftop units Trane YCH181C3LC	2	$ 12,998	$ 6,499.00	8,443	4,222	0	0	15	HVAC

Table TA 3.5
Measure Detail: Nonresidential Program Area
Large Prescriptive Rebates -- Tenant Improvement Program (Continued)
Program Year: 1999

Year	Measure Code	Measure Description	Recorded Qty	Total Customer Cost	Average Unit Cost	Total KWH Savings	Average kWh Savings	Total Therm Savings	Average Therm Savings	Measure Life	Measure End Use
1999	AC00	Pkged rooftop units Trane YCD049C3LB	3	$ 960	$ 320.00	2,162	721	0	0	15	HVAC
1999	AC00	Trane TTP024 split system 12.9 EER	4	$ 1,080	$ 270.00	2,087	522	0	0	15	HVAC
1999	AC00	Trane TTP036 split system 12.8 EER	4	$ 1,768	$ 442.00	2,861	715	0	0	15	HVAC
1999	AC00	Trane TTP042 split system 12.2 EER	5	$ 2,425	$ 485.00	3,146	629	0	0	15	HVAC
1999	AC00	Trane TTP060 split system, 12.2 EER	2	$ 874	$ 437.00	1,627	814	0	0	15	HVAC
1999	AC00	Trane TWP060C Split Systems HP	3	$ 1,722	$ 574.00	3,168	1,056	0	0	15	HVAC
1999	AC00	TTP048 split system 12.4 EER	18	$ 7,992	$ 444.00	13,210	734	0	0	15	HVAC
1999	AC00	VAV Fume Hoods (Phoenix)	4	$ 14,500	$ 3,625.00	0	0	6,966	1,742	15	HVAC
1999	AC00	Water Source Heat Pumps Trane WPHF035	3	$ 1,200	$ 400.00	3,017	1,006	0	0	15	HVAC
1999	AC00	York D1HG048N060	18	$ 11,718	$ 651.00	17,951	997	0	0	15	HVAC
1999	AC00	York D1HG048N06046EBB	17	$ 11,067	$ 651.00	16,954	997	0	0	15	HVAC
1999	AC00	York D1HG060N079	3	$ 2,070	$ 690.00	2,739	913	0	0	15	HVAC
1999	AC00	York D1HG060N079463BB	2	$ 1,380	$ 690.00	1,826	913	0	0	15	HVAC
1999	AC03	Pkgd rooftop unit Carrier 48HJD004	1	$ 169	$ 169.46	1,353	1,353	0	0	15	HVAC
1999	AC03	Pkgd rooftop unit Lennox GCS16-036	2	$ 256	$ 127.89	2,042	1,021	0	0	15	HVAC
1999	AC03	Pkgd rooftop units Carrier 48HJD005	5	$ 1,101	$ 220.30	8,792	1,758	0	0	15	HVAC
1999	AC03	Pkgd rooftop units Carrier 48HJD006	3	$ 847	$ 282.44	6,763	2,254	0	0	15	HVAC
1999	AC03	Trane YCD037	2	$ 253	$ 126.45	2,019	1,009	0	0	15	HVAC
1999	AC03	Trane YCD037C	2	$ 217	$ 108.71	1,735	868	0	0	15	HVAC
1999	AC03	Trane YCD049	2	$ 247	$ 123.33	1,969	984	0	0	15	HVAC
1999	AC03	Trane YCD049C	2	$ 262	$ 131.09	2,093	1,046	0	0	15	HVAC
1999	AC03	Trane YCD061	3	$ 542	$ 180.65	4,326	1,442	0	0	15	HVAC
1999	AC03	Trane YCD061C	5	$ 767	$ 153.47	6,125	1,225	0	0	15	HVAC
1999	AC03	Trane YCH061 packaged rooftop units	1	$ 160	$ 159.87	1,276	1,276	0	0	15	HVAC
1999	AC04	Pkgd rooftop unit Carrier 48HJD007	1	$ 285	$ 284.75	2,273	2,273	0	0	15	HVAC
1999	AC04	Pkgd rooftop unit Carrier 48HJD008	1	$ 344	$ 344.46	2,749	2,749	0	0	15	HVAC
1999	AC04	Pkgd rooftop units Trane YCD091	12	$ 2,287	$ 190.55	18,251	1,521	0	0	15	HVAC
1999	AC04	Trane YCD074	3	$ 416	$ 138.61	3,319	1,106	0	0	15	HVAC
1999	AC04	Trane YCD074C	5	$ 583	$ 116.53	4,651	930	0	0	15	HVAC
1999	AC04	Trane YCD086	1	$ 90	$ 90.21	720	720	0	0	15	HVAC
1999	AC04	Trane YCD091C	4	$ 556	$ 139.02	4,438	1,110	0	0	15	HVAC
1999	AC04	Trane YCD103	2	$ 706	$ 352.79	5,632	2,816	0	0	15	HVAC
1999	AC04	Trane YCD121	2	$ 1,007	$ 503.25	8,034	4,017	0	0	15	HVAC
1999	AC04	Trane YCH121 packaged rooftop units	1	$ 215	$ 214.66	1,713	1,713	0	0	15	HVAC
1999	AC05	Trane YCD091C	2	$ 397	$ 198.45	3,168	1,584	0	0	15	HVAC
1999	AC05	Trane YCD151	4	$ 2,789	$ 697.31	22,263	5,566	0	0	15	HVAC
1999	AC05	Trane YCD181	5	$ 4,531	$ 906.19	36,164	7,233	0	0	15	HVAC
1999	CH00	360 ton Chiller @.506 kW/ton efficiency	2	$ 25,006	$ 12,503.00	69,636	34,818	0	0	20	HVAC
1999	CH00	Carrier 83 ton screw chiller, 0.748 kW/ton	1	$ 4,358	$ 4,358.00	15,055	15,055	0	0	20	HVAC
1999	CH00	Enhanced water cooled chillers, 0.645 kW/ton	2	$ 14,840	$ 7,420.00	15,608	7,804	0	0	20	HVAC
1999	HP01	Water Source Heat Pump Trane WPHE021	1	$ 59	$ 59.03	471	471	0	0	15	HVAC
1999	HP01	Water Source Heat Pump Trane WPHF021	1	$ 59	$ 59.03	471	471	0	0	15	HVAC
1999	HP01	Water Source Heat Pumps Trane WPHF021	3	$ 177	$ 59.03	1,413	471	0	0	15	HVAC
1999	HP01	Wtr Source HP Trane WPHF021	26	$ 1,427	$ 54.90	11,393	438	0	0	15	HVAC
1999	HP01	Wtr Source HP Trane WPHF035	34	$ 3,349	$ 98.51	26,734	786	0	0	15	HVAC
1999	HP02	Water Source Heat Pump Trane WHPF- 057	2	$ 286	$ 142.81	2,280	1,140	0	0	15	HVAC
1999	HP02	Water Source Heat Pump Trane WPHE035	1	$ 105	$ 105.01	838	838	0	0	15	HVAC
1999	HP02	Water Source Heat Pump Trane WPHF-021	12	$ 693	$ 57.72	5,528	461	0	0	15	HVAC
1999	HP02	Water Source Heat Pump Trane WPHF027	2	$ 137	$ 68.43	1,092	546	0	0	15	HVAC
1999	HP02	Water Source Heat Pump Trane WPHF040	1	$ 106	$ 105.81	845	845	0	0	15	HVAC
1999	HP02	Water Source Heat Pump Trane WPHF057	1	$ 143	$ 142.81	1,140	1,140	0	0	15	HVAC
1999	HP02	Water Source Heat Pumps Trane WPHF- 027	4	$ 274	$ 68.43	2,185	546	0	0	15	HVAC
1999	HP02	Water Source Heat Pumps Trane WPHF- 035	5	$ 525	$ 105.01	4,191	838	0	0	15	HVAC

Table TA 3.5
Measure Detail: Nonresidential Program Area
Large Prescriptive Rebates -- Tenant Improvement Program (Continued)
Program Year: 1999

Year	Measure Code	Measure Description	Recorded Qty	Total Customer Cost	Average Unit Cost	Total KWH Savings	Average kWh Savings	Total Therm Savings	Average Therm Savings	Measure Life	Measure End Use
1999	HP02	Water Source Heat Pumps Trane WPHF- 040	2	$ 212	$ 105.81	1,689	845	0	0	15	HVAC
1999	HP02	Water Source Heat Pumps Trane WPHF040	3	$ 317	$ 105.81	2,534	845	0	0	15	HVAC
1999	HP02	Wtr Source HP Trane WPHF047	5	$ 636	$ 127.29	5,080	1,016	0	0	15	HVAC
1999	HP02	Wtr Source HP Trane WPHF021	14	$ 827	$ 59.06	6,600	471	0	0	15	HVAC
1999	HP02	Wtr Source HP Trane WPHF027	5	$ 339	$ 67.83	2,707	541	0	0	15	HVAC
1999	HP02	Wtr Source HP Trane WPHF035	3	$ 315	$ 105.01	2,515	838	0	0	15	HVAC
1999	HP02	Wtr Source HP Trane WPHF040	1	$ 106	$ 105.81	845	845	0	0	15	HVAC
1999	HP02	Wtr Source HP Trane WPHF047	1	$ 140	$ 140.02	1,118	1,118	0	0	15	HVAC
1999	HP02	Wtr Source HP Trane WPHF057	1	$ 143	$ 142.81	1,140	1,140	0	0	15	HVAC
1999	LI00	1XLED1	606	$ 11,207	$ 18.49	89,449	148	0	0	15	Lighting
1999	LI00	1XLED1A	73	$ 1,350	$ 18.49	10,775	148	0	0	15	Lighting
1999	LI00	1XSF20	230	$ (13,347)	$ (58.03)	40,703	177	0	0	20	Lighting
1999	LI00	LPD	63	$ 425,980	$ 6,761.59	2,600,013	41,270	0	0	17	Lighting
1999	M00	2-speed cooling tower fan motors	2	$ 708	$ 354.00	20,106	10,053	0	0	15	HVAC
1999	M00	7 1/2 garage exhaust fan w/CO Sensors	2	$ 3,560	$ 1,780.00	89,717	44,859	0	0	15	HVAC
1999	M00	ASD's for supply, exhaust, & return air fan	13	$ 32,000	$ 2,461.54	123,035	9,464	0	0	15	HVAC
1999	MISC	Desiccant Air Dryer (dew point sensor)	1	$ 1,200	$ 1,200.00	90,324	90,324	0	0	15	HVAC
1999	MISC	No air loss compressed air condensate drains	9	$ 5,130	$ 570.00	76,475	8,497	0	0	15	HVAC
1999	MISC	Sullair air compressor Model LS25-150	3	$ 6,600	$ 2,200.00	41,107	13,702	0	0	15	HVAC
1999	NC002	Envelope/Mechanical	1	$ 54,362	$ 54,361.97	404,307	404,307	3,665	3,665	15	Misc
1999	NC002	Lighting	4	$ 17,653	$ 4,413.35	140,903	35,226	0	0	15	Misc
1999	NC002	Pumps	3	$ 24,452	$ 8,150.58	195,165	65,055	0	0	15	Misc
1999	NC002	Space cooling, heating, indoor fans,	1	$ 45,552	$ 45,552.16	363,581	363,581	0	0	15	Misc
1999	NC010	10.08 tons, 10 EER	2	$ 275	$ 137.32	2,192	1,096	0	0	15	HVAC
1999	NC010	18.1 tons, 11.5 EER	2	$ 1,048	$ 523.76	8,361	4,181	0	0	15	HVAC
1999	NC010	21 tons, 10.3 EER	5	$ 1,911	$ 382.28	15,256	3,051	0	0	15	HVAC
1999	NC010	6.17 tons, 11.0 EER	19	$ 2,303	$ 121.19	18,378	967	0	0	15	HVAC
1999	NC010	7.5 tons, 11.0 EER	1	$ 147	$ 147.34	1,176	1,176	0	0	15	HVAC
1999	NC012	1.45 tons, 9.9 EER	2	$ 46	$ 22.87	365	183	0	0	15	HVAC
1999	NC012	1.93 tons, 10.0 EER	1	$ 33	$ 32.70	261	261	0	0	15	HVAC
1999	NC012	1.95 tons, 10.4 EER	2	$ 84	$ 42.16	673	337	0	0	15	HVAC
1999	NC012	1.95 tons, 10.6 EER	1	$ 39	$ 39.34	314	314	0	0	15	HVAC
1999	NC012	2.48 tons, 10.4 EER	4	$ 215	$ 53.65	1,713	428	0	0	15	HVAC
1999	NC012	2.48 tons, 10.5 EER	1	$ 48	$ 47.73	381	381	0	0	15	HVAC
1999	NC012	3.0 tons, 11.2 EER	1	$ 78	$ 78.43	626	626	0	0	15	HVAC
1999	NC012	3.33 tons, 10.5 EER	4	$ 304	$ 75.92	2,424	606	0	0	15	HVAC
1999	NC012	3.83 tons, 11.4 EER	3	$ 382	$ 127.33	3,049	1,016	0	0	15	HVAC
1999	NC012	3.92 tons, 11.05 EER	17	$ 1,948	$ 114.57	15,546	914	0	0	15	HVAC
1999	NC012	5.0 tons, 11.0 EER	2	$ 286	$ 143.20	2,286	1,143	0	0	15	HVAC
1999	NC013	2.38 tons, 10.0 EER	1	$ 43	$ 43.47	347	347	0	0	15	HVAC
1999	NC013	3 tons, 10.8 EER	1	$ 100	$ 99.73	796	796	0	0	15	HVAC
1999	NC013	3.83 tons, 10.7 EER	6	$ 623	$ 103.76	4,969	828	0	0	15	HVAC
1999	NC018	0.880 Allowed kW, 0.562 Proposed kW	1	$ 142	$ 142.20	1,135	1,135	0	0	15	Lighting
1999	NC018	10.132 Allowed kW, 6.052 Proposed kW	1	$ 1,823	$ 1,823.31	14,553	14,553	0	0	15	Lighting
1999	NC018	13.291 Allowed kW, 10.959 Proposed kW	1	$ 1,237	$ 1,236.59	9,870	9,870	0	0	15	Lighting
1999	NC018	2.789 Allowed kW, 2.080 Proposed kW	1	$ 318	$ 318.23	2,540	2,540	0	0	15	Lighting
1999	NC018	2.951 Allowed kW, 2.196 Proposed kW	1	$ 339	$ 338.90	2,705	2,705	0	0	15	Lighting
1999	NC018	23.9 Allowed kW, 17.9 Proposed kW	1	$ 3,315	$ 3,314.73	26,457	26,457	0	0	15	Lighting
1999	NC018	3.160 Allowed kW, 2.180 Proposed kW	1	$ 465	$ 464.82	3,710	3,710	0	0	15	Lighting
1999	NC018	3.199 Allowed kW, 2.503 Proposed kW	1	$ 331	$ 330.88	2,641	2,641	0	0	15	Lighting
1999	NC018	3.646 Allowed kW, 3.031 Proposed kW	1	$ 276	$ 276.13	2,204	2,204	0	0	15	Lighting
1999	NC018	3.983 Allowed kW, 2.767 Proposed kW	1	$ 546	$ 545.63	4,355	4,355	0	0	15	Lighting
1999	NC018	4.005 Allowed kW, 2.796 Proposed kW	1	$ 541	$ 540.99	4,318	4,318	0	0	15	Lighting

Table TA 3.5
Measure Detail: Nonresidential Program Area
Large Prescriptive Rebates -- Tenant Improvement Program (Continued)
Program Year: 1999

Year	Measure Code	Measure Description	Recorded Qty	Total Customer Cost	Average Unit Cost	Total KWH Savings	Average kWh Savings	Total Therm Savings	Average Therm Savings	Measure Life	Measure End Use
1999	NC018	4.029 Allowed kW, 2.882 Proposed kW	1	$ 513	$ 513.30	4,097	4,097	0	0	15	Lighting
1999	NC018	42.814 Allowed kW, 36.183 Proposed kW	1	$ 3,157	$ 3,157.12	25,199	25,199	0	0	15	Lighting
1999	NC018	46.859 Allowed kW, 39.327 Proposed kW	1	$ 3,586	$ 3,585.60	28,619	28,619	0	0	15	Lighting
1999	NC018	5.488 Allowed kW, 4.096 Proposed kW	1	$ 625	$ 624.68	4,986	4,986	0	0	15	Lighting
1999	NC018	6.144 Allowed kW, 3.341 Proposed kW	1	$ 1,252	$ 1,251.87	9,992	9,992	0	0	15	Lighting
1999	NC018	6.461 Allowed kW, 3.704 Proposed kW	1	$ 1,232	$ 1,231.70	9,831	9,831	0	0	15	Lighting
1999	NC018	6.628 Allowed kW, 3.786 Proposed kW	1	$ 1,274	$ 1,274.42	10,172	10,172	0	0	15	Lighting
1999	NC018	6.735 Allowed kW, 3.760 Proposed kW	1	$ 1,334	$ 1,333.94	10,647	10,647	0	0	15	Lighting
1999	NC018	6.745 Allowed kW, 5.315 Proposed kW	1	$ 642	$ 641.97	5,124	5,124	0	0	15	Lighting
1999	NC018	7.303 Allowed kW, 4.839 Proposed kW	1	$ 1,102	$ 1,102.03	8,796	8,796	0	0	15	Lighting
1999	NC018	7.560 Allowed kW, 4.621 Proposed kW	1	$ 1,318	$ 1,318.15	10,521	10,521	0	0	15	Lighting
1999	NC018	7.570 Allowed kW, 4.208 Proposed kW	1	$ 1,502	$ 1,501.70	11,986	11,986	0	0	15	Lighting
1999	NC018	7.586 Allowed kW, 5.386 Proposed kW	1	$ 987	$ 987.27	7,880	7,880	0	0	15	Lighting
1999	NC018	7.588 Allowed kW, 4.790 Proposed kW	1	$ 1,255	$ 1,255.01	10,017	10,017	0	0	15	Lighting
1999	NC018	9.216 Allowed kW, 5.011 Proposed kW	1	$ 1,878	$ 1,878.06	14,990	14,990	0	0	15	Lighting
1999	NC018	9.580 Allowed kW, 5.449 Proposed kW	1	$ 1,845	$ 1,845.36	14,729	14,729	0	0	15	Lighting
1999	NC018	9.584 Allowed kW, 6.221 Proposed kW	1	$ 1,504	$ 1,503.83	12,003	12,003	0	0	15	Lighting
1999	NC018	High Efficiency Lighting	1	$ 7,976	$ 7,976.05	63,662	63,662	0	0	15	Lighting
1999	NC024	36 ft² of glass, .44 SHG Coefficient	1	$ 9	$ 9.15	73	73	0	0	15	HVAC
1999	NC024	36 ft² of glass, 0.44 SHG Coefficient	1	$ 9	$ 9.15	73	73	0	0	15	HVAC
1999	NC024	42 ft² of glass, 0.44 SHG Coefficient	1	$ 11	$ 10.65	85	85	0	0	15	HVAC
1999	NC024	432 ft² of glass, .44 SHG Coefficient	1	$ 110	$ 109.50	874	874	0	0	15	HVAC
1999	NC024	94 ft² of glass, 0.44 SHG Coefficient	1	$ 24	$ 23.80	190	190	0	0	15	HVAC
1999	NC024	958 ft² of glass, 0.37 SHG Coefficient	1	$ 2,930	$ 2,929.85	23,385	23,385	0	0	15	HVAC
1999	NC025	161 ft² of glass, 0.44 SHG Coefficient	1	$ 47	$ 46.86	374	374	0	0	15	HVAC
1999	NC025	24 ft² of glass, .44 SHG Coefficient	1	$ 7	$ 7.02	56	56	0	0	15	HVAC
1999	NC025	270 ft² of glass, .44 SHG Coefficient	1	$ 78	$ 78.43	626	626	0	0	15	HVAC
1999	NC025	270 ft² of glass, 0.44 SHG Coefficient	1	$ 78	$ 78.43	626	626	0	0	15	HVAC
1999	NC025	3396 ft² of glass, 0.37 SHG Coefficient	1	$ 9,624	$ 9,623.84	76,814	76,814	0	0	15	HVAC
1999	NC025	64 ft² of glass, 0.44 SHG Coefficient	1	$ 19	$ 18.54	148	148	0	0	15	HVAC
1999	NC026	216 ft² of glass, .44 SHG Coefficient	1	$ 64	$ 64.40	514	514	0	0	15	HVAC
1999	NC026	216 ft² of glass, 0.44 SHG Coefficient	1	$ 64	$ 64.40	514	514	0	0	15	HVAC
1999	NC026	258 ft² of glass, 0.44 SHG Coefficient	1	$ 77	$ 76.93	614	614	0	0	15	HVAC
1999	NC026	3906 ft² of glass, 0.37 SHG Coefficient	1	$ 15,468	$ 15,468.25	123,462	123,462	0	0	15	HVAC
1999	NC026	43 ft² of glass, 0.44 SHG Coefficient	1	$ 13	$ 12.78	102	102	0	0	15	HVAC
1999	NC026	80 ft² of glass, .44 SHG Coefficient	1	$ 24	$ 23.93	191	191	0	0	15	HVAC
1999	NC027	139 ft² of glass, 0.44 SHG Coefficient	1	$ 55	$ 55.25	441	441	0	0	15	HVAC
1999	NC027	15 ft² of glass, .44 SHG Coefficient	1	$ 6	$ 6.01	48	48	0	0	15	HVAC
1999	NC027	16 ft² of glass, 0.44 SHG Coefficient	1	$ 6	$ 6.26	50	50	0	0	15	HVAC
1999	NC027	166 ft² of glass, 0.44 SHG Coefficient	1	$ 66	$ 66.03	527	527	0	0	15	HVAC
1999	NC027	486 ft² of glass, .44 SHG Coefficient	1	$ 193	$ 192.94	1,540	1,540	0	0	15	HVAC
1999	NC047	Variable Frequency Drive for Chilled Water Pump Mo	1	$ 2,942	$ 2,942.38	23,485	23,485	0	0	15	Misc
1999	NC048	7.5 HP	1	$ 87	$ 86.95	694	694	0	0	15	Misc
1999	NC049	15 HP	5	$ 5,684	$ 1,136.76	45,366	9,073	0	0	15	HVAC
1999	NC049	3 HP	5	$ 1,137	$ 227.35	9,073	1,815	0	0	15	HVAC
1999	NC052	113 tons, 0.779 kW/ton	1	$ 2,301	$ 2,301.28	18,368	18,368	0	0	15	HVAC
1999	NC052	74.4 tons, 0.789 kW/ton	1	$ 1,454	$ 1,454.09	11,606	11,606	0	0	15	HVAC
1999	SE01	Occpancy Sensors	5	$ 366	$ 73.22	2,922	584	0	0	15	Lighting
1999	SE01	Occupancy Sensors	1386	$ 50,720	$ 36.59	404,825	292	0	0	15	Lighting
1999	SE02	CO sensors to control 20 hp fan for garage	3	$ 2,123	$ 707.67	57,374	19,125	0	0	15	HVAC
1999	VSD00	40 hp VFDs for packaged VAV units AC-1,2 & 3	3	$ 16,500	$ 5,500.00	84,827	28,276	-481	-160	15	HVAC
1999	VSD00	ASD on cooling tower fan motor	2	$ 7,800	$ 3,900.00	47,144	23,572	0	0	15	HVAC
1999	VSD00	ASDs on 6 AH- 1, 3, 5, 6, 7, 8,2,4	8	$ 16,200	$ 2,025.00	253,172	31,647	-69	-9	15	HVAC

Table TA 3.5
Measure Detail: Nonresidential Program Area
Large Prescriptive Rebates -- Tenant Improvement Program (Continued)
Program Year: 1999

Year	Measure Code	Measure Description	Recorded Qty	Total Customer Cost	Average Unit Cost	Total KWH Savings	Average kWh Savings	Total Therm Savings	Average Therm Savings	Measure Life	Measure End Use
1999	VSD00	VAV controls on 30 fume hoods	30	$ 180,000	$ 6,000.00	344,868	11,496	44,998	1,500	15	HVAC
1999	VSD01	15 hp ASDs for cooling tower fan motors	2	$ 6,600	$ 3,300.00	77,848	38,924	0	0	15	HVAC
1999	VSD01	5 hp ASD for secondary chilled water pump	1	$ 2,600	$ 2,600.00	21,870	21,870	0	0	15	HVAC
1999	VSD01	CO monitor control system for garaage exhaust fan	1	$ 2,959	$ 2,959.00	83,097	83,097	0	0	15	HVAC
1999	VSD01	Secondary chilled water pump w/VFD	1	$ 4,400	$ 4,400.00	65,144	65,144	0	0	15	HVAC
1999	VSD01	Variable air volume system	1	$ 170,672	$ 170,672.00	596,830	596,830	1,236	1,236	15	HVAC

Table TA 3.5
Measure Detail: Nonresidential Program Area
Small/Medium Prescriptive Rebates -- Express Efficiency Program
Program Year: 1999

Year	Measure Code	Measure Description	Recorded Qty	Total Customer Cost	Average Unit Cost	Total KWH Savings	Average kWh Savings	Total Therm Savings	Average Therm Savings	Measure Life	Measure End Use
1999	ACPT	Package Terminal Air Conditioners	431	$ 28,015	$ 65.00	45,255	105	0	0	15	HVAC
1999	CCF	Auto-Closers for Coolers or Freezers	2	$ 250	$ 125.00	7,070	3,535	0	0	8	HVAC
1999	CS05-13	Screw-in 5-13 watt CF Lamp	387	$ 5,418	$ 14.00	81,072	209	0	0	7	Lighting
1999	CS14-26	Screw-in 14-26 watt CF Lamp	2902	$ 33,025	$ 11.38	848,710	292	0	0	7	Lighting
1999	CS27+	Screw-in >= 27 watt CF Lamp	645	$ 13,545	$ 21.00	244,778	380	0	0	7	Lighting
1999	DG	Cooler or Freezer Door Gaskets	2	$ 160	$ 80.00	4,182	2,091	0	0	4	HVAC
1999	EC	Evaporative Coolers	1	$ 127	$ 127.00	547	547	0	0	10	HVAC
1999	EFC	Evaporator Fan Controllers	3	$ 900	$ 300.00	3,327	1,109	0	0	5	HVAC
1999	EHI0-100	Exterior 0-100w Incand Base HID	86	$ 8,170	$ 95.00	66,306	771	0	0	16	Lighting
1999	EHI101-	Exterior 101-175w Incand Base HID	34	$ 5,100	$ 150.00	46,002	1,353	0	0	16	Lighting
1999	EHI176+	Exterior >=176w Incand Base HID	101	$ 20,200	$ 200.00	199,576	1,976	0	0	16	Lighting
1999	EHM0-	Exterior 0-100w Merc Vap Base HID	22	$ 2,090	$ 95.00	7,942	361	0	0	16	Lighting
1999	EHM176+	Exterior >=176w Merc Vap Base HID	10	$ 2,000	$ 200.00	7,630	763	0	0	16	Lighting
1999	EXITK	Exit Sign Retrofit Kit	1	$ (30)	$ (30.33)	247	247	0	0	16	Lighting
1999	EXITLED	LED Exit Sign	320	$ (7,578)	$ (23.68)	113,920	356	0	0	16	Lighting
1999	HF05-13	Hardwired 5-13 watt CF Fixture	1494	$ 76,194	$ 51.00	323,978	217	0	0	16	Lighting
1999	HF14-26	Hardwired 14-26 watt CF Fixture	59374	$ 5,106,164	$ 86.00	22,370,396	377	0	0	16	Lighting
1999	HFI27-65	Hardwired Incand Base 27-65 watt CF Fixture	3191	$ (154,604)	$ (48.45)	730,267	229	0	0	16	Lighting
1999	HFI66-90	Hardwired Incand Base 66-90 watt CF Fixture	6	$ (480)	$ (80.00)	2,786	464	0	0	16	Lighting
1999	IHM101-	Interior 101-175w Merc Vap Base HID	237	$ 35,550	$ 150.00	79,935	337	0	0	16	Lighting
1999	LI2T5-8	Install 2ft T-8/T-5 Lamp & Elec. Ballast	749	$ 14,980	$ 20.00	34,433	46	0	0	16	Lighting
1999	LI3T5-8	Install 3ft T-8/T-5 Lamp & Elec. Ballast	223	$ 4,460	$ 20.00	15,062	68	0	0	16	Lighting
1999	LI4T5-8	Install 4ft T-8/T-5 Lamp & Elec. Ballast	23652	$ 354,780	$ 15.00	897,883	38	0	0	16	Lighting
1999	LI4T5-8a	<100kW Install 4ft T-8/T-5 Lamp & Elec. Ballast	38508	$ 577,620	$ 15.00	1,498,435	39	0	0	16	Lighting
1999	LI8T5-8	Install 8ft T-8/T-5 Lamp & Elec. Ballast	77	$ 1,502	$ 19.50	3,150	41	0	0	16	Lighting
1999	LI8T5-8H	Install 8ft HO T-8/T-5 Lamp & Elec. Bal.	968	$ 38,720	$ 40.00	65,340	68	0	0	16	Lighting
1999	LR2T5-8	Remove 2ft T-8/T-5 fluorescent lamp	530	$ 18,550	$ 35.00	67,840	128	0	0	16	Lighting
1999	LR4T5-8	Remove 4ft T-8/T-5 fluorescent lamp	3454	$ 120,890	$ 35.00	512,225	148	0	0	16	Lighting
1999	LR4T5-8a	<100kW Remove 4ft T-8/T-5 fluorescent lamp	926	$ 32,410	$ 35.00	163,916	177	0	0	16	Lighting
1999	LR8T5-8	Remove 8ft T-8/T-5 fluorescent lamp	793	$ 39,650	$ 50.00	243,312	307	0	0	16	Lighting
1999	LR8T5-8H	Remove 8ft HO T-8/T-5 fluorescent lamp	32	$ 1,760	$ 55.00	11,520	360	0	0	16	Lighting
1999	OSC	Ceiling Mounted Lighting Sensor	113	$ 9,040	$ 80.00	89,044	788	0	0	8	Lighting
1999	OSP	Plug Load Occupancy Sensor	5076	$ 101,520	$ 20.00	1,472,040	290	0	0	8	Lighting
1999	OSW	Wall Mounted Lighting Sensor	205	$ 9,225	$ 45.00	54,325	265	0	0	8	Lighting
1999	PHC	Photocell	257	$ 2,570	$ 10.00	27,242	106	0	0	8	Lighting
1999	RWF	Reflective Window Film	5035	$ 9,013	$ 1.79	70,490	14	0	0	10	HVAC
1999	SPT	Setback Programmable Thermostats	10	$ 2,050	$ 205.00	40,930	4,093	0	0	11	HVAC
1999	TCA	Air Conditioning Time Clocks	1	$ 113	$ 113.00	4,171	4,171	0	0	10	HVAC
1999	TCL	Lighting Time Clocks	19	$ 584	$ 30.75	9,006	474	0	0	8	Lighting
1999	VFD	Variable Freq. Drive HVAC Fans 100hp max	9	$ 1,818	$ 202.00	6,781	753	0	0	16	HVAC
1999	WTRHT	Storage Water Heater	10	$ 22	$ 2.20	0	0	16	2	15	HVAC

Table TA 3.5
Measure Detail: Nonresidential Program Area
Small/Medium Prescriptive Rebates -- TPI Horizontal Washers Program
Program Year: 1999

Year	Measure Code	Measure Description	Recorded Qty	Total Customer Cost	Average Unit Cost	Total KWH Savings	Average kWh Savings	Total Therm Savings	Average Therm Savings	Measure Life	Measure End Use
1999	COINCW	Coin Operated Clothes Washer	598	$ 299,000	$ 500.00	65,780	110	78,338	131	10	Misc

Table TA 3.5
Measure Detail: Nonresidential Program Area
EEI SPC: Large -- Large SPC
Program Year: 1999

Year	Measure Code	Measure Description	Recorded Qty	Total Customer Cost	Average Unit Cost	Total KWH Savings	Average kWh Savings	Total Therm Savings	Average Therm Savings	Measure Life	Measure End Use
1999	MISC	20 Ton DX System, EMS	1	$ 145,463	$ 145,462.83	485,303	485,303	0	0	20	HVAC
1999	MISC	75 KVA Lean UPS	1	$ 52,649	$ 52,648.72	294,336	294,336	0	0	10	Misc
1999	MISC	Air Compressor Mod.	1	$ 16,685	$ 16,685.41	55,667	55,667	0	0	20	HVAC
1999	MISC	Air Handler Modifications	1	$ 41,831	$ 41,831.17	139,560	139,560	0	0	20	HVAC
1999	MISC	Boiler retrofit	1	$ 3,466	$ 3,465.70	0	0	2,351	2,351	10	Misc
1999	MISC	Case Motor Replacements	23	$ 859,647	$ 37,375.97	4,805,912	208,953	0	0	10	Misc
1999	MISC	Chiller #4 cleaning syst	1	$ 37,705	$ 37,705.00	125,794	125,794	0	0	20	HVAC
1999	MISC	Chiller #5 cleaning syst	1	$ 46,107	$ 46,107.21	153,826	153,826	0	0	20	HVAC
1999	MISC	Chiller Plant Mod.	1	$ 20,412	$ 20,412.33	68,101	68,101	0	0	20	HVAC
1999	MISC	Chiller Repl.	1	$ 14,987	$ 14,986.81	50,000	50,000	0	0	20	HVAC
1999	MISC	Chiller Replacement	2	$ 124,615	$ 62,307.64	415,750	207,875	0	0	20	HVAC
1999	MISC	Chiller Retrofit	1	$ 13,050	$ 13,049.61	43,537	43,537	0	0	20	HVAC
1999	MISC	Chiller VFD Retrofit	1	$ 113,817	$ 113,816.99	379,724	379,724	0	0	20	HVAC
1999	MISC	CHW Pumping	1	$ 4,704	$ 4,703.64	26,296	26,296	0	0	10	Misc
1999	MISC	CHW System	1	$ 170,050	$ 170,049.59	567,331	567,331	0	0	20	HVAC
1999	MISC	CHW system	1	$ 119,912	$ 119,911.90	670,375	670,375	0	0	10	Misc
1999	MISC	Cleanroom Modifications	1	$ 24,067	$ 24,067.01	80,294	80,294	0	0	20	HVAC
1999	MISC	Cleanroom Modifications	1	$ 12,302	$ 12,301.69	0	0	8,345	8,345	10	Misc
1999	MISC	Compressed air system	5	$ 621,337	$ 124,267.45	3,473,625	694,725	0	0	10	Misc
1999	MISC	Compressor Efficiency	1	$ 162,248	$ 162,248.42	907,060	907,060	0	0	10	Misc
1999	MISC	Compressor Replacement	14	$ 473,916	$ 33,851.13	1,581,110	112,936	0	0	20	HVAC
1999	MISC	DDC Zone Controls #1	1	$ 631,516	$ 631,516.38	3,530,532	3,530,532	0	0	10	Misc
1999	MISC	DDC Zone Controls #2	1	$ 131,435	$ 131,435.42	734,798	734,798	0	0	10	Misc
1999	MISC	DDC Zone Controls #3	1	$ 159,176	$ 159,176.46	889,886	889,886	0	0	10	Misc
1999	MISC	Economizer Control	1	$ 52,807	$ 52,807.21	176,179	176,179	0	0	20	HVAC
1999	MISC	EMS Cycles-Boiler/Pump	1	$ 1,921	$ 1,920.74	10,738	10,738	0	0	10	Misc
1999	MISC	EMS, VAV Retrofit	2	$ 143,536	$ 71,767.76	356,839	178,420	54,070	27,035	10	Misc
1999	MISC	Engine Jacket	1	$ 43,787	$ 43,787.00	244,794	244,794	0	0	10	Misc
1999	MISC	Equipment Control/EMS	1	$ 139,708	$ 139,707.90	466,103	466,103	0	0	20	HVAC
1999	MISC	Equipment Upgrade	1	$ 14,986	$ 14,985.91	49,997	49,997	0	0	20	HVAC
1999	MISC	HVAC Controls	1	$ 49,833	$ 49,832.91	278,594	278,594	0	0	10	Misc
1999	MISC	HVAC Reheat	1	$ 483,640	$ 483,640.00	0	0	328,083	328,083	10	Misc
1999	MISC	Interior Control	1	$ 7,311	$ 7,311.30	28,468	28,468	0	0	16	Lighting
1999	MISC	Lighting Controls	9	$ 243,097	$ 27,010.78	946,547	105,172	0	0	16	Lighting
1999	MISC	Lighting Controls	1	$ 70,040	$ 70,040.00	391,563	391,563	0	0	10	Misc
1999	MISC	Lighting Efficiency	20	$ 3,089,611	$ 154,480.57	12,030,023	601,501	0	0	16	Lighting
1999	MISC	Motor Replacement	1	$ 14,170	$ 14,170.13	79,219	79,219	0	0	10	Misc
1999	MISC	Odor Treatment Sys/VFDs	1	$ 129,320	$ 129,319.72	722,970	722,970	0	0	10	Misc
1999	MISC	Optimal Start/Stop	1	$ 57,084	$ 57,084.14	190,448	190,448	0	0	20	HVAC
1999	MISC	Outside Control	1	$ 2,966	$ 2,966.07	11,549	11,549	0	0	16	Lighting
1999	MISC	Prog. Thermostats	1	$ 36,440	$ 36,439.52	121,572	121,572	0	0	20	HVAC
1999	MISC	Pump House Sys/VFDs	1	$ 54,986	$ 54,986.41	307,405	307,405	0	0	10	Misc
1999	MISC	Pumping System	1	$ 158,085	$ 158,085.32	527,415	527,415	0	0	20	HVAC
1999	MISC	Pumps/Fans	1	$ 313,048	$ 313,048.27	1,750,116	1,750,116	0	0	10	Misc
1999	MISC	Replace Air Handlers	1	$ 16,172	$ 16,171.90	90,410	90,410	0	0	10	Misc
1999	MISC	Replace Boiler System	1	$ 30,165	$ 30,165.31	0	0	20,463	20,463	10	Misc
1999	MISC	Replace Chiller Pumps	1	$ 105,762	$ 105,761.62	591,267	591,267	0	0	10	Misc
1999	MISC	Replace CHW/CW pumps	1	$ 21,863	$ 21,863.35	72,942	72,942	0	0	20	HVAC
1999	MISC	Replace HHW Boiler	1	$ 2,447	$ 2,447.05	8,164	8,164	0	0	20	HVAC
1999	MISC	Replace HHW Boiler	1	$ 28,370	$ 28,369.81	0	0	19,245	19,245	10	Misc
1999	MISC	Shut Off AH-10 Motor	1	$ 21,937	$ 21,936.97	122,640	122,640	0	0	10	Misc
1999	MISC	Upgrade HVAC Units	1	$ 70,182	$ 70,181.71	234,145	234,145	0	0	20	HVAC
1999	MISC	VAV Air handlers	1	$ 33,690	$ 33,689.98	0	0	22,854	22,854	10	Misc
1999	MISC	VFD on AHU	1	$ 5,188	$ 5,188.03	29,004	29,004	0	0	10	Misc
1999	MISC	VFD on Cooling Tower Fan	1	$ 2,683	$ 2,683.09	15,000	15,000	0	0	10	Misc
1999	MISC	VSD	2	$ 491,585	$ 245,792.48	193,831	96,916	309,953	154,977	10	Misc

Table TA 3.5
Measure Detail: Nonresidential Program Area
EEI SPC: Small/Medium -- Small Business SPC
Program Year: 1999

Year	Measure Code	Measure Description	Recorded Qty	Total Customer Cost	Average Unit Cost	Total KWH Savings	Average kWh Savings	Total Therm Savings	Average Therm Savings	Measure Life	Measure End Use
1999	MISC	Chiller Repl.	1	$ 44,305	$ 44,305.31	92,720	92,720	0	0	20	HVAC
1999	MISC	CO Sensors/Fan Control	1	$ 27,914	$ 27,914.26	97,890	97,890	0	0	10	Misc
1999	MISC	Door Miser	1	$ 39,473	$ 39,473.39	82,608	82,608	0	0	20	HVAC
1999	MISC	HVAC Retrofit	1	$ 69,769	$ 69,769.40	146,010	146,010	0	0	20	HVAC
1999	MISC	HVAC Units	2	$ 13,292	$ 6,646.04	27,817	13,909	0	0	20	HVAC
1999	MISC	Injection Molding Machine	1	$ 30,583	$ 30,583.35	107,250	107,250	0	0	10	Misc
1999	MISC	Lighting Efficiency	26	$ 690,275	$ 26,549.05	1,685,938	64,844	0	0	16	Lighting
1999	MISC	Package Unit	1	$ 40,323	$ 40,322.99	84,386	84,386	0	0	20	HVAC
1999	MISC	VAV Units	1	$ 34,141	$ 34,140.70	71,448	71,448	0	0	20	HVAC
1999	MISC	VAV Units	1	$ 4,728	$ 4,728.35	0	0	2,012	2,012	10	Misc
1999	MISC	VAVRH & VSD	1	$ 28,488	$ 28,487.61	0	0	12,122	12,122	10	Misc
1999	MISC	VSD	2	$ 8,158	$ 4,078.92	28,608	14,304	0	0	10	Misc

Table TA 3.5
Measure Detail: Nonresidential Program Area
Upstream Programs: Financial Assistance -- Upstream HVAC Incentives Program
Program Year: 1999

Year	Measure Code	Measure Description	Recorded Qty	Total Customer Cost	Average Unit Cost	Total KWH Savings	Average kWh Savings	Total Therm Savings	Average Therm Savings	Measure Life	Measure End Use
1999	AC01	HVAC Single Package, Air Cooled	644	$ 111,105	$ 172.52	82,981	129	0	0	15	HVAC
1999	AC02	HVAC Split Unit, Air Cooled	322	$ 79,693	$ 247.49	47,981	149	0	0	15	HVAC

Table TA 3.5
Measure Detail: Nonresidential Program Area
Upstream Programs: Financial Assistance -- Upstream Motor Incentives Program
Program Year: 1999

Year	Measure Code	Measure Description	Recorded Qty	Total Customer Cost	Average Unit Cost	Total KWH Savings	Average kWh Savings	Total Therm Savings	Average Therm Savings	Measure Life	Measure End Use
1999	MTR01	Motor - Open Drip Proof (ODP)	43	$ 13,404	$ 311.73	94,667	2,202	0	0	15	Misc
1999	MTR02	Motor - Totally Enclosed Fan Cooled (TEFC)	155	$ 17,880	$ 115.35	173,611	1,120	0	0	15	Misc

TABLE TA 4.1
PROGRAM COST ESTIMATES USED FOR COST-EFFECTIVENESS (NEW CONSTRUCTION)
TOTAL GAS AND ELECTRIC

PROGRAM	Program Incentives (Recorded)		Admin		Shareholder Inc	Other	Total
	Actual	Committed	Actual	Committed			
Residential							
Statewide Programs (Manufactured Housing)	$0	$0	$41,739	$0		$0	$41,739
Residential Design Assistance	$0	$0	$1,833,867	$0		$0	$1,833,867
Customer Information and Awareness	$0	$0	$0	$0		$0	$0
CHEERS	$0	$0	$61,441	$0		$0	$61,441
New Energy Efficient Products and Services	$0	$0	$0	$0		$0	$0
CEC Public Interest Energy Research (PIER)	$0	$0	$43,069	$0		$0	$43,069
Targeted Third Party Initiatives (TPI)	$0	$0	$170,376	$0		$0	$170,376
Total Residential	$0	$0	$2,150,492	$0	$164,000	$0	$2,314,492
Nonresidential							
Savings by Design	$215,307	$874,808	$471,355	$87,481		$0	$1,648,951
Energy Design Resources	$0	$219,457	$369,155	$21,946		$0	$610,558
Relocatable Classrooms	$17,859	$38,895	$38,666	$3,890		$0	$99,310
Industrial and Agricultural New Construction	$0	$0	$0	$0		$0	$0
Total Nonresidential	$233,166	$1,133,160	$879,176	$113,316	$312,000	$0	$2,670,818
Other							
New Construction Codes and Standards Support	$0	$0	$397,781	$0		$0	$397,781
Local Government Initiatives	$0	$0	$0	$0		$0	$0
Total Other	$0	$0	$397,781	$0		$0	$397,781
Aggressive Implementation (earnings only)					$143,000		$143,000
Total New Construction	$233,166	$1,133,160	$3,427,449	$113,316	$619,000	$0	$5,526,091

TABLE TA 4.1
PROGRAM COST ESTIMATES USED FOR COST-EFFECTIVENESS (NEW CONSTRUCTION)
ELECTRIC ONLY

PROGRAM	Program Incentives (Recorded)		Admin		Shareholder Inc	Other	Total
	Actual	Committed	Actual	Committed			
Residential							
Statewide Programs (Manufactured Housing)	$0	$0	$20,870	$0		$0	$20,870
Residential Design Assistance	$0	$0	$1,650,480	$0		$0	$1,650,480
Customer Information and Awareness	$0	$0	$0	$0		$0	$0
CHEERS	$0	$0	$30,721	$0		$0	$30,721
New Energy Efficient Products and Services	$0	$0	$0	$0		$0	$0
CEC Public Interest Energy Research (PIER)	$0	$0	$21,535	$0		$0	$21,535
Targeted Third Party Initiatives (TPI)	$0	$0	$85,188	$0		$0	$85,188
Total Residential	$0	$0	$1,808,793	$0	$135,991	$0	$1,944,784
Nonresidential							
Savings by Design	$183,011	$743,587	$400,652	$74,359		$0	$1,401,608
Energy Design Resources	$0	$186,538	$313,782	$18,654		$0	$518,974
Relocatable Classrooms	$8,930	$19,448	$19,333	$1,945		$0	$49,655
Industrial and Agricultural New Construction	$0	$0	$0	$0		$0	$0
Total Nonresidential	$191,940	$949,573	$733,767	$94,957	$261,164	$0	$2,231,401
Other							
New Construction Codes and Standards Support	$0	$0	$198,891	$0		$0	$198,891
Local Government Initiatives	$0	$0	$0	$0		$0	$0
Total Other	$0	$0	$198,891	$0	$0	$0	$198,891
Aggressive Implementation (earnings only)					$115,197		$115,197
Total New Construction	$191,940	$949,573	$2,741,450	$94,957	$512,353	$0	$4,490,273

TABLE TA 4.1
PROGRAM COST ESTIMATES USED FOR COST-EFFECTIVENESS (NEW CONSTRUCTION)
GAS ONLY

PROGRAM	Program Incentives (Recorded)		Admin		Shareholder Inc	Other	Total
	Actual	Committed	Actual	Committed			
Residential							
Statewide Programs (Manufactured Housing)	$0	$0	$20,870	$0		$0	$20,870
Residential Design Assistance	$0	$0	$183,387	$0		$0	$183,387
Customer Information and Awareness	$0	$0	$0	$0		$0	$0
CHEERS	$0	$0	$30,721	$0		$0	$30,721
New Energy Efficient Products and Services	$0	$0	$0	$0		$0	$0
CEC Public Interest Energy Research (PIER)	$0	$0	$21,535	$0		$0	$21,535
Targeted Third Party Initiatives (TPI)	$0	$0	$85,188	$0		$0	$85,188
Total Residential	$0	$0	$341,699	$0	$28,009	$0	$369,708
Nonresidential							
Savings by Design	$32,296	$131,221	$70,703	$13,122		$0	$247,343
Energy Design Resources	$0	$32,919	$55,373	$3,292		$0	$91,584
Relocatable Classrooms	$8,930	$19,448	$19,333	$1,945		$0	$49,655
Industrial and Agricultural New Construction	$0	$0	$0	$0		$0	$0
Total Nonresidential	$41,226	$183,587	$145,410	$18,359	$50,836	$0	$439,417
Other							
New Construction Codes and Standards Support	$0	$0	$198,891	$0		$0	$198,891
Local Government Initiatives	$0	$0	$0	$0		$0	$0
Total Other	$0	$0	$198,891	$0	$0	$0	$198,891
Aggressive Implementation (earnings only)					$27,803		$27,803
Total New Construction	$41,226	$183,587	$685,999	$18,359	$106,647	$0	$1,035,818

TABLE TA 4.2
DIRECT AND ALLOCATED ADMINISTRATIVE COSTS (NEW CONSTRUCTION)
TOTAL GAS AND ELECTRIC

PROGRAM	Administrative Cost Elements				
	Labor (direct)	Non-Labor (direct	Contract (direct)	Allocated	Total
Residential					
Statewide Programs (Manufactured Housing)	$33,342	$6,252	$0	$2,145	$41,739
Residential Design Assistance	$89,907	$1,649,704	$0	$94,256	$1,833,867
Customer Information and Awareness	$0	$0	$0	$0	$0
CHEERS	$8,283	$50,000	$0	$3,158	$61,441
New Energy Efficient Products and Services	$0	$0	$0	$0	$0
CEC Public Interest Energy Research (PIER)	$36	$40,819	$0	$2,214	$43,069
Targeted Third Party Initiatives (TPI)	$8,768	$152,851	$0	$8,757	$170,376
Total Residential	$140,336	$1,899,626	$0	$110,530	$2,150,492
Nonresidential					
Savings by Design	$226,507	$163,892	$0	$80,956	$471,355
Energy Design Resources	$158,411	$180,491	$0	$30,253	$369,155
Relocatable Classrooms	$33,504	$959	$0	$4,203	$38,666
Industrial and Agricultural New Construction	$0	$0	$0	$0	$0
Total Nonresidential	$418,422	$345,342	$0	$115,412	$879,176
Other					
New Construction Codes and Standards Support	$36,372	$340,964	$0	$20,445	$397,781
Local Government Initiatives	$0	$0	$0	$0	$0
Total Other	$36,372	$340,964	$0	$20,445	$397,781
Total New Construction	$595,130	$2,585,932	$0	$246,387	$3,427,449

TABLE TA 4.2
DIRECT AND ALLOCATED ADMINISTRATIVE COSTS (NEW CONSTRUCTION)
ELECTRIC ONLY

PROGRAM	Administrative Cost Elements				
	Labor (direct)	Non-Labor (direct	Contract (direct)	Allocated	Total
Residential					
Statewide Programs (Manufactured Housing)	$16,671	$3,126	$0	$1,073	$20,870
Residential Design Assistance	$80,916	$1,484,734	$0	$84,830	$1,650,480
Customer Information and Awareness	$0	$0	$0	$0	$0
CHEERS	$4,142	$25,000	$0	$1,579	$30,721
New Energy Efficient Products and Services	$0	$0	$0	$0	$0
CEC Public Interest Energy Research (PIER)	$18	$20,410	$0	$1,107	$21,535
Targeted Third Party Initiatives (TPI)	$4,384	$76,426	$0	$4,379	$85,188
Total Residential	$106,131	$1,609,695	$0	$92,967	$1,808,793
Nonresidential					
Savings by Design	$192,531	$139,308	$0	$68,813	$400,652
Energy Design Resources	$134,649	$153,417	$0	$25,715	$313,782
Relocatable Classrooms	$16,752	$480	$0	$2,102	$19,333
Industrial and Agricultural New Construction	$0	$0	$0	$0	$0
Total Nonresidential	$343,932	$293,205	$0	$96,629	$733,767
Other					
New Construction Codes and Standards Support	$18,186	$170,482	$0	$10,223	$198,891
Local Government Initiatives	$0	$0	$0	$0	$0
Total Other	$18,186	$170,482	$0	$10,223	$198,891
Total New Construction	$468,249	$2,073,382	$0	$199,819	$2,741,450

TABLE TA 4.2
DIRECT AND ALLOCATED ADMINISTRATIVE COSTS (NEW CONSTRUCTION)
GAS ONLY

PROGRAM	Administrative Cost Elements				
	Labor (direct)	Non-Labor (direct	Contract (direct)	Allocated	Total
Residential					
Statewide Programs (Manufactured Housing)	$16,671	$3,126	$0	$1,073	$20,870
Residential Design Assistance	$8,991	$164,970	$0	$9,426	$183,387
Customer Information and Awareness	$0	$0	$0	$0	$0
CHEERS	$4,142	$25,000	$0	$1,579	$30,721
New Energy Efficient Products and Services	$0	$0	$0	$0	$0
CEC Public Interest Energy Research (PIER)	$18	$20,410	$0	$1,107	$21,535
Targeted Third Party Initiatives (TPI)	$4,384	$76,426	$0	$4,379	$85,188
Total Residential	$34,205	$289,931	$0	$17,563	$341,699
Nonresidential					
Savings by Design	$33,976	$24,584	$0	$12,143	$70,703
Energy Design Resources	$23,762	$27,074	$0	$4,538	$55,373
Relocatable Classrooms	$16,752	$480	$0	$2,102	$19,333
Industrial and Agricultural New Construction	$0	$0	$0	$0	$0
Total Nonresidential	$74,490	$52,137	$0	$18,783	$145,410
Other					
New Construction Codes and Standards Support	$18,186	$170,482	$0	$10,223	$198,891
Local Government Initiatives	$0	$0	$0	$0	$0
Total Other	$18,186	$170,482	$0	$10,223	$198,891
Total New Construction	$126,881	$512,550	$0	$46,568	$685,999

Table TA 4.3
Market Effects: New Construction Projected Annual Program Energy Reductions
Residential New Construction -- Design Assistance
Program Year: 1999

Average Load Impacts Per Unit (Gross)

	HVAC			Lighting			Misc		
Year	kW	kWh	Therms	kW	kWh	Therms	kW	kWh	Therms
1999							1,941	3,042,749	19,958
2000							1,941	3,042,749	19,958
2001							1,941	3,042,749	19,958
2002							1,941	3,042,749	19,958
2003							1,941	3,042,749	19,958
2004							1,941	3,042,749	19,958
2005							1,941	3,042,749	19,958
2006							1,941	3,042,749	19,958
2007							1,941	3,042,749	19,958
2008							1,941	3,042,749	19,958
2009							1,941	3,042,749	19,958
2010							1,941	3,042,749	19,958
2011							1,941	3,042,749	19,958
2012							1,941	3,042,749	19,958
2013							1,941	3,042,749	19,958
2014							1,941	3,042,749	19,958
2015							1,941	3,042,749	19,958
2016							1,941	3,042,749	19,958
2017							1,941	3,042,749	19,958
2018							1,941	3,042,749	19,958
SUM (Lifecycle)							1,941	60,854,976	399,169

Table TA 4.3
Market Effects: New Construction Projected Annual Program Energy Reductions
Nonresidential New Construction -- Savings By Design
Program Year: 1999

Average Load Impacts Per Unit (Gross)

	HVAC			Lighting			Misc		
Year	kW	kWh	Therms	kW	kWh	Therms	kW	kWh	Therms
1999	2,059	8,919,135	16,155	1,776	6,377,155	0	1,292	3,725,927	1,303
2000	2,059	8,919,135	16,155	1,776	6,377,155	0	1,292	3,725,927	1,303
2001	2,059	8,919,135	16,155	1,776	6,377,155	0	1,292	3,725,927	1,303
2002	2,059	8,919,135	16,155	1,776	6,377,155	0	1,292	3,725,927	1,303
2003	2,059	8,919,135	16,155	1,776	6,377,155	0	1,292	3,725,927	1,303
2004	2,059	8,919,135	16,155	1,776	6,377,155	0	1,292	3,725,927	1,303
2005	2,059	8,919,135	16,155	1,776	6,377,155	0	1,292	3,725,927	1,303
2006	2,059	8,919,135	16,155	1,776	6,377,155	0	1,292	3,725,927	1,303
2007	2,059	8,919,135	16,155	1,704	5,831,470	0	1,292	3,725,927	1,303
2008	2,059	8,919,135	16,155	1,686	5,713,086	0	1,292	3,725,927	1,303
2009	2,059	8,919,135	16,155	1,672	5,628,730	0	1,292	3,725,927	1,303
2010	2,059	8,919,135	16,155	1,672	5,628,730	0	1,292	3,725,927	1,303
2011	2,059	8,919,135	16,155	1,672	5,628,730	0	1,292	3,725,927	1,303
2012	2,059	8,919,135	16,155	1,672	5,628,730	0	1,292	3,725,927	1,303
2013	2,059	8,919,135	16,155	1,212	3,639,405	0	1,292	3,725,927	1,303
2014				779	2,212,549	0	59	57,481	-67
2015				779	2,212,549	0	59	57,481	-67
2016				482	1,143,296	0	59	57,481	-67
2017				4	34,504	0	59	57,481	-67
2018				4	34,504	0	59	57,481	-67
SUM (Lifecycle)	2,059	133,787,026	242,325	1,776	94,353,519	0	1,292	56,176,310	19,210

Table TA 4.4
Measure Detail: New Construction Program Area
Residential New Construction -- Design Assistance
Program Year: 1999

Year	Measure Code	Measure Description	Recorded Qty	Total Customer Cost	Average Unit Cost	Total KWH Savings	Average kWh Savings	Total Therm Savings	Average Therm Savings	Measure Life	Measure End Use
1999	HOME	New Home	2,016	$887,040.00	$440.00	3,042,749	1,509	19,958	10	20	Misc

Table TA 4.4
Measure Detail: New Construction Program Area
Nonresidential New Construction -- Savings By Design
Program Year: 1999

Year	Measure Code	Measure Description	Recorded Qty	Total Customer Cost	Average Unit Cost	Total KWH Savings	Average kWh Savings	Total Therm Savings	Average Therm Savings	Measure Life	Measure End Use
1999	AC00	96-Ton packaged rooftop VAV w/inlet guide vanes	2	$ 4,800	$ 2,400	93,370	46,685	-62	-31	15	HVAC
1999	AC00	96-ton packaged rooftop VAV w/inlet vanes	4	$ 9,600	$ 2,400	186,740	46,685	-124	-31	15	HVAC
1999	AC00	Air source heat pump York B1HH036	1	$ 379	$ 379	564	564	0	0	15	HVAC
1999	AC00	Air source heat pumps York B1HH060	2	$ 966	$ 483	2,791	1,396	0	0	15	HVAC
1999	AC00	ASD on Fan motor	1	$ 3,000	$ 3,000	12,133	12,133	0	0	15	HVAC
1999	AC00	Carrier 48HJD004 package rooftop unit	1	$ 396	$ 396	730	730	0	0	15	HVAC
1999	AC00	Carrier 48HJD005 packaged rooftop unit	15	$ 9,765	$ 651	14,301	953	0	0	15	HVAC
1999	AC00	Carrier 48HJD006 packaged rooftop unit	12	$ 8,280	$ 690	14,605	1,217	0	0	15	HVAC
1999	AC00	Carrier 48HJD007 packaged rooftop unit	4	$ 3,368	$ 842	5,256	1,314	0	0	15	HVAC
1999	AC00	Carrier 48HJD008 packaged rooftop unit	1	$ 1,281	$ 1,281	1,697	1,697	0	0	15	HVAC
1999	AC00	Carrier 48HJD015 packaged rooftop unit	2	$ 3,108	$ 1,554	4,074	2,037	0	0	15	HVAC
1999	AC00	Computer room A/C	1	$ 750	$ 750	13,535	13,535	0	0	15	HVAC
1999	AC00	Inlet guide vanes for supply & return air fans	6	$ 7,200	$ 1,200	29,767	4,961	3	1	15	HVAC
1999	AC00	Lennox LGB240H package rooftop unit	9	$ 10,620	$ 1,180	50,208	5,579	0	0	15	HVAC
1999	AC00	Liebert 10 ton nom computer rm	2	$ 6,120	$ 3,060	16,835	8,418	0	0	15	HVAC
1999	AC00	Liebert FH-245A Computer room units	2	$ 7,389	$ 3,694	59,635	29,818	0	0	15	HVAC
1999	AC00	McQuay RPS-105C	4	$ 53,200	$ 13,300	242,469	60,617	0	0	15	HVAC
1999	AC00	Packaged Rooftop Lennox LGB240H	8	$ 9,440	$ 1,180	44,629	5,579	0	0	15	HVAC
1999	AC00	Pkgd rooftop unit Carrier 48HJD004	1	$ 599	$ 599	730	730	0	0	15	HVAC
1999	AC00	Pkgd rooftop unit Carrier 48HJD005	1	$ 1,302	$ 1,302	1,907	1,907	0	0	15	HVAC
1999	AC00	Pkgd rooftop unit Carrier 48HJD007	1	$ 842	$ 842	1,395	1,395	0	0	15	HVAC
1999	AC00	Pkgd rooftop units Carrier 48HJD004	11	$ 4,356	$ 396	8,033	730	0	0	15	HVAC
1999	AC00	Pkgd rooftop units Carrier 48HJD005	4	$ 2,604	$ 651	3,814	954	0	0	15	HVAC
1999	AC00	Pkgd rooftop units Carrier 48HJD006	29	$ 22,220	$ 766	34,079	1,175	0	0	15	HVAC
1999	AC00	Pkgd rooftop units Carrier 48HJD007	8	$ 8,048	$ 1,006	11,162	1,395	0	0	15	HVAC
1999	AC00	Pkgd rooftop units Carrier 48HJD014	2	$ 1,908	$ 954	2,578	1,289	0	0	15	HVAC
1999	AC00	Pkgd rooftop units Carrier 48HJD015	4	$ 5,688	$ 1,422	6,908	1,727	0	0	15	HVAC
1999	AC00	Pkgd rooftop units Carrier 48HJE004	19	$ 7,524	$ 396	13,875	730	0	0	15	HVAC
1999	AC00	Pkgd rooftop units Carrier HJQ006	7	$ 3,899	$ 557	5,894	842	0	0	15	HVAC
1999	AC00	Pkgd rooftop units Lennox LGA240H	13	$ 15,340	$ 1,180	70,027	5,387	0	0	15	HVAC
1999	AC00	Trane TTP060C400 Split System	24	$ 10,488	$ 437	15,273	636	0	0	15	HVAC
1999	AC00	Trane YCD037	4	$ 1,456	$ 364	2,742	686	0	0	15	HVAC
1999	AC00	Trane YCD037C gas pack rooftop A/C	4	$ 1,112	$ 278	2,485	621	0	0	15	HVAC
1999	AC00	Trane YCD049	34	$ 10,846	$ 319	24,507	721	0	0	15	HVAC
1999	AC00	Trane YCD049C gas pack rooftop A/C	53	$ 16,960	$ 320	39,910	753	0	0	15	HVAC
1999	AC00	Trane YCD060C gas pack rooftop A/C	1	$ 357	$ 357	1,354	1,354	0	0	15	HVAC
1999	AC00	Trane YCD074	2	$ 914	$ 457	1,406	703	0	0	15	HVAC
1999	AC00	Trane YCD075C gas pack rooftop A/C	6	$ 2,766	$ 461	6,226	1,038	0	0	15	HVAC
1999	AC00	Trane YCD091	1	$ 972	$ 972	856	856	0	0	15	HVAC
1999	AC00	Trane YCD091C gas pack rooftop A/C	6	$ 4,704	$ 784	9,153	1,526	0	0	15	HVAC
1999	AC00	Trane YCD103C gas pack rooftop A/C	2	$ 2,044	$ 1,022	3,997	1,999	0	0	15	HVAC
1999	AC00	Trane YCD121	3	$ 3,564	$ 1,188	7,643	2,548	0	0	15	HVAC
1999	AC00	Trane YCD181	1	$ 1,024	$ 1,024	4,639	4,639	0	0	15	HVAC
1999	AC00	Trane YCD211C gas pack rooftop A/C	1	$ 1,688	$ 1,688	5,719	5,719	0	0	15	HVAC
1999	AC00	VAV w/ASD	1	$ 19,100	$ 19,100	77,841	77,841	0	0	15	HVAC
1999	AC00	VAV/RH with AFDs	2	$ 5,392	$ 2,696	21,867	10,934	4	2	15	HVAC
1999	AC00	York B1HH024	2	$ 270	$ 135	978	489	0	0	15	HVAC
1999	AC00	York B1HH042	7	$ 758	$ 108	6,142	877	0	0	15	HVAC
1999	AC00	York B1HH048	2	$ 438	$ 219	1,773	887	0	0	15	HVAC
1999	AC00	York Model BHH030	12	$ 1,532	$ 128	4,474	373	0	0	15	HVAC
1999	AC00	York Model BHH060	20	$ 5,100	$ 255	24,446	1,222	0	0	15	HVAC
1999	AC03	Carrier 48HJD006	3	$ 655	$ 218	5,224	1,741	0	0	15	HVAC
1999	AC03	Carrier YCD061	1	$ 153	$ 153	1,225	1,225	0	0	15	HVAC
1999	AC03	Package Rooftop Lennox LCB060H	7	$ 1,119	$ 160	8,932	1,276	0	0	15	HVAC
1999	AC03	Package Rooftop Lennox LCB306H	4	$ 289	$ 72	2,307	577	0	0	15	HVAC
1999	AC03	Package Rooftop Lennox LGB060H	5	$ 1,098	$ 220	8,764	1,753	0	0	15	HVAC
1999	AC03	Packaged rooftop LGB036H	2	$ 199	$ 99	1,585	792	0	0	15	HVAC
1999	AC03	Pkgd rooftop unit Carrier 48HJD005	1	$ 170	$ 170	1,358	1,358	0	0	15	HVAC
1999	AC03	Pkgd rooftop unit Carrier 48HJD006	1	$ 179	$ 179	1,426	1,426	0	0	15	HVAC
1999	AC03	Pkgd rooftop unit Lennox LGA048H	2	$ 256	$ 128	2,042	1,021	0	0	15	HVAC

Table TA 4.4
Measure Detail: New Construction Program Area
Nonresidential New Construction -- Savings By Design (Continued)
Program Year: 1999

Year	Measure Code	Measure Description	Recorded Qty	Total Customer Cost	Average Unit Cost	Total KWH Savings	Average kWh Savings	Total Therm Savings	Average Therm Savings	Measure Life	Measure End Use
1999	AC03	Pkgd rooftop unit Lennox LGA060H	1	$ 160	$ 160	1,276	1,276	0	0	15	HVAC
1999	AC03	Pkgd rooftop units Carrier 48HJD006	2	$ 436	$ 218	3,483	1,741	0	0	15	HVAC
1999	AC03	Pkgd rooftop units Carrier 48HJE004	5	$ 732	$ 146	5,840	1,168	0	0	15	HVAC
1999	AC03	Pkgd rooftop units Carrier 48HJE006	1	$ 282	$ 282	2,254	2,254	0	0	15	HVAC
1999	AC03	Pkgd rooftop units DX A/C Lennox LCB036H	5	$ 361	$ 72	2,884	577	0	0	15	HVAC
1999	AC03	Pkgd rooftop units DX A/C Lennox LCB060H	4	$ 639	$ 160	5,104	1,276	0	0	15	HVAC
1999	AC03	Pkged rooftop unit Carrier 48HJD004	1	$ 107	$ 107	856	856	0	0	15	HVAC
1999	AC04	Carrier 48HJD007	3	$ 639	$ 213	5,097	1,699	0	0	15	HVAC
1999	AC04	Carrier 48HJD008	2	$ 532	$ 266	4,248	2,124	0	0	15	HVAC
1999	AC04	Carrier YCD074	1	$ 117	$ 117	930	930	0	0	15	HVAC
1999	AC04	Package Rooftop Lennox LCB120H	4	$ 818	$ 204	6,527	1,632	0	0	15	HVAC
1999	AC04	Package Rooftop Lennox LGB120H	5	$ 1,404	$ 281	11,207	2,241	0	0	15	HVAC
1999	AC04	Pkgd rooftop unit Carrier 48HJD007	1	$ 358	$ 358	2,853	2,853	0	0	15	HVAC
1999	AC04	Pkgd rooftop unit Carrier 48HJD014	1	$ 180	$ 180	1,436	1,436	0	0	15	HVAC
1999	AC04	Pkgd rooftop unit Carrier 48TJD008	1	$ 266	$ 266	2,124	2,124	0	0	15	HVAC
1999	AC04	Pkgd rooftop unit Trane YCD103C	1	$ 404	$ 404	3,226	3,226	0	0	15	HVAC
1999	AC04	Pkgd rooftop unit Trane YCD121C	1	$ 577	$ 577	4,602	4,602	0	0	15	HVAC
1999	AC04	Pkgd rooftop units Carrier 48HJD008	5	$ 1,090	$ 218	8,698	1,740	0	0	15	HVAC
1999	AC04	Pkgd rooftop units Carrier 48HJD009	1	$ 360	$ 360	2,871	2,871	0	0	15	HVAC
1999	AC04	Pkgd rooftop units Carrier 48HJD012	11	$ 3,389	$ 308	27,051	2,459	0	0	15	HVAC
1999	AC04	Pkgd rooftop units Carrier 48HJD014	5	$ 1,173	$ 235	9,365	1,873	0	0	15	HVAC
1999	AC04	Pkgd rooftop units Carrier 48HJE007	3	$ 854	$ 285	6,818	2,273	0	0	15	HVAC
1999	AC04	Pkgd rooftop units Carrier 48TJD012	2	$ 710	$ 355	5,663	2,832	0	0	15	HVAC
1999	AC04	Pkgd rooftop units Carrier 48TJD014	2	$ 439	$ 220	3,506	1,753	0	0	15	HVAC
1999	AC04	Pkgd rooftop units DX A/C Lennox LCB120H	4	$ 818	$ 204	6,527	1,632	0	0	15	HVAC
1999	AC04	Pkgd rooftop units Lennoz LGA120H	5	$ 1,774	$ 355	14,159	2,832	0	0	15	HVAC
1999	AC04	Pkgd rooftop units Rheem RRGF75DKR	1	$ 112	$ 112	890	890	0	0	15	HVAC
1999	AC04	Trane YCD074	1	$ 117	$ 117	930	930	0	0	15	HVAC
1999	AC04	Trane YCD120	6	$ 295	$ 49	2,355	392	0	0	15	HVAC
1999	AC05	Carrier 48HJD007	1	$ 225	$ 225	1,792	1,792	0	0	15	HVAC
1999	AC05	Carrier 48HJD015	1	$ 340	$ 340	2,712	2,712	0	0	15	HVAC
1999	AC05	Pkgd rooftop unit Trane YCD181C	1	$ 1,038	$ 1,038	8,286	8,286	0	0	15	HVAC
1999	AC05	Pkgd rooftop units DX A/C Lennox LCB240H	7	$ 4,086	$ 584	32,611	4,659	0	0	15	HVAC
1999	CH00	Chiller with VFD	1	$ 430,000	$ 430,000	5,363	5,363	4,018	4,018	15	HVAC
1999	CH00	Enhanced Chiller	2	$ 32,000	$ 16,000	36,745	18,373	0	0	15	HVAC
1999	DIM01	Photocells Daylight Control	287	$ 12,634	$ 44	100,841	351	0	0	15	Lighting
1999	HP01	Water source hp Trane WPHF021	1	$ 67	$ 67	532	532	0	0	15	HVAC
1999	HP02	Water source heat pump Trane WPHF047	3	$ 350	$ 117	2,794	931	0	0	15	HVAC
1999	HP02	Water source heat pumps Trane WPHF035	2	$ 210	$ 105	1,676	838	0	0	15	HVAC
1999	HP02	Water source heat pumps Trane WPHF040	2	$ 147	$ 74	1,177	589	0	0	15	HVAC
1999	HP02	Water source hp Trane WPHF027	4	$ 309	$ 77	2,469	617	0	0	15	HVAC
1999	HP02	Water Source HP Trane WPHF035	2	$ 237	$ 119	1,894	947	0	0	15	HVAC
1999	HP02	Water Source HP Trane WPHF040	1	$ 120	$ 120	954	954	0	0	15	HVAC
1999	HP02	Water Source HP Trane WPHF047	1	$ 158	$ 158	1,263	1,263	0	0	15	HVAC
1999	HP02	Water source hp Trane WPHF057	4	$ 632	$ 158	5,045	1,261	0	0	15	HVAC
1999	IM00	Injection Molding Machine w/ASD 40hp	1	$ 8,000	$ 8,000	36,355	36,355	0	0	15	Misc
1999	IM00	Injection Molding Machine w/Thermal Blanket	1	$ 481	$ 481	13,036	13,036	0	0	15	Misc
1999	LI00	1XLED1	1163	$ 21,508	$ 18	171,666	148	0	0	15	Lighting
1999	LI00	1XLED1A	42	$ 777	$ 18	6,199	148	0	0	15	Lighting
1999	LI00	1XSF20	212	$ (11,843)	$ (56)	34,504	163	0	0	20	Lighting
1999	LI00	LPD	56	$ 704,197	$ 12,575	4,915,795	87,782	0	0	16	Lighting
1999	M00	20 HP 2-speed fan motors	2	$ 1,800	$ 900	39,066	19,533	0	0	15	HVAC
1999	M00	20 HP two-speed fan motor	2	$ 1,464	$ 732	98,002	49,001	0	0	15	HVAC
1999	M00	ASD's for supply & return fans AH-8	2	$ 6,100	$ 3,050	25,524	12,762	3	2	15	HVAC
1999	M00	ASD's for supply & return fans AH-9	2	$ 8,500	$ 4,250	81,092	40,546	15	8	15	HVAC
1999	MISC	Atomizing humidifier	1	$ 680	$ 680	7,732	7,732	0	0	15	HVAC
1999	MISC	Enchance glass	12160	$ 24,320	$ 2	57,481	5	-67	0	20	Misc
1999	MISC	Subclg, partial float hd, evap cond, PSC mtr	1	$ 40,400	$ 40,400	488,796	488,796	0	0	15	HVAC
1999	MISC	Subclg,Partial FLoat hd,Evap Cond,PSC Mtr	1	$ 39,500	$ 39,500	471,249	471,249	0	0	15	HVAC
1999	MISC	Untempered air via kitchen supply air fans	1	$ 1,500	$ 1,500	3,904	3,904	93	93	15	HVAC

Table TA 4.4
Measure Detail: New Construction Program Area
Nonresidential New Construction -- Savings By Design (Continued)
Program Year: 1999

Year	Measure Code	Measure Description	Recorded Qty	Total Customer Cost	Average Unit Cost	Total KWH Savings	Average kWh Savings	Total Therm Savings	Average Therm Savings	Measure Life	Measure End Use
1999	NC001	Carbon Monoxide Monitors	1	$ 5,177	$ 5,177	41,324	41,324	0	0	15	Misc
1999	NC002	Envelope	4	$ 75,524	$ 18,881	602,803	150,701	0	0	15	Misc
1999	NC002	Light Power Density	1	$ 47,479	$ 47,479	378,963	378,963	0	0	15	Misc
1999	NC002	Lighting	5	$ 78,586	$ 15,717	627,245	125,449	0	0	15	Misc
1999	NC002	Owner Incentive	4	$ (9,194)	$ (2,299)	0	0	-9,089	-2,272	15	Misc
1999	NC002	Space Cooling	1	$ 23,171	$ 23,171	184,940	184,940	0	0	15	Misc
1999	NC002	Space cooling, heating, indoor fans	4	$ 132,789	$ 33,197	1,059,873	264,968	0	0	15	Misc
1999	NC002	Space Cooling, Space Heating, Indoor Fans	1	$ 14,638	$ 14,638	165,631	165,631	-6,044	-6,044	15	Misc
1999	NC002	Whole Building - Overall Building Performance	8	$ 52,770	$ 6,596	287,945	35,993	16,503	2,063	15	Misc
1999	NC010	10.08 tons, 10 EER	1	$ 263	$ 263	2,103	2,103	0	0	15	HVAC
1999	NC010	10.6 tons, 11.5 EER	10	$ 6,299	$ 630	50,279	5,028	0	0	15	HVAC
1999	NC010	12.8 tons, 11.3 EER	4	$ 2,986	$ 747	23,834	5,959	0	0	15	HVAC
1999	NC010	15.8 tons, 11.5 EER	2	$ 2,343	$ 1,172	18,701	9,351	0	0	15	HVAC
1999	NC010	18.3 tons, 11 EER	2	$ 2,294	$ 1,147	18,312	9,156	0	0	15	HVAC
1999	NC010	22.3 tons, 10.6 EER	1	$ 1,193	$ 1,193	9,526	9,526	0	0	15	HVAC
1999	NC010	25 tons, 10.4 EER	1	$ 1,026	$ 1,026	8,187	8,187	0	0	15	HVAC
1999	NC010	5.67 tons, 10.0 EER	7	$ 499	$ 71	3,983	569	0	0	15	HVAC
1999	NC010	7.2 tons, 10 EER	4	$ 814	$ 203	6,495	1,624	0	0	15	HVAC
1999	NC010	7.67 tons, 10.0 EER	1	$ 200	$ 200	1,600	1,600	0	0	15	HVAC
1999	NC010	8.8 tons, 11 EER	9	$ 3,884	$ 432	30,999	3,444	0	0	15	HVAC
1999	NC016	194.192 kW controlled	1	$ 92,621	$ 92,621	739,270	739,270	0	0	15	Lighting
1999	NC018	11.461 Allowed kW, 6.814 Proposed kW	1	$ 2,560	$ 2,560	20,433	20,433	0	0	15	Lighting
1999	NC018	11.651 Allowed kW, 9.621 Proposed kW	1	$ 1,123	$ 1,123	8,964	8,964	0	0	15	Lighting
1999	NC018	12.198 Allowed kW, 7.022 Proposed kW	1	$ 2,850	$ 2,850	22,751	22,751	0	0	15	Lighting
1999	NC018	22.577 Allowed kW, 19.115 Proposed kW	1	$ 1,650	$ 1,650	13,170	13,170	0	0	15	Lighting
1999	NC018	25.5 Allowed kW, 18.4 Proposed kW	1	$ 3,737	$ 3,737	29,830	29,830	0	0	15	Lighting
1999	NC018	29.365 Allowed kW, 25.375 Proposed kW	1	$ 1,901	$ 1,901	15,170	15,170	0	0	15	Lighting
1999	NC024	1608 ft² of glass, 0.22 SHG Coefficient	1	$ 628	$ 628	5,015	5,015	0	0	15	HVAC
1999	NC025	5136 ft² of glass, 0.22 SHG Coefficient	1	$ 448	$ 448	3,576	3,576	0	0	15	HVAC
1999	NC026	4390 ft² of glass, 0.22 SHG Coefficient	1	$ 3,233	$ 3,233	25,802	25,802	0	0	15	HVAC
1999	NC027	1724 ft² of glass, 0.22 SHG Coefficient	1	$ 947	$ 947	7,559	7,559	0	0	15	HVAC
1999	NC033	107.4 tons	1	$ 17,650	$ 17,650	140,879	140,879	0	0	15	Misc
1999	NC041	41.2 tons	1	$ 1,586	$ 1,586	12,661	12,661	0	0	15	Misc
1999	NC047	38 HP	1	$ 12,924	$ 12,924	103,155	103,155	0	0	15	Misc
1999	NC048	25 HP	3	$ 1,708	$ 569	13,636	4,545	0	0	15	Misc
1999	NC049	10 HP	2	$ 1,684	$ 842	13,442	6,721	0	0	15	HVAC
1999	NC049	40 HP	2	$ 6,736	$ 3,368	53,768	26,884	0	0	15	HVAC
1999	NC049	42.8 HP	1	$ 7,105	$ 7,105	56,708	56,708	0	0	15	HVAC
1999	NC049	62.5 HP	1	$ 10,375	$ 10,375	82,809	82,809	0	0	15	HVAC
1999	NC052	649 tons, non-CFC refrigerant, .597 kW/ton	3	$ 80,269	$ 26,756	640,676	213,559	0	0	15	HVAC
1999	NC053	1.77 tons, 14.8 EER	5	$ 424	$ 85	3,388	678	0	0	15	HVAC
1999	NC053	3.29 tons, 14.8 EER	1	$ 158	$ 158	1,259	1,259	0	0	15	HVAC
1999	NC053	3.96 tons, 15.2 EER	1	$ 203	$ 203	1,622	1,622	0	0	15	HVAC
1999	SE01	Occupancy Sensors	1235	$ 32,485	$ 26	259,286	210	0	0	15	Lighting
1999	SE01	Photocells-Daylighting Control	1	$ 4,921	$ 4,921	39,275	39,275	0	0	15	Lighting
1999	VSD00	30 hp ASD on circulating water pump motor	1	$ 5,000	$ 5,000	81,850	81,850	0	0	15	HVAC
1999	VSD00	ASD's on air handlers	11	$ 39,600	$ 3,600	247,363	22,488	0	0	15	HVAC
1999	VSD01	20 hp ASD on cooling tower fan motor	1	$ 3,900	$ 3,900	23,572	23,572	0	0	15	HVAC
1999	VSD01	25 hp ASD for supply fan	1	$ 4,400	$ 4,400	101,704	101,704	0	0	15	HVAC
1999	VSD01	25 HP VFD for air handler AH-5	1	$ 3,200	$ 3,200	30,514	30,514	-3	-3	15	HVAC
1999	VSD01	ASD for circulating water pump motor	1	$ 3,300	$ 3,300	44,507	44,507	0	0	15	HVAC
1999	VSD01	Prim/sec system w/50 HP ASD	1	$ 1,775	$ 1,775	39,923	39,923	0	0	15	HVAC
1999	VSD01	VFD's for entire plant	1	$ 75,000	$ 75,000	743,754	743,754	0	0	15	HVAC
1999	VSD01	VFD's for secondary chilled water pumps	2	$ 64,000	$ 32,000	1,640,707	820,354	0	0	15	HVAC
1999	VSD01	VFD's for supply and return air fans	48	$ 401,325	$ 8,361	2,172,102	45,252	12,208	254	15	HVAC

MA&E AND REGULATORY OVERSIGHT

Not applicable.

TABLE TA 6.1

SHAREHOLDER PERFORMANCE INCENTIVES

Program		LEVEL 1	LEVEL 2	ACHIEVED
Base Award				
Statewide Res Lighting		$101,000	$51,000	$101,000
Statewide Res Appliance		$101,000	$83,000	$101,000
Res Lighting		$37,000	$24,000	$37,000
Res Contractor		$188,000	$122,000	$188,000
Res HVAC		$49,000	$32,000	$49,000
Large SPC		$224,000	$147,000	$224,000
Small SPC		$224,000	$147,000	$224,000
Small Rebates		$102,000	$67,000	$102,000
Res New Construction		$107,000	$70,000	$107,000
Nonres New Const		$90,000	$59,000	$90,000
Total Base Award		$1,223,000	$802,000	$1,223,000
Market Changes/Effects				
Res HVAC		$120,000	$80,000	$120,000
Res Lighting		$120,000	$80,000	$120,000
Res Appliances		$120,000	$80,000	$120,000
Small SPC		$120,000	$80,000	$120,000
Nonres New Construction		$120,000	$80,000	$120,000
Total Market Changes		$600,000	$400,000	$600,000
Admin/Process				
Res Contractor		$98,000	$64,000	$98,000
Res Appliances		$81,000	$53,000	$81,000
Large SPC		$417,000	$273,000	$417,000
Small SPC		$130,000	$85,000	$130,000
Small Retrofit		$65,000	$43,000	$65,000
Comm Remodel/Renovation		$114,000	$75,000	$114,000
Res New Construction		$57,000	$38,000	$57,000
Nonres New Construction		$102,000	$67,000	$102,000
Third Party Initiatives		$81,000	$53,000	$81,000
MA&E		$77,000	$51,000	$77,000
Total Admin/Process		$1,222,000	$802,000	$1,222,000
Aggressive Implementation				
Residential		$362,000	$253,400	$334,850
Nonresidential		$447,000	$312,900	$0
New Construction		$143,000	$100,100	$143,000
Total Aggressive Implementation		$952,000	$666,400	$477,850
Total Awards		**$3,997,000**	**$2,670,400**	**$3,522,850**

TABLE TA 7.1
PROGRAM COST ESTIMATES USED FOR COST-EFFECTIVENESS (LOW INCOME)

Gas and Electric Combined

	UTILITY COSTS						
PROGRAM	Program Incentives		Admin		Sh Inc	Other	Total
	Actual	Committed	Actual	Committed			
DAP	$2,964,790	$0	$1,067,715	$0	$78,765	NA	$4,111,270
EELI	$0	$0	$224,805	$0	$0	NA	$224,805
Total	$2,964,790	$0	$1,292,520	$0	$78,765	NA	$4,336,075

Electric Only

	UTILITY COSTS						
PROGRAM	Program Incentives		Admin		Sh Inc	Other	Total
	Actual	Committed	Actual	Committed			
DAP	$418,809	$0	$87,270	$0	$74,188	NA	$580,267
EELI	$0	$0	$178,524	$0	0	NA	$178,524
Total	$418,809	$0	$265,794	$0	$74,188	NA	$758,791

Gas Only

	UTILITY COSTS						
PROGRAM	Program Incentives		Admin		Sh Inc	Other	Total
	Actual	Committed	Actual	Committed			
DAP	$2,545,981	$0	$980,445	$0	$4,577	NA	$3,531,003
EELI	$0	$0	$46,281	$0	$0	NA	$46,281
Total	$2,545,981	$0	$1,026,726	$0	$4,577	NA	$3,577,284

TABLE TA 7.2
DIRECT AND ALLOCATED ADMINISTRATIVE COSTS (LOW INCOME)

Gas and Electric Combined

	Administrative Cost Elements				
PROGRAM	Labor (direct)	Non-Labor (direct)	Contract (direct)	Allocated	Total
DAP	$397,614	$636,021	$0	$34,080	$1,067,715
EELI	$2,596	$220,075	$0	$2,135	$224,806
Total	$400,210	$856,096	$0	$36,215	$1,292,521

Electric Only

	Administrative Cost Elements				
PROGRAM	Labor (direct)	Non-Labor (direct)	Contract (direct)	Allocated	Total
DAP	$57,240	$25,971	$0	$4,059	$87,270
EELI	$1,134	$175,684	$0	$1,706	$178,524
Total	$58,374	$201,655	$0	$5,765	$265,794

Gas Only

	Administrative Cost Elements				
PROGRAM	Labor (direct)	Non-Labor (direct)	Contract (direct)	Allocated	Total
DAP	$340,374	$610,050	$0	$30,021	$980,445
EELI	$1,462	$44,391	$0	$429	$46,282
Total	$341,836	$654,441	$0	$30,450	$1,026,727

Table TA 2.3
Low Income Projected Annual Program Energy Reductions
Low Income -- Direct Assistance Program (Mandatory Measures)
Program Year: 1999

Average Load Impacts Per Unit (Gross)

	HVAC			Lighting			Misc		
Year	kW	kWh	Therms	kW	kWh	Therms	kW	kWh	Therms
1999			111,572						129,785
2000			111,572						129,785
2001			111,572						129,785
2002			111,572						129,785
2003			111,572						129,785
2004			111,572						129,785
2005			111,572						83,420
2006			111,572						83,420
2007			111,572						83,420
2008			111,572						83,420
2009			111,572						51,798
2010			111,572						51,798
2011			111,572						51,798
2012			111,572						51,798
2013			111,572						51,798
2014			111,572						51,798
2015			111,572						51,798
2016			111,572						51,798
2017			111,572						51,798
2018			111,572						51,798
SUM (Lifecycle)			2,231,438						1,630,368

Table TA 2.3
Low Income Projected Annual Program Energy Reductions
Low Income -- Direct Assistance Program (Non-Mandatory Measures)
Program Year: 1999

Average Load Impacts Per Unit (Gross)

	HVAC			Lighting			Misc		
Year	kW	kWh	Therms	kW	kWh	Therms	kW	kWh	Therms
1999			7,838	20	1,825,651		54	378,231	10,824
2000			7,838	20	1,825,651		54	378,231	10,824
2001			7,838	20	1,803,097		54	378,231	10,824
2002			7,838	20	1,803,097		54	378,231	10,824
2003			7,838	20	1,803,097		54	378,231	10,824
2004			7,838	20	1,803,097		54	378,231	10,824
2005			7,838	20	1,803,097		54	378,231	10,824
2006			7,838	20	1,803,097		54	378,231	10,824
2007			7,838				54	378,231	10,824
2008			7,838				10	297,801	10,824
2009			7,838						
2010			7,838						
2011			7,838						
2012			7,838						
2013			7,838						
2014									
2015									
2016									
2017									
2018									
SUM (Lifecycle)			117,570	20	14,469,884		54	3,701,877	108,240

Table TA 7.4
Measure Detail: Low Income
Low Income -- Direct Assistance Program
Program Year: 1999

Year	Measure Category	Measure Code	Measure Description	Recorded Qty	Total Customer Cost	Average Unit Cost	Total KWH Savings	Average kWh Savings	Total Therm Savings	Average Therm Savings	Measure Life	Measure End Use
1999	Mandatory	A101	Ceil. Insul. R-11	53	$ 21,554	$ 407	0	0	3,399	64	25	HVAC
1999	Mandatory	A102	Ceil. Insul. R-19	139	$ 56,527	$ 407	0	0	8,916	64	25	HVAC
1999	Mandatory	C201	Caulking - SF Unit	934	$ 35,632	$ 38	0	0	5,620	6	20	HVAC
1999	Mandatory	C202	Caulking - MF Unit	4653	$ 177,512	$ 38	0	0	27,998	6	20	HVAC
1999	Mandatory	D201	W/strip Dr. - SF unit	1077	$ 72,773	$ 68	0	0	11,478	11	20	HVAC
1999	Mandatory	D202	W/strip Dr. - MF Unit	5082	$ 343,391	$ 68	0	0	54,161	11	20	HVAC
1999	Mandatory	F400	Faucet Aerators	3184	$ 25,472	$ 8	0	0	25,854	8	10	Misc
1999	Mandatory	H000	Water Heater Blankets	470	$ 9,978	$ 21	0	0	2,584	5	10	Misc
1999	Mandatory	H100	Water Heater Pipe Insulation	398	$ 2,388	$ 6	0	0	3,184	8	10	Misc
1999	Mandatory	M100	M. Hm Repair Materials	2968	$ 328,409	$ 111	0	0	51,798	17	20	Misc
1999	Mandatory	S000	Low Flow Showerheads	4385	$ 116,773	$ 27	0	0	46,365	11	6	Misc
1999	Non-Mandatory	E000	Assessment w/ Education	10824	$ 465,216	$ 43	297,801	28	10,824	1	10	Misc
1999	Non-Mandatory	F342	Furnace Replace (direct vent)	1	$ 917	$ 917	0	0	8	8	15	HVAC
1999	Non-Mandatory	F344	Furnace Replace (double wall)	10	$ 9,462	$ 946	0	0	80	8	15	HVAC
1999	Non-Mandatory	F348	Furnace Replace (forced air)	3	$ 2,839	$ 946	0	0	24	8	15	HVAC
1999	Non-Mandatory	F350	Furnace Replace (wall)	20	$ 18,925	$ 946	0	0	160	8	15	HVAC
1999	Non-Mandatory	F362	Furnace Relocate (direct vent)	1	$ 946	$ 946	0	0	8	8	15	HVAC
1999	Non-Mandatory	F364	Furnace Relocate (double wall)	2	$ 1,892	$ 946	0	0	16	8	15	HVAC
1999	Non-Mandatory	F366	Furnace Relocate (wall w/ FSK)	5	$ 4,731	$ 946	0	0	40	8	15	HVAC
1999	Non-Mandatory	F368	Furnace Relocate (wall)	5	$ 4,731	$ 946	0	0	40	8	15	HVAC
1999	Non-Mandatory	L005	Lighting- Porch Light Install Fee (New)	95	$ 4,153	$ 44	22,554	237	0	0	2	Lighting
1999	Non-Mandatory	L009	Compact Fluorescent Bulbs	8757	$ 343,362	$ 39	1,802,891	206	0	0	8	Lighting
1999	Non-Mandatory	R014	Refrig Replace - Magic Chef (Maytag) CT1511	76	$ 38,000	$ 500	30,563	402	0	0	9	Misc
1999	Non-Mandatory	R015	Refrig Replace - Magic Chef (Maytag) CT1911	124	$ 62,000	$ 500	49,867	402	0	0	9	Misc
1999	Non-Mandatory	T000	Evaporative Cooler Cover	287	$ 8,610	$ 30	0	0	7,462	26	15	HVAC
1999	Non-Mandatory	T000	Evaporative Cooler Replacement	1	$ 750	$ 750	130	130	0	0	15	HVAC

BALANCING ACCOUNTS FOR POST-1997 EE ACTIVITIES

TA Section 8: Balancing Accounts for Post-1997 EE Activities

Table TA 8.1 identifies the account held by SDG&E used to track actual energy efficiency (DSM) program expenses compared to authorized energy efficiency (DSM) program expenses described in SDG&E's filings and reports at the CPUC.

See Table TA 8.1 and Table TA 8.2 for additional information.

TABLE TA 8.1
PUBLIC PURPOSE PROGRAMS DSM BALANCING ACCOUNTS

Account Name	Description	Authorized by
DSM Balancing Account	Actual DSM Program expenses are compared to authorized DSM program expenses.	D.97-10-057

TABLE TA 8.2
AUTHORIZATION RECONCILIATION TABLE
Program Year 1999

Line Item Used in Authorization Decision	AUTHORIZED AMOUNT PER AUTHORIZATION DECISION	RECORDED EXPENDITURES (actual and committed)
Programs Only Subtotal	$34,602,000	$25,937,698
Administrator Performance Incentive Cap	$3,806,000	$3,522,850
CBEE Set-Aside	$3,920,373	$3,613,395
MFRR	$1,627	$1,540
Total	$42,330,000	$33,075,483