Demand-Side Management

Energy Efficiency Programs Annual Report

Program Year 2001

May 2002

Southern California Gas Company®

A Sempra Energy℠ company

Energy Efficiency Programs
Program Year 2001
Annual Report

May 2002

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1. Executive Summary

Overview

This report provides information on the costs and benefits of Southern California Gas Company's 2001 Energy Efficiency programs. This report also provides the foundation for SoCalGas' PY2001 shareholder incentive earnings claim.

SoCalGas successfully operated as administrator of Energy Efficiency programs in 2001. Collectively, customers participating in SoCalGas' programs initiated energy efficiency improvements yielding annual energy savings of 8.6 million therms, 13.1 million kWh and 8.4 megawatts.

This Executive Summary contains six subsections, with each subsection presenting a high level summary of results and plans described in each of the sections of the main report.

Residential Program Area

Information Programs

The Energy Facts[sm] Program provides residential customers with energy efficiency information through SoCalGas' web site. Energy Facts[sm] information services were well utilized during PY2001, mostly due to higher gas prices.

The Statewide Residential Energy Guide continued to be distributed during PY2001 and is also available online in three languages (English, Spanish and Chinese). "Quick Tips" single-page guides were developed to provide energy efficiency information to customers; this guide was available in five languages (English, Spanish, Chinese, Vietnamese and Korean).

Energy Management Services Programs

The Home Energy Fitness Program provides residential customers with an individualized assessment of their energy consumption and recommendations to make their homes more energy efficient. SoCalGas outsourced its direct mail program in PY2001 and launched its online residential audit service.

Energy Efficiency Incentive Programs

The Residential Contractor Program provided rebates to single-family and multi-family customers for the installation of high-efficiency furnaces, water heaters, and windows. Rebates were also provided for ceiling and wall insulation, duct testing and sealing, programmable thermostats, and low-flow showerheads. Multifamily efforts centered on the installation of water heater and boiler controllers.

The Schools Program is a school-to-home effort designed to educate homeowners and provided elementary school students and their families with energy efficiency information.

The Upstream High-Efficiency Water Heater Program provided incentives to encourage the stocking of higher efficiency water heaters among water heater distributors and retailers.

Upstream Programs

The CHEERS Program provides support for home energy ratings.

The Energy Efficiency Renovation Service Program seeks to promote whole house conservation approaches through a formal certification process that can also help retain the value of conservation improvements directly in the value of a home when sold.

The Residential Upstream Gas Air Conditioning Program promotes the replacement of existing, older inefficient 2-5 ton natural gas air conditioning units and supports the development of a natural gas heat pump through the continued commercialization of energy efficient natural gas air conditioning.

The Emerging Technologies Program is an important vehicle through which SoCalGas identifies, qualifies and deploys advanced gas-fired technologies that are emerging into the marketplace. 2001 was a slow year in this area due to the failure of expected products to make market introduction.

The Statewide Residential Appliances Program is a statewide effort dedicated to the consistent promotion of Energy Star® rated appliances meant for home use. SoCalGas provides high-efficiency clothes washer incentives.

Nonresidential Program Area

Information Programs

The Nonresidential Information Program supports energy efficiency among core nonresidential customers through the Commercial and Industrial Support Center hotline and the Equipment and Services Marketplace Directory web-site.

The Energy Resource Center serves as a venue to influence how customers use both gas and electricity, providing educational opportunities and equipment demonstrations.

The Nonresidential HVAC Training Program provides training on the proper installation of gas cooling systems.

The Coin Laundry and Dry Cleaner Education Program promotes energy efficiency awareness among coin laundry and dry cleaner owners/operators. In PY2001, workshops were held, newsletters were distributed and, in conjunction with the Commercial Equipment Replacement program, rebates for high-efficiency clothes washers were provided

The Lodging Industry Education Program promotes energy efficiency awareness among small hotel and motel owners/operators. In PY2001, onsite audits were provided.

The Mobile Energy Clinic provides energy efficiency evaluations and maintenance services to hard-to-reach small commercial customers.

The Statewide Business Energy Guide continued to be distributed during PY2001 and is also available online in three languages (English, Spanish and Chinese). "Quick Tips" single-page guides were developed to provide energy efficiency information to customers; this guide was available in five languages (English, Spanish, Chinese, Vietnamese and Korean).

Energy Management Services Programs

The Commercial Energy Management Services Program identifies areas where energy efficiency can be improved in core commercial facilities. The program focuses on restaurants, schools, motels, laundries, and small health care facilities. The program is closely linked to the Commercial Equipment Replacement Program.

The Industrial Energy Management Services Program provides small industrial core customers with an individualized assessment of the energy efficiency actions that will reduce energy use at their facility. The program focuses on core customers in the manufacturing sector.

The Energy Edge Program provides small- and mid-sized nonresidential customers (particularly institutional customers such as schools and city governments) with a broad range of

energy efficiency related services including assistance in evaluating and selecting energy using equipment and/or service providers, financing information, and project management services.

Energy Efficiency Incentive Programs

The Commercial Equipment Replacement Program provides incentives to small commercial core customers to modernize their operations when cost-effective energy savings can be realized through the introduction of high-efficiency equipment, particularly cooking equipment.

The Industrial Energy Efficiency Incentives Program provides incentives to small industrial core customers to modernize their operations when cost-effective energy savings can be realized through the introduction of high-efficiency equipment including boilers, furnaces, kilns, and ovens among other types of equipment.

The Statewide Express Efficiency Program provides rebates for energy efficient measures to small and medium nonresidential customers for high-efficiency water heaters, cooking equipment, and greenhouse heat curtains.

Upstream Programs

The Emerging Technologies Program provides a means to identify, qualify and deploy advanced gas-fired technologies that are emerging into the marketplace.

The Small Commercial Upstream Gas Air Conditioning Program promotes awareness of existing efficient natural gas air conditioning engine-driven and absorption units. In PY2001, 145 tons of gas air conditioning was installed with 870 tons in the planning phase and 363 tons under discussion.

The High-Efficiency Medium Tonnage Natural Gas Cooling Field Demonstration provides support for 25-200 ton gas cooling projects with COP of 1.0 or above. 462 tons of gas cooling were installed under this program in 2001.

New Construction Program Area

Residential Programs

The New Energy Advantage Home Program supports installation of high performance duct systems, as well as promotion of Energy Star® equipment and energy efficient development planning.

Nonresidential Programs

The Statewide Savings By Design Program is designed to transform energy efficiency investment behavior in the nonresidential new construction market. Incentives are provided for designs that exceed State energy standards by specified percentages.

Upstream Programs

The Statewide Codes and Standards Program is designed to promote and influence the development of new energy codes and standards by active involvement with governmental agencies responsible for setting building codes and standards relating to natural gas equipment.

The Local Government Initiatives Program supports local initiatives to transform energy efficiency markets at the community level. In 2001, this program targeted hard-to-reach public housing authorities' low-income new construction activities not served by other energy efficiency or low-income energy efficiency program efforts.

MA&E and Regulatory Oversight

Market Assessment & Evaluation activities are generally aimed at the oversight of the execution of DSM by the utility. This consists of evaluating program performance as well as regulatory liaison and coordination. In 2001, DSM-related regulatory proceedings required a significant commitment of resources to prepare analyses, write testimony, briefs and comments, respond to data requests and attend workshops and hearings.

Shareholder Performance Incentives

Performance awards are reported by Program Area (i.e., Residential, Nonresidential, and New Construction) for Energy Savings, Market Effects, and Performance Adder award categories. The maximum award from SoCalGas efforts has been capped at $2.084 million.

SoCalGas is filing for performance awards totaling $1,330,461. The individual awards are: Energy Savings – Residential, $0; Energy Savings Nonresidential, $810,000; Energy Savings New Construction, $280,000; Market Effects, $137,861; and Performance Adder, $102,600.

Summer Initiative

The Summer Initiative is a statewide program initiated in July 2000 that seeks to achieve peak demand savings through a number of utility and third party programs. SoCalGas' efforts are limited to one statewide program targeting the installation of energy efficiency measures at multifamily apartment complexes, mobile home parks, and condominium complexes.

Southern California Gas Company
Table 1.1
Summary of Costs ($000)
(Natural Gas)

	Last Year (2001)		Current Year (2002)1
	Budgeted	Recorded	Budgeted[2]
Residential	8,035	7,846	5,048
Nonresidential	13,570	13,732	8,096
New Construction	6,316	7,448	1,484
MA&E & Reg Oversight	2,899	2,481	
Shareholder Perf. Incentives	2,082	1,331	
Cross-cutting[3]	1,030	1,030	2,653
Non-utility			
EE Total	33,932	33,867	17,281
Summer Initiative	4,000	3,960	
Total EE and SI	37,932	37,827	17,281

[1] Reflects values for 2002 program proposals in compliance with D.01-11-066

[2] Data is as of 3/31/02

[3] "Public Education Outreach" costs for 2001

Southern California Gas Company
Table 1.2
Summary of Energy Efficiency Program Effects

(Annual Energy Reduction, Electric, MWh)

	Last Year (2001) (Recorded)	Current Year (2002) (Planned)[1]
Residential	1,120	5,031
Nonresidential	3,709	17
New Construction	8,241	9,094
Total EE	13,070	14,141
Summer Initiatives	279	
Total EE and SI	13,349	14,141

[1] Per IOU proposals submitted to the CPUC on 12/15/01

(Annual Energy Reduction, Electric, MW)

	Last Year (2001) (Recorded)	Current Year (2002) (Planned)[1]
Residential	1.11	2.22
Nonresidential	1.01	
New Construction	6.05	7.59
Total EE	8.17	9.81
Summer Initiatives	0.30	
Total EE, LI and SI	8.46	9.81

[1] Per IOU proposals submitted to the CPUC on 12/15/01

(Annual Energy Reduction, Natural Gas, Therms 000)

	Last Year (2001) (Recorded)	Current Year (2002) (Planned)[1]
Residential	2,800	1,500
Nonresidential	6,224	3,446
New Construction	415	134
Total EE	9,439	5,081
Summer Initiatives	594	
Total EE, LI and SI	10,032	5,081

[1] Per IOU proposals submitted to the CPUC on 12/15/01

Southern California Gas Company
Table 1.3
Summary of Cost Effectiveness
(Benefit Cost Ratios)

	Last Year (2001) (Recorded)		Current Year (2002) (Planned)	
	Program Administration Cost Test	Total Resource Cost Test	Program Administration Cost Test	Total Resource Cost Test
Residential	1.32	0.83	2.38	1.16
Nonresidential	2.57	2.39	4.48	3.44
New Construction	1.99	1.95	1.85	1.69
Total EE Portfolio	2.09	1.75	2.88	1.92

nb: Total EE Portfolio test results do not include MA&E, regulatory costs, general management costs or public education outreach costs.

Southern California Gas Company
Table 1.4
Summary of Cost Effectiveness
(TRC Net Benefits $MILL)

	Last Year (2001) (Recorded)	Current Year (2002) (Planned)
Residential	(2,119)	1,376
Nonresidential	22,059	11,863
New Construction	7,465	2,907
Total EE	27,405	16,146

2. Residential Programs

Residential Information

Energy Facts[sm]

Program Description:

Energy Facts[sm] provided residential customers with energy efficiency information and education through SoCalGas' web site. Information and education was designed and targeted to reach and attract consumers who are making planned or emergency equipment replacement decisions. The program sought to create more market recognition and market demand (consumer demand for energy-saving benefits) for energy efficient equipment and practices. The program also sought to increase demand for equipment that is properly sized and properly installed. This program empowers residential customers by answering energy efficiency questions, thereby providing meaningful information on the costs and benefits of energy-efficiency measures, and helps to ensure that program offerings are available to the typically under-served residential multifamily market.

Energy Facts[sm] was designed to promote energy efficiency through an information clearinghouse. The clearinghouse provides an extensive resource to assist consumers in saving energy and money in their homes. The clearinghouse also informs consumers about other residential DSM programs, including the Home Energy Fitness Program and the California Home Energy Efficiency Rating System (CHEERS). Energy Facts[sm] is available to all SoCalGas residential consumers and can be accessed through the Company's Internet web page. In addition, the clearinghouse was used by SoCalGas field sales force and consumer markets staff to enhance the level of service provided to residential consumers.

The information that is included in the clearinghouse can be classified as: 1) information to customers and 2) information from customers. Customers were provided with energy efficiency, technology and service information in various formats, including verbal, electronic, and printed information. Examples of information provided to customers includes: available SoCalGas DSM programs and services; conservation practices and measures; natural gas products information (gas-to-gas replacements, convenience, comfort and environmentally friendly products); financing information; new technologies; and safety tips. In addition, SoCalGas will collect customer information. In doing so, SoCalGas learns from customer input and adapts this program in response. Examples of information to be gathered from customers: DSM information needs; products/services needs; market research data; feedback on residential program information program and other Company services/products.

In 2001, this program was modestly funded ($100,000) and the primary effort focused on residential energy efficiency information and education through SoCalGas' web site. The objective was to increase the strength of web channels for energy efficiency information.

2001 Results and Achievements:

Limited funding restricted program activities to the review, update and revision of Energy Facts[sm] pages on the SoCalGas web site and the development of energy saving estimates for the "Quick Tips" guides distributed to residential and small commercial customers.

Statewide Residential Energy Guides

Program Description:

The Residential Statewide Energy Guide, "The Big Picture: A Step-by-step California Guide to Smarter Home Energy Use" was developed in 1999 by the Statewide Team to provide customers a consistent resource providing information on energy efficiency measures, energy efficient appliances and equipment, and statewide sources of energy efficiency information and resources.

Consistent with OP 69 of D.00-07-017, SoCalGas developed an enhanced plan and budget for publicizing and distributing the Residential Statewide Energy Guide in PY2001. In PY2001, SoCalGas, along with Pacific Gas & Electric Company, San Diego Gas & Electric, and Southern California Edison [collectively known as the "Statewide Information and Education Team"], developed a specific program and budget associated with the Residential Statewide Information and Education Team efforts. This program included significantly expanded efforts to distribute the guides, as well as plans for translating the guide into other languages and distributing the guides to hard-to-reach customer groups.

For PY2001, the utilities planned to collectively review the Statewide Guide to determine whether revisions and updating were needed. This review and subsequent reprinting of the guides was to be completed such that updated guides could be distributed in the second quarter of 2001. In addition to the English and Spanish translations currently offered to SoCalGas' customers, Chinese [Mandarin] translations would be made available to residential customers as well. The Statewide Team was to also evaluate the cost-effectiveness of translating the guide into a fourth language. In response to California's energy crisis, single-page "Quick Tips" guides were developed to address the urgent and immediate need for energy efficiency information.

In PY2001, the Residential Statewide Energy Guide budget planned to fund the revision, reprinting, and distribution of 5,000 Nonresidential Statewide Guides as well.

SoCalGas also planned to provide the Residential Statewide Guide online, so customers would be able to access the guide via its web site.

2001 Results and Achievements:

During 2001, Southern California Gas Company distributed a total of 15,630 English Residential Guides and 8,752 Spanish Residential Guides. English, Spanish and Chinese Residential Guides were also available at a statewide energy efficiency web site per D.00-07-017, OP 16 (http://www.californiaenergyefficiency.com).

"Quick Tips" single-page guides were developed for residential and small commercial customers. The guides were available in English, Spanish, Chinese, Vietnamese, and Korean by

the end of PY2001. Approximately 204,000 (179,000 English, 19,000 Spanish, 2,000 Chinese, 2,000 Korean, and 2,000 Vietnamese) residential Quick Tips Guides were distributed through a variety of distribution channels. The Quick Tips Guide is also available on the SoCalGas web site: (http://www.socalgas.com/residential/interactivehome/).

Residential Energy Management Services

Home Energy Fitness

Program Description:

The Home Energy Fitness program promotes the adoption of energy efficient measures and actions by providing availability of informational audits to residential customers via direct mail and the Internet. The program provides residential customers with an individualized assessment of their energy consumption, efficient appliance information, as well as recommendations on how to help reduce energy bills through simple changes in the way both gas and electric appliances are used. This program serves to empower residential customers by providing meaningful information on the costs and benefits of energy-efficiency measures, and helps to ensure that program offerings are available to "hard-to-reach" markets.

The Home Energy Fitness Survey is a self-audit that includes specific questions that relate to general home information, heating and cooling systems, indoor and outdoor appliances, and appliance usage patterns. It is designed to offer residential consumers a personalized evaluation of their annual usage of natural gas and selected electricity uses, to educate consumers of energy savings tips and to inform consumers about other residential DSM programs.

2001 Results and Achievements:

SoCalGas transitioned all direct mail audit efforts to a third party vendor in early PY2001. Due to a longer than anticipated third party transition in PY2000, the first third party vendor direct mailing was delayed until first quarter PY2001. A total of 368,000 survey solicitation packages were mailed in 2001: 198,000 in March, 85,000 in November, and 85,000 in December. By December 30, responses had been received from 52,289 customers with another 12,000 responses anticipated in January 2002 as a result of the December mailing. Net energy savings from this effort is estimated at over 1.2 million therms (these savings were not used in SoCalGas' earnings calculations).

This participation level greatly exceeds expectations and past experience. The high gas price situation early in the year generated interest in the program. To maximize customer interest, extra solicitation packages were funded by other DSM information programs and mailed the last quarter of 2001.

The Home Energy Fitness online survey was developed and launched early in 2001. The web site provides online audits for customers with access to the Internet. This web site was promoted by existing radio advertising, stand-alone bill stuffers, newsletter articles, AOL advertising, and proactive outbound e-mail efforts. By year-end, 3,695 unique customers had made 4,713 visits to the web site.

Residential Energy Efficiency Incentives

Statewide Residential Contractor Program

Program Description:

The Residential Contractor Program (RCP) comprised two separate intervention strategies – single-family and multifamily – seeking to promote and facilitate an increase in the application of "whole-systems" and "whole-house" approaches to discretionary residential retrofit activities while generally building the market penetration of individual energy efficient products and services. The single-family element of RCP was comprised of two components in 2001. The Home Efficiency Rebate Program (HERP) component promoted the idea of offering direct incentives to customers as an inducement to install energy efficiency improvements to the home without the use of an RCP-approved contractor. The second, the single-family RCP component of the program was modified in the first quarter, retaining only the duct testing and sealing and AC diagnostic measures. Customers applying for incentives under the single-family RCP component required the use of an RCP-approved contractor.

The Multifamily RCP program promoted the development of a more highly skilled group of contractors who can provide comprehensive energy efficiency services, and encourages those contractors to promote comprehensive energy efficiency services to single-family and multifamily residential property owners.

SoCalGas' Home Energy Upgrade Financing (HEUF) Program is also promoted through the RCP. This energy efficient loan program (for both secured and unsecured financing) is promoted primarily with shareholder funds, but is operated in conjunction with the RCP because of inherent program synergies.

2001 Results and Achievements:

Most efforts were highly successful and the annual incentive budgets were overcommitted by the second quarter. Incentive budgets, reduced from $6.3 million to $5.85 million in order to fund third party initiatives required by Commission order, were aligned between the single-family RCP, multifamily RCP, and Home Energy Rebate efforts in order to maximize availability of the programs to customers prior to program shutdown. An additional $5.77 million in funding available through SBX1 5 extended operation of these programs through year-end and into PY2002.

Single-family RCP: At the end of 2001, over $1 million had been paid for incentives to customers of the program with an additional $300,000 in commitments to be paid. Energy efficiency monies provided $900,000 of the incentives. Remaining monies came from SoCalGas' SBX1 5 allocation. As would be expected with the first-quarter modification to the program, duct testing and sealing represented the majority of the completed measures and

incentive dollars. Therm savings totaled 116,691 for the first $900,000 in incentive payments. KWh and kW savings for the same incentives totaled 375,857 and 400, respectively.

Home Efficiency Rebates: The rebate program was launched on February 23, 2001, with program brochures mailed to 150,000 hard-to-reach customers and 150,000 customers with higher than average energy use. Throughout 2001, various advertising avenues were employed to make customers aware of the program including; newspaper and radio advertising; distribution of applications and program materials to over 300 retail locations; direct marketing to over 5 million customers through bill inserts and newsletters. High performance windows, high-efficiency furnaces, and programmable thermostats dominate rebate requests. At the end of 2001, over $ 1.71 million had been paid for energy efficiency rebates. The first $1.6 million was funded by gas efficiency dollars, the remainder by SBX1 5 dollars. Therm savings from the gas efficiency dollars are almost 355,000, with 281,095 kWh savings and 329 kW savings. The program will ultimately payout over $3 million in rebates to customers.

Multifamily RCP: The multifamily RCP began more slowly than the single-family RCP due to the greater complexity and project verification steps. However, the end of 2001, there were 180 projects submitted and approximately 112 of these approved and under contract. The program budget was fully committed early in the year with over $450,000 paid out by year-end. Total commitments peaked at $1.8 million and all projects are expected to be completed and applicants paid by the end of 2002. Ninety projects with $900,000 in incentive payments will be paid using gas energy efficiency funds. The remaining project incentives will be paid using SBX1 5 dollars. The majority of program activity has been on highly cost effective water heater and boiler control measures, creating 806,806 therms saved with the gas energy efficiency funds.

Home Energy Financing: This program funded over $29 million in 2001 to customers for energy efficiency related upgrades to homes. This encompasses over 3,450 loan applications. The SoCalGas Home Energy Financing Program is, according to Fannie Mae, the most successful program of its type in the country and funding to customers increased almost 50% above the PY2000 results.

Residential Contractor Program
PY2001 Energy Savings

Program Element	Therm Savings	KWh Savings	KW Savings
RCP Single-family	116,691	375,857	400
RCP Multifamily	806,806	-	-
Home Efficiency Rebate	354,718	281,095	329
Total	**1,278,215**	**656,952**	**729**
Net Savings	**1,163,175**	**597,826**	**663**

Notes:
Energy savings taken from Quantum Consulting *2001 RCP-Her Impact Evaluation* (Feb. 26, 2002). KWh and kW savings only included for units in municipal utility service territories.
Net savings determined through application of a .91 net to gross ratio.

Residential Contractor Program – Single-family Element
PY2001 Energy Savings

Measure	Applications	Therm Savings	KWh Savings	KW Savings
Duct Sealing	746	22,017	93,291	109
Duct Sealing – SF	1,585	50,832	104,473	122
Duct Sealing – MH	1,769	21,918	68,723	31
Energy Star® Furnace	56	1,331		
Prog. Thermostat	250	2,657	1,702	2
Attic Insulation	505	29,097	37,871	44
Wall Insulation	207	13,710	-852	-1
High Perf. Windows	2,755	-4,757	114,007	133
High-Efficiency Water Heater	12	257		
Pipe Insulation	29	116		
Low-Flow Showerhead	27	401		
Total		**137,580**	**419,216**	**441**
Net Savings		**106,189**	**342,030**	**364**

Notes:
Applications and savings are for all applications paid and/or approved by 12/31/01. Some of these applications were funded using SBX1 5 monies. The net savings are for PGC funded applications only.
Net savings determined through application of a .91 net to gross ratio applied to the measure funded with PGC monies.

Residential Contractor Program – HER Element
PY2001 Energy Savings

Measure	Applications	Therm Savings	KWh Savings	KW Savings
90+% Energy Star® Furnace	1,878	97,093		
80+% VSD Furnace	1,255	9,815		
Prog. Thermostat	3,473	38,601	44,064	52
Attic Insulation	2,010	115,875	83,581	98
Wall Insulation	661	41,485	-8,089	-9
High Perf. Windows	4,644	-3,557	169,697	199
High-Efficiency Water Heater	2,790	60,327		
Pipe Insulation	125	7,114		
Low-Flow Showerhead	117	1,637		
Total		**368,389**	**289,253**	**338**
Net Savings		**322,794**	**255,796**	**299**

Notes:
Applications and savings are for all applications paid and/or approved by 12/31/01. Some of these applications were funded using SBX1 5 monies. The net savings are for PGC funded applications only.
Net savings determined through application of a .91 net to gross ratio applied to the measure funded with PGC monies.

Schools Program

Program Description:

SoCalGas' schools program is outsourced to Educational Testing Labs (ETL). ETL's "LivingWise®" school education program makes energy efficiency instructional material available to local schools. These materials are targeted at elementary school age children (6thgraders), involving adult family members with an integrated customer response approach. SoCalGas has been pleased with the results of the program in expanding the number of schools over the years. As such, SoCalGas increased funding for the program by $100,000 in PY2001. Budget cutbacks and the institution of the local bidding program by the CPUC caused SoCalGas to suspend funding for this program in PY2002.

2001 Results and Achievements:

The contract with ETL was initiated late in the first quarter. However, ETL reached its goal and completed spending of its funds during the second quarter. A big push was made prior to June in order to maximize access to the energy efficiency materials and potential savings prior to the summer of 2001. About 6,000 Educational Energy Efficient kits were shipped to schools-households during the year. Additional energy efficiency information was requested by 28% of the households receiving kits, a 40% increase over the PY2000 response rate. Over 11,110 therm savings, 544,302 kWh savings, and 637 kW savings are estimated from PY2001 efforts.

LivingWise Program

PY2001 Energy Savings

Measure	Households With Gas Impacts	Therm Savings	Households With Electric Impacts	KWh Savings	KW Savings
Limelite Night Lites			4,973	151,165	177
Low-Flow Showerheads	1,439	3,160	316	45,425	53
Clean/Replace Dirty Filter	1,346	10,095	1,697	112,002	131
20 Watt CFL			5,850	362,700	424
Kitchen Aerator	1,439	632	316	9,085	11
Total		**13,887**		**680,377**	**796**
Net Savings		**11,110**		**544,302**	**637**

Notes:
This is a third party initiative effort. Savings were estimated by Quantum Consulting.
Net savings determined through application of a .8 net to gross ratio applied to the measure funded with PGC monies.

Upstream High-Efficiency Water Heater (TPI)

Program Description:

The Upstream High-Efficiency Water Heater program is intended to raise the *de facto* minimum efficiency for replacement water heaters from the current state standard of .53 energy factor (EF) to .60 EF (or better). The effort targets plumbers and distributors. Incentives are used to encourage distributors to stock the higher efficiency water heater units in lieu of the less-efficient units. This third party effort has been ongoing since 1999. Given the inroads that have been made over the last several years, increased efficiency levels of water heaters that are now being stocked by suppliers in Southern California. This program was not funded in PY2002 due to budget cutbacks and the institution of the local bidding program by the CPUC.

2001 Results and Achievements:

ADM processed incentives to distributors, resulting in more than 17,000 qualifying water heaters (EF .61+) being shipped by wholesalers by the end of 2001 under the program. Annual savings from this effort is expected to exceed 374,000 therms. The reduced budget was fully committed by the end of the second quarter and incentives payments completed during the third quarter.

Upstream Gas Water Heater Program
PY2001 Energy Savings

Unit Type, Energy Factor	Units	Therm Savings
30 gal., .61 EF	2,544	42,226
30 gal., .62 EF	480	9,406
40 gal., .61 EF	289	6,964
40 gal., .62 EF	3,724	101,179
40 gal., .63 EF	4,218	126,540
40 gal., .64 EF	531	17,423
50 gal., .61 EF	646	18,127
50 gal., .62 EF	4,554	141,443
50 gal., .63 EF	145	4,924
50 gal., .65 EF	1	40
Total		**468,274**
Net Savings		**374,619**

Notes:

1. This is a third party initiative effort. Savings estimates are based on per unit savings for the various sizes (30, 40, and 50 gallon) and efficiency (.61, .62, .63, .64, and .65 EF) of water heaters incented.
2. Net savings determined through application of a .8 net to gross ratio applied to the measure funded with PGC monies.

Upstream Market Transformation Programs

CHEERS

Program Description:

The CHEERS Support element provides budget support for home energy ratings and customer education regarding energy-efficient mortgages/loans. Past support efforts for this independent organization have involved CHEERS Rater and HERS Analyst training sessions, support for the CHEERS Rating Tool, including development of a user manual for the tool, and the completion of the Enercomp "cookbook."

2001 Results and Achievements:

CHEERS efforts were shifted to support SoCalGas' New Energy Advantage Home Program (residential new construction) as independent raters, although this small funding ($150,000) provides for general support of the CHEERS organization (this funding was not continued into PY2002). While not counted as a third party initiative, this effort involves direct support of this third party ratings entity. Funds will be fully expended by year-end.

Efforts have resulted in the creation or revision of numerous education materials for immediate use in marketing CHEERS, CHEERS raters and Energy Efficient Mortgages (EEMs). It has also established 1-800 services to expedite the rating to EEM process. It has created a Rater training manual for EEMs and provided rater training for existing housing raters. It has also created and provided forms, documentation and educational components for all phases of loan products offering EEMs.

Energy Efficiency Renovation Service – Performance 4 (TPI)

Program Description:

The Energy Efficiency Renovation Service – Performance 4 is a third party program that was continued from PY2000. The program seeks to develop and introduce a formal certification process (Performance 4) that can direct homeowners to comprehensive high-value retrofit services. An independent certifier inspects and labels homes as "Performance 4" if attic and wall insulation exceed prescribed levels (attic R-30, walls R-11), heating and cooling ducts are properly sealed, and water heaters have an energy factor that exceeds .60 EF. HERS raters perform the efficiency assessments, while all program activities and developments are monitored to keep a close linkage with the promotion of Energy Efficient Mortgages. While small, this program was SoCalGas' most successful effort at encouraging comprehensive, whole-house retrofits. Unfortunately, funding could not be continued into PY2002 due to budget cutbacks and the institution of the CPUC's local bidding program.

2001 Results and Achievements:

Over 680 ratings were completed during 2001. Energy savings were calculated for measures that did not receive funding under utility rebate programs. Therm savings of 12,526 along with 81,321 kWh and 95 kW savings were estimated from program efforts. Approximately 70% of the rated households were persuaded to take advantage of the energy efficient mortgage program.

Energy Efficiency Renovation (Performance 4)
PY2001 Energy Savings

Measure	Number Installed	Therm Savings	KWh Savings	KW Savings
Prog. Thermostat	15	182	1,608	2
Duct Sealing	60	1,802	15,199	18
Attic Insulation	122,418 sf	7,178	33,001	39
Wall Insulation	68,126 sf	5,387	-2,025	-2
Vinyl Low-E Windows	1,299	-150	3,591	4
High-Efficiency Water Heater	19	345		
Low-Flow Showerheads	68	568		
Pipe Insulation	48	192		
CFLs	178		11,036	13
Sunscreens	3,942 sf		5,957	7
Weatherization	73	154	467	1
Whole-house Fan	102		32,817	38
Total		**15,658**	**101,651**	**119**
Net Savings		**12,526**	**81,321**	**95**

Notes:

1. This is a third party initiative effort. Savings are shown only for measures not funded with RCP or HER program dollars. Savings were estimated by Quantum Consulting based upon measures not counted within the RCP program.
2. Net savings determined through application of a .8 net to gross ratio applied to the measure funded with PGC monies.

Residential Upstream Gas Air Conditioning Program

Program Description:

This upstream program had two major objectives. First, it promoted the replacement of existing, older inefficient natural gas cooling units. Second, it supported the development of a natural gas heat pump through the continued commercialization of energy efficient natural gas cooling. Qualifying units must have had a coefficient of performance (COP) greater than or equal to 0.62 for cooling.

This program helped to transform the upstream market by promoting the further development of natural gas and natural gas heat pumps for the residential market (e.g. 2-5 ton units). This activity helped maintain the viability of natural gas cooling options, a manufacturing segment that could be weakened to the point that it would not provide adequate competition for competing electric products. Moreover, any benefits that gas cooling could provide to reduce electric peak load would be lost. This program supported the commercialization of an emerging technology, and ensures that program offerings are available to the under-served residential multifamily market.

2001 Results and Achievements:

The proposed program budget was reduced from $643 thousand to $418 thousand as Emerging Technologies demonstration project monies were shifted to Residential New Construction incentives. Consideration is being given to the development of a gas air conditioning rebate program targeting replacement of some of the 10,000 low efficiency gas chiller units in the service territory. The existing units are typically 0.38 COP but tend to last 30-35 years. Most were installed in the late 1960s and are approaching retirement. However, due to higher cost associated with newer absorption cooling technologies, the incentive level proposed for the replacement of inefficient older natural gas cooling equipment was not cost effective.

Through this program, however, owners of existing technology were made aware of advancements through customer communications (bill inserts) and the SoCalGas web site.

The development of the natural gas heat pump continues. Through this program, SoCalGas worked with the American Gas Cooling Center and the US Department of Energy to encourage its further development. Ambian Climate Control, LLC, has developed a working prototype of this technology. This effort will produce a product ready for commercialization in the next three years after alpha and beta testing is complete.

The energy saving and multi-zone application capabilities of gas cooling equipment for larger, greater than 3,000 square feet, custom built residential homes was promoted as a cost effective alternative over electric multi-zone applications.

Due to limited DSM funding, this program was not proposed for 2002.

Emerging Technologies Residential Appliances

Program Description:

This program focuses on emerging high-efficiency, gas-fired residential technologies. Efforts center on several different home appliances and gas equipment, including higher efficiency water heaters (being developed in response to flammable vapor ignition concerns), new gas ranges with smooth glass tops, hearth products and novel combo heating systems, among other products. This program is specifically targeted at the commercialization of emerging technologies.

2001 Results and Achievements:

This effort was curtailed mid-year due to the funding shifts. Program budget was reduced from $257 thousand to $57 thousand in order to support Residential New Construction duct improvement efforts that yielded near term energy savings. Small budget retained to support continued evaluation of emerging residential technologies were transferred during the third quarter due to failure of expected products to make a market introduction (gas smooth-top range product, combo heating system from Spain, PEM fuel cell from various parties). Additional efforts to evaluate emerging instantaneous water heaters for use in multifamily applications was begun in 2001 and is expected to continue in 2002.

Statewide Residential Appliances

Program Description:

The Statewide Residential Appliance program focused on the major, stand-alone energy-using appliances in the home: refrigerators, clothes washers, dishwashers, and room air conditioners. The markets for these appliances have similar structures, with products moving from manufacturers through retailers to customers in similar ways. The original objective of this program was to improve distribution and stocking of high-efficiency appliances statewide. The Commission's PY2001 goal of maximizing short-term energy savings necessitated that SoCalGas reinstitute direct customer rebates for high-efficiency appliances. Funding of SoCalGas projects focused on Energy Star® clothes washers. Energy Star® dishwashers were added in the third quarter, supported by additional funding from SBX1 5. Consumer rebates are the primary means of promoting the purchase of Energy Star® clothes washers under the program.

2001 Results and Achievements:

PY2001 processing of 2001 submitted clothes washer rebates continued through the fourth quarter into 2002. Initial Public Goods funds were fully committed by the end of June and those commitments paid by November. Rebates totaling $300,000 were paid against 4,000 clothes washer units (yielding 108,800 therms saved) with these funds. Additional funding provided by SBX1 5 extended the program from July through the remainder of the year. The additional funding also allowed for the inclusion of rebates for high-efficiency dishwashers. As a result of the new funds, an additional $925,000 was paid for rebates on 7,072 clothes washers and 7,892 dishwashers.

Statewide Appliance Program
PY2001 Energy Savings

Measure	Units	Therm Savings
Total Clothes Washers	4,000	136,000
Net Savings		108,800

Notes:

1. This is a third party initiative effort. Savings were estimated by Quantum Consulting.
2. Net savings determined through application of a .8 net to gross ratio applied to the measure funded with PGC monies.

Southern California Gas Company
Table 2.1
Summary of Costs:
Residential Program Area
(Natural Gas, $000)

	Last Year (2001)	
	Budgeted	Recorded
Information	503	400
EMS	654	783
EEI	5,457	5,457
SPC		
Rebates	5,457	5,457
Loans		
Other		
Upstream	1,422	1,207
Information	643	407
Financial Assistance	780	800
Total	8,035	7,846

nb: does not include shareholder incentive or energy costs

Southern California Gas Company
Table 2.2
Summary of Energy Efficiency Program Effects:
Residential Program Area

(Annual Energy Reduction, Electric, MWh)

	Last Year (2001) (Recorded)	Last Year (2001) (Recorded)
	Annual	Lifecycle
Information	544	2,722
EMS	81	1,220
EEI	495	11,858
SPC		
Rebates	495	11,858
Loans		
Other		
Upstream		
Information		
Financial Assistance		
Total	1,120	15,800

(Annual Energy Reduction, Electric, MW)

	Last Year (2001) (Recorded)
Information	0.45
EMS	0.10
EEI	0.56
SPC	
Rebates	0.56
Loans	
Other	
Upstream	
Information	
Financial Assistance	
Total	1.11

(Annual Energy Reduction, Natural Gas, Therms 000)

	Last Year (2001) (Recorded)	Last Year (2001) (Recorded)
	Annual	Lifecycle
Information	11	56
EMS	1,217	3,802
EEI	1,129	19,265
SPC		
Rebates	1,129	19,265
Loans		
Other		
Upstream	442	5,811
Information		
Financial Assistance	442	5,811
Total	2,800	28,934

Southern California Gas Company
Table 2.3
Summary of Cost Effectiveness:
Residential Program Area
(Benefit-Cost Ratios)

	Last Year (2001) (Recorded)	
	Program Administration Cost Test	Total Resource Cost Test
Information	0.55	0.55
EMS	2.63	2.15
EEI	1.17	0.74
SPC		
Rebates	1.17	0.74
Loans		
Other		
Upstream	1.54	0.74
Information	0.00	0.00
Financial Assistance	2.32	0.88
Total	1.32	0.83

Southern California Gas Company
Table 2.4
Summary of Cost Effectiveness:
Residential Program Area
(TRC Net Benefits $MILL)

	Last Year (2001) (Recorded)
Information	(180)
EMS	1,104
EEI	(2,239)
SPC	
Rebates	(2,239)
Loans	
Other	
Upstream	(666)
Information	(407)
Financial Assistance	(259)
Total	(2,119)

nb: total Residential includes shareholder incentives as a cost

3. Nonresidential Programs

Nonresidential Information

Nonresidential Information

Program Description:

This program supported energy-efficiency efforts among small- and medium-sized nonresidential customers. This was achieved through two major efforts: the Support Center Hotline and the Equipment and Services Directory.

The Support Center Hotline is a direct source for the industrial and commercial customers to receive immediate answers to questions. The "Hotline" provides information regarding present energy-efficiency programs and referral services.

The Equipment and Services Directory is a web-based resource created to support both the customer and upstream market actors. The directory provides a list of equipment suppliers, energy consultants and contractors, energy providers, and other related energy services.

2001 Results and Achievements:

The Support Center Hotline received 977 DSM-related calls in 2001.

The Equipment and Services Directory web site, formally knows as Partners in Business, went online during 2000 and is available through the SoCalGas business web site. At this site, a customer can find a variety of natural gas related equipment and service providers. The database is designed to provide the customer with resources for equipment selection, maintenance, replacement and enhancement to develop overall solutions to their energy needs. The SoCalGas Equipment and Services Directory can help make energy-wise decisions that can improve productivity and decrease energy use.

Energy Resource Center

Program Description:

SoCalGas' Energy Resource Center (ERC) is a platform for influencing the way that the utility's approximately 215,000 core nonresidential customers and 4-plus million residential customers use both gas and electricity. The facility houses a significant portion of SoCalGas' energy efficiency staff and provides the space required to demonstrate the benefits of high-efficiency commercial and industrial technologies to customers. It also serves as a focal point for company educational efforts targeted at both residential and nonresidential customer groups. While the ERC's primary emphasis is on the nonresidential market, it does serve the residential market audience with programs targeting builders, contractors, and developers. It promotes the wise, clean, and efficient use of both electricity and natural gas by urging customers to choose the best utility services and/or technology options to achieve their objectives. The ERC employs several strategies to accomplish this goal: 1) conducting seminars and conferences on energy efficiency, 2) providing opportunities to showcase and demonstrate new energy-efficient technologies, 3) providing fuel-neutral commercial application and industrial process consulting services, and 4) promoting DSM programs to support SoCalGas' energy efficiency goals.

2001 Results and Achievements:

The ERC conducted 18 industrial seminars which promoted energy efficient process designs, technology, products and services. Topics included industrial process energy management classes (both English and Spanish), high-efficiency gas burner technology applications seminars, infrared burner technology workshops and demonstrations, industrial processes technology demonstrations, environmental workshops, and energy-efficiency applications for the metals, plastics, textiles and environmental remediation market segments.

The ERC conducted 58 commercial seminars designed to promote energy efficient applications, technology, products and services. 376 equipment presentations were made on energy-efficient natural-gas-fired cooking equipment. There were almost 5,000 visitors to the Food Service Equipment Center in PY2001. Topics included commercial energy management classes, high-efficiency gas burner technology application seminars, high-efficiency commercial food service technology demonstrations and seminars, energy-efficient gas cooling and HVAC technology demonstrations and energy efficiency applications for the health care, laundry, lodging/hotel, food service and institutional market segments.

The ERC conducted 87 other energy-related seminars designed to promote energy efficient applications, technology, products and services over all market segments. Topics included general energy management classes, energy related regulation and legislation updates including energy deregulation developments and Title 24, energy audit training, boiler and air compression technology demonstrations, water treatment considerations, distributed generation, steam operator classes and energy efficient manufacturer/vendor expositions.

Nonresidential HVAC Training

Program Description:

The HVAC Training program is a direct adjunct to the Small Commercial Upstream Gas Air Conditioning program. Its objective is to train HVAC contractors in the proper installation of gas cooling systems.

2001 Results and Achievements:

Specialized training was begun in 2001 because a 30-year absence of gas cooling from the residential and small commercial markets has created a fundamental lack of gas cooling system installation knowledge among HVAC contractors and installers. A series of ten HVAC-related course topics were each given in two southern California locations during 2001 to promote the proper installation of energy efficient heaters and air conditioners. Training course topics included subjects such as Furnace Troubleshooting, Air Balancing, Mechanical Plan Check, Electrical Controls, Installation Best Practices, Uniform Mechanical Codes and Selling Efficiency. Classes, offered free of charge, were very popular, attracting large numbers of contractors filling each location to capacity. In some cases there were so many contractors that were interested in attending particular courses that these courses were repeated to accommodate them. This program supports our DSM mandate to assure Title 24 compliance by training HVAC technicians on how to maximize the performance of energy efficient appliances through proper installation.

The Institute of Heating and Air Conditioning Industries, Inc. (IHACI) worked with The Gas Company in 2001 to present these courses. IHACI filed for local program funding to continue these classes in 2002, but was not selected. Unfortunately this effort will not continue into PY2002 due to SoCalGas energy efficiency funding cutback.

Coin Laundry and Dry Cleaner Education Program

Program Description:

The objective of the Coin Laundry and Dry Cleaner Education program is to promote energy efficiency awareness among laundry and dry cleaner owners/operators. This is a historically underserved segment that is being specifically targeted with a third party effort.

In general, the program encouraged these small business owners to take a more active role in the energy management of these facilities. Specifically, the program targeted efficiency opportunities among common industry end-use technologies such as commercial boilers, washers, and dry cleaning equipment. The workshops emphasized the importance of water conservation in these industries, and its connection to energy savings.

In addition to instructions on the benefits of higher efficiency equipment, appliances and lighting, the education program provided coin laundry and dry cleaner owners with specific information on how to acquire these technologies. This included information on financing and other available programs.

2001 Results and Achievements:

Six of twelve planned workshops were conducted throughout the SoCalGas service territory during 2001. An additional six workshops were organized and promoted but were cancelled due to insufficient attendance in some geographic areas. The Korean Dry Cleaner Association has been supportive of this program, co-sponsoring two workshops during 2001. The "Clean Profits" newsletter, focusing on energy efficiency concepts and practices relevant to this market segment, were sent to all segment customers in the service territory. The "Clean Profits" web site is also online, providing energy efficiency information to this target group. Two "Clean Profits" online training modules were developed and launched in the second quarter.

The Commercial High-Efficiency Clothes Washer Rebate program was launched in June with a target of 500 washers installed by year-end. By the end of the fourth quarter, 1,123 washers had been installed under this program, far exceeding the target of 500 washers.

We have targeted the coin laundry and dry cleaner markets specifically over the last two years by providing them the energy efficiency, rebate and new technology information critical to running a profitable business. Many business owners have taken advantages of new technologies, rebates and have performed many of the recommended energy efficiency measures. Due to budget cutbacks this program will be discontinued in 2002, although the incentives for high-efficiency clothes washers is being continued through the Statewide Express Efficiency program.

Lodging Industry Education Program

Program Description:

The objective of the Lodging Education program is to promote energy efficiency awareness among small hotel and motel owners/operators. This is a historically underserved segment that was specifically targeted with a third party effort. During 2001, the program consisted of on-site audits, a quarterly newsletter, and an energy efficiency web site dedicated to the lodging sector. The energy efficiency information and recommendations offered are fuel neutral, targeting predominant end uses in the lodging sector, particularly water heating, shower heads, lighting and space conditioning. Program participants also received information and application forms for rebate/incentive programs offered by local utilities.

2001 Results and Achievements:

Onsite audits have replaced the workshops provided in PY2000 given the ability of audits to generate more definitive near term energy savings actions. Seven hundred and fifty audits were planned for and completed during the program year. Four quarterly newsletter issues covering various energy efficiency topics (cool roofs, occupancy sensors, water heating, low-flow shower heads, lighting and space conditioning) were mailed to small hotel and model owners/operators. The "Smart Lodging" web site is being maintained to provide energy efficiency information to this target group.

We have targeted the lodging industry for the last two years by providing them the energy efficiency, rebate and new technology information critical to running a profitable business. . Many smaller hotel/motel owners/operators have taken advantages of new technologies, rebates and have performed many of the recommended energy efficiency measures. This program will be discontinued in 2002 due to budget cutbacks.

Mobile Energy Clinic (TPI)

Program Description:

The objective of the Mobile Energy Clinic third party initiative was to provide energy efficiency evaluations and maintenance services targeted at reducing electricity and natural gas consumption for small commercial customers that are typically not reached by existing incentive programs. Targeted building types are strip malls, small convenience stores, laundromats, and non-chain restaurants. The targeted building size is less than 5,000 square feet.

2001 Results and Achievements:

The program goal was to complete 750 site visits by the end of the year. Due to overwhelming response and participation in the program, additional funding ($125,000) was provided to add an additional service van and allow for more site visits. 933 site visits were completed during the fourth quarter alone, bringing the year-end total to 1,253 site visits, far exceeding the original 750 goal.

The Mobile Energy Clinic proved to be a very well received and effective outreach program for 2001which brought on-site energy efficiency information and provided no/low cost energy on-site improvements. This on-site program proved to be an educational program that increased the level of awareness in energy efficiency as it related to the to the customer's specific business operations. The services performed by the Mobile Energy Clinic's Teams resulted in energy savings of 1,098,040 kWh, and 79,030 therms. Recommended energy conservation options resulted in energy savings of 8,998,223 kWh and 36,033 therms.

Due to limited DSM funding, this program was not proposed for 2002. This program was selected for PY2002/2003 local program funding by the CPUC.

Mobile Energy Clinic Program
PY2001 Energy Savings

Measure	Number	Therm Savings	KWh Savings	KW Savings
Check and replace air filter	221		64,932	76
Check and replace refrigerant line insulation	73		16,491	19
Check and clean condenser coil	298		95,703	112
Check and re-program thermostat	77		26,161	31
Lower water heater operating temperature	96	2,105		
Check and replace hot water line insulation	53	581		
Total		**2,686**	**238,972**	**238**
Net Savings		**2,149**	**191,178**	**190**

Notes:
1. This program is a third party initiative. Savings were estimated by Quantum Consulting.
2. Net savings determined through application of a .8 net to gross ratio.

Statewide Business Energy Guide

Program Description:

The Statewide Business Energy Guide was developed in 1999 by the Statewide Information and Education Team to provide customers with a consistent resource providing information on energy efficiency measures, energy efficient appliances and equipment, and statewide sources of energy efficiency information and resources. The Business Guide provides general energy savings measures, as well as information specific to office buildings, grocery stores, restaurants, retail outlets and manufacturing facilities.

During PY2001, SoCalGas, Pacific Gas and Electric, Southern California Edison, and San Diego Gas and Electric continued working together to distribute English, Spanish and Chinese versions of the Guide through a variety of delivery channels. These delivery channels included: Chambers of Commerce, small business associations, building permit and government offices, customer service call centers, trade shows, energy centers, other energy efficient program activities, and community-based organizations and events. In response to California's energy crisis, single-page "Quick Tips" guides were developed to address the immediate need for energy efficiency information.

2001 Results and Achievements:

During PY2001, SoCalGas distributed a total of 11,340 English Business Guides. English, Spanish and Chinese Business Guides were also available at the statewide energy efficiency web site per D.00-07-017, OP 16 (http://www.californiaenergyefficiency.com).

"Quick Tips" single-page guides were developed for residential and small commercial customers. The guides were available in English, Spanish, Chinese, Vietnamese, and Korean by the end of PY2001. Over 200,000 Quick Tips guides were distributed through a variety of distribution channels.

Nonresidential Energy Management Services

Commercial Energy Management Services

Program Description:

SoCalGas' Commercial Energy Management Services (CEMS) program identifies areas where energy efficiency can be improved in core commercial facilities. SoCalGas specialists analyze existing customers' facilities to determine energy requirements, identify energy saving opportunities, and promote the installation of cost-effective, energy-efficient gas equipment. Customers are encouraged to implement innovative techniques and invest in energy efficient gas systems.

Under this program, both on-site Analysis and Analysis Reviews are conducted at customer sites. Analyses were performed when new customers came on-line or when a significant change in plant operations occurred. Reinforcement of past recommendations and new recommendations are made to encourage continuation and expansion of the customer's energy efficiency activities. In addition, opportunities for equipment adjustments are identified. The CEMS program provided small commercial (i.e., core) customers with an individualized assessment of the energy efficiency actions that will reduce energy use at their facility. Information on energy efficient equipment was provided. Other suggestions may have included changes to their commercial process in order to maximize energy efficiency. Standard audits are typically prepared by SoCalGas staff, whereas the more detailed "Super Audits" are conducted by independent engineering consultants.

This program provided and promoted energy efficiency by: (a) providing cost beneficial energy efficiency service to small commercial customers, (b) empowering customers with meaningful information on the costs and benefits of energy efficiency measures; (c) reducing market barriers to investments in energy efficient products and services; and (d) creating a sustainable and competitive energy efficiency services market.

The program focused on restaurants, schools, motels, laundries, and small health care facilities. End-use focus included space heating, water heating, cooking, and dryers (for laundries and health care facilities). The program is closely linked to the Commercial Equipment Replacement program.

This activity was combined with the Industrial Energy Management Services Program, the Super Audit Program and the Energy Edge Program as one Statewide Nonresidential Audit Program in PY2002.

2001 Results and Achievements:

During 2001, 539 Commercial Standard Audits were conducted with projected energy savings of 107,800 therms. Fifty-one Super Audits were conducted with projected energy savings of

1,028,353 therms per year, 7,179 kW, and 36,443,988 kWh per year. These savings, while substantial, were not counted toward SoCalGas' overall energy savings targets nor were they included in the PY2001 cost effectiveness assessment.

Industrial Energy Management Services

Program Description:

The Industrial Energy Management Services (IEMS) program provides small (core) industrial customers with an individualized, site-specific assessment of the energy efficiency improvements and actions that will reduce energy use at their facility. The two major assessment tools are the "Standard Audit" (usually conducted by a SoCalGas representative and targets all gas energy efficiency measures) and the "Super Audit" (conducted by an independent third party engineering consultant who does a fuel-neutral assessment of process energy use).

Under the Standard Audit assessment tool, both on-site Analysis and Analysis Reviews are conducted at customer sites. Analyses are performed when new customers come on-line or when a significant change in plant operations occurs. Analysis Reviews provide reinforcement of past recommendations and new recommendations are made to encourage continuation and expansion of the customer's energy efficiency activities. In addition, opportunities for equipment adjustments are identified. For both Standard Audit and Super Audit assessment tools, information regarding cost-effective energy efficient equipment is provided as well as suggestions to optimize the industrial processes in the most energy efficient manner at customer facilities. Customers are encouraged to implement innovative process improvements and invest in energy efficient gas systems. The Super Audit results in a formal, detailed report to the customer including energy savings estimates associated with site-specific process changes.

The IEMS program focuses on core customers in the manufacturing sector (SIC codes 20-39). End-use focus includes industrial processing equipment such as furnaces, kilns, ovens, dryers, boilers, engines and heat recovery systems. The program is closely linked to the Industrial Energy Efficiency Incentives program. Other forms of information provided to the small industrial customer include energy workshops and combustion training seminars.

This activity will be combined with the Commercial Energy Management Services Program, the Super Audit Program and the Energy Edge Program as one Statewide Nonresidential Audit Program in PY2002.

2001 Results and Achievements:

During 2001, 329 Industrial Standard Audits were conducted with projected energy savings of 329,000 therms. Forty-nine Super Audits were conducted with projected energy savings of 998,185 therms per year, 2,389 kW, and 15,886,789 kWh per year. These savings were not included in SoCalGas' cost effectiveness assessment of PY2001 efforts, nor were they included in savings counted for SoCalGas' earnings target.

Energy Edge

Program Description:

The Energy Edge program provides services customers need to undertake and complete energy-efficiency retrofit projects. Energy Edge provides for a comprehensive, fuel-neutral evaluation of energy efficiency options available to customers considering extensive retrofit projects. Services are provided by third parties. Customers share the cost of the service with SoCalGas. The Energy Edge program increases the specification of equipment that exceeds Title 24 in those cases covered by existing standards and increases the specification of equipment that exceeds efficiency levels used in current practice for those cases not covered by existing standards. Government agencies, particularly in municipal utility service territories, are particularly interested in this program although their funding cycles are long and demand a very patient marketing approach.

This activity will be combined with the Commercial Energy Management Services Program, the Industrial Energy Management Services Program and the Super Audit Program as one Statewide Nonresidential Audit Program in PY2002.

2001 Results and Achievements:

Funding for 2001 was reduced by 40% compared to PY2000 funding in order to facilitate TPI funding ordered by the Commission and to maximize funding for rebate efforts. Ten customers are currently interested in this program and, if fully realized, would represent energy savings of 13 million kWh per year and 170,000 therms per year. Five contracts were signed during 2001 with funding totaling $79,100. These five projects will, in aggregate, achieve energy savings of 4,214,538 kWh, 876 kW and 34,160 therms per year.

Energy Edge
PY2001 Energy Savings

Project	Therm Savings	KWh Savings	KW Savings
City of Garden Grove		786,564	183.5
City of Gardena	3,153	738,087	177.7
City of Carson	21,201	2,515,814	427.0
Kilroy Realty		174,073	88.0
Newport Mesa USD	9,806		
Total	**34,160**	**4,214,538**	**876.2**
Net Savings	**27,328**	**3,371,630**	**701.0**

Notes:
1. Savings were estimated from consultant reports prepared for each project.
2. Net savings determined through application of a .8 net to gross ratio.

Nonresidential Energy Efficiency Incentives

SoCalGas' Nonresidential Energy Efficiency Incentives' efforts include two broad categorizations of programs under the long-standing Reporting Requirements Manual (RRM) nomenclature: "Commercial Equipment Replacement" and "Industrial Equipment Replacement." Each of these categorizations is further subdivided, via the now defunct California Board for Energy Efficiency (CBEE) nomenclature, into a number of program elements described below.

Commercial Equipment Replacement

Integrated Food Service Equipment Retrofit

Program Description:

The Integrated Food Service Equipment Retrofit (IFSER) program provides information, audits, and financial incentives to encourage small commercial cooking customers to make efficiency improvements in the gas-using portions of their food service facilities. The objective of this program is to increase sales of high-efficiency cooking equipment relative to sales of lower efficiency new and used cooking equipment. Information is provided through trade journals and associations, through seminars and conferences held at the Food Service Equipment Center located at the Energy Resource Center and via Internet-based information to customers and vendors. Audits are provided to identify site-specific conservation opportunities, and to identify potential participants who might not improve the energy efficiency of their system or process without financial incentives. Financial incentives are offered when necessary to motivate small commercial and industrial customers to implement approved energy efficiency modifications.

2001 Results and Achievements:

Support for the Food Service Center at SoCalGas' Energy Resource Center continues and shows consistent manufacturer and customer support. There were almost 5,000 Food Service Center visitors during 2001. Numerous workshops were held throughout the year on the efficient use of kettles and combination ovens, steam equipment, conveyor ovens, specialty ranges, countertop equipment, dishwashers, food safety and convection ovens. Four joint energy centers presentations were also conducted on "Designing an Energy Efficient Kitchen," "Operating an Energy Efficient Restaurant," Notebook of a Site Survey Engineer," and "Advanced Concepts in Commercial Kitchen Ventilation."

Reduction in PY2001 incentive levels coupled with a slowing economy and high natural gas prices held first and second quarter results below expectations. However, a "Mid-Summer Sprint," campaign which offered increased incentives for purchase and installation of high-efficiency equipment within a limited timeframe, significantly improved customer response to the program. By year-end, 516 applications had been processed, providing $531,701 in customer incentives and resulting in 600,164 therms per year saved.

Comprehensive Space Conditioning Efficiency Improvement

Program Description:

The Comprehensive Space Conditioning Efficiency Improvement (CSpCEI) element offers information, audits, and financial incentives to encourage small commercial customers to make efficiency improvements in the gas-using portions of their space conditioning systems. The objective of this program is to increase customer demand for high-efficiency furnaces and space heating boilers in nonresidential replacement market events. This is a difficult endeavor since nonresidential space heating use is quite small for SoCalGas' core customers given the mild climate and high internal heat generation characteristic of many nonresidential customer facilities.

2001 Results and Achievements:

HVAC systems diagnostics seminar and hydronic systems sizing and design seminar were held in the first quarter of 2001. However, no incentives were paid during the entire year as program activity is slow because high gas prices cut into available capital improvement budgets and because of the slowing economy.

Advanced Water Heating Systems

Program Description:

The Advanced Water Heating Systems (AWHS) element offered information, audits, and financial incentives to encourage small nonresidential customers to make efficiency improvements in their domestic water heating systems. The objective of this program was to increase customer demand for high-efficiency water heaters, boilers, and water heater controllers. By increasing demand among owners, designers and installers, this program was intended to transform the "upstream" market (e.g., manufacturers, distributors, retailers, and builders) so that energy-efficient products and services are made available, promoted and advertised by private market participants. This program helped support commercialization of emerging technologies, and ensured that program offerings were available to the typically under-served small nonresidential customer.

2001 Results and Achievements:

This element focused on newer technologies (incentives for high-efficiency storage water heaters and boilers are handled in the Express Efficiency program). Emerging technologies efforts associated with this program have focused on direct contact water heaters. These high-efficiency units (92%-95%) were hampered in past years by product deterioration problems which have been reduced through the use of new, less easily corroded, materials. Demonstration projects have proved to be a successful tactic in the past and, while several direct contact water heaters were considered for funding, predominantly by textile-related firms, the general economic slowdown and uncertainties have affected the timing of these purchases. As the economy strengthens, SoCalGas hopes to move forward with these types of projects in PY2002.

Advanced Engine Technology

Program Description:

The Advanced Engine Technology (AET) element focuses on improving the availability of energy efficient options for gas-fired, engine-driven end uses. The objective of this program is to promote customer adoption of appropriate engine technologies (e.g., fuel-efficient systems with heat recovery and hybrid systems) in underserved market segments such as air compression, refrigeration and space conditioning. As such, it is primarily an emerging technology effort.

2001 Results and Achievements:

Activity in this program was slowed by a re-evaluation of incentive levels and targeted technologies. SoCalGas implemented higher incentives for qualifying engine rebuilds and expanded the applicability for improving pump efficiency incentives. By year-end, 27 applications were processed, providing $111,810 in customer incentives and achieving energy savings of 19,023 therms per year.

Commercial High-Efficiency Clothes Washer Rebate

Program Description:

In conjunction with the Coin Laundry and Dry Cleaner Education Program, the Commercial High-Efficiency Clothes Washer Rebate program was launched in June 2001 with a target of 500 washers installed by year-end.

2001 Results and Achievements:

By the end of the fourth quarter, 1,123 washers had been installed under this program, far exceeding the target. This resulted in $224,600 in rebates to our customers and energy savings of 97,701 therms.

Industrial Energy Efficiency Incentives

Furnace/Kiln/Oven

Program Description:

The Furnace/Kiln/Oven element addressed such industrial process equipment as conveyorized drying ovens, curing ovens, batch ovens, food processing ovens, and crucible furnaces. This program is intended to induce consumers to buy newly available products incorporating new energy efficiency technology. It will be continued as a local program element in PY2002.

2001 Results and Achievements:

Reduced incentives combined with a slowing of the economy and high natural gas prices held first and second quarter results below expectations. However, the "Mid-Summer Sprint" Campaign resulted in a surge in program participation during the fourth quarter. By year-end, 39 applications had been processed, providing $650,191 in customer incentives and achieving 991,871 therms per year saved.

Process Energy Conservation

Program Description:

The Process Energy Conservation (PEC) program created an opportunity to retire or retrofit existing equipment early and replace it with new high-efficiency equipment and/or controls. Specific applications targeted included: process equipment with no pre-existing insulation for hot water or steam lines, no pre-existing insulation for hot water tanks, inefficient burners, and incorrectly sized process equipment. Energy efficiency measures include: heat recovery systems, pipe insulation, tank insulation, thermocouples, burner replacement, rebuilds of ceramic fiber insulation, hot water or steam boilers (non-space conditioning), and digital controls. This "local" program activity will continue in PY2002.

2001 Results and Achievements:

A slowing of the economy and high natural gas prices held first and second quarter results below expectations. However, the "Mid-Summer Sprint" Campaign resulted in a significant increase in program participation during the fourth quarter that greatly exceeded expectations. By year-end, 194 applications had been processed, providing $1.52 million in customer incentives and achieving 4.894 million therms per year saved. This particular program contributes the most therms saved per customer incentive dollar spent of all SoCalGas programs.

Commercial and Industrial Energy Efficiency Incentives
PY2001 Energy Savings

Measure	Number Installed	Therm Savings
Engine Replacements	13	4,110
Engine Rebuilds	14	14,913
Furnaces/Kilns/Ovens	31	991,871
Process Energy Conservation	178	4,894,815
Clothes Washers	1,123	97,701
Cooking Equipment	340	600,164
Total		**6,604,126**
Net Savings		**5,283,300**

Notes:
1. Savings were estimated from project applications. Net to gross value is 0.80.

Statewide Express Efficiency Program

Program Description:

The Statewide Express Efficiency program offered prescribed rebates for specific energy efficiency measures used by small and medium-sized nonresidential customers (less than 500 kW and 250,000 therms). The rebates were and are promoted through utility representatives, equipment distributors, SoCalGas web site, contractors and Energy Efficiency Service Providers (EESPs.). SoCalGas provided rebates for storage water heaters, hot water boilers, space heating boilers, power burners, infrared burners, and greenhouse heat curtains. This program was approved for funding on March 21, 2002 for implementation on April 1, 2002. Significant changes for PY2002 are the inclusion of six (6) new high-efficiency measures: commercial horizontal axis washers, instantaneous water heaters, process boilers, direct contact water heaters, pipe insulation and tank insulation measures.

2001 Results and Achievements:

By year-end, 463 applications were processed, of which 219 were for storage water heaters. This program provided $719,276 in customer incentives in 2001 and achieved 934,421 therms per year of energy savings.

Express Efficiency Program
PY2001 Energy Savings

Measure	Number Installed	Therm Savings
Infrared and Power Burner Cooking Equipment	96	112,206
Greenhouse Heat Curtains	6	340,496
Hot Water Boilers	78	360,807
Space Heating Boilers	55	65,570
Storage Water Heaters	212	53,342
Total		**934,421**
Net Savings		**934,421**

Notes:
1. Savings were estimated from project applications.

Upstream Market Transformation Programs

Small Commercial Upstream Gas Air Conditioning

Program Description:

This program promoted awareness of existing efficient natural gas air conditioning engine-driven and absorption units. This upstream effort promoted qualifying energy efficient natural gas air conditioning. Qualifying units must have been greater than or equal to five tons in size and have had a minimum coefficient of performance (COP) of greater than or equal to 0.62.

2001 Results and Achievements:

During 2001, 392 tons of unitary gas cooling projects were installed. Another 623 tons of gas cooling projects are in the planning phase. 363 tons of gas cooling projects are currently under discussion with customers. 100% of the program budget was committed by the end of December.

Working with the manufacturers to promote the benefits and energy savings associated with natural gas fired cooling technologies, the successful introduction of 2 new unitary product lines, Mitsubishi Heavy Industries and Broad, were introduced into the California unitary market.

Although higher first cost issues have been traditionally associated with gas cooling equipment, the non-traditional applications of absorption cooling technology coupled with co-generation and engine driven systems utilizing waste engine heat applications have been promoted in the unitary market as energy saving options and to help reduce electric peak load demand. Due to limited DSM funding, this program was not proposed for 2002.

Gas Air Conditioning Program
PY2001 Energy Savings

Project	Therm Savings	KWh Savings	KW Savings
BIA Building	-3,369	19,219	10
Sentry Building	-321	1,832	1
St. Mary's Convent	-575	3,390	3
BackBay Medical	-603	3,440	2
La Quinta Country Club	-14,467	95,035	62
Anaheim Headquarters	-4,506	27,965	34
St. Joseph's Church	-964	6,822	
Total	**-24,805**	**157,704**	**112**
Net Savings	**-19,844**	**126,163**	**90**

Notes:
1. Savings were estimated by Equipoise Consulting based on typical weather data.
2. Net savings determined through application of a 0.80 net to gross ratio.

Emerging Technologies

Program Description:

This activity, as distinct from a specific program element associated with a particular market segment, supports the deployment of new, advanced technologies, applications and best practices available for sale in the California market in various market segments. The total combined budget for this program was initially anticipated to be approximately $3,000,000. This amount is not a separate item, but represents an estimated total extracted from many program elements listed below. This activity is accomplished by combining a number of tactics and strategies and cutting across several of the template categories described in this filing. Also, SoCalGas seeks to promote and more fully exploit the energy advantages of under-utilized technologies and practices which can be considered emerging in southern California, though they might be more completely in use in other markets. Therefore, "emerging" technologies span a range of availability from recently developed R&D prototypes to "out of favor" energy saving concepts, well known elsewhere, but in need of re-introduction here. They "emerge" in all market segments (i.e. residential and nonresidential). They represent an opportunity for SoCalGas to help customers cut their power demand and save energy while preserving their options to use gas safely and economically in their homes and enterprises. Advanced technologies "emerge" in response to market forces, changes in regulation and other factors. SoCalGas operates as one of the few sources of gas technology intelligence readily and credibly available to all classes of customers. To some degree this activity is always changing; as an example, residential and light commercial fuel cell demonstration and evaluation opportunities were expected to be a new element in PY2001, but R&D activity failed to result in marketable products at the original schedule.

PY2001 Programs Enhanced

Emerging technologies are supported in the following program elements described elsewhere in this filing:

- Residential: Appliances; Heating and Cooling Systems.
- Non-residential: Integrated Food Service Equipment Retrofit; Space Conditioning Efficiency Improvement; Advanced Water Heating Systems; Heat Recovery Applications; Furnace/Kiln/Oven; Process Energy Conversion; and Advanced Engine Technology.

Approximately $1.4 million of Select Technology activity was funded in 2001.

2001 Results and Achievements:

The Select Technologies (emerging technologies) Program is predominantly an education and information effort. It began the year 2001 with a strong focus on distributed energy resources. Several demonstration projects involving combined heat and power systems built around Capstone and Parallon microturbines were supported. By mid-year AB970 (Self-Generation) project support substituted for Select Technologies funding. The program is still pursuing the newest generation and heat recovery equipment to test and confirm the performance of novel system configurations.

During 2001, the Program transferred advanced water heating with industrial direct contact water heating systems to the AWHS element. Sufficient work had been accomplished to establish consistent performance and create awareness in appropriate market segments.

Slowing and weakness in many industrial sectors made deployment of emerging gas infrared burner systems and engine-driven air compressor and refrigeration systems difficult throughout 2001. By year-end, eight infrared systems, predominantly in thermoforming and powder coating applications, were either in operation or under construction. Data from several of them will be available by mid-2002.

Small engine-driven gas air conditioning products (light commercial applications) were demonstrated in 2001 and work on some models will continue into 2002 to assess system efficiency.

High-Efficiency Medium Tonnage Natural Gas Cooling Field Demonstration

Program Description:

This program is a targeted third party initiative aimed at finding and implementing medium tonnage (25-200 ton) gas cooling projects with a COP of 1.0 or above.

2001 Results and Achievements:

132 tons of gas cooling was installed as a field demonstration project at Hood Communications Inc. (HCI) in Norco. Another 330 tons of gas cooling was installed at SoCalGas' Pico Rivera central energy plant and is a field demonstration site for BCHP (Building Cooling, Heating and Power) distributed energy technology. All expenditures for this program were accounted for within the Nonresidential Upstream Gas Air Conditioning program.

It is unlikely that additional medium tonnage natural gas cooling field demonstration projects will be identified and undertaken in PY2002, given the shortage of funds allocated for utility efforts.

Southern California Gas Company
Table 3.1
Summary of Costs:
Nonresidential Program Area
(Natural Gas, $000)

	Last Year (2001)	
	Budgeted	Recorded
Information	3,722	2,981
EMS	2,914	3,662
Large		
Small/Medium	2,914	3,662
EEI: Customized Rebates		
Large		
Small/Medium		
EEI: Prescriptive Rebates	3,953	5,567
Large		
Small/Medium	3,953	5,567
EEI: SPCs		
Large		
Small/Medium		
Upstream	2,982	1,522
Information	2,982	1,522
Financial Assistance		
Total	13,570	13,732

nb: does not include shareholder incentive or energy costs

Southern California Gas Company
Table 3.2
Summary of Energy Efficiency Program Effects:
Nonresidential Program Area

(Annual Energy Reduction, Electric, MWh)

	Last Year (2001) (Recorded)	Last Year (2001) (Recorded)
	Annual	Lifecycle
Information		
EMS	3,563	34,290
Large		
Small/Medium	3,563	34,290
EEI: Customized Rebates		
Large		
Small/Medium		
EEI: Prescriptive Rebates	20	198
Large		
Small/Medium	20	198
EEI: SPCs		
Large		
Small/Medium		
Upstream	126	2,523
Information	126	2,523
Financial Assistance		
Total	3,709	37,011

(Annual Energy Reduction, Natural Gas, MW)

	Last Year (2001) (Recorded)
Information	
EMS	0.92
Large	
Small/Medium	0.92
EEI: Customized Rebates	
Large	
Small/Medium	
EEI: Prescriptive Rebates	
Large	
Small/Medium	
EEI: SPCs	
Large	
Small/Medium	
Upstream	0.09
Information	0.09
Financial Assistance	
Total	1.01

(Annual Energy Reduction, Natural Gas, Therms 000)

	Last Year (2001) (Recorded)	Last Year (2001) (Recorded)
	Annual	Lifecycle
Information		
EMS	29	280
Large		
Small/Medium	29	280
EEI: Customized Rebates		
Large		
Small/Medium		
EEI: Prescriptive Rebates	6,214	134,729
Large		
Small/Medium	6,214	134,729
EEI: SPCs		
Large		
Small/Medium		
Upstream	(20)	(397)
Information	(20)	(397)
Financial Assistance		
Total	6,224	134,612

Southern California Gas Company
Table 3.3
Summary of Cost Effectiveness:
Nonresidential Program Area
(Benefit-Cost Ratios)

	Last Year (2001) (Recorded)	
	Program Administration Cost Test	Total Resource Cost Test
Information	0.00	0.00
EMS	0.91	0.90
Large		
Small/Medium	0.91	0.90
EEI: Customized Rebates		
Large		
Small/Medium		
EEI: Prescriptive Rebates	6.17	5.20
Large		
Small/Medium	6.17	5.20
EEI: SPCs		
Large		
Small/Medium		
Upstream	0.14	0.14
Information	0.14	0.14
Financial Assistance		
Total	2.57	2.39

Southern California Gas Company
Table 3.4
Summary of Cost Effectiveness:
Nonresidential Program Area
(TRC Net Benefits $MILL)

	Last Year (2001) (Recorded)
Information	(2,981)
EMS	(389)
Large	
Small/Medium	(389)
EEI: Customized Rebates	
Large	
Small/Medium	
EEI: Prescriptive Rebates	27,740
Large	
Small/Medium	27,740
EEI: SPCs	
Large	
Small/Medium	
Upstream	(1,398)
Information	(1,398)
Financial Assistance	
Total	22,059

nb: total Nonresidential includes shareholder incentives as a cost

4. New Construction Programs

Residential New Construction

The New Energy Advantage Home Program

Program Description:

This program was redesigned during the first quarter of 2000 and began accepting contracts July 1, 2000. The new program focused on high performance heating and cooling ducting, promotion of Energy Star® features, and the introduction of development planning that enhances building energy efficiency in a manner that provides direct developer benefits. The primary focus has been placed on promoting the installation of high performance duct systems in new single-family homes. The historical promotion of water and space heating equipment that exceeded current Title 24 minimum compliance standards was maintained although no incentives were provided for said equipment.

2001 Results and Achievements:

By the end of the fourth quarter of 2001, SoCalGas had enrolled 24,732 production builder lots in the New Energy Advantage Home program. Builder response to the program greatly exceeded expectations and the original budget was increased by $784,000 during the first quarter of 2001 to address this response. The number of committed lots and associated funds required that the program accept no new applications after the first quarter of 2001.

In support of the Energy Advantage Home program and to increase the construction industry's knowledge base, training classes were continually offered throughout 2001. These classes were attended by architects, builders, HVAC contractors, and building inspectors. Attendance was very strong with classes often completely subscribed to. The attendance for the ACCA Manual J and Manual D classes totaled 1003 during 2001.

SoCalGas experienced an unprecedented surge in project completions during the last months of PY2001. The enhanced program budget was exceeded by more than $1.3 million. SoCalGas will fund incentives for these additional homes from its energy efficiency balancing account. SoCalGas has claimed energy savings on 6,395 housing units. Energy savings are estimated at 6,046 MKWh , 4,288 kW, and 67 Mtherms. These units and the resultant energy savings represent only the expenditure from the increased program budget filed in the first quarter of 2001. Savings associated with the units incented with balancing account monies were not included in the following table, nor in the calculation of SoCalGas earnings.

Energy Advantage Home Program
PY2001 Energy Savings

Climate Zone	Housing Units	Therm Savings	KWh Savings	KW Savings
4	27	757	10,242	16
5	49	1,463	3,700	20
6	970	6,508	141,702	679
8	1,683	13,137	556,067	842
9	585	5,774	363,771	526
10	2,057	19,743	2,414,029	2,057
12	19	462	23,855	15
13	485	12,345	637,017	436
14	121	4,900	182,818	169
15	399	1,956	1,713,305	599
Total	**6,395**	**67,044**	**6,046,505**	**5,359**
Net Savings		**53,635**	**4,837,204**	**4,288**

Notes:

1. Per unit therm and kWh savings used in calculation of total savings were derived from Micropas runs on 2,200 s.f. prototype building (prepared by Douglas Beaman & Associates). Per unit savings were adjusted to account for actual performance around the 6% leakage target. Per unit kW savings used in calculation of total kW savings were developed by Heschong Mahone group using a smaller prototype building.
2. Net savings determined through application of a .8 net to gross ratio.

Nonresidential New Construction

Statewide Savings By Design

Program Description:

Savings By Design is a statewide program that promotes high performance commercial building design and construction. The program encourages the construction of energy efficient buildings and the process seeks to permanently reduce the transaction costs associated with developing and evaluating energy efficient design alternatives. Savings By Design improves the comfort, efficiency, and performance of buildings by promoting an integrated team approach to design. The program provides direct benefits to all market actors and market segments, including building owners – large or small, public or private, occupant or developer – and design professionals involved in new and renovated building design and construction.

Savings By Design assures the construction of energy-efficient buildings by incenting the design of more energy efficient buildings and by directly incenting the specification and installation of particular pieces of high-efficiency equipment. The Savings By Design program targets specific links in the design and construction decision-making chain, reflecting differences in design activities and priorities between large and small buildings and various occupancies.

2001 Results and Achievements:

After a slow start in late PY2000 due to statewide coordination difficulties, SoCalGas' PY2001 effort has exceeded expectations. Program funds were fully committed prior to year-end. Program incentive commitments for 2001 totaled $674,000 in owner and design team incentives with an estimated 4.5 million kWh and more than 459,000 therms in energy savings from committed projects. Incentives for the first completed systems project were funded in the fourth quarter.

The city of Los Angeles has also utilized SDB for renovation projects such as The Griffith Park Observatory expansion project. Savings By Design has also played an important role in the Collaborative High Performance Schools Program(CHPS). Saving By Design was incorporated as a tool to assist owners and design teams in the design of high performance sustainable public school campuses throughout California. The Los Angeles School District has adopted a "High Performance Schools Resolution" and has embraced CHPS and SBD to achieve its anticipated goals related to the design of energy efficient schools. The New Cahuenga Elementary School design was committed into SBD as a demonstration showcase school to encourage the continued design of such projects by LAUSD .

As a result of continued project participation, the philosophy of building sustainability of Saving By Design has influenced the city of Los Angeles to conduct and complete a sustainable buildings study. This study has led to the creation of a Sustainable Building Initiative that would

impact all new construction projects for city buildings. The initiative is to be presented to the City Council for passage.

Upstream New Construction

Statewide Codes and Standards

Program Description:

This program element was intended to bring about upgrades in either codes or standards, thereby capturing the benefits for society from California's diverse energy efficiency efforts. Codes and Standards Enhancement (C.A.S.E.) studies for energy efficiency improvements will be developed for promising design practices and technologies, such as those promoted by the Residential and Nonresidential energy efficiency programs, and will be presented to codes and standards setting bodies.

In 2001, the Program continued to support AB 970 emergency rulemaking processes for both California Title 24 and Title 20. Activities included:

- participation in public workshops and meetings,
- support and advocacy for code change through the end of Phase II of the rulemaking, and
- broad-based training efforts for code officials, contractors, T-24 consultants, and other groups, that support administration and enforcement of new and existing codes.

2001 Results and Achievements:

SoCalGas actively participated in AB 970-related activities by attending CEC workshops and other related meetings and by contributing standards enhancement proposals and studies. These discussions continue as new standards implementation work proceeds. Topics discussed include: the development of performance curves for air conditioners and heat pumps; Time Dependent Valuation project; and residential and engineering energy models.

Local Government Initiatives

Program Description:

The Local Government Initiatives program sought to support local government initiatives to transform energy efficiency markets at the community level. Formerly, this program consisted of a flexible solicitation available to local and/or regional government entities or parties directly serving local government interests. For PY2001, SoCalGas fashioned a third party initiative solicitation targeting public housing authorities. The solicitation sought proposals for specific improvements to public housing rental units that reduce both electricity and natural gas use. The effort is unique in that it targeted low-income new construction activities not served by existing new construction program efforts or by low-income program efforts. Public housing authorities develop housing for elderly and economically disadvantaged individuals. This housing is constructed with limited budgets that often prevent the authority from installing advanced energy efficiency measures. However, these measures, when incorporated into the construction, have a positive impact on the future residents by reducing their total energy consumption. These reductions will reduce the financial impact upon a population that is least able to withstand increases in energy costs. The program measure focused on those elements that could be incorporated without significantly affecting the existing building design.

2001 Results and Achievements:

The solicitation process occurred during the late first quarter and second quarter. Initial proposals selected consist of apartment upgrades for seniors and low-income families by Coachella Valley Housing Coalition, San Bernardino Housing Authority, and the Housing Authority of the city of San Luis Obispo. Five contracts have been approved for 172 multifamily units and 12 single-family units. Because of the construction schedules for these contracts, only one project was completed in 2001. The remaining projects are scheduled for completion by July 1, 2002. Contract 102, the Coachella Valley Housing Coalition low-income project, consisted of 39 multifamily dwellings for low-income residents. SoCalGas has claimed energy savings only for this project. Claimed savings are 270.5 therms/year and 25,011 kWh/year.

Southern California Gas Company
Table 4.1
Summary of Costs:
New Construction Program Area
(Natural Gas, $000)

	Last Year (2001)	
	Budgeted	Recorded
Residential	4,891	6,062
Nonresidential	1,424	1,386
Total	6,316	7,448

Southern California Gas Company
Table 4.2
Summary of Energy Efficiency Program Effects:
New Construction Program Area

(Annual Energy Reduction, Electric, MWh)

	Last Year (2001) (Recorded)	Last Year (2001) (Recorded)
	Annual	Lifecycle
Residential	4,857	121,190
Nonresidential	3,384	54,137
Total	8,241	175,327

(Annual Energy Reduction, Electric, MW)

	Last Year (2001) (Recorded)
Residential	4.31
Nonresidential	1.74
Total	6.05

(Annual Energy Reduction, Natural Gas, Therms 000)

	Last Year (2001) (Recorded)	Last Year (2001) (Recorded)
	Annual	Lifecycle
Residential	54	1,344
Nonresidential	361	5,784
Total	415	7,127

Southern California Gas Company
Table 4.3
Summary of Cost Effectiveness:
New Construction Program Area
(Benefit-Cost Ratios)

	Last Year (2001) (Recorded)	
	Program Administration Cost Test	Total Resource Cost Test
Residential	1.49	1.60
Nonresidential	4.56	3.20
Total	1.99	1.95

Southern California Gas Company
Table 4.4
Summary of Cost Effectiveness:
New Construction Program Area
(TRC Net Benefits $MILL)

	Last Year (2001) (Recorded)
Residential	3,397
Nonresidential	4,348
Total	7,465

nb: total Nonresidential includes shareholder incentives as a cost

5. MA&E and Regulatory Oversight

SoCalGas Measurement and Evaluation Studies

SoCalGas performed no studies in PY2001 that affect the PY2001 earnings claim.

California Energy Commission MA&E Activities

2001 Results and Achievement

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

Statewide Studies

Nonresidential Remodeling and Renovation

The nonresidential remodeling and renovation study neared completion in 2001. This study seeks to characterize the decision-making process for purchase of energy using equipment during remodeling or renovating events, and to describe the level and types of such activity by market segment. The study will use these results to identify targeted strategies that may facilitate energy efficient investment during remodeling and renovation and identify market segments with high potential for energy savings. All data collection is complete. Data were obtained from focus groups, secondary data, building permits, Title 24 documentation, telephone surveys and on-site visits to remodeling and renovation projects completed in 2000.

A report discussing the qualitative findings has been released. Differences in the way market actors view the remodeling and renovation market are captured in this report. Architects and engineers, for example, see little difference in their remodeling and renovation work from that in new construction. Commercial real estate firms and developers, however, specialize in either remodeling/renovation or new construction. Five unique remodeling/renovation investment options are described in this report along with suggestions for program strategies tuned to the different options. An additional report drawing from the quantitative analysis and a final summary report are expected in early 2002.

Nonresidential Market Share Tracking Study

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

CEC Data Collection Activities

The focus of this area is the collection and analysis of basic data about customer characteristics, energy use, and energy-using technologies that provide the foundation for energy efficiency program planning and evaluation, energy demand analysis, and market monitoring. In the past, customer characteristics data were provided to the CEC by the state's utilities through general rate case authorizations. However, with the passage of California State Assembly Bill 1890, these data collection efforts were no longer funded, although utilities are still required to provide the data under the California Code of Regulations, Title 20. In Resolution E-3592, the CPUC, acknowledging the value of Title 20 survey research to cost-effective energy efficiency and conservation activities (Ordering Paragraph 82), authorized the utilities to transfer a total of $2.1 million for two years (1999 and 2000) to the CEC for Title 20 data collection activities. In November 2000, a request for an additional $2.1 million for 2001 was made in the utilities' study plans. The funding allocation is shown in the table at the end of this section. The Commission adopted this proposal in Decision (D.) 01-06-037 in June 2001.

Commercial End Use Survey (CEUS)

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

Residential Appliance Saturation Survey (RASS)

Work on this project was on hold until CPUC approval of CEC's 2001 MA&E plan. Approval was received on June 14, 2001 in Decision (D.) 01-06-037. The RASS will gather basic information on building characteristic, appliance holdings, demographic data, awareness of energy efficiency measures and programs, and load shifting opportunities and behavior. The project will produce appliance saturations, end-use intensities, and both confidential and public data sets and reports on project results. The analysis will incorporate data provided by utilities and collected through other surveys, including the Statewide Residential Lighting and Appliance Saturation Study completed in 2000.

Improvements to the Database of Energy Efficient Resources (DEER)

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

2002 MA&E Plans

CEC Data Collection Activities

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

The focus of this project is to maintain the value of the DEER to planning and evaluation in the face of evolving energy efficiency programs and strategies. The nonresidential standard performance contract (SPC) program has a need for development of incremental measure cost data for measures currently not included in the DEER. Because SPC incentives are paid per kilowatt-hour saved, rather than per measure installed, new methodologies for applying measure cost data to the SPC program must be developed. Other program areas may also have new measures for which cost data is needed as well.

With the recent shift in focus to achieving peak savings through energy efficiency, load management, and distributed generation, we also anticipate the need to incorporate updated load shapes and load impacts at the end use level to assist program managers in estimating the cost effectiveness of new programs, load control technologies, or energy management systems.

The CEC expects to continue with the current DEER contractor for this next round of updating. Delay in the adoption of the PY2001 MA&E plans means this work will start in spring 2002.

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

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

Statewide Studies

Nonresidential Market Share Tracking Study

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

CEC MA&E Expenditures and Budgets

Table 1: CEC MA&E Expenditures and Budgets

	PY2001 Authorized	*PY2001 Actual and Committed*	*2002 Planned Budget*
	$ 2,100,000.00		
CEC Data Collection and Analysis			
Commercial End Use Survey (CEUS)		$ 1,500,000.00	$ 0
Residential Appliance Saturation Survey (RASS)		$ 200,000.00	$ 0
Database of Energy Efficient Resources (DEER)		$ 400,000.00	$ 0
Total		$ 2,100,000.00	$ 0
	$ 0		
CEC-Managed Statewide Studies			
Nonresidential Market Share Tracking		$ 0	
Nonresidential Remodeling & Renovation		$ 0	
Total		$ 0	$0
	$ 2,100,000.00		
TOTAL AUTHORIZED			
TOTAL ACTUAL AND COMMITTED		**$ 2,100,000.00**	

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

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

Southern California Gas Company
Table 5.1
Market Assessment and Evaluation Expenditures (MA&E)
(Natural Gas, $000)

Cost Category and Element	Last Year (2001)	
	Budgeted	Recorded
Measurement for Program Admin Incentives:		
1. Utility Studies/Reports for PY98 Programs		
2. Utility Studies/Reports for PY99 Programs		
3. Utility Studies/Reports for PY00 Programs		
4. Utility Studies/Reports for PY01 Programs		
Demand Assessment:	204	294
1. Customer Data (CEC) Utility Costs	204	294
2. Customer Data Analysis: CEC Costs (Cost of Studies)		
3. DEER Updates		
4. EE Market Assessment (Res Program Area)		
5. EE Market Assessment (Nonres Program Area)		
6. EE Market Assessment (New Construction Program Area)		
7. EE Product Assessment (All Markets)		
Other Program Evaluation Studies:	618	387
1. General		
2. PY98 Residential		
3. PY98 Nonresidential		
4. PY98 New Construction		
5. PY99 Residential		
6. PY99 Nonresidential		
7. PY99 New Construction		
8. PY00 Residential		
9. PY00 Nonresidential		
10. PY00 New Construction		
11. PY01 Residential		
12. PY01 Nonresidential		
13. PY01 New Construction		
MA&E TOTAL	821	681
REGULATORY OVERSIGHT	2,078	1,800
Regulatory Compliance & Reporting (Utility)	2,018	1,800
Oversight Costs (CBEE and Energy Division)	60	
Total MA&E & Oversight	2,899	2,481

6. Shareholder Performance Incentives

2001 Performance Incentive Award Mechanism

Performance awards are reported by Program Area Energy Savings, Market Effects, and Performance Adder. The maximum award from SoCalGas' efforts has been capped at $2.084 million.

Earnings claim

With an energy savings award of $1,090,000, a market effects award of $137,861, and a performance adder award of $102,600, SoCalGas is filing for PY2001 earnings totaling $1,330,461.

Southern California Gas Company
Table 6.1
Costs of Shareholder Performance Incentives
(Natural Gas, $000)

	Last Year (2001)	
	Budgeted	Claimed
Residential Program Area	654	138
Nonresidential Program Area	810	913
New Construction Program Area	404	280
General/Other	214	
Total	2,082	1,331

[1] Performance Adder, plus a savings performance bonus

7. Summer Initiative

Summer Energy Efficiency Initiative

Program Description:

The summer 2000 Energy Efficiency Initiative was a statewide program initiated in July 2000. SoCalGas implemented its program in the fourth quarter of 2000. SoCalGas' involvement with the Summer Initiative was limited to one program, funded at $4 million. The Multifamily Summer Initiative Program (MF-SIP) sought to achieve energy savings through the installation of energy efficiency measures at multifamily apartment complexes, mobile home parks, and condominium complexes. The program offered incentives (deemed savings) for a wide variety of measures including: HVAC equipment, thermal shell measures, water heaters, and water flow restrictors. The program was standardized across all four IOUs for statewide implementation, including incentive levels, procedures, and contracts. It was open to all project sponsors that held appropriate licenses, bonding, certification, and insurance to perform the required work. The utilities administered the program while project sponsors identified individual projects for submission under the program based upon an approved marketing plan.

2001 Results and Achievements:

The portion of the MF-SIP that SoCalGas administered was opened for application submissions on November 8, 2000. In the initial applications, approximately 50% of the monies were targeted at the installation of high-efficiency boilers and boiler controls, with the remaining monies targeted at weather-stripping, low-flow showerheads, water heater blankets, and building shell insulation. By the end of the first quarter of 2001, it became clear that projects employing measures with much lower energy savings potential than those original forecast were predominating.

For example, door infiltration reduction measures (weatherstripping, door shoes, and thresholds) represented 66% of the total monies invoiced at the end of the program. These measures have very modest savings per incentive dollar, but are easily and inexpensively installed (relative to equipment replacement/upgrades).

Duct testing and sealing efforts comprised approximately 19% of invoiced efforts and account for the bulk of electric savings. Savings are estimated at 50% of the original deemed savings levels in order to reflect historic failure rates of duct sealing efforts (*i.e.*, failure rates experienced in the Residential Contractor Program).

Boilers and boiler controllers comprised about 11% of invoiced efforts. These measures provide the high therm savings per incentive dollar and tend to have long persistence. This 11% of the budget provided 70% of the therm savings. Based on initial contractor estimates, it was expected that the share of the total budget spent on these measures would have been much higher.

Low-flow showerheads and faucet aerators accounted for the remaining 4%.

Program funding was split between nine contractor participants with the entire funding of $4 million spent at year-end. At best, only about 536 Mtherms of annual therm savings, 253 MWh savings, and 297 kW savings have been achieved with this program effort. As stated above, the savings are much lower than expected for this expenditure level. This was due to the program design that allowed unfettered focus on door weatherization efforts that yielded very modest energy savings.

Southern California Gas Company
Table 7.1
Summary of Costs: Summer Initiatives Programs
($000)

	Last Year (2001)	
	Budgeted	Recorded
Utility Programs		
Program #1: Hard-to-Reach	4,000	3,960
Program #2		
...		
Sub-Total Utility Programs	4,000	3,960
Non-Utility Programs		
Program #1		
Program #2		
...		
Sub-Total Non-Utility Programs		
Total	4,000	3,960

Southern California Gas Company
Table 7.2
Summary of Energy Efficiency Program Effects:
Summer Initiatives

(Annual Energy Reduction, Electric, MWh)

	Last Year (2001) (Recorded)
Utility Programs	
Program #1: Hard-to-Reach	279
Program #2	
…	
Sub-Total Utility Programs	279
Non-Utility Programs	
Program #1	
Program #2	
…	
Sub-Total Non-Utility Programs	
Total	279

(Annual Energy Reduction, Electric, MW)

	Last Year (2001) (Recorded)
Utility Programs	
Program #1: Hard-to-Reach	0.30
Program #2	
…	
Sub-Total Utility Programs	0.30
Non-Utility Programs	
Program #1	
Program #2	
…	
Sub-Total Non-Utility Programs	
Total	0.30

(Annual Energy Reduction, Natural Gas, MTherms)

	Last Year (2001) (Recorded)
Utility Programs	
Program #1: Hard-to-Reach	594
Program #2	
…	
Sub-Total Utility Programs	594
Non-Utility Programs	
Program #1	
Program #2	
…	
Sub-Total Non-Utility Programs	
Total	594