2005 Energy Efficiency Annual Report

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May 2005

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Executive Summary

Southern California Edison Company (SCE) in 2004 delivered significant cost-effective resource benefits to ratepayers and the state, helping to assure a stable and reliable supply of electricity in California. SCE's 2004 energy efficiency program results helped customers save money, operate more efficiently in California's competitive business environment, and live more comfortably. The 2004-2005 program results build upon SCE's nationally recognized leadership and track record of success in energy efficiency through continued refinement of program offerings and the development of new outreach channels to customers. The 2004 results from SCE's 2004-2005 energy efficiency programs created considerable ongoing resource benefits to all ratepayers by providing nearly 950 million kilowatt-hours (kWh) of net annualized energy savings, 175 megawatts (MW) of net peak demand reduction, and over $570 million of resource benefits.

SCE continued in 2004 to explore and test new approaches for reaching traditionally underserved markets. By leveraging resources through community partnerships and using innovative targeted outreach techniques, SCE assured that energy savings opportunities were available to Californians who typically have not participated in energy efficiency programs.

SCE collected funding for its 2004 energy efficiency programs pursuant to California Public Utilities Code sections 381 and 399 *et seq.*, and as directed by the California Public Utilities Commission (Commission) in Decision 03-12-062. The Commission approved the 2004 energy efficiency program activities in Decisions 03-12-060 and 04-02-059.

SCE remains dedicated to working closely with the Commission, state, regional and other stakeholders to ensure that California's energy-related public policy goals are attained, and energy efficiency programs achieve reliable and durable energy savings and demand reduction.

This report describes the energy efficiency program activities SCE administered and implemented during calendar year 2004.

2004 Energy Efficiency Results

RESIDENTIAL

SCE's 2004 residential programs provided considerable energy savings and resource benefits while reaching a significant number of hard-to-reach customers. The Commission's current definition of residential hard-to-reach segments includes customers living in rural communities, multifamily residences, moderate-income households and non-English speaking customers. In 2004 SCE's residential energy efficiency programs recorded over 425 million kWh of energy savings, 82.8 MW of demand reduction and produced over $224 million in net benefits to SCE ratepayers.

SCE offered customers its highly successful residential energy management services through its Statewide Home Energy Efficiency Surveys program, offering mail-in, in-home, and online energy efficiency surveys. SCE through its residential energy management services programs targeted customers defined by the Commission as hard-to-reach through non-English solicitation packages and outreach events in rural communities. These programs provide energy advice that is suited to the needs of each residential customer. SCE, in 2004, expanded the reach of the online surveys by offering the new statewide Chinese online survey.

SCE's Single Family and Multi-Family Energy Efficiency Rebate programs delivered energy savings and resource benefits by accelerating the replacement of existing inefficient equipment and appliances. The program offered rebates to participating customers for the purchase and installation of whole house fans and ENERGY STAR® qualified central air conditioners, among many other products. Nearly 41% of applications received and paid were from hard-to-reach customers for the Single Family program. Nearly 55% of customers served were hard-to-reach for the Multi-Family program. SCE managed the programs, developed outreach materials and point-of-sale displays, tracked program budgets, commitments and installations, and ensured that applications adhered to program guidelines. In total, the Single Family Energy Efficiency Rebate program achieved over 367 million kWh of annual energy savings and a demand reduction in excess of 73.5 MW, while the Multi-Family Energy Efficiency Rebate program saved an additional 22 million kWh of energy savings and 3.1 MW of peak demand reduction.

SCE in 2004 used bill inserts, bill messages and multi-lingual radio ads and print ads to encourage participation in SCE's Residential Appliance Recycling program. The Residential Appliance Recycling program recycled more than 51,250 refrigerators and freezers, which resulted in a total annualized energy savings of over 36 million kWh and a demand reduction of 6.2 MW.

NONRESIDENTIAL

SCE continued to produce significant energy savings and resource benefits to commercial, industrial, and agricultural customers through the provision of its nonresidential energy efficiency programs while more fully addressing the needs of its hard-to-reach customers. In 2004, SCE's nonresidential energy efficiency programs recorded over 381 million kWh of energy savings, 65.8 MW of demand reduction and produced over $243 million in benefits to SCE ratepayers.

The statewide Building Operators Certification program provided training and certification for operators of medium and large commercial buildings to establish and support a professional credential for building operators in California. Through training such as BOC, buildings in California will run more energy efficiently. SCE marketed the program through direct communications with customers by SCE account managers. In 2004, SCE in coordination with other California investor-owned utilities (IOUs) planned and conducted a Level II training course with an emphasis in equipment troubleshooting and maintenance. A total of 126 students were enrolled in this program in 2004.

SCE continued to provide answers to customers' questions, and advice regarding energy efficiency products and services through the statewide Nonresidential Energy Audits program. In 2004, the program completed 4,456 audits for hard-to-reach SCE customers.

The highly successful Pump Test local program performed 4,408 pump tests. Approximately 45% of the tests were for SCE customers previously considered as "non-participants." SCE distributed approximately 650 direct mail applications to "non-participants" to encourage them to take part in the program. SCE achieved these results by strengthening current relationships and cultivating new relationships with agribusiness, water districts, trade and ethnic associations, vendors, manufacturers, and local and state governments.

The VeSM Advantage Plus^2 Program (VeSM) develops and implements an innovative energy efficiency program tailored to meet the unique of needs small- to large size manufacturers. The VeSM Program was approved in late 2004. SCE contracted with the California Manufacturing Technology Center (CMTC) as its primary implementation partner.

The Local Small Nonresidential Hard-to-Reach program provided no-cost energy-efficient equipment and information to small (under 100kW) businesses with a focus on the very small business (under 20kW). In past years these customers typically have not participated in SCE's energy efficiency programs. In 2004, SCE recruited two community-based organizations and one faith-based

organization to augment the outreach and education services that are provided through the prime contractor.

The Upstream HVAC and Motors Rebate Program provides upstream financial incentives to distributors to stock and sell qualifying high efficiency products. SCE's customers from the smallest to the largest are eligible to receive the incentives. Packaged air conditioning is used by small commercial customers; motors are used by all customer classes. The Upstream HVAC and Motors Rebate Program achieved a total of 11 million kWh of net annualized energy savings and 4.2 MW of net peak load reductions for businesses in SCE's service area.

The 2004 Express Efficiency program was offered to small and medium nonresidential customers. This highly successful program achieved 149 million kWh of annualized energy savings and 31.9 MW of demand reduction. Customers classified as hard-to-reach received 44% of the paid incentives for this program.

The Standard Performance Contract (SPC) program continued its success in providing significant energy savings to SCE's nonresidential customers. SCE's aggressive outreach strategy helped SPC program participants achieve over 221 million kWh of annualized energy savings and 29.6 MW of demand reduction.

NEW CONSTRUCTION

SCE also continued to produce significant energy savings and resource benefits to commercial, industrial, and agricultural customers through the provision of its new construction energy efficiency programs. In 2004, SCE's new construction energy efficiency programs recorded nearly 130 million kWh of energy savings, 23.3 MW of demand reduction and produced over $102 million in benefits to SCE ratepayers.

In 2004, SCE promoted the statewide award-winning California ENERGY STAR® New Homes Programs at industry trade shows and local building industry affiliations throughout the year to a diverse group of building industry professionals. Through these efforts, SCE approved more than 7,100 applications for single-family units and over 2,500 multifamily applications. The 2004 program achieved 8 million kWh of net annualized energy savings and 9.1 MW of demand reduction in SCE's service area.

SCE also continued to offer its nationally-recognized new construction program, Savings By Design, to nonresidential customers. The program provides energy design education, design assistance, and cash incentives for all project types and sizes that meet eligibility criteria for the program. As part of the offering,

Savings by Design offers a whole-building strategy which allows customers to design and build energy efficiency through a more comprehensive approach. In 2004, the Savings By Design program achieved over 121 million kWh of annualized energy savings and 14.2 MW of demand reduction in SCE's service area.

CROSSCUTTING

SCE's statewide energy efficiency education and training program provided customers with valuable energy efficiency information in 2004. SCE's Customer Technology Application Center and Agricultural Technology Application Center continued to serve as venues for customers to participate in workshops and observe product demonstrations and displays featuring the latest energy efficiency technologies.

The Innovative Designs for Energy Efficiency Activities (IDEEA) Program solicits bids for innovative and cost-effective energy efficiency program proposals across all market and customer segments. After a comprehensive request for proposals process during 2004, on March 4, 2005, SCE selected eight IDEEA programs.

Through technology application assessment projects at customer sites or SCE facilities, SCE continued to make significant contributions to the Emerging Technologies Coordination Council (ETCC). The ETCC is a statewide information exchange and coordination effort including investor-owned utilities and the California Energy commission's (CEC) Public Interest Energy Research (PIER) program. The ETCC maintains a website and database of applications and projects, featuring descriptions of emerging technology projects as well as many of the CEC's PIER projects.

The Codes & Standards programs are information-only programs that promote upgrades and enhancements to various energy efficiency standards and codes, thereby capturing the benefits for society from California's diverse energy efficiency efforts. During 2004, SCE's technical staff participated in workshops towards the revision of both residential and nonresidential California Title 20 and Title 24 standards and initiated several Codes and Standards Enhancement studies to investigate promising technologies that could lead to the development of new standards.

SCE's Local Government Initiative educates and informs community leaders, local government planners, building officials, builders, building owners, small business owners, and consumers about the economic benefits of energy efficiency in the areas of residential and nonresidential new construction as well as small business. In 2004 the program focused on re-enrolling 16 jurisdictions

and continued efforts to add jurisdictions in which at least 30% of zip codes are considered hard-to-reach.

IOU PARTNERSHIP PROGRAMS

SCE in 2004 developed seven partnerships to leverage energy efficiency improvements into the University of California, California State University, and local government facilities as well as developing new channels for distributing information on energy efficiency opportunities to residential and nonresidential customers. The partnerships are tailored to meet the specific needs of the areas being served and will serve as models for expanding outreach opportunities and program delivery to SCE's customers.

In 2004, SCE's partnership energy efficiency programs produced over 10 million kWh of energy savings, 3.0 MW of demand reduction and produced over $5 million in benefits to SCE ratepayers.

STATEWIDE MARKETING AND OUTREACH

Flex Your Power – Energy Efficiency is a statewide consumer marketing campaign that focuses exclusively on energy efficiency. The goal is to capitalize on the "Flex Your Power" campaign through newspaper, radio and television media targeting English and Asian-speaking communities.

SCE facilitated the statewide coordination between the IOUs and Flex Your Power as the administrator of this statewide program. SCE fulfilled the same role as statewide administrator of the Univision Television Energy Efficiency Marketing (U-TEEM) and Runyon Saltzman & Einhorn's (RS&E) "Reach for the Stars" marketing campaigns. U-TEEM is a consumer marketing and outreach program that targets Spanish speaking customers. RS&E's campaign is focused on moderate income customers in rural areas within the state of California.

At the end of December 2004, all three campaigns achieved their goal of raising general awareness of energy efficiency.

NON-IOU PROGRAMS

The non-investor-owned utility programs for which the Commission authorized funding complement the statewide and local programs offered by the utilities. They generally focus on hard-to-reach sectors such as very small commercial customers, mobile home residents in rural communities, agricultural and industrial customers. These programs recorded over 37 million kWh of annualized energy savings and 10.2 MW of demand reduction.

MARKET ASSESSMENT & EVALUATION AND REGULATORY OVERSIGHT

Market Assessment & Evaluation (MA&E) is the set of activities needed to provide market, program, and product assessment studies and analyses useful to energy efficiency program planners and policy makers. Studies that progressed in 2004 were initiated and funded in 2002, 2003, and 2004. The completed studies can be downloaded from the CALMAC website at www.calmac.org. SCE, PG&E, and SDG&E each managed some of the various statewide Market Assessment and Evaluation studies. There are three categories of studies: Statewide Overarching Studies, Utility Statewide Program Evaluation Measurement and Verification (EM&V) studies, and local EM&V studies of utility programs that are funded through specific program budgets rather than from MA&E budgets.

SHAREHOLDER PERFORMANCE INCENTIVES

The Commission did not approve a performance incentive mechanism for 2004 energy efficiency programs.

Table 1.1
2005 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC

	2004 PGC Budget	[1]	2004 PGC Recorded	[1,2]	2004 Procurement Budget	[1]	2004 Procurement Recorded	[1,2]	2004 TOTAL Budget	[1]	2004 TOTAL Recorded	[1,2]	2005 PGC Budget	[3]	2005 Procurement Budget	[3]	2005 TOTAL Budget	[3]
Residential	$ 14,500,000		$ 14,100,984		$ 24,025,227		$ 23,689,449		$ 38,525,227		$ 37,790,434		$ 14,500,000		$ 21,425,227		$ 35,925,227	
Nonresidential	22,400,720		17,973,725		23,961,433		23,607,696		46,362,153		41,581,421		22,400,720		24,461,433		46,862,153	
New Construction	13,400,000		13,278,633		5,721,515		5,667,139		19,121,515		18,945,772		13,400,000		8,291,515		21,691,515	
Crosscutting	8,304,372		17,684,844		6,264,345		6,264,345		14,568,717		23,949,189		8,304,372		6,264,345		14,568,717	
IOU Partnership Programs	7,517,581		7,697,224		-		-		7,517,581		7,697,224		7,517,581		-		7,517,581	
Total IOU Programs	66,122,673		70,735,411		59,972,520		59,228,629		126,095,193		129,964,040		66,122,673		60,442,520		126,565,193	
Statewide Marketing	6,709,753	[4]	5,349,662	[5]	-		-		6,709,753	[4]	5,349,662	[5]	6,709,753	[6]	-		6,709,753	
Non-IOU Programs	16,157,686	[7]	11,212,253	[8]	-		-		16,157,686	[7]	11,212,253	[8]	16,157,686	[7]	-		16,157,686	
Total Non-IOU Programs	22,867,439		16,561,915		-		-		22,867,439		16,561,915		22,867,439		-		22,867,439	
Utility Administration of Non-IOU Programs	734,142		237,493	[9]	-		-		734,142		237,493	[9]	734,142		-		734,142	
MA&E and Regulatory Oversight	3,096,957	[10]	3,096,957	[10]					3,096,957	[10]	3,096,957	[10]	3,096,957	[10]	-		3,096,957	
Shareholder Performance Incentives	-	[11]	-	[11]	-	[11]	-	[11]	-	[11]	-	[11]	-	[11]	-	[11]	-	[11]
Total Energy Efficiency [12]	$ 92,821,211		$ 90,631,776		$ 59,972,520		$ 59,228,629		$ 152,793,731		$ 149,860,405		$ 92,821,211		$ 60,442,520		$ 153,263,731	

[1] Amounts reflect Program Year 2004 (PY'04) funds, as approved in D.03-12-060 and D.04-02-059, including fund shifts during 2004.
[2] All Recorded amounts include payments in 2004 and amounts committed to projects in 2004, unless otherwise noted. Committed amounts may not be fully realized.
[3] Amounts reflect Program Year 2005 (PY'05) funds, as approved in D.03-12-060 and D.04-02-059.
[4] SCE's portion of the 2004 Statewide Marketing and Outreach Budget (D.03-12-060).
[5] SCE's portion of the 2004 Statewide Marketing and Outreach Expenditures.
[6] SCE's portion of the 2005 Statewide Marketing and Outreach Budget (D.03-12-060).
[7] Total amount budgeted for SCE's portion of all Non-IOU programs offered in SCE's service territory.
[8] Total amount recorded towards Non-IOU programs in SCE's service territory. Includes committed funds.
[9] Total amount expended in 2004 for Non-IOU program administration by SCE. Excludes committed funds.
[10] Includes only MA&E related to Statewide PGC-funded IOU Programs.
[11] The Commission authorized no Shareholder Performance Awards in 2004 or 2005.
[12] Additional Pensions and Benefits (P&B) costs not included in any funding tables.

Table 1.2a
2005 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY PROGRAM EFFECTS: ELECTRIC

	2004 PGC First Year Net Annualized Energy Savings (kWh)	[1]	2004 PGC Lifecycle Energy Savings (kWh)	[1]	2004 Procurement First Year Net Annualized Energy Savings (kWh)	[1]	2004 Procurement Lifecycle Energy Savings (kWh)	[1]	2004 TOTAL First Year Net Annualized Energy Savings (kWh)	[1]	2004 TOTAL Lifecycle Energy Savings (kWh)	[1]
Residential	87,642,669		829,261,874		337,941,451		3,425,114,943		425,584,120		4,254,376,817	
Nonresidential	147,351,447		1,873,024,297		234,293,623		3,187,987,888		381,645,070		5,061,012,184	
New Construction	125,956,518		2,293,947,854		3,559,534		64,071,605		129,516,052		2,358,019,459	
Crosscutting	-		-		-		-		-		-	
IOU Partnership Programs	10,364,983		10,364,983		-		-		10,364,983		10,364,983	
Total IOU Programs	371,315,618		5,006,599,008		575,794,608		6,677,174,436		947,110,226		11,683,773,443	
Non-IOU Programs	37,207,946		440,400,312		-		-		37,207,946		440,400,312	
Total Energy Efficiency	408,523,564		5,446,999,320		575,794,608		6,677,174,436		984,318,171		12,124,173,756	

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

Table 1.2b
2005 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY PROGRAM EFFECTS: ELECTRIC

	2005 PGC First Year Net Annualized Energy Savings (kWh) [1,2]	2005 PGC Lifecycle Energy Savings (kWh) [1,2]	2005 Procurement First Year Net Annualized Energy Savings (kWh) [1,2]	2005 Procurement Lifecycle Energy Savings (kWh) [1,2]	2005 TOTAL First Year Net Annualized Energy Savings (kWh) [1,2]	2005 TOTAL Lifecycle Energy Savings (kWh) [1,2]
Residential	77,020,261	713,256,729	274,751,469	2,743,560,538	351,771,730	3,456,817,267
Nonresidential	166,417,158	1,986,209,443	164,186,736	2,279,400,442	330,603,894	4,265,609,885
New Construction	48,738,054	811,251,044	27,857,485	467,447,442	76,595,539	1,278,698,486
Crosscutting	-	-	-	-	-	-
IOU Partnership Programs	17,900,189	193,529,812	-	-	17,900,189	193,529,812
Total IOU Programs	310,075,662	3,704,247,027	466,795,690	5,490,408,423	776,871,351	9,194,655,450
Non-IOU Programs	47,971,067	550,124,641	-	-	47,971,067	550,124,641
Total Energy Efficiency	358,046,728	4,254,371,668	466,795,690	5,490,408,423	824,842,418	9,744,780,091

[1] Net Savings reflect Commission-adopted net-to-gross ratios.
[2] Amounts reflect Net Capacity and Energy Savings as approved in D.03-12-060 and D.04-02-059. Not all programs are required to claim energy savings.
[3] Does not include Net Capacity and Energy Savings attributed to SCE's IDEEA solicitation, to be determined in mid 2005.

Table 1.2c
2005 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY PROGRAM EFFECTS: ELECTRIC

	2004 PGC First Year Net Annualized Capacity Savings (MW) [1]	2004 Procurement First Year Net Annualized Capacity Savings (MW) [1]	2004 TOTAL First Year Net Annualized Capacity Savings (MW) [1]	2005 PGC First Year Net Annualized Capacity Savings (MW) [1,2]	2005 Procurement First Year Net Annualized Capacity Savings (MW) [1,2]	2005 TOTAL First Year Net Annualized Capacity Savings (MW) [1,2]
Residential	19.42	63.34	82.76	17.70	50.63	68.33
Nonresidential	28.28	37.48	65.76	32.74	27.29	60.04
New Construction	19.46	3.84	23.30	13.90	8.41	22.31
Crosscutting	-	-	-	-	-	-
IOU Partnership Programs	3.07	-	3.07	4.69	-	4.69
Total IOU Programs	70.23	104.66	174.89	69.04	86.34	155.37
Non-IOU Programs	10.16	-	10.16	15.06	-	15.06
Total Energy Efficiency	80.39	104.66	185.05	84.10	86.34	170.43

[1] Net Savings reflect Commission-adopted net-to-gross ratios.
[2] Amounts reflect Net Capacity and Energy Savings as approved in D.03-12-060 and D.04-02-059. Not all programs are required to claim energy savings.
[3] Does not include Net Capacity and Energy Savings attributed to SCE's IDEEA solicitation, to be determined in mid 2005.

Table 1.3a
2005 Energy Efficiency Annual Report
SUMMARY OF COST-EFFECTIVENESS: ELECTRIC
(Benefit-Cost Ratios)

	2004 PGC Program Administration Cost Test [1,2]	2004 PGC Total Resource Cost Test [1,2]	2004 PGC Levilized Cost (cents/kWh) [2]	2004 Procurement Program Administration Cost Test [1,2]	2004 Procurement Total Resource Cost Test [1,2]	2004 Procurement Levilized Cost (cents/kWh) [2]
Residential	3.02	2.97	2.65	9.61	4.48	1.77
Nonresidential	4.85	3.09	2.59	3.86	3.30	2.45
New Construction	7.30	2.82	3.00	18.12	0.50	16.86
Crosscutting	-	-	-	-	-	-
IOU Partnership Programs	0.68	0.61	12.43	-	-	-
Total IOU Programs	3.30	2.26	1.98	7.12	3.41	1.35
Non-IOU Programs [3]	1.96	1.69	4.90	-	-	-
Total Energy Efficiency	3.12	2.20	4.58	7.12	3.41	1.35

[1] Includes all costs from Tables TA 2.1, TA 3.1, TA 4.1, TA 5.1, TA 8.1 - Program Cost Estimates Used for Cost-Effectiveness.
[2] Includes program-specific MA&E costs. Includes costs from all programs and benefits from only programs with energy savings.
[3] Non-IOU cost-effectiveness inputs as reflected in Non-IOU reports.

Table 1.3b
2005 Energy Efficiency Annual Report
SUMMARY OF COST-EFFECTIVENESS: ELECTRIC
(Benefit-Cost Ratios)

	2005 PGC Program Administration Cost Test [1]	2005 PGC Total Resource Cost Test [1]	2005 PGC Levilized Cost (cents/kWh) [1]	2005 Procurement Program Administration Cost Test [1]	2005 Procurement Total Resource Cost Test [1]	2005 Procurement Levilized Cost (cents/kWh) [1]
Residential	2.37	2.49	2.82	5.98	3.83	1.84
Nonresidential	4.07	3.11	2.33	4.31	2.97	2.50
New Construction	2.58	2.03	3.77	3.04	2.27	3.37
Crosscutting	-	-	-	-	-	-
IOU Partnership Programs	1.23	1.47	4.94	-	-	-
Total IOU Programs	2.57	2.27	3.21	4.35	3.04	2.38
Non-IOU Programs	3.60	1.89	4.83	-	-	-
Total Energy Efficiency	2.68	2.21	3.42	4.35	3.04	2.38

[1] Based upon programs approved in D.03-12-060 and D.04-02-059. Includes costs from all programs and benefits from only programs with energy savings.

Table 1.4
2005 Energy Efficiency Annual Report
SUMMARY OF COST-EFFECTIVENESS: ELECTRIC
(Net Benefits)

	2004 PGC TRC [1]	2004 Procurement TRC [1]	2005 PGC TRC [2]	2005 Procurement TRC [2]
Residential	$ 29,277,566	$ 139,750,925	$ 21,322,956	$ 100,460,032
Nonresidential	61,545,629	106,063,977	63,910,943	69,245,086
New Construction	64,317,980	(2,764,279)	18,135,188	11,517,213
Crosscutting	(17,885,080)	(6,264,345)	(8,484,922)	(6,264,345)
IOU Partnership Programs	(3,339,274)	-	2,935,093	-
Total IOU Programs	133,916,821	236,786,278	97,819,258	174,957,985
Non-IOU Programs [3]	9,000,107	-	11,849,137	-
Total Energy Efficiency	$ 142,916,928	$ 236,786,278	$ 109,668,395	$ 174,957,985

[1] Includes all costs from Tables TA 2.1, TA 3.1, TA 4.1, TA 5.1, TA 8.1 - Program Cost Estimates Used for Cost-Effectiveness.
[2] Based upon programs approved in D.03-12-060 and D.04-02-059. Includes costs from all programs and benefits from only programs with energy savings.
[3] Non-IOU cost-effectiveness inputs as reflected in Non-IOU reports.

Residential Energy Management Services

HOME ENERGY EFFICIENCY SURVEY PROGRAM

Program Description

The Statewide Home Energy Efficiency Survey (HEES) program is designed to increase consumer awareness of energy efficiency opportunities, encourage adoption of energy-efficient practices and induce a permanent change in attitudes and actions toward energy-efficient products and services. SCE's comprehensive and multi-lingual program offers mail-in, on-line, in-home and telephone energy surveys to customers with energy efficiency information to help them reduce their energy bills. The surveys are available in multiple languages and promote other energy efficiency products and services such as residential rebates and incentives. HEES also supports the federal government's ENERGY STAR® program by promoting ENERGY STAR® qualified appliances, equipment and lighting products. Marketing and promotion strategies to increase customer participation include: direct mail, e-mail blasts and on-line banner ads, radio, print media and Internet advertising, conduct outreach through local governments, SCE's Energy Efficiency Mobile Education Unit (MEU) and phone center and ethnic and trade associations and community organizations.

MAIL-IN SURVEY
The Mail-In Survey is a paper-based, self-completed questionnaire by the customer. It provides an easy way for the customer to walk around their home and "score" their energy consumption. The survey contains specific questions about the types of appliances and equipment, the customer's usage patterns and the structure of the home. It is completed by the customer and then mailed to SCE for processing. The questionnaire is processed and a customized energy report is mailed to the customer. The report includes computer-generated graphs depicting the customer's annual energy usage and how much various appliances and equipment cost to operate. The energy report also identifies opportunities for specific energy and cost-saving tips, along with estimates of the annual savings that could result if the energy-efficient practices are adopted. Customers also receive educational materials on other energy efficiency programs and services.

The Mail-In Survey is available in English, Spanish, Chinese and Vietnamese.

ON-LINE SURVEY

The On-Line Survey, accessible through www.sce.com, provides customers with 24-hour access to a secured web site that gives instant energy efficiency recommendations based on the responses to the on-line questionnaire. The survey provides a personalized on-line energy report that includes specific energy and cost-saving recommendations and information on available rebates and incentives to encourage adoption of energy efficiency measures identified through the survey.

Customers may choose the 5- or 15-minute version surveys. The Energy 15 Survey provides more detailed and highly customized reports, and requires the customer's service account number. The Energy 5, "fast track" survey, allows customers to receive personalized energy-saving information within five minutes without the use of their account number.

Web postings of the On-Line Survey are available in English, Spanish and Chinese on SCE's web site.

IH-HOME SURVEY

The In-Home Survey program provides residential customers who do not respond to the on-line or mail-in survey options, with a more personalized, face-to-face energy survey. The In-Home Survey has the advantage of being able to respond to the needs of certain HTR customer groups by providing an alternative delivery channel.

Upon the customer's request, an appointment is scheduled, and a trained energy auditor is sent to the customer's home to assess energy usage and to provide energy-saving recommendations. Energy auditors are bilingual and can conduct in-home surveys in Spanish, if requested.

Customers are provided with information on energy efficiency products and services, rebate programs and other energy-related information to encourage the adoption of energy efficiency measures identified in the in-home survey.

TELEPHONE SURVEY

Telephone Energy Surveys are offered to customers who do not have time to participate in an In-Home Survey. The trained energy representative conducts the survey over the phone and provides the customer with energy saving recommendations. The results of the survey, along with program literature and referrals to other energy efficiency programs and services, are mailed to the customer.

2004 Results and Achievements

MAIL-IN SURVEY

In 2004, 16,336 Mail-In Surveys were completed. Of these surveys, 1,423 were completed in Spanish and 2,134 were completed in Chinese. The program also mailed 139,518 solicitation survey packages directed at hard-to-reach (HTR) customers, including 10,000 Spanish and 9,150 Chinese language packages.

SCE also developed the Vietnamese surveys and mailed 6,132 packages in December 2004.

ON-LINE SURVEY

In 2004, 10,245 On-Line Surveys were completed. SCE continued its successful "Starbucks" on-line marketing campaign in the second quarter of 2004 to increase customer participation. The campaign offered customers a complimentary $5 "Starbucks" card for the completion of an On-Line Survey. The on-line marketing campaign included about 221,000 e-mail blasts and 8.5 million on-line banners on nine local and regional web sites.

During the fourth quarter, SCE developed and launched the new statewide Chinese On-Line Survey. The launch included a Chinese "fast track" survey component for quick results. With the addition of this new interactive Chinese survey, the program expanded its HTR outreach efforts to include a larger segment of California's diverse population. With the launch of the Chinese On-Line Survey, SCE enhanced its marketing campaign by advertising in two Chinese print and three Chinese radio media, and posting Chinese banner ads on World Journal's regional web site.

SCE continues to work side-by-side with a local community-based organization to promote the survey programs to the Chinese communities. SCE's outreach efforts resulted in 500 completed surveys in Chinese.

IN-HOME SURVEY

SCE achieved a total of 4,757 in-home and telephone surveys, 3,803 of which were performed in HTR customer segments.

SCE continued to promote equity and remove market barriers by enhancing access to energy efficiency programs to Spanish-speaking customers.

Starting second quarter of 2004, SCE coordinated efforts with Southern California Gas Company to conduct in-home surveys for both electric and gas customers. This joint effort resulted in 777 surveys conducted in 2004.

Residential Energy Efficiency Incentives

SINGLE FAMILY ENERGY EFFICIENCY REBATES PROGRAM

The Single Family Energy Efficiency Rebates (SFEER) program is a statewide program which provides rebates on various home improvement products, heating and cooling equipment, appliances and residential pool equipment.

Rebates were offered for the following energy-efficient equipment:
- Energy Efficient Ducted Evaporative Coolers
- ENERGY STAR® Qualified Programmable Thermostats
- Energy-Efficient Central Air Conditioners
- Energy-Efficient Central Heat Pumps
- High-Performance Low E Dual-Pane Windows
- ENERGY STAR® Qualified Room Air Conditioners
- ENERGY STAR® Qualified Refrigerators
- Whole House Fans
- Pool Pump and Motor Systems
- Electric Water Heaters

This program also includes customer information and education for residential customers, manufacturers, retailers, and distributors.

The statewide Residential Lighting program also operates under the umbrella of the Single-Family Energy Efficiency Rebate Program. The lighting program covers all residential lighting measures. It provides a point-of-sale (POS) discount to customers who purchase qualifying fluorescent ENERGY STAR® lighting products at retail outlets. The program has crosscutting attributes in that some lighting products go to non-residential facilities by virtue of the open market nature of the retail outlet approach.

Customers receive the discounts either through the program's manufacturer component, or its retailer component. In the manufacturer component, SCE provides manufacturers with incentive allocations, which allow manufacturers to pass wholesale buy-down discounts on to the retailers, who pass discounts on to customers for these products. SCE later reimburses manufacturers for the discounts they provided. More retail channels can be developed and opened with this approach because the manufacturers' reach is much longer than other market actors such as retailers.

In the retailer component, SCE provides incentive allocations and subsequent reimbursements directly to large statewide big-box retail chains instead of the manufacturers. The retailer component is for energy-efficient lighting products not bearing the manufacturer buy-down discount. Incentive discounts in this retailer component are provided in the same amounts as in the manufacturer component. The retailer has the option of using either the retailer or manufacturer component for a particular product.

Through SCE's efforts with lighting manufacturers and retailers to buy down the cost of energy-efficient lighting products, customers received a $1 to $2.50 discount per unit off the purchase price of a compact fluorescent lamp (CFL) and a $5 to $10 discount per unit for hardwired indoor or outdoor lighting fixture, as well as a $10 discount for torchiere floor lamps. Qualifying products were ENERGY STAR® labeled. All products were sold in stores catering to SCE residential customers.

The 14 manufacturers who participated in the Upstream Residential Lighting program were: American Top Lighting, Buffalo Lite, Dura Lamp, Far Lighting USA, Feit Electric Company, Greenlite Corporation, Lights of America, LightWave PDL Inc., Maxlite, Sunpark Electronics Corp., Sunrise Lighting, Inc., Surya Roshni, Inc., Technical Consumer Products Inc., and USPAR Enterprises Inc.

Two statewide retailers, Costco and Lowe's, participated in the retailer component. Others including Sam's Club, Wal-mart, Orchard Supply, and Home Depot preferred to participate in the manufacturer component. Lowe's took part in the retailer component for fixtures, and the manufacturer component for screw-in CFLs.

2004 Results and Achievements

In 2004, the SFEER program encouraged residential customers to purchase and install over 26,500 ENERGY STAR® qualified programmable thermostats; 35,000 ENERGY STAR® qualified refrigerators, 5,900 pool pumps and motor systems; 4,000 whole house fans; and 11,000 ENERGY STAR® qualified central air conditioners among many other products. The Upstream Lighting element resulted in the sale of 5,169,716 energy-saving lighting products through 114 retailers or chains. SCE also continued its successful point-of-sale (POS) programmable thermostat rebate in coordination with three major retailers. Overall, the program achieved 367,611 MWh of net annualized energy savings and net demand reduction of 73.48 MW.

As a result of high customer demand, SCE achieved full subscription for the program and succeeded in having additional funding authorized to keep the program open throughout 2004.

CUSTOMER INFORMATION AND EDUCATION

Because of the success experienced in 2003, SCE continued a series of targeted mailings and bill inserts to customers to encourage the purchase and installation of qualifying products, in particular programmable thermostats, pool pump and motor systems, electric water heaters and whole house fans.

Nearly 41% of the program applications received and paid were from HTR customers. This surpasses the goal of 34%.

Energy efficiency information was also disseminated to customers through SCE's MEU. The MEU is a 45-foot converted recreational vehicle equipped with energy-efficient household products and computerized educational tools designed to increase consumer awareness of the benefits of energy efficiency and promote SCE's rebate and incentive programs. Throughout 2004, the MEU was employed at numerous community events and home shows area.

In the Upstream Lighting element, SCE was assigned goals to expend at least 15% of the PGC-funded incentives to retailers in geographic HTR areas and 10% of the incentives to food and drug stores. By year-end 2004, $526,543 or 36% of the total incentives was paid to retailers in geographic HTR areas and $436,446 or 30% was paid to grocery or drug retailers. SCE also took part in ethnic outreach events to reach customers for whom English is a second language.

MARKETING AND OUTREACH

The use of a one-page rebate application/brochure and point-of-purchase displays was continued for the pool pump and motor measures. These items were distributed to approximately 250 pool retailers in SCE's service area. Point-of-purchase materials promoting the electric water heater and whole house fan were printed and distributed to major home improvement centers in SCE's service area.

SCE also printed the rebate application and program brochure in Spanish and Chinese and worked with community-based organizations to distribute the materials to HTR customer groups.

Primary marketing was completed through email and phoned announcements of the various promotions as a statewide team. Secondary mass marketing was completed by means of multi-program brochures and materials, the www.sce.com website, and bill inserts.

In September 2004, SCE sent a bill insert to all 4.3 million residential SCE customers promoting ENERGY STAR® Lighting. Manufacturers and retailers used in-store promotional materials, newspaper, radio, and circular advertising to attract customers to buy program-discounted lighting products.

INDUSTRY INVOLVEMENT

SCE continued support and participation in the Program for the Evaluation and Analysis of Residential Lighting (PEARL) which tests residential lighting products available from retailers.

Support was provided to changes in the specification for ENERGY STAR®–qualified fluorescent fixtures. These proposed changes will also raise the bar for quality energy efficiency products for California's consumers.

Residential Energy Efficiency Incentives

MULTI-FAMILY ENERGY EFFICIENCY REBATES PROGRAM

Program Description

The goal of the Multifamily Energy Efficiency Rebate program (MFEER) is to stimulate the multifamily market segment to install energy-efficient products. The MFEER program is a statewide program providing a broad list of qualifying energy efficiency measures. Prescribed rebates are available for the installation of qualifying energy-efficient improvements in apartment dwelling units and in the common areas of apartment and condominium complexes, and common areas of mobile home parks. Property owners and property managers of existing residential multifamily complexes with five or more dwelling units may qualify. The program is uniform throughout all the investor-owned utilities' service areas, with consistent terms, requirements and implementation characteristics, including rebate levels and application procedures.

The following energy-efficient products are eligible for rebates:

- ENERGY STAR® Labeled Compact Fluorescent Lights (CFLs) (both interior and exterior)
- ENERGY STAR® Labeled Reflector CFLs (both interior and exterior)
- ENERGY STAR® Labeled Programmable Thermostats
- ENERGY STAR® Labeled Ceiling Fans with Energy Star® CFLs
- ENERGY STAR® Labeled Interior Hardwired Fluorescent Fixtures
- ENERGY STAR® Labeled Exterior Hardwired Fluorescent Fixtures
- Energy Efficient Electric Water Heaters
- High Performance Low E Dual-Pane Windows
- Insulation (electric resistance heating required)
- Low-Flow Showerheads (electric water heating required)
- Low-Flow Faucet Aerators (electric water heating required)
- ENERGY STAR® Labeled Exit Signs
- Occupancy Sensors
- Photocells
- ENERGY STAR® Labeled Room Air Conditioners
- Energy Efficient Package Terminal Air Conditioners and Heat Pumps
- Energy Efficient Central Air Conditioners
- Energy Efficient Central Heat Pumps
- Pool Pump and Single or Two-Speed High Efficiency Motor

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

2004 Results and Achievements

A total of 470 multifamily complexes received direct incentives through the MFEER program representing approximately 21,850 MWh in annualized energy savings and a demand reduction of approximately 3.07 MW. Program highlights include the purchase and installation of approximately 152,400 CFLs and 64,500 hardwired fluorescent fixtures. Halogen torchieres exchange outreach resulted in roughly 4,000 halogen torchieres exchanged for energy-saving fluorescent torchieres.

In early October, SCE developed and mailed over 24,000 postcards to its multifamily service accounts promoting CFL rebates. Roughly 78% of the customers who responded to this mailing completed a rebate application; up significantly from 25% the previous year.

To strengthen the program's prominence among industry actors and participants, the investor-owned utilities (IOUs) developed a full-page advertisement in the "Multifamily Trends" magazine that was distributed at the Urban Land Institute's Fall Conference.

SCE expanded MFEER program exposure through monthly print advertisements in four regional trade association journals. As a result, the program received higher response rates from customers involved in these trade associations.

By third quarter, the program reached near full subscription. As a result, SCE sought authorization to increase the program's incentive budget to extend the program offering through the end of 2004. Under the current guidelines, SCE shifted $200,000 from unspent 2004 MFEER administrative and marketing funds to incentives to help meet market demand.

Through successful marketing efforts, SCE achieved a 55% penetration rate of HTR customers, a 50% increase over the annual goal of 36%. This marks the third consecutive year the program has significantly surpassed its HTR goal.

SCE's MFEER program provides a unique service exclusively to apartment tenants, that being the exchange of high consumption and potentially dangerous halogen torchieres for safer, energy efficiency fluorescent torchieres. This is achieved through direct outreach conducted by community-based organizations

leveraging existing relationships and outreach efforts for an effective, cost savings approach.

Residential Energy Efficiency Incentives

RESIDENTIAL APPLIANCE RECYCLING PROGRAM (RARP)

Program Description

The Residential Appliance Recycling Program (RARP) is a statewide program designed to reduce energy usage by allowing eligible residential customers (single family and multifamily owners / landlords and tenants) to dispose of their working, inefficient primary and secondary refrigerators and freezers in an environmentally safe manner. Two units, refrigerators or freezers, may be recycled per customer service location per program year. Participation is on a first-come, first serve basis. A recycling incentive of $35 is offered to customers who turn in working units between 14-27 cubic feet and, beginning July 1, 2004, the units must be manufactured prior to 1990.

Program guidelines require the following:

- Participant must be an SCE residential customer;
- Refrigerator / Freezer must be in working condition (cooling);
- Appliance size must be between 14 and 27 cubic feet; and
- Appliance must be manufactured prior to 1990, effective July 1, 2004.

2004 Results and Achievements

In SCE's service area, 51,251 refrigerators and freezers were picked up and recycled producing a total net annualized energy savings of 36,123 MWh and a net demand reduction of 6.21 MW.

Nearly 52% of the units collected come from HTR geographic areas defined as rural, moderate income or multifamily.

Marketing and Outreach

SCE launched an aggressive and comprehensive marketing campaign targeting all residential customers. Activities included: bill inserts, bill messages, radio ads (including Spanish-speaking stations), newspaper inserts, trade magazine ads, cinema ads (15-second spots at Movie Theater screens) and e-mail blasts (messages). In addition, new POS materials were developed and placed in approximately 130 refrigerator / freezer areas of appliance retail stores. Also, new advertising panels were created and installed on all recycling trucks to serve as

mobile program bill boards. Outreach efforts included an “island pickup” to service all SCE customers on Catalina Island.

Table 2.1
2005 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
RESIDENTIAL PROGRAM AREA

	2004 Budget	[1,2]	2004 Recorded	[1,2,3]
Information	$ -		$ -	
EMS	1,500,000		1,367,910	
EEI				
SPCs (RCP)	-		-	
Rebates	37,025,227		36,422,523	
Loans	-		-	
Other	-		-	
Upstream Programs				
Information	-		-	
Financial Assistance	-		-	
Residential Total	$ 38,525,227		$ 37,790,434	

[1] Includes both PGC and Procurement funded programs.
[2] Excludes Shareholder Incentives and Other Costs, as shown in Table TA 2.1.
[3] All Recorded amounts include payments in 2004 and amounts committed to projects in 2004.
Committed amounts may not be fully realized.

Table 2.2
2005 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY PROGRAM EFFECTS: ELECTRIC
RESIDENTIAL PROGRAM AREA

	2004 First Year Net Annualized Capacity Savings (MW)	[1,2,3]	2004 First Year Net Annualized Energy Savings (kWh)	[1,2,3]	2004 Net Lifecycle Energy Savings (kWh)	[1,2,3]
Information	-		-		-	
EMS	-		-		-	
EEI						
SPCs (RCP)	-		-		-	
Rebates	82.76		425,584,120		3,830,257,082	
Loans	-		-		-	
Other	-		-		-	
Upstream Programs						
Information	-		-		-	
Financial Assistance	-		-		-	
Residential Total	82.76		425,584,120		3,830,257,082	

[1] Includes both PGC and Procurement funded programs.
[2] Net Savings reflect Commission-adopted net-to-gross ratios.
[3] Includes savings from projects both installed in 2004 and committed to projects in 2004.
Committed amounts may not be fully realized.

Table 2.3
2005 Energy Efficiency Annual Report
SUMMARY OF COST-EFFECTIVENESS: ELECTRIC
(Benefit-Cost Ratios)
RESIDENTIAL PROGRAM AREA

	2004 Program Administrator Cost Test	[1,2]	2004 Total Resource Cost Test	[1,2]	2004 Levelized Cost (cents/kWh)	[1,2]
Information	-		-		-	
EMS	-		-		-	
EEI						
SPCs (RCP)	-		-		-	
Rebates	6.08		4.18		1.89	
Loans	-		-		-	
Other	-		-		-	
Upstream Programs						
Information	-		-		-	
Financial Assistance	-		-		-	
Residential Total	5.85		4.07		1.94	

[1] Includes both PGC and Procurement funded programs.
[2] Includes costs depicted in Table TA 2.1 -
Program Cost Estimates Used for Cost-Effectiveness - Residential Program Area.

Table 2.4
2005 Energy Efficiency Annual Report
SUMMARY OF COST-EFFECTIVENESS: ELECTRIC
RESIDENTIAL PROGRAM AREA
(Net Benefits)

		2004 TRC	[1]
Information	$	-	
EMS		(1,438,794)	
EEI			
SPCs (RCP)		-	
Rebates		170,467,285	
Loans		-	
Other		-	
Upstream Programs			
Information		-	
Financial Assistance		-	
Residential Total	$	169,028,491	

[1] Includes both PGC and Procurement funded programs.

Nonresidential Information

BUILDING OPERATOR CERTIFICATION PROGRAM

Program Description

The Building Operator Certification (BOC) Program is a statewide training and certification program that seeks to establish and support a professional credential for operators of medium and large commercial buildings (including governmental and institutional buildings and complexes). Certified operators receive the training and background to identify and implement energy savings opportunities as an integral part of their operations and maintenance activities. The BOC Level I training course consists of eight days of training classes offered once per month over a seven-month period, and the BOC Level II training course consists of seven days of training classes offered over a five-month period.

2004 Results and Achievements

In 2004, the BOC program was required to conduct 5 Level I courses with 100 students and one Level II course with 15 students. The target was met with 107 students enrolled in five Level I classes and 19 students enrolled in one Level II course. SCE's course locations were placed throughout Southern California and within areas that have high concentrations of commercial buildings to make it easier for building operators to attend. SCE also leveraged the use of its Energy Center to deliver one of the informational meetings used to interest prospective students. The program relied on direct outreach to recruit students such as using SCE's customer account representatives and Energy Center visitor mailing lists to contact prospective students regarding the program.

SCE, in coordination with other California investor-owned utilities, planned and conducted a Level II training course that proved successful in practice. The purpose of the Level II course is to emphasize equipment troubleshooting and maintenance. As a result of this coordinated program enhancement process, the Level II course curriculum in 2004 consisted of Preventive Maintenance and Operations; Advanced Electrical Diagnostics; Heating, Ventilating and Air Conditioning (HVAC) Troubleshooting and Maintenance; HVAC Controls and Optimization; Introduction to Building Commissioning; and Electric Motor Management. The topics covered in the Level II course expand on the maintenance and operational practices covered in BOC Level I courses.

Nonresidential Energy Management Services

NONRESIDENTIAL ENERGY AUDITS

Program Description

This statewide information program offers free energy audits to nonresidential customers. The audit assists the customer by providing information on the benefits of installing measures or adopting practices that can reduce the customer's utility bills. The energy audit recommendations are based on the customer's recent billing history and/or customer-specific information regarding equipment and building characteristics. The types of energy audits offered by the program include: on-site, online, mail-in, over-the-phone and CD-Rom audits. Online audits are available in Spanish and English. In addition, on-site audits may be conducted in the following languages: Spanish, Korean, Chinese, Vietnamese, as well as English.

2004 Results and Achievements

By the end of 2004, the program completed 8,246 audits, of which 4,456 audits were classified as hard-to-reach. To achieve these results, the program used a combination of targeted marketing and outreach along with an expansion of the online audit in Spanish to enlarge and enhance the market for SCE's online audit tool.

SCE used various channels to create additional program awareness among the nonresidential customer class. These channels assured the program's overall success and included activities such as the statewide multi-language brochure, direct mailings, informational classes, customer outreach events, e-mail blasts, promotional online giveaways and newsletters.

Nonresidential Energy Management Services

PUMP TEST AND HYDRAULIC SERVICES

Program Description

The Local Pump Test and Hydraulic Services (PTHS) program is intended to influence water agencies, municipalities, agricultural, and other customers with potable pumping applications to adopt maintenance and capital investment practices that will ultimately improve the overall efficiency of their pumping systems. The objective is accomplished through hydraulic test specialists who provide pump efficiency tests that determine overall plant system efficiency, electrical motor performance and pump hydraulics, and water well characteristics.

In addition, SCE delivers activities to this group of customers that were historically known as energy management services. These activities include education and training activities that promote energy efficiency considerations in all aspects of the customer's business. SCE is able to influence the process through strengthening current relationships with agri-businesses, water districts, trade and ethnic associations, vendors, manufacturers, and local and state governments.

2004 Results and Achievements

In 2004, SCE's PTHS program performed quality pump tests on 4,408 pumps. SCE continued its high rate of including "non-participants"[1] at 45%.

Program activity also included distributing approximately 650 direct mail applications to "non-participants" to encourage them to take advantage of the program's services and other services and incentives available through other SCE programs.

In 2004, the program representatives participated in the very successful and well attended World Ag Expo in Tulare, California. The SCE team distributed pump test manuals, compact discs containing a pumping tool to help customers calculate the benefits of maintaining a high operating efficiency of their pumps, and other energy efficiency information.

[1] Non-participant customers are those customers that have not benefited from an SCE pump test in the last three years.

Nonresidential Energy Efficiency Incentives

VESM ADVANTAGE PLUS^2 PROGRAM

Program Description

The purpose of the VeSM Advantage Plus^2 Program (VeSM) is to: (1) develop and implement innovative energy efficiency program tailored to meet the unique of needs small to large size manufacturers; (2) tap into a new and significant cache of cost-effective energy savings potential by improving the manufacturing system in lieu of purchasing expensive new equipment; (3) help stimulate regional economic growth by improving manufacturing sector productivity and (4) create a linkage with traditional hardware-based energy efficiency incentive programs offered by utilities and non-utilities.

2004 Results and Achievements

The VeSM Program was approved by the CPUC in late 2004. SCE contracted with the California Manufacturing Technology Center (CMTC) as its primary implementation partner. CMTC markets workshops and solicits program participants through existing relationships with LAEDC, Inland Empire and Orange County EDC partners.

At year end, solicitation of potential participants were just getting under way, with two of the 24 participants signed up to receive an extensive assessment of their production processes using the VeSM tool. This method is designed to systematically document all actions (both value added and non-value added) and help customers understand the flow of material and information as a product makes its way through the value stream (Manufacturing process).

The VeSM program achieved a total of 235 MWh of net annualized energy savings and 0.02 MW of net peak load reductions for businesses in SCE's service area.

Nonresidential Energy Efficiency Incentives

SMALL NONRESIDENTIAL HARD-TO-REACH PROGRAM

Program Description

The Small Nonresidential Hard-to-Reach (HTR) program, implemented as the Small Business Energy Connection Program, offers energy efficiency information, equipment, and education to small (<100 kW) and very small (<20 kW) business customers typically located in economically disadvantaged business district areas within SCE's service area. The program introduces small business customers to the benefits of energy efficiency through (mostly) lighting system upgrades which consist of the replacement of low efficiency lighting with high efficiency lighting. While additional measures are offered in the program, such as HVAC, lighting is responsible for most all of the energy savings and demand reduction. An energy audit is performed to determine the potential for energy savings and demand reduction. This is part of the education piece of the program. After discussing the audit results with the customer, the upgrades are provided. Since cost is a major concern for the small business owner, and the largest barrier to participation in the traditional rebate programs, all program services are provided free of charge. A professional prime contractor, hired through a competitive bid process, provides the audits, and installation of the lighting system and other upgrades.

New for the 2004-2005 program years, a community-based organization (CBO) / faith-based organization (FBO) program element and job skills training components were added to the program. One FBO and two CBO organizations were recruited by SCE to provide outreach and education services in conjunction with the prime contractor in the program. The CBO / FBOs provide outreach services in their business district areas of influence. The program will also focus on providing job skills training and trained individuals capable of gaining employment in the open market. SCE's program planners expect successful employment for individuals trained in the program.

2004 Results and Achievements

By the end of 2004, the lengthy request for proposals and contracting processes were completed. The program kickoff is planned for early 2005, after which more than 7,500 very small- and small-business customers (up to 100 kW) are expected to take part in the program.

Nonresidential Energy Efficiency Incentives

UPSTREAM HVAC AND MOTORS REBATES

Program Description

The Upstream HVAC and Motors Rebate Program provides upstream financial incentives to distributors to stock and sell qualifying high efficiency products. This program is targeted toward geographically defined hard-to-reach markets. SCE's customers from the smallest to the largest are eligible to receive the incentives. Packaged air conditioning is used by small commercial customers; motors are used by all customer classes.

Incentives are offered for:

- high efficiency packaged and split system air conditioners,
- heat pumps,
- package chillers, and
- motors.

2004 Results and Achievements

The California investor-owned utilities (IOU) partnered with a third-party consulting firm, Energy Solutions, to be the statewide implementer of the program. Energy Solutions was chosen as the program implementation contractor because of their prior experience in running upstream incentive programs. This arrangement was approved by the CPUC in their decision approving 2004/2005 energy efficiency programs. Each IOU subcontracted with Energy Solutions utilizing a directed purchase order.

Marketing efforts ranged from personal visits to direct-mail postcards sent to participating and non-participating distributors to secure their participation and motivate them to sell premium efficiency air conditioners and motors. Efforts to enroll major HVAC and motor distributors in SCE territory resulted in signing 32 HVAC Distributors and 77 Motors Distributors into the program.

Distributors use Upstream Program rebates to reduce the sales price of premium efficiency equipment, and also use pricing to influence designer/contractor equipment selections. Participants found that Upstream Program rebates help them to win competitive bids for installation of premium efficiency equipment, provide cost reductions to customers, and increase sales volume of premium efficiency equipment.

A Participation Improvement Plan helped identify significant backlogs of qualifying equipment sales and installations for several distributors and allowed the team to work with these participants to submit applications, and identify barriers to participation.

The Upstream HVAC and Motors Rebate Program achieved a total of 11,246 MWh of net annualized energy savings and 4.2 MW of net peak load reductions for businesses in SCE's service area

Nonresidential Energy Efficiency Incentives

EXPRESS EFFICIENCY

Program Description

This statewide Express Efficiency program offers nonresidential prescriptive rebates for specific, proven energy efficiency measures including lighting, HVAC, refrigeration, agricultural, and food service retrofit measures. The program is targeted to small- and medium-sized commercial, industrial, and agricultural customers with monthly demand of less than 500 kW. There is also a focus on hard-to-reach customers that fall within these customer eligibility requirements.

2004 Results and Achievements

The Express Efficiency program achieved a total of 148,647 MWh of net annualized energy savings and 31.9 MW of net peak load reductions for small and medium-sized businesses in SCE's service area.

The statewide Express Efficiency program offered customers higher rebates in 2004. IOU's kept rebate levels constant throughout the year, and did not engage in special offers or "sales." This proved to be a winning strategy for SCE and resulted in a more even distribution of customer participation during the year.

The Express Efficiency program was marketed to SCE nonresidential customers in more than 355,000 direct mail pieces. These included 100,000 direct mail pieces targeted at office and retail, hotel and motel, and restaurant customers. In addition, SCE produced 64,000 brochures that promoted the Express Efficiency program.

The Express Efficiency program was challenged to achieve a HTR participation rate of 40%, meaning that a minimum of 40% of rebates actually paid would go to HTR customers. HTR customers were identified as all very small businesses (i.e., customers on a GS-1 rate) and any small business (i.e., customers on a GS-1 or GS-2 rate) with a service address located in a rural zip code within SCE's service area. Through focused marketing and coordinated outreach, SCE exceeded this aggressive target by achieving a 44% participation rate of HTR customers.

Express Efficiency coordinated its efforts with SCE's Business Solutions Team. They are a diverse group of account executives that generally belong to organizations within the communities in which they work. They have a sense of community needs, know the customers well, and are positioned locally to help the individual members of these business organizations and customer groups to identify energy efficiency opportunities and overcome the market barriers related to the achievement of their full energy efficiency potential. Some examples of Business Solutions Team involvement in HTR community events in 2004 are:

- SCE hosted a small business workshop in partnership with Supervisor Gloria Molina's office, the Los Angeles County Office of Small Business and the East Los Angeles Chamber of Commerce on October 22, 2004 at the CTAC facility in Irwindale. Additional HTR Outreach events include:
    - Latino Business Association Expo
    - High Desert Opportunity
    - ELA Small Business Workshop
    - Rialto Chamber of Commerce Business Expo
    - Joint Utility Foodservice Training
    - High Desert Home & Garden Show
    - California State Association of Counties
    - Energy Conservation & Recycling Fair
    - North American Die Cast Association (NADCA)

Program promotional activities included:

- The statewide team hosted a booth at the West Coast Energy Management Congress in Anaheim, June 16-17, 2004
- SCE hosted a booth at the Western Restaurant and Hospitality Expo in Los Angeles August 28 – 30, 2004

Nonresidential Energy Efficiency Incentives

STANDARD PERFORMANCE CONTRACT (SPC)

Program Description

This statewide program offers incentives to large and medium-size businesses for custom-designed, energy savings retrofits of existing facilities. Small and very small businesses can also participate if their measures do not qualify for the Express Efficiency program. Any nonresidential customer in SCE's service territory is eligible. This includes utility customers who may have opted to purchase electricity or gas from other suppliers. Third party Energy Efficiency Service Providers (EESPs) who sponsor energy efficiency retrofit projects at utility customer facilities are also eligible to participate.

This year, the SPC program pays for either prescriptive or calculated measures. Large commercial customers with a demand over 500 kW are eligible for the same prescriptive measures and defined incentive rates available in the Express Efficiency program. If the customer is installing a customized project that falls outside of the prescriptive list, the incentive is based on the "traditional" calculated approach of kWh saved. Applicants estimate achievable kWh savings and determine the corresponding incentive using the following rates: Lighting measures are paid at $0.05 per kWh saved, Air Conditioning and Refrigeration (AC&R) measures are paid at $.14 per/kWh and all "Other" measures are paid at $.08 per/kWh. Applicants are eligible to receive up to 50% of each measure cost. The maximum incentive per site is $500,000.

2004 Results and Achievements

In 2004, the program achieved over 221,517 MWh in net annualized energy savings and nearly 29.6 MW of net demand reduction. The dollar value of paid and committed incentives attributed to the 2004 SPC program total more than $22.1 million. The 2004 budget doubled from the prior year, and as a result, the program remained open until December 31, 2004. Due to the aggressive outreach strategy SCE employs, demand and participation in SPC remained high throughout the year. The program primarily uses SCE customer account managers to inform customers about the program and help submit applications. Additionally, SCE engineers assist customers with energy savings calculation and take measurements of existing equipment to determine potential energy savings for more complicated projects.

Table 3.1
2005 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
NONRESIDENTIAL PROGRAM AREA

	2004 Budget [1,2]	2004 Recorded [1,2,3]
Information	$ 500,000	$ 171,436
EMS		
Large	-	-
Small/Medium	3,500,000	3,191,258
EEI: Customized Rebates		
Large	470,000	470,000
Small/Medium	-	-
EEI: Prescriptive Rebates		
Large	-	-
Small/Medium	17,467,955	11,522,004
EEI: SPCs		
Large	24,424,198	26,398,159
Small/Medium	-	-
Upstream Programs		
Information	-	-
Financial Assistance	-	-
Nonresidential Total	$ 46,362,153	$ 41,752,857

[1] Includes both PGC and Procurement funded programs.
[2] Excludes Shareholder Incentives and Other Costs, as shown in Table TA 3.1.
[3] All Recorded amounts include payments in 2004 and amounts committed to projects in 2004.
Committed amounts may not be fully realized.

Table 3.2
2005 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY PROGRAM EFFECTS: ELECTRIC
NONRESIDENTIAL PROGRAM AREA

	2004 First Year Net Annualized Capacity Savings (MW)	[1,2,3]	2004 First Year Net Annualized Energy Savings (kWh)	[1,2,3]	2004 Net Lifecycle Energy Savings (kWh)	[1,2,3]
Information	-		-		-	
EMS						
Large	-		-		-	
Small/Medium	-		-		-	
EEI: Customized Rebates						
Large	0.02		235,200		4,704,000	
Small/Medium	-		-		-	
EEI: Prescriptive Rebates						
Large	-		-		-	
Small/Medium	36.14		159,892,809		1,758,820,895	
EEI: SPCs						
Large	29.60		221,517,061		3,101,238,860	
Small/Medium	-		-		-	
Upstream Programs						
Information	-		-		-	
Financial Assistance	-		-		-	
Nonresidential Total	65.76		381,645,070		4,864,763,755	

[1] Includes both PGC and Procurement funded programs.
[2] Net Savings reflect Commission-adopted net-to-gross ratios.
[3] Includes savings from projects both installed in 2004 and committed to projects in 2004.
Committed amounts may not be fully realized.

Table 3.3
2005 Energy Efficiency Annual Report
SUMMARY OF COST-EFFECTIVENESS: ELECTRIC
(Benefit-Cost Ratios)
NONRESIDENTIAL PROGRAM AREA

	2004 Program Administrator Cost Test	[1,2]	2004 Total Resource Cost Test	[1,2]	2004 Levelized Cost (cents/kWh)	[1,2]
Information	-		-		-	
EMS						
Large	-		-		-	
Small/Medium	-		-		-	
EEI: Customized Rebates						
Large	0.42		0.44		19.80	
Small/Medium	-		-		-	
EEI: Prescriptive Rebates						
Large	-		-		-	
Small/Medium	8.01		3.85		2.06	
EEI: SPCs						
Large	5.59		3.16		2.57	
Small/Medium	-		-		-	
Upstream Programs						
Information	-		-		-	
Financial Assistance	-		-		-	
Nonresidential Total	5.74		3.22		2.31	

[1] Includes both PGC and Procurement funded programs.
[2] Includes costs depicted in Table TA 3.1 -
Program Cost Estimates Used for Cost-Effectiveness - Nonresidential Program Area.

Table 3.4
2005 Energy Efficiency Annual Report
SUMMARY OF COST-EFFECTIVENESS: ELECTRIC
NONRESIDENTIAL PROGRAM AREA
(Net Benefits)

		2004 TRC	[1]
Information	$	(198,857)	
EMS			
Large		-	
Small/Medium		(3,336,738)	
EEI: Customized Rebates			
Large		(254,638)	
Small/Medium		-	
EEI: Prescriptive Rebates			
Large			
Small/Medium		69,570,748	
EEI: SPCs			
Large		101,829,092	
Small/Medium		-	
Upstream Programs			
Information		-	
Financial Assistance		-	
Nonresidential Total	$	167,609,606	

[1] Includes both PGC and Procurement funded programs.

Residential New Construction

CALIFORNIA ENERGY STAR® NEW HOMES PROGRAM

Program Description

The California ENERGY STAR® New Homes Program (CESNHP) is a standardized collaboration in which the four investor-owned utilities (IOUs) work together to develop and implement statewide.

CESNHP is designed to encourage single-family and multifamily (including rental apartments, condominiums, and town homes) builders to construct units that reduce energy usage by a minimum of 15 percent from the standard design required by the California Energy Efficiency Standards. The program goals are achieved through a combination of financial incentives, design assistance and education. The 15 percent level has been designated by the Environmental Protection Agency (EPA) as the new ENERGY STAR® homes baseline for California, subsequent to the Title 24 revisions (2001 Standards) brought about in Assembly Bill 970. As a result, buyers of single-family homes and renters in multifamily dwellings enjoy reduced energy bills and superior comfort compared to standard new housing.

This program also offers a multifamily high-rise component for projects that use the 2001 Energy Efficiency Standards for High-Rise Residential Buildings. The EPA's ENERGY STAR® currently does not have a designation for multifamily buildings above three stories. The information gathered as a result of this component is shared with EPA ENERGY STAR®. EPA is interested in the outcome of this program activity for possible future ENERGY STAR® designation of multifamily buildings that are four or more stories.

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

2004 Results and Achievements

During 2004, SCE's California ENERGY STAR® New Homes Program approved more than 7,100 applications for single-family units and over 2,500 multifamily applications. As a result, the program achieved a combined total of 8,430 MWh of net annualized energy savings and 9.1 MW of net peak load reduction.

California ENERGY STAR® New Homes Programs' hard-to-reach (HTR) target requires that, at a minimum, 20 percent of the combined direct implementation funds of both the single-family and multifamily programs be directed to HTR customers. By year's end, the program achieved a combined total of 73%.

AWARDS

For the third consecutive year, SCE and the other three California IOUs were awarded EPA's "Partner of the Year for New Homes" award.

Also for the third consecutive year, they were awarded the ENERGY STAR® Award for "Regional, State and Community Leadership in Energy Efficiency," as well as retaining the "Partner of the Year" designation. The 2004 ENERGY STAR® Awards Ceremony will be held on March 15, 2005 in Washington, D.C.

OUTREACH

SCE promoted the CESNHP as an exhibitor at the 2004 Building Industry Show at the Anaheim Convention Center on November 4th and 5th, 2004. Over 5,000 attendees converged on the exhibition center where over 2,400 exhibitors promoted their products and services.

In addition, SCE maintained booths at the June 15 – 18, 2004 trade show at the Pacific Coast Builders Conference (PCBC) at the Moscone Convention Center in San Francisco. PCBC is the largest regional trade show in the U.S. drawing more than 27,000 attendees to over 600 exhibitors in the industry.

SCE helped raise awareness of the ENERGY STAR® program to potential home buyers by advertising in the Los Angeles Newspaper Group (which includes eight newspapers within the Los Angeles metro area). The advertisements ran through 2004 and promoted ENERGY STAR® subdivisions with homes open or "open soon."

TRAINING

SCE continues to develop and deliver a multifamily Buildings Energy Efficiency Design Training course specifically targeted to multifamily builders; affordable housing developers; architects; energy consultants; heating, ventilating and air conditioning (HVAC) contractors; home energy rating systems raters; mechanical and plumbing engineers; and building department inspectors. In 2004, SCE expanded the training program to include a four-hour design Charrette that provides a "hands on" approach for obtaining and developing the kinds of information needed for cost comparison and performance differences for various energy efficiency options.

TRADE ADVERTISEMENT

In coordination with California's three other investor-owned utilities, SCE supported the 2004 "Flex Your Power" campaign promotion by exhibiting marketing materials and information at the 2004 PCBC in San Francisco and throughout the year in various trade magazines and printed materials.

SCE participated in several local Building Industry Association (BIA) events such as the Inland Empire Chapter's Purchasing Agents Suppliers and Sub-Contractors (PASS) event in Ontario.

In August of 2004, SCE was the corporate sponsor of the BIA's Orange County Chapter PASS event.

SCE provided printed advertisements featuring the California ENERGY STAR® New Homes Program in various builder trade magazines such as Southern California Builder and Developer and Builder Digest of California.

SCE continues to work with graphic designers to create a variety of new point-of-sale (POS) marketing materials that promote the ENERGY STAR® label within the new communities. The items currently include yard signs, flags, vinyl cling window decals, and small table tents.

Nonresidential New Construction

SAVINGS BY DESIGN

Program Description

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

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

2004 Results and Achievements

In 2004, SCE's SBD program achieved 121,086 MWh of net annualized energy savings and 14.2 MW of net peak load reduction. More than 46% of the program's customer incentive monies were allocated to Whole Building Approach projects.

Outreach and marketing activities included the distribution of more than: 2,000 brochures; 100 EDR compact discs; and approximately 2,800 statewide mailings in support of the SBD Energy Efficiency Integration Award Call for Entries.

In addition, tracking reports for the Savings By Design Web site recorded over 915,200 individual inquiries in 2004 and the Energy Design Resources site had over 2 million hits, generated by 79,000 "visits" to the website during this same time period.

In 2004, SBD co-sponsored and/or participated in 27 seminars and workshops throughout the year. These seminars and workshops attracted over 750 attendees, and encompassed a vast array of related subjects such as Title 24 Nonresidential Energy Efficiency Standards, eQUEST Training, Cool Roofs, Demystifying the Whole Building Approach, and Integrated School Building Design. In 2004, SBD under its EDR offering, developed a well-received workshop titled, "Maximizing EE toward LEED Certification".

SBD also sponsored an energy efficiency conference for the Los Angeles Community College District design teams and project staff. The conference featured William McDonough, an internationally recognized leader in sustainable design, as the keynote speaker.

The Statewide SBD team was presented with the American Institute of Architects, California Council (AIACC) Presidential Citation award for its outstanding service to the design community at large for their efforts on behalf of, or relating to, the built environment.

In addition the following conferences were attended by SBD program representatives to promote the SBD and EDR programs:

- AHR Expo at the Anaheim Convention Center
- American Institute of Architects, California Council's Desert Practices Conference,
- "Building Confidence: From Sustainable Policy to Practice", held at the UC Santa Barbara campus. SBD also sponsored student attendees to educate the next generation of designers.
- "Sustainability/Energy Efficiency Conference," to support design teams working with the Los Angeles Community Colleges District (LACCD) and LACCD's staff in conjunction with Southern California Gas Company's Saving By Design program.

Table 4.1
2005 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
NEW CONSTRUCTION PROGRAM AREA

	2004 Budget	[1,2]	2004 Recorded	[1,2,3]
Residential	$ 6,969,673		$ 6,841,783	
Nonresidential	12,151,843		12,103,989	
New Construction Total	$ 19,121,515		$ 18,945,772	

[1] Includes both PGC and Procurement funded programs.
[2] Excludes Shareholder Incentives and Other Costs, as shown in Table TA 4.1.
[3] All Recorded amounts include payments in 2004 and amounts committed to projects in 2004.
Committed amounts may not be fully realized.

Table 4.2
2005 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY PROGRAM EFFECTS: ELECTRIC
NEW CONSTRUCTION PROGRAM AREA

	2004 First Year Net Annualized Capacity Savings (MW) [1,2,3]	2004 First Year Net Annualized Energy Savings (kWh) [1,2,3]	2004 Lifecycle Energy Savings (kWh) [1,2,3]
Residential	9.10	8,430,470	151,748,453
Nonresidential	14.21	121,085,582	2,179,540,484
New Construction Total	23.30	129,516,052	2,331,288,937

[1] Includes both PGC and Procurement funded programs.
[2] Net Savings reflect Commission-adopted net-to-gross ratios.
[3] Includes savings from projects both installed in 2004 and committed to projects in 2004. Committed amounts may not be fully realized.

Table 4.3
2005 Energy Efficiency Annual Report
SUMMARY OF COST-EFFECTIVENESS: ELECTRIC
(Benefit-Cost Ratios)
NEW CONSTRUCTION PROGRAM AREA

	2004 Program Administrator Cost Test	[1,2]	2004 Total Resource Cost Test	[1,2]	2004 Levelized Cost (cents/kWh)	[1,2]
Residential	0.94		0.96		8.80	
Nonresidential	7.79		2.82		3.01	
New Construction Total	5.30		2.51		3.39	

[1] Includes both PGC and Procurement funded programs.
[2] Includes costs depicted in Table TA 4.1 -
Program Cost Estimates Used for Cost-Effectiveness - New Construction Program Area.

Table 4.4
2005 Energy Efficiency Annual Report
SUMMARY OF COST-EFFECTIVENESS: ELECTRIC
NEW CONSTRUCTION PROGRAM AREA
(Net Benefits)

		2004 TRC	[1]
Residential	$	(246,778)	
Nonresidential		61,800,479	
New Construction Total	$	61,553,701	

[1] Includes both PGC and Procurement funded programs.

Crosscutting Information

ENERGY EFFICIENCY EDUCATION & TRAINING PROGRAM

Program Description

The Statewide Energy Efficiency Education and Training program promotes energy efficiency to end-use customers through a variety of education and services including SCE's Energy Centers, commercial and industrial informational services and the Refrigeration and Thermal Testing Center (RTTC).

ENERGY CENTERS
SCE is home to two distinct Energy Centers. The Customer Technology Application Center (CTAC) and, its companion center, the Agricultural Technology Application Center (AGTAC), share technical expertise and resources to provide customers with a diverse range of educational products and services.

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

Located in the heart of one of the most densely populated areas in Southern California, CTAC is a 44,000 square-foot facility with several distinct product and technology centers including the: Commercial Products Center, Lighting Products Center, Industrial Technology Center, Home Efficiency Center, Daylight Center, Foodservice Technology Center, Wet Cleaning Demonstration Center, EMF & Power Quality Center, and the Refrigeration and Thermal Testing Center. CTAC's 110-seat Executive Conference Center is used for workshops and seminars.

AGTAC offers valuable environmentally friendly, energy efficient and cost-competitive solutions to the agricultural community. This 24,000 square-foot facility on a 10-acre site is a companion to CTAC and is located in the heart of one of the most productive agricultural regions in the world - the San Joaquin Valley. The facility has several distinct product and technology centers including the: Business Resource Center, Exhibit Hall, Lighting Products Center, 200-seat

Learning Center, Office Technologies Center, 5,000 square foot Annex and an Outdoor Demonstration Grounds.

At AGTAC, a 3.5-acre outdoor demonstration area is a microcosm of agricultural crops grown within the Central Valley and displays a variety of working pumps, water conserving irrigation systems, and other efficient technologies for outdoor use in landscape, row crops, vineyards, trees and other farming applications. Inside the Center are permanent and short-term displays on energy efficient technologies including: electric motors, pumping equipment, heating, ventilating and air conditioning (HVAC), lighting, and other innovative products and services.

AGTAC's informational education program and service offerings primarily focus on agricultural customers; however, offerings also are available to industrial, commercial, and residential customers. AGTAC offers farmers, growers, dairymen, food processors, and businesses a large portfolio of programs and services that can help them save money on their energy bills and make more informed decisions about energy use, equipment purchases, and production processes. In addition, a variety of business and community meetings are held at AGTAC. By holding these meetings, AGTAC connects customers to energy efficiency ideas, technologies, and solutions.

Energy Center specialists offer seminars and consultations in the areas of energy efficiency and services, lighting applications, irrigation, air conditioning, pumping, motor technologies and industrial processes. Video-conference technology provides the centers' visitors with the opportunity to take advantage of seminars, lectures, and demonstrations offered globally; and seminars offered at CTAC can be seen at AGTAC without leaving the San Joaquin Valley.

INFORMATIONAL SERVICES

SCE's Informational Services Program delivers vital energy efficiency information to agricultural, commercial and industrial customers of all sizes. The program is designed to produce a permanent change in the way nonresidential customers make decisions about equipment purchases and operational practices. The program's message is delivered by SCE representatives, using a variety of mediums, ensure awareness of energy center workshops, energy efficiency programs, and the cost benefit of energy efficient technologies. The program helps nonresidential customers overcome the information barrier to ultimately make informed decisions regarding energy efficient equipment purchases and operational practices. Through this component of the Statewide Energy Efficiency Education and Training Program new programs and service opportunities are introduced to customers, including other energy efficiency programs such as those offered by the State of California.

REFRIGERATION AND THERMAL TESTING CENTER (RTTC)

The RTTC was established in 1996 and since its inception; this state-of-the-art 4,000 square-foot testing facility has conducted numerous energy efficiency technical evaluation projects. The mission of the RTTC is to promote the application of energy efficient refrigeration and heating, ventilating and air conditioning (HVAC) technologies by performing realistic and impartial laboratory tests. In the absence of comprehensive statewide and national refrigeration energy efficiency standards, the RTTC's services play an instrumental role in quantifying the impact of energy efficient technologies and informing SCE's customers and the industry members. Additionally, information obtained from these projects is leveraged by state and federal agencies to enhance codes & standards activities.

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

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

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

2004 Results and Achievements

CTAC/AGTAC

In 2004, 203 energy efficiency seminars were held by CTAC and AGTAC. Of these energy efficiency seminars, 84 were directed to hard-to-reach customer segments.

CTAC opened its new Refrigeration Demonstration Center (RDC) in August 2004. The 500 square-foot RDC features a number of energy efficiency measures that apply to walk-in and reach-in coolers and freezers.

CTAC developed the New Compressed Air Demonstration / Display featuring a 50-horsepower screw compressor with variable speed drive (VSD), a watt meter and an air flow meter. This demonstration unit supports the Compressed Air Classes and shows how a variable speed drive can save energy during part load operation.

Upgrades were made to the daylighting harvesting system in CTAC's Industrial Technology Center (ITC) by adding remote control shut-offs to the existing skylights. These shut-offs control the amount of light entering the Center which activates the electric lighting system. This enhancement enables customers to view the daylight harvesting system in action.

Several upgrades were made in the CTAC Lighting Lab, These upgrades include:

- A new technology wall, featuring three-sided rotating trilons that showcase incandescent, halogen, low voltage, fluorescent, light emitting diode (LED), dimming controls and new ballast technologies. The wall also includes 12 high-intensity discharge (HID) lamp demonstrations that illustrate lamp operation and color characteristics.
- In the ceiling, 50 new fixtures have replaced outdated fixtures and are equipped with a variety of halogen, incandescent, low voltage and fluorescent lamps.
- A new merchandise / accent lighting room was built to showcase a variety of lighting strategies. A total of 12 different lighting scenes can be demonstrated.
- An applications area has been added that showcases lighting strategies for video-conferencing, Digitally Addressable Lighting Interface (DALI) lighting controls, personal wireless controls, and an assortment of ceiling troffers for retrofit recommendations.
- The two lighting booths in the Lighting Lab were upgraded with the latest fluorescent lamp technologies.

AGTAC exhibit upgrades and construction include the Business Center lighting energy management system and control features; the twin 5-house power variable speed drive display controls, tank and metering; Kiosk information improvements including internal intranet connection connecting all kiosks at AGTAC to a central server enabling activity to be tracked and monitored, with information on current energy rebates, voice response features to AGTAC' s Energy Quiz, a seminar schedule information link and an overall new look; Hi-Bay lighting demonstration area expansion – Phase I included installation of mounting beams for future lighting products and fixtures; a Ground Source Heat Pump Exhibit Phase I / enclosure and mounting areas for related future equipment and system; real-time Santa Monica Office 'Green'

Building information kiosk; Outdoor Demonstration Grounds Low Pressure Exhibit feature including Replogle Flume and ultrasonic flow sensors to measure water flow, viewing pad, automated water flow gate for east canal, and navigation and intro screens added to SCADA Center link; three portable display modules on subjects of lighting technology, heating, ventilating and air conditioning (HVAC), and insulation.

Utilizing capital funds, AGTAC initiated construction of a new state-of-the-art energy efficient 3,200-square foot building to increase space for future exhibits and to promote technologies, such as cool roofing, insulated concrete wall systems and daylighting with controls. The building is expected to be completed in 2005.

Two Agricultural Advisory Board Meetings were held to discuss various agricultural issues, SCE programs and energy efficiency. AGTAC's Power Up Educational Program was held on May 18, 2004 where 67 teams involving 286 participants from local schools gave presentations on energy efficiency, conservation and electrical safety.

AGTAC held 61 educational seminars including the development and implementation of a Low Pressure Exhibit Pumping Class on Supervisory Control and Data Acquisition (SCADA) and initiated use of AGTAC's Technology Trailer conducting two educational presentations at local schools on subjects of energy efficiency and conservation utilizing three portable display units.

INFORMATIONAL SERVICES

The Information Services program delivered energy efficiency information to its nonresidential customers by SCE's Major Accounts Division Representatives.

Energy efficiency contact target: 30,500 Results: 46,593 energy efficiency contacts with energy efficiency message delivered by SCE.

RTTC

In 2004, the following projects were conducted at the RTTC:

- Evaluation of the impact of high ambient temperatures on the performance, energy use and peak electric demand of glass-front beverage vending machines. This project was funded by the Codes and Standards initiative.
- Investigation of the effects of various discharge air velocities on the cooling load and energy use of open vertical display cases.
- Provide numerous tours of the facility for SCE customers.
- Energy efficiency training workshops for SCE customers and SCE account representatives.

Energy efficiency publications in technical journals, and energy related conferences, meetings and workshops:

Conferences:

- Summer 2004 – American Council for an Energy Efficient Economy (ACEEE)
  Informed and educated the audience about the effects of the near-term technologies on energy efficiency of open, vertical, and multi-deck display case, which are thermally vulnerable cases, in supermarket refrigeration. Further discussions included the electric demand impact of high ambient temperatures on standard and high efficiency five-ton roof-top-units. The national audience included academia, engineers, architects, and government entities.
- September 2004 – Food Marketing Institute (FMI)
  The electric demand impacts for standard and high efficiency five-ton roof-top-units under high ambient temperatures were discussed. The national audience included food service and refrigeration industry as well as maintenance personnel.

Meetings:

- January 2004 – American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE)
  The discussion revolved around the effects of the near-term technologies on energy efficiency of open, vertical, and multi-deck display case in supermarket refrigeration. Also, discussed and educated the audience about the impact of high ambient temperatures on performance of refrigerated beverage vending machines. The national audience included academia, engineers, HVAC and refrigeration industry, and maintenance personnel.
- October 2004 – Emerging Technology Summit
  Presented laboratory results demonstrating the effects of energy-efficient emerging technologies applicable to commercial refrigeration.
- November 2004 – Southern California Food Technical Advisory Committee (SCFTAC)
  Informed and educated the audience about energy-efficient food service and supermarket refrigeration. The audience included food service and refrigeration maintenance personnel.
- November 2004 – E-Source Members' Forum
  Presented laboratory results demonstrating the effects of energy efficient technologies applicable to the supermarket segment.

Workshops:

- January 2004 – Department of Energy / Oak Ridge National Lab
  Informed and discussed the effects of the near-term technologies on energy efficiency of open, vertical, and multi-deck display case in supermarket refrigeration.

- March, June, August, October, and November 2004 – Energy Efficient Food Service and Supermarket Refrigeration workshops
  Series of workshops were held to inform and educate the audience about energy-efficient food service and supermarket refrigeration. The participants included food service and supermarket customers as well as members of refrigeration industry.

Crosscutting Energy Efficiency Incentives

INNOVATIVE DESIGNS FOR ENERGY EFFICIENCY ACTIVITIES (IDEEA)

Program Description

The Innovative Designs for Energy Efficiency Activities (IDEEA) Program solicits bids for innovative and cost-effective energy efficiency program proposals across all market and customer segments. Winning bidders receive portions of an $11.1 million allocation to develop and implement their programs.

The program's focus is on different marketing or delivery methods, different market segments, and/or different technologies from those offered in the SCE portfolio. Winning proposals are those that fill possible gaps in the overall portfolio of programs offered by SCE or offer new practices not incorporated in similar programs in the portfolio.

2004 Results and Achievements

After a comprehensive request for proposals process during 2004, on March 4, 2005, SCE selected eight IDEEA programs including: Evaporative Cooling Repair, Upgrades and Innovations for Qualifying SCE Mobile Home Customers Program; 80 Plus - Energy Efficient Desktop Computers and Servers Program; Miniature Cold Cathode Hardware Incentive Program; Agricultural Ventilation Program; Energy Services for Oil Production Program; Los Angeles and San Bernardino Community College District Program; AirCare Plus Program; and the New Technology for Multifamily HVAC Controls Program.

These programs will run through the end of the year with full contract commitments due by December 31, 2005 and completion of related program work, including final invoicing, by June 30, 2006. In 2005, SCE plans to hold a second solicitation to encourage additional proposals for innovative cost effective energy efficiency programs.

Crosscutting Upstream Programs

EMERGING TECHNOLOGIES

Program Description

The Emerging Technologies (ET) program is a statewide information-only program that seeks to accelerate the introduction of energy-efficient technologies, applications, and analytical tools that are not widely adopted in California. The program consists of two parts: Demonstration & Information Transfer activities, and the Emerging Technologies Coordinating Council (ETCC). The Demonstration & Information Transfer portion of the program focuses on near-commercial applications with significant market opportunities, and commercial energy-efficient applications with low market penetration. The ETCC is a statewide information exchange and coordination effort between the investor owned utilities (IOU), and the California Energy Commission's (CEC) Public Interest Energy Research (PIER) program.

The Demonstration & Information Transfer component introduces new energy-efficient applications to the market through ET Application Assessment projects. The assessments may consist of a diversity of project types including: feasibility studies, simulation analyses, field demonstrations, controlled environment tests, commercial product development, design methodologies and tool development. The assessments may take up to four years to complete. Demonstration projects, conducted at either customer sites or in controlled environments, measure, verify, and document the potential energy savings of specific applications in different market segments, helping to reduce the market barriers to their wider acceptance. Information Transfer efforts disseminate project results, and are customized to the targeted markets.

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

2004 Results and Achievements

EMERGING TECHNOLOGY APPLICATION ASSESSMENTS

The Emerging Technology Application Assessments require program staff to remain informed of potential emerging technology applications from a variety of sources including the CEC's PIER program, NASA, E-Source, American Society of HVAC engineers, national laboratories, universities, journals, manufacturers and vendors. ET assessments may take place at either viable customer field sites, i.e., a customer willing to innovate, or they may be pursued through laboratory testing, simulation modeling and studies, in-house demonstrations, or a combination of these approaches. Staff project managers formulate the project plans and work with utility account representatives to negotiate customer agreements, if required. At times, a single customer site may host several assessments if more that one emerging technology application was included in the planned project for the site. Once project results become available, targeted information transfer activities may commence.

Through the four ETCC meetings held throughout the year, several viable emerging technology applications from the PIER program were identified as potential candidates for assessment projects. Additional opportunities were identified through other sources such as manufacturers. By the end of 2004, SCE had committed a total of 12 emerging technology application assessment projects using either customer sites or SCE facilities. The following is a list of the 12 assessment projects underway:

- In coordination with the other utilities' ET programs through the ETCC, SCE initiated the following five assessments to build upon past PIER work on Portable LED Lights, LED Task Lights, LED Exterior Lights, California Kitchen Down-Lights, and Occupancy Sensor Nightlights Wall Switches for Hotels / Motels.
- Customer interest in energy efficiency opportunities for residential market permitted SCE to initiate five ET application assessments considering Advanced Heuristic Thermostat Control system, Variable Speed Control of Swimming Pool Pumps, DSM 2020 Load Displacement System, Residential Economizer Cycle Retrofits, and Wireless Power Meters and Sensors.
- SCE initiated two ET application assessments in industrial and refrigeration markets: Plastic Resin Dryers, and Optical Demand Defrost.

To transfer information to ratepayers in Southern California, Design and Engineering Services collaborated with CTAC and AGTAC in 27 of their seminars. Those seminars included information on the latest technologies that are under development.

EMERGING TECHNOLOGY DATABASE UPDATES

The ET database updates began with a review of the existing ET Database. During the year, both the IOUs and the CEC updated existing records from the previous database and added new technologies, applications, and project information. SCE served as the integrator of each group's datasets. SCE staff worked with the utilities and the CEC to characterize projects in terms of technologies and applications. The commercial readiness of emerging technology applications were identified in the ET Database. Specifically, ET applications were characterized to be in one of the following stages: Basic Research, Applied Research, Development, Commercial Introduction, Commercial Growth, Commercial Maturity, or Commercial Decline. It is important to note that the ET database was not intended as a program and project tracking system, but as a means to follow product readiness, facilitate the exchange of information, and as a comprehensive list of energy efficient emerging technologies originating from a variety of sources.

Crosscutting Upstream Programs

STATEWIDE CODES AND STANDARDS

Program Description

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

The C&S program activities have inherent synergies with other programs, such as the ET program, energy efficiency equipment rebates, and energy audits, through the advocacy of specific energy efficiency measures. The 2004 C&S efforts are conducted within the long-term code upgrade cycles. For example, the California building code cycles are typically three years.

Historically the training activities associated with this program were identified separately as a "Local Program". This is no longer the case but the goal for training remains imbedded in the overall "Statewide" program. The purpose of this information-only activity is to help bring about cost-effective upgrades to the State's energy-related codes and standards that will benefit California as a whole. The CEC has concluded the 2005/2008-revision process for both the Title 24 and Title 20 energy standards. The training component of the Statewide Codes and Standards Program supports the CEC 2005/2008 standard revision process for both California Title 20 and Title 24. For 2004 the goal was to conduct four training sessions. As outlined below SCE achieved this objective for 2004.

2004 Results and Achievements

Throughout 2004, the C&S technical staff participated in statewide team meetings, CEC workshops for the 2005 Title 24 code revision cycle for both the Residential and Nonresidential Building Energy Efficiency Standards, CEC's Existing Building Energy Efficiency Opportunity Study (Assembly Bill 549) report, CEC public workshops for Time Dependent Valuation Life (TDV) Cycle

Costing and Outdoor Lighting Standards. Also, the program's technical staff attended and participated in meetings of organizations that impact California building and appliance standards, including: ASHRAE, Cool Roof Rating Council (CRRC), and the National Fenestration Rating Council (NFRC).

The targets for this program area were established at six new case studies initiated in 2004. SCE exceeded that goal. As part of the process of identifying likely candidates for study, SCE first assembled a long list of potential case study projects for review. Each was presented by the initiator of the study idea to SCE's C&S team for a critical review. Members of the team included supervision, engineers and architects from SCE's Design and Engineering Services technical staff. The member of the technical staff proposing the case study actively promoted the project based on its fundamental benefit to the overall program. As part of the group dynamics, the case study presentation discussions encompassed issues such as the long-term potential for technology adoption through the standards, market size, savings potential and cost. A series of meetings was required to identify the final portfolio of case studies.

For the 2004 program year, the following 9 case studies were initiated and represent SCE's case study portfolio. The duration of each of the studies varies depending upon the nature and complexity of the work, but all will be completed within the required four-year project limit authorized for this program year.

- Closed Front Vending Machine (Phase 2)
- Glass Front Vending Machine (Phase 1)
- Dairy Industrial Guide
- Dairy Farm Energy Efficiency Guide (Part 2)
- Sidelighting Photocontrols Study
- Staged-Volume Testing (Phase 3)
- Streaming Video for eQuest
- Whole Building Energy Tool-Benchmark
- EER/SEER as Performance Predictor

As previously indicated, training has been integrated into the 2004/2005 Statewide C&S Program with a goal of four seminars for 2004. Four seminars were conducted in 2004. The following is a description of each of the four events:

1. **Dairy Farm Workshop at AGTAC (Seminar)/ Dairy Energy Management Seminar**

   A Dairy Energy Management Seminar was conducted on September 29, 2005 in Tulare at SCE's AGTAC facility. Twenty-two people attended the seminar. The seminar drew dairy operators, dairy equipment service providers, researchers, etc. The seminar presented several topics that Design & Engineering Services has worked on recently: dairy energy guidelines, cow cooling and test results of high volume low speed fans in milking barns. Other presentations were on results of long day lighting tests, dairy energy utilization indices, and examples of wasting energy.

2. **Air Compressor System Efficiency**

   A seminar was conducted at SCE's CTAC which focused on methods of reducing energy usage in compressed air distribution systems. The seminar was a direct result of information obtained in a CASE study that investigated compressed air systems.

3. **Super Lighting Seminar**

   The leading edges of interior and exterior lighting, technology, applications and practice, were explored by two well-credentialed speakers of national prestige at SCE's CTAC facility. The targeted audience was lighting designers, engineers, and architects. Interior lighting subjects included a new quick-install, high performance, "plug & play" fluorescent down-light kitchen system, marketing successes / evolution of the Berkeley lamp, beginning studies of skylight diffuser / amplifiers, T12 to T8 / T5 signage energy efficiency, and multiple LED opportunities centering on task lighting. Outdoor lighting applications focused on upcoming Illumination Engineering Society codification of white light (including an update by LSI, a key player in a joint SCE / LSI / Cal Poly project on yellow versus white light) expected to allow a step down in roadway / area lighting power density without loss of visual performance. Promising LED outdoor porch and walkway systems capped the talks.

4. **Impact of time dependent valuation (TDV) on Whole-Building Energy Compliance & Design: An Introduction**

   This training workshop was conducted at CTAC in the Computer Learning Lab. The purpose was to inform engineers, specifiers and other design professionals of the requirements and impact of the latest significant changes to the Title 24 Energy Efficiency standards. Particular attention was focused on impacts on the performance compliance approach using CEC approved compliance tools. A computer tool that

utilizes TDV techniques was highlighted and used to compare the impact on source energy usage. Participants were trained on the use of the tool.

Crosscutting Upstream Programs

LOCAL GOVERNMENT INITIATIVE

Program Description

SCE's Local Government Initiative (LGI) educates and informs community leaders, local government planners, building officials, builders, building owners, small business owners, and consumers about the economic benefits of energy efficiency in the areas of residential and nonresidential new construction, as well as small business, and residential retrofit and surveys.

Through a partnering with local governments and cities, (collectively referred to as Jurisdictions), SCE's LGI facilitates the offering of statewide, local energy efficiency information and education, hardware rebates, and increased energy efficiency opportunities using a variety of intervention strategies. The primary target audiences for this initiative are the various departments/offices within the local governments such as: Building Departments, Community Development/Outreach, Economic Development, and Housing Authorities. The secondary audience and the ultimate benefactors of this initiative include: SCE's small- to medium-business owners, lower-to-moderate income residential customers, existing single and multifamily residential customers, and residential and small commercial builders.

2004 Results and Achievements

The LGI program concentrated on re-enrolling 16 jurisdictions to participate in the 2004 program. The goal was to enroll ten new "Hard To Reach" (HTR) jurisdictions between 2004-2005. The cities of Long Beach, Santa Paula and Gardena have been enrolled and the intention is to get the remaining seven jurisdictions prior to the end of 2005. The requirement is to have at least 30% of the zip codes within a city to be considered HTR. A one-page LGI brochure, luggage tags, and a new re-enrollment form were produced which offers a checklist of what energy efficiency programs and services they would like more information. When the enrollment form is received, SCE sends out a package of the information that they requested.

SCE, along with the Building Industry Institute (BII), embarked upon a far-reaching training component in the 2004 program year. Building Energy Code Training (BECT) sessions were conducted for local building officials and contractors on the 2001 Title 24 requirements that are existing now and how SCE

and the BII can support the cities with compliance methods, inspections and education. A component of this training also included an update of the new 2005 Title 24 standards which will go into effect in October of 2005. SCE will be conducting more training throughout 2005.

Another important outreach event that SCE participated for the first time this year is the California Building Officials organization, CALBO. The event was November 5, 2004 and SCE sponsored a booth and also sponsored a dinner in conjunction with SoCalGas. A presentation of the LGI program was part of the event as such; connections were made for future LGI presentation and training session for 2005.

Table 5.1
2005 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
CROSSCUTTING PROGRAM AREA

	2004 Budget [1,2]	2004 Recorded [1,2,3]
Information	$ 4,804,372	$ 14,280,828
EMS	-	-
EEI		
SPCs	-	-
Rebates	-	-
Loans	-	
Other	6,264,345	6,264,345
Upstream Programs		
Information	3,500,000	3,404,015
Financial Assistance	-	-
Crosscutting Total	$ 14,568,717	$ 23,949,189

[1] Includes both PGC and Procurement funded programs.
[2] Excludes Shareholder Incentives and Other Costs, as shown in Table TA 5.1.
[3] All Recorded amounts include payments in 2004 and amounts committed to projects in 2004. Committed amounts may not be fully realized.

Table 5.2
2005 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY PROGRAM EFFECTS: ELECTRIC
CROSSCUTTING PROGRAM AREA

	2004 First Year Net Annualized Capacity Savings (MW)	[1,2,3]	2004 First Year Net Annualized Energy Savings (kWh)	[1,2,3]	2004 Net Lifecycle Energy Savings (kWh)	[1,2,3]
Information	-		-		-	
EMS	-		-		-	
EEI						
SPCs	-		-		-	
Rebates	-		-		-	
Loans	-		-		-	
Other	-		-		-	
Upstream Programs						
Information	-		-		-	
Financial Assistance	-		-		-	
Crosscutting Total	-		-		-	

[1] Includes both PGC and Procurement funded programs.
[2] Net Savings reflect Commission-adopted net-to-gross ratios.
[3] Includes savings from projects both installed in 2004 and committed to projects in 2004.
Committed amounts may not be fully realized.

Table 5.3
2005 Energy Efficiency Annual Report
SUMMARY OF COST-EFFECTIVENESS: ELECTRIC
(Benefit-Cost Ratios)
CROSSCUTTING PROGRAM AREA

	2004 Program Administrator Cost Test	[1,2]	2004 Total Resource Cost Test	[1,2]	2004 Levelized Cost (cents/kWh)	[1,2]
Information	-		-		-	
EMS	-		-		-	
EEI						
SPCs	-		-		-	
Rebates	-		-		-	
Loans	-		-		-	
Other	-		-		-	
Upstream Programs						
Information	-		-		-	
Financial Assistance	-		-		-	
Crosscutting Total	-		-		-	

[1] Includes both PGC and Procurement funded programs.
[2] Includes all costs depicted in Table TA 5.1 -
Program Cost Estimates Used for Cost-Effectiveness - Crosscutting Program Area.

Table 5.4
2005 Energy Efficiency Annual Report
SUMMARY OF COST-EFFECTIVENESS: ELECTRIC
CROSSCUTTING PROGRAM AREA
(Net Benefits)

		2004 TRC	[1]
Information	$	(14,386,932)	
EMS		-	
EEI			
SPCs		-	
Rebates		-	
Loans		-	
Other		(6,264,345)	
Upstream Programs			
Information		(3,498,148)	
Financial Assistance		-	
Crosscutting Total	$	(24,149,425)	

[1] Includes both PGC and Procurement funded programs.

Market Assessment & Evaluation

Program Description

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

Monthly summary reports on the progress of all program evaluation studies are provided to the Commission as part of the utilities' monthly reports on their energy efficiency programs. In addition, a table of the status of all studies currently under way is periodically posted on the CALMAC website, www.calmac.org.

Beginning in 2002, the Commission mandated two types of energy efficiency programs, statewide and local. EM&V studies for local programs are funded from the individual program budgets. However, work on these studies is summarized here and completed studies are listed in the Annotated Bibliography.

2004 Results and Achievements

The studies that were worked on during 2004 were begun and funded in 2002, 2003, and 2004- 2005. The completed studies can be downloaded from the CALMAC website at www.calmac.org.

SCE, PG&E and SDG&E each manage some of the various statewide Market Assessment and Evaluation studies. These studies can be broken down into two subcategories, Overarching Studies and Utility Statewide Program EM&V Studies, and are described in Section A below. EM&V studies of utility local programs form a third category of utility-managed studies. They are funded from the specific program budgets rather than from MA&E budgets and are described in Section B below.

A. STATEWIDE STUDIES

The utilities filed market assessment and evaluation plans with their 2004-5 program plan filings in September 2003. The CPUC approved a final budget and list of studies for 2004-5 MA&E funding in D.04-02-059 in February 2004, and the utilities filed revised and more detailed study plans on March 17, 2004. The CPUC decided that it would not approve the program plans at that point, but at the point when the selected evaluation consultant for each study provided a detailed research plan. The projects, status, and the lead organization for the statewide MA&E studies authorized for 2004-5 funding are shown in the following tables. Brief descriptions of these studies and of all earlier studies worked on during 2004 follow the tables. Many of the studies that were initiated or completed during 2004 were authorized and funded in earlier program years. The Program Year (PY) designation identifies the funding year.

2004-2005-FUNDED EM&V PROJECT STATUS

Lead	2004-2005 Project	2004 Year-end Status
	OVERARCHING STUDIES	
PG&E	CALMAC Website, Workshops and Meetings	Ongoing
SCE	Evaluation Framework Supplementary Work	Project planning
PG&E	Energy Efficiency Potential Study	Study planning
CEC / SCE	Industrial Energy Use Survey	Study planning
SDG&E	Residential Lighting & Appliance Saturation & Efficiency	Underway
SCE	Database for Energy Efficiency Resources	Underway
PG&E	Best Practices Database	Study planning
SCE	Market Share Tracking Study	Underway
SCE	Nonresidential New Construction Technology Trends	Study planning
CEC	Retrofit Upgrade Opportunities Study	Underway
PG&E	Demand Response / Energy Efficiency Interaction Study	Underway
	EM&V FOR 2004-5 STATEWIDE PROGRAMS	
	Residential Retrofit Programs	
PG&E	Single-Family Rebates and Lighting Programs	Study planning
SDG&E	Multi-Family Rebates Program	Underway
SCE	Home Energy Efficiency Surveys	RFP Issued
SCE	Refrigerator Recycling Program	Study planning
	Nonresidential Retrofit Programs	
SCE	Standard Performance Contracting Program	Study planning
PG&E	Express Efficiency / Upstream Motors & HVAC Programs	Study planning
PG&E	Nonresidential On-Site Audits Program	Study planning
PG&E	Building Operator Certification Program	Study planning

Lead	2004-2005 Project	2004 Year-end Status
	EM&V FOR 2004-5 STATEWIDE PROGRAMS (continued)	
	New Construction Programs	
SCE	Savings By Design Building Efficiency Assessment	Study planning
SCE	Savings By Design Market & Program Tracking	Underway
PG&E	Residential New Construction Program	Underway
	Cross-Cutting Statewide Programs	
SCE	Education & Training Services	Study planning
SCE	Emerging Technologies	Study planning
SCE	Codes & Standards Advocacy	Study planning

OVERARCHING STUDIES

CALMAC Website Maintenance And Workshops

The goal of the 2003, 2004 and 2005 funding for the CALMAC website was to maintain and enhance its current capabilities to supply more valuable information on CALMAC activities and PGC-funded project reports to the industry via the Internet. Project objectives include: (1) keep Web site information current; (2) maintain upload and listserv systems; (3) identify Web site issues and repair software to keep site operational; and (4) identify and implement, as requested by Website Committee, enhancements to the design, structure and operation of the CAMLAC Web site.

PY2003 Master Contract For Coordination

The master contract for coordination is a 2002-funded project that involved monitoring, providing advice, and reviewing all of the EM&V studies of 2002 and 2003 local energy efficiency programs. Only one activity remained to be completed during 2004-5: completion of a summary study, or meta-evaluation, of all the 2002-2003 EM&V studies. During 2004, the project focused on reviewing and summarizing the statewide EM&V studies. A draft report on statewide programs was completed, except for the final step of providing a post-program, study-based cost-effectiveness analysis. This is scheduled to be completed in first quarter 2005. During 2004, the project gathered local program evaluations in preparation for producing a comprehensive report covering both the statewide and local programs. The final study will summarize the evaluation methodologies used, assess strengths and weaknesses, and provide a study-based assessment of program and portfolio cost-effectiveness.

2004-2005 activity in this area is being undertaken through the Energy Division rather than utility contract.

PY2003 Hard-To-Reach Customer Analysis Study
This study, building on the similar 2002 study, assesses the needs of program management for additional information about hard-to-reach customers, then collects and presents this information. By year-end 2004, the study was in the final draft stage.

PY2004-2005 Evaluation Framework Supplementary Work
The start of this project was deferred into 2005 to allow the work to be done to complement the Commission's work on the development of evaluation protocols. The final scope will be determined in consultation with Energy Division staff.

PY2004-2005 Database For Energy Efficiency Resources (DEER)
The 2004-05 enhancements to the DEER are continuation from the first phase of updates that were initiated in 2002/03. The 2004-05 DEER project schedule and content of work accomplished through first quarter of 2005 were dictated by the need to have the new data needed for 2006-08 program planning. By the end of first quarter of 2005, updates to the unit energy savings and cost estimates for non-weather sensitive measures were completed. The updates to weather sensitive measure savings and cost data continue to be made available on a prioritized list basis and are scheduled to be completed in August, 2005. All savings estimates are now being expressed at two levels, if applicable: energy savings when changing from an existing measure to a new high-efficiency measure, and energy savings created by the choice of a new high-efficiency measure versus a standard code compliant efficiency new measure. Similarly, the cost data are available as both the incremental cost and installed cost. Another important aspect of the DEER update has been to build a searchable web-based data for ease of access and use of the DEER. The web accessibility of the data has been completed and once the data is fully updated it can be directly accessed from a designated webpage on the CPUC website.

PY2001 Database For Energy Efficiency Resources (DEER)- Measure Cost Study
In PY2001, the CPUC authorized funds for an update of the portion of DEER that provides the costs of high-efficiency measures promoted by energy efficiency programs and of their standard-efficiency alternatives. These costs are used in cost-effectiveness analysis and in developing appropriate rebate levels for specific efficiency measures. The CEC was to conduct this study. Due to delays in funding approval and the CEC's ultimate loss of ability to direct a contract award without competitive bidding, the CEC was unable to complete the study. The funds reverted to the utilities, and the study was initiated in Fall 2004, under the management of PG&E.

PY2004-2005 Nonresidential New Construction Technology Trends Study
The initial study plan was developed, but further work on this small study was deferred to 2005. The focus of the study is to identify the frequency with which various technologies and systems are being used to meet or exceed Title 24 building standards efficiency requirements. The data it will provide will support 2006 program implementation.

PY2003 Statewide Energy Savings Potential Study
The goal of energy efficiency potential studies is to ensure that policymakers and program planners have up-to-date, state-of-the-art information on the total possible energy savings achievable in California from upgrading buildings, equipment, and processes to the maximum level of cost-effective energy efficiency. Results from these studies enable policymakers and program planners to develop the most cost-effective program portfolios by designing and targeting programs to customer sectors, climate areas, and end uses with the most cost-effective and significant opportunities for achieving energy savings. The 2003-funded work in this area is being completed in two parts, this study and a separate study of the new construction market. The purposes of this study are: 1) to extend existing research on energy efficiency as a cost-effective resource in an integrated portfolio; 2) to prepare action plans highlighting the implications of these studies for program designers and implementers for capturing the forecast savings; 3) to continue enhancement and updating of existing studies in the energy efficiency potential series; and 4) to develop energy efficiency potential estimates for emerging technologies to complement the existing studies, which are focused on the retrofit market. The research combines information from multiple sources to develop its estimate of potential. Key types of secondary data that must be collected include: residential, commercial and industrial sector saturation surveys that document the prevalence of specific energy-using technologies in segments within each sector; current estimates and forecasts of energy use, number, and size of customers by segment and sector; available, cost-effective, more energy-efficient alternatives to the current technologies; new energy-efficient alternatives that are on the verge of commercialization and cost-effectiveness; and the unit energy savings available from each alternative.

PY2003 New Construction Saturation And Potential
The study aims to provide additional information on cost-effective energy savings for the following new construction markets: single family, multifamily low rise, multifamily high rise, commercial and industrial. Project objectives include:

- Determine market potential analysis for a comprehensive list of technologies for all five new construction markets.
- Analyze the interactions of codes and standards with new construction markets

- Determine which technologies have the greatest potential for cost-effective energy savings.

The goal of this potential study is to identify the technologies that can be used to produce energy savings in the various new construction markets and the limit of achievable goals for new construction energy efficiency programs and building code upgrades. The statewide new construction programs are designed to encourage single family, multifamily, commercial and industrial builders to construct buildings that reduce energy usage through a combination of financial incentives, design assistance and education.

PY2004-2005 Industrial Energy Use Survey

This study will gather data from a large sample of industrial electricity and gas customers to develop good estimates of the average patterns of energy use by end use of various industrial market segments. The study is required by Title 20 of the California Code of Regulations. The data are to be provided to the California Energy Commission for use in energy demand forecasting. In addition, the data are used to develop estimates of energy efficiency potential. A study group composed of representatives of the four utilities and the California Energy Commission worked during 2004 to develop the scope and methods to be used for this very large study. The Energy Commission hopes to provide additional funding for the study, beyond that provided in the PY2004-2005 MA&E budget.

PY2004-2005 Statewide Market Share Tracking Study

Market data for total sales of selected equipment and the portion of those that were high-efficiency measures were gathered for the latter half of 2003 and the first half of 2004. The equipment covered includes clothes washers, dishwashers, refrigerators, room air conditioners, central air conditioners, heating equipment, and light bulbs. The following reports analyzing the data and showing the market share trends over time were completed during the year: the California Residential Efficiency Market Share Tracking—Appliances 2002, which tracks the average efficiencies and sales of high-efficiency equipment; the 2003 California Lamp Report, which tracks sales penetration of compact fluorescent lamps (CFLs); and California Residential Efficiency Market Share Tracking—HVAC 2003, which summarizes the average efficiencies and market shares of high-efficiency heating, ventilating, and air conditioning equipment. The 2003 Appliances report was received in early 2005.

PY2003 Best Practices Study for Energy Efficiency Programs

The 2003 Study built upon the 2002 Best Practices Study's planning and analysis efforts. The 2003 Study:

- Expanded the 2002 data collection and documentation of practices and lesson-learned in the residential, nonresidential and new construction program design sectors;
- Expanded the usability of the best practices database that was planned for in the 2002 study. This included the development of the information technology structure to launch the Best-Practices Database and Web page that will be the most useful as a resource and tool for users of the data and information; and
- Explored what was the best tool to develop and disseminate the Best Practices information, e.g., upload a searchable, relational database including the benchmarking results and program profiles that will incorporate case study write-ups, etc.

The Best Practices Website was launched in 2004 at www.eebestpractices.com.

2004-2005 California Statewide Residential Lighting and Appliance Saturation and Efficiency Study

This study will serve as an update to the 1999-2000 California Statewide Residential Lighting and Appliance Saturation and Efficiency Study. The 1999-2000 study was undertaken to collect baseline efficiency data on the saturation of lighting and major appliances in the residential sector in the state of California. Since that study, there's been a tremendous allocation of energy efficiency funding to the residential sector in the form of technology rebates, information programs and advertisement / public awareness campaigns. To assess the success of these efforts and to guide public policy and program planning, this study will be conducted as a follow-up study to the widely used and accepted 1999-2000 study. The 1999-2000 study was conducted previous to California's Energy Crisis. Shortly after the study was complete the state of California was exposed to power outages, utility rate increases, and general consumer uncertainty. As a result of these unpredicted market forces, there was a great emphasis put on energy conservation and energy efficiency through public awareness campaigns and programs. This study will be a key update to the effectiveness of those programs and campaigns that were designed to change consumer purchasing practices (e.g., compact fluorescent versus incandescent) and behavior (e.g., thermostat set points) related to energy conservation.

This study will provide program planners with the data and tools necessary to understand residential appliance saturation by fuel type and efficiency, a level of detail not provided by any other California statewide study. Major household equipment and appliances will be the focus of the study, including heating and

cooling equipment, water heating equipment, refrigerators, freezers, dishwashers, cooking equipment, clothes washers and dryers. The study will also assess saturation of lighting technologies used in the residential sector by gathering data on lamp type and fixture types for each room in the home.

Data collected for the study will be done via on-site surveys for a representative sample of single family and multifamily homes (excluding master metered dwellings). Household demographics similar to the previous study will be collected to enable data summarization by key sub-groups of the population. While a report of the key findings will be prepared at the statewide and IOU service level, a web-based database tool will enable program planners the ability to conduct their own "what-if" analysis on the lighting and appliance efficiency data.

PY2004-5 Retrofit Upgrade Opportunities Study

Assembly Bill 549 directs the California Energy Commission to "investigate options and develop a plan to decrease wasteful peakload energy consumption in existing residential and nonresidential buildings." This investigation and planning effort can also provide valuable information for designing new energy efficiency program approaches. Consequently, the CEC and the utilities proposed and the CPUC approved this study for 2004-2005 MA&E funding. The CEC took the lead on this study, with an advisory committee of utility MA&E representatives. A previous study responding to AB 549 was completed at the CEC's request with Codes and Standards program funding in early 2004. It focused on potential new mandatory mechanisms. This study will build upon the previous one by identifying and examining new market-based opportunities. It seeks to develop comprehensive strategies that integrate market and regulatory approaches. It will do so by exploring key trigger events during the life of a building, such as the sale of a building and repair or replacement of major building equipment, that represent windows of opportunity for making energy efficiency improvements. The first stage of the study was completed in 2004. It provided an annotated bibliography that examined existing and recent energy efficiency programs in California and other states that target the trigger events to identify key lessons learned, program barriers, program gaps, and promising program strategies.

PY2004-5 Demand Response/Energy Efficiency Interaction Study

The American Council for an Energy-Efficient Economy (ACEEE) proposed a multi-sponsor study for which the 2004-2005 MA&E budget has provided a share of the funding. The study aims to examine the experience to date around the nation regarding demand response programs and to discuss how such programs might be best integrated into an effective overall

demand-side resource strategy. During 2004, ACEEE formed an advisory group composed of representatives of the study funders and initiated the study. ACEEE completed the draft report in December and requested review by the advisory group. The final report was completed in early March 2005 and posted on the ACEEE and CALMAC websites.

UTILITY STATEWIDE PROGRAM EM&V STUDIES

PY2003 and PY2004-5 Single-Family Energy Efficiency Rebates Program

The Single Family Home Energy Efficiency Rebates program is a statewide program administered by the four California investor-owned utilities that provides rebates on various home improvement products including windows, insulation, heating, ventilation and cooling equipment, appliances, and residential pool equipment. The 2003 evaluation is building upon the evaluation of the 2002 program and addressing program changes from 2002 that include:

- Changes in rebate levels and program measure mix such as the addition of programmable thermostats instant rebates at the point-of purchase (POP) and residential pool pumps;
- Collecting and tracking ongoing program efforts to improve program delivery during 2003 implementation; and
- Enhancements on longitudinal study given lessons learned from the California Energy Commission's Customer Behavior Study and the Customer Behavior and Attitude component of the 2002 Single-Family Study.

The 2003 Study has the following objectives:

- Assess the program's efforts to provide helpful information, services, financing and prescriptive rebates to help move the market to install energy efficient measures in addition to verifying long-term peak demand and energy savings goals of the program;
- Assess the efficacy of POP instant rebates as a delivery strategy for key program measures;
- Verify achieved levels of energy and peak demand savings; and
- Provide ongoing feedback and corrective guidance regarding program implementation.

Initial planning for the 2004-5 evaluation is completed and an RFP is expected in second quarter 2005.

PY2003 Multi-family Energy Efficiency Rebate Program

The statewide PY2003 Multi-Family Energy Efficient Rebate Program is in its second year and will therefore be able to build upon the evaluation of the PY2002 program. Program changes from 2002 that will be included in the 2003 evaluation include increases and/or decreases in rebate levels and the addition and/or deletion of certain measures. Additionally, the PY2003 Program incorporated a reservation system to assist in the control and systematic distribution of program funding.

The 2003 EM&V Study for the Multi-Family Energy Efficient Rebate Program that will be complete in early 2005 has the following:

- Verification of the number of measures installed in program year 2003
- Verification of the achievements in the Hard-to-Reach markets
- Measurement of customer behavior and response for both the HTR and non-HTR customers
- Analysis of the program efficiency
- Determination of the ex post energy savings for the measures in the program

PY2004-2005 Multi-family Energy Efficiency Rebate Program

The California Statewide Multi-family Rebate Program was launched in 2002 to address the unique needs facing the multi-family sector. This market was served prior to 2002 by the Residential Contractor Program, which typically focused on single-family homes. Thus, the 2002 program was unique in its design tailored to the barriers faced by the multi-family sector, primarily the split-incentive barrier.

The 2004-2005 program is offered statewide in the service territories of PG&E, SCE, SDG&E and SCG. The program promotes energy savings in apartment dwelling units and in the common areas of apartment and condominium complexes and mobile home parks. Property owners (and property managers, as authorized agents for property owners) of existing residential multi-family complexes with five or more dwelling units may qualify for rebates for installing a variety of energy efficiency measures. 2004-5 modifications were designed to increase overall customer participation by removing barriers to energy efficiency product installations.

This study will assess the performance of the 2004-2005 California Statewide Multi-family Rebate Program in terms of accomplished program goals and effectiveness of program processes. Key EM&V objectives include:

- Measurement and verification of energy and peak demand savings through development of ex post savings and verification of measure installations

- Process evaluation to assess overall levels of performance and success of the program processes
- Market assessment of response to program interventions

PY2003 And PY2004-5 Statewide Home Energy Efficiency Survey Program
The Statewide Home Energy Efficiency Survey (HEES) Program involves the use of two energy survey types (mail-in and on-line) to increase homeowner awareness of energy efficiency opportunities in order to achieve energy and cost savings. Limited customer information pertaining to the on-line survey has been collected in past evaluations. In contrast, previous evaluations have yielded a significant amount of information about the mail-in survey.

Accordingly, this evaluation study entails an assessment of the on-line survey to obtain the necessary customer information needed to evaluate the effectiveness of this survey type, the current formats used to offer the on-line survey, and the resultant implications for evaluability, ease of use, and quality of energy efficiency information provided to customers. The information obtained in this evaluation can then be used in conjunction with information gathered from previous evaluations of the program (particularly the mail-in survey) to provide an assessment of the different options for offering energy efficiency surveys to varied customer groups.

The design for the 2004-2005 study was developed and the Request for Proposals was issued in November 2004, with the contract awarded in January 2005. The final research plan has been reviewed and approved by the CPUC Energy Division staff and their consultants. It will include a rigorous impact evaluation as well as a process evaluation that will focus on recommendations for increasing program effectiveness.

PY2002, 2003 And 2004-2005 Residential Appliance Recycling Program
The evaluation of the 2002 program was completed in February 2004. It developed new estimates of gross and net energy savings for the program and conducted a process evaluation. The impact evaluation work updated estimates of full year energy usage of recycled refrigerator and stand-alone freezer and estimates of free ridership and part-year use – the two components of the net-to-gross (NTG) factor for appliance recycling. This was done using a regression analysis of metered data collected through the Department of Energy (DOE) protocol methodology for unit energy consumption and implementing a rigorous set of NTG questions for program participants and non participants. The study results are summarized in the Annotated Bibliography.

The 2003 statewide appliance recycling program evaluation was able to build upon the evaluation of the 2002 program, and it was completed in December

2004. Its results are also summarized in the Annotated Bibliography. The 2003 evaluation objectives included verification of program goal achievement, estimating the market potential for the program, and estimating the degradation in refrigerator performance. The study also included comparative short-term metering of a small sample of refrigerators and freezers by two methodologies: on site and DOE protocol laboratory conditions. Metering of additional sample is included in the 2004-5 study, and with the combined sample, a comparative analysis will be undertaken in the 2004-05 study.

Studies in California to date have used different metering and modeling methodologies to arrive at savings estimates for the program. Short-term metering of samples of picked-up appliances has been used to measure consumption of the program appliances. Both laboratory metering and on-site metering are intended to mimic "as operated" conditions. While the laboratory metering uses controlled settings as specified by DOE protocols, the on-site metering tries to measure individual, highly varying in-situ operating conditions. Both types of metering methodologies have inherent limitations. Hence, careful and explicit monitoring and simulation protocols are needed.

The 2004-5 study plan was developed during 2004. The dual metering portion of the 2004-5 study was initiated in fall 2004. The remainder of the study will begin in 2005. The 2004-05 study will use the paired data collection series to identify sources of non-comparability between on site and lab metering in order to reduce the uncertainty in validity surrounding the DOE protocol metered data and its use in determining the full year energy usage of a recycled unit. The impact analyses will use this information and apply other adjustment factors such as the net-to gross ratio and part-use factors. The study will do a process evaluation that will focus on the changes in program design and implementation activities from previous years. Specifically, program quality assurance, control and monitoring mechanisms will be evaluated to determine the effectiveness and reliability of the new age and size requirement rules. Finally, market assessment will be conducted to analyze the workings of the secondary market that can inform the design, operation and areas of high potential for the RARP program.

PY2002, PY2003, And PY2004-5 Nonresidential Standard Performance Contract Program

The Nonresidential Standard Performance Contract (SPC) program offers rebates for large energy efficiency retrofit projects. Rebate payments are based on estimated energy savings achieved, with different rebate levels for savings from different energy end uses. Projects may be proposed either by energy efficiency services providers or customers. The studies of this program verify what energy savings were achieved. They also provide process evaluations to assess the

efficiency and effectiveness of program operations and procedures and to make recommendations for program improvements.

Both the 2002 and 2003 program evaluations were in progress during 2004. The evaluation of the PY2003 NSPC Program has the following objectives:

- verify the reported energy savings results of the programs, including verification that equipment was installed as reported and a review of the energy savings estimates for a sample of projects and for the program as a whole;
- determine whether the PY2003 program was successfully implemented as designed, and whether program changes have had the desired effects on the operation of and participant satisfaction with the program;
- examine key features of the program for their impact on the program; and
- recommend any needed program modifications to program planners.

The evaluation of the PY2002 NSPC Program has similar objectives, plus it included an investigation of "unsuccessful" SPC projects that were started but never finished. Hardware installations under the PY2002 program were delayed; in some cases, projects were granted extensions of up to a year beyond the program deadline. Consequently, the impact evaluation was delayed for over a year, and it should be completed around the same time as the study of the 2003 SPC program, in 2005.

Initial planning for the 2004-5 program evaluation is completed and an RFP is expected in second quarter 2005.

PY2003 And PY2004-05 Express Efficiency Program

The statewide Express Efficiency program provides financial incentives to small and medium sized nonresidential customers for installing specific proven energy efficiency measures including lighting; heating, ventilation and air conditioning (HVAC); refrigeration; agriculture; gas; LED lighting technology; and motor retrofit measures.

The 2003 evaluation contrasts participation rates with those of 2002 to analyze the restrictive impact of the aggregation rule on customer participation. This rule excluded customers whose aggregated demand across all of their accounts exceeded 500 kW. The rule was redefined for 2003. The 2003 evaluation will also analyze customer adoption of new program measures and their energy savings estimates.

The study includes 1) analysis of 2003 program accomplishments; 2) review of energy and demand savings estimates; 3) comparisons between program characteristics in 2002 versus 2003 that may result in differences in effectiveness

of program design, delivery and implementation; 4) an assessment of program targeting and customer satisfaction with special emphasis on statewide coordination and HTR outreach; 5) an analysis of incentive levels and options; and 6) sample on-site verifications of installed measures.

The 2004-5 evaluation will include 1) verification of program accomplishments, including on-site verification on a sampling basis; 2) review of energy and demand savings estimates; 3) ex post impact analysis for measures determined to need updated energy and demand savings estimates; 4) process evaluation, including an assessment of program targeting, customer satisfaction, and differences in participation rates from earlier years; and 4) an analysis of incentive levels and options. The study will review the reporting of energy and demand savings to ensure that Program accomplishments are being reported properly. An assessment of the verification and inspection process will be undertaken to ensure sampling validity and overall appropriateness of the approach of the Study. The RFP for this study will be issued in 2005.

PY2003 and PY2004-2005 Nonresidential Energy Audits Program
The Nonresidential Energy Audits Program offers five distinct audit options to customers (telephone, mail-in, CD, Web-based and on-site).

In 2004, the utilities' EM&V efforts for the statewide nonresidential energy audits program expanded upon earlier efforts to evaluate the effectiveness of program implementation and also focused on estimating energy savings for the 2003 program. The evaluation used results and lessons learned in 2002 evaluations to inform study designs and work plans for the 2003 efforts.

Audits are an information program that can move customers to take energy efficiency actions. However, it may take some time before customers take action. Given the waning impact of the energy crisis of 2000-2001, the utilities wants to continue to examine the ongoing impact audits have over time on customers' behaviors, attitudes and adoption of energy efficiency measures. Therefore, the utilities will conduct surveys for both 2003 audit participants and past participants, to determine how and when audits result in customer adoption of energy efficiency, and better determine the frequency necessary for auditing customer facilities, as well as gathering data from similar nonparticipating customers to contrast the adoption of energy efficiency between the two groups. Identifying these actions and how customers tap into other energy efficiency programs allows for continuous enhancement of integration among programs.

The 2004 EM&V Study for the Statewide Nonresidential Energy Audits Program will have the following objectives:

- Document energy efficiency actions taken by audit program participants over time compared to actions taken by non-participants;
- Document participant satisfaction with the various audit options and marketing strategies;
- Assess current and pilot delivery vehicles and marketing mechanisms to ensure ongoing improvement of program delivery; and
- Estimate energy and/or peak load savings accruing from participation in the audit program over time.

The 2004-5 study design has been developed and the RFP should be issued in early 2005.

PY2003 and PY2004-5 Building Operator Certification and Training Program
In 2004, the 2003 program evaluation will be completed. The building operator certification and training program educates operators of large and medium commercial buildings, including public buildings. The training includes equipment operations, the latest methods of building operation and maintenance and how to incorporate energy efficiency opportunities. Participants complete the course curriculum in approximately seven months. Participants who pass the courses are certified. The program is implemented in a uniform statewide fashion.

The 2003 program evaluation has the following objectives:

- Examine participants satisfaction with program process and content of training;
- Gather participant and non-participant recommendations for enhancements to program process and content;
- Understand how to better market the program to non-participants; and
- Document all participant post-program energy efficiency adoption actions.

The 2004/05 study will evaluate current program performance and effectiveness at achieving program objectives as well as provide feedback and guidance that will be used to improve future program design and implementation. It will conduct surveys to document participant and participant employer satisfaction with the Program and barriers to participation experienced by those who did not participate. An optional task would be to document any actions participants take as a result of participation in the Program and to estimate the energy and/or peak load savings achieved as a direct result. An RFP for this study will be issued in second quarter 2005.

PY2003 And PY2004-5 Emerging Technologies Program

The Statewide Emerging Technologies Program (ETP) is an information-only program that seeks to accelerate the introduction of energy efficient technologies, applications, and analytical tools that are not widely adopted in California. The program primarily targets nonresidential customers and is composed of two parts: 1) demonstration and information transfer, and 2) the Emerging Technologies Coordinating Council (ETCC).

The demonstration and information transfer portion of the program focuses on near-commercial and commercial energy-efficient applications with low market penetration. The objective of the demonstration projects, which are conducted either at customer sites or in controlled environments, is to provide design, performance, and verification of novel energy efficient systems, helping to reduce the market barriers to their wider acceptance. The objective of the information transfer efforts, which are customized to targeted markets, is to disseminate project results and information about promoted technologies. A variety of means are used to disseminate results including: detailed project reports, design documentation, professional and industry forums, technical and non-technical publications, trade journals and shows, site visits and tours, internet web pages, workshops, seminars, conferences, and mainstream energy efficiency programs.

The ETCC is a statewide information exchange and coordination effort between Pacific Gas & Electric Company, San Diego Gas and Electric Company, Southern California Edison Company, Southern California Gas Company, and the California Energy Commission's Public Interest Research Program.

Since some program activities are carried out or have impacts that are realized over multiple years, the effective program period is longer than one year, and evaluations must take this extended timeframe into account. The PY2003 evaluation study will verify and assess the effectiveness of different information dissemination efforts that were employed as a result of the recommendations from the PY2002 evaluation and, where possible, conduct a limited number of in-depth interviews with current program participants to investigate the progress of the projects, awareness of promoted technologies amongst the target audience, and assess satisfaction with and obtain feedback regarding the program process. Subsequent evaluations will be able to use these baseline indicators to evaluate market effects resulting from the program by measuring changes in awareness amongst the target audience that result from ETP activities and the adoption and use of promoted technologies.

Initial planning for the 2004-5 evaluation was done, but development of the final scope of work was deferred until the completion of the 2003 evaluation, expected in early 2005.

PY2003 and PY2004-5 Nonresidential New Construction Building Efficiency Assessment (BEA) Study

The 2003 and 2004-5 studies are designed to build on the BEA Studies from PY2000-2002 and will use a similar reporting format. The Statewide BEA is currently in its third round of data collection and reporting. The first round covered Savings By Design program activity from mid-1999 (program roll-out) to 2001. The second study covered 2002, and the current study covers program activity in 2003.

This on-going study quantifies the whole-building and end-use energy savings and efficiencies of both participant and non-participant buildings. Savings By Design program tracking information is available from the utility partners implementing the program. Additional information is collected for a sample of program participants as well as comparable non-participants using on site surveys, and these data are analyzed using DOE-2 simulations. This project also tracks program participant attitudes and responses to the program, including information on program design, the application process, the design assistance services provided by the programs, the timing of program events relative to project events, etc.

The approach to developing these data has been used for evaluating statewide commercial new construction since 1999 and the results can be referenced back to previous data to develop on-going trends. The results provide timely feedback to program managers and policymakers and should facilitate incremental improvements to program process and operations. The results will also identify changes in design practices as a result of program operation.

The 2003 BEA Study will produce gross and net program impacts. The net-to-gross analysis will attempt to estimate the portion of the savings that can be directly credited to the program using a refined self-report analytical approach. The final report is expected in second quarter 2005.

The on-site surveys collect detailed building operation and equipment characteristics used to develop DOE-2 models to estimate energy and demand use and savings. The on-site survey data is entered into the existing BEA building characteristic Access database. The on-site survey data will be used to develop “as-built” DOE-2 simulation models. The results of the DOE-2 simulations will be extracted from the output reports and compiled in the

existing BEA Access database. This database will be published on the CALMAC web site as a resource to program planners and other researchers.

The final report providing analysis of Savings By Design program participants and non-participants whose buildings were completed in 2002, was completed in July 2004.

Work then began on the study of the 2003 program, with completion expected in early 2005.

The initial study plan for the 2004-5 study has been developed. The study advisory group decided that the next step was to complete a white paper on alternative approaches to net-to-gross analysis, to be completed in early 2005. The findings of the white paper would be used in the design of the request for proposals for the evaluation of buildings completed during 2004 and 2005.

PY2003 and PY2004-5 Nonresidential New Construction Market Characterization And Program Activity Tracking (MCPAT) Study

The MCPAT Study is now in its fourth round of data collection and reporting. The first round covered nonresidential new construction (NRNC) market activity in 2000 and 2001, the second covered 2002, the third (completed during 2004) covers 2003 and early 2004, and the study that was initiated in fall 2004 will cover 2004 and 2005. This study gathers F.W. Dodge data on nonresidential new construction projects and Savings by Design program data to monitor patterns in construction and program activity. This on-going project provides bi-annual reports of statewide NRNC market and program activity. Tracking the changing characteristics of the NRNC market over time provides information for refining program design and for assessing program accomplishments. Program and market characteristics, by building type, are reported at the utility level, the county level and the statewide level. This data will be tracked on an on-going basis, and developed into standardized reports to allow for assessment of the NRNC market over time.

The success of the study is important because evaluation of energy efficiency initiatives requires knowledge of baseline market conditions, and changes relative to that specific baseline over time. The value of this activity will increase over time as time-series data accumulates. Continued and consistent tracking of market characteristics and program activity is important for analyzing program penetration and identifying long and short term trends in the NRNC market.

Technical Support for the 2003-2005 Nonresidential New Construction Program Area
As part of its NRNC MA&E Program Area duties, Southern California Edison (SCE) contracts with a consultant to provide technical expertise for the management of NRNC MA&E studies. This work includes RFP development, proposal review, and review of contractor work and deliverables, as well as planning and participation in the statewide NRNC program and MA&E activities. It is necessary for the thoughtful and responsible administration of the MA&E activity.

PY2003-2005 California Energy Star â New Homes Program
In 2004 and 2005, the utilities' evaluation efforts will expand upon the 2003 EM&V effort to evaluate the effectiveness of program implementation and to estimate energy savings for the 2003 program. This study also will evaluate the 2003 program refinements. These refinements include changes in rebate levels and increased design and inspection assistance to multifamily builders.

The California ENERGY STAR® New Homes Program is designed to encourage single-family and multifamily (including rental apartments, condominiums and town homes) builders to construct units that reduce energy usage through a combination of financial incentives, design assistance and education. Due to the long-term nature of new construction, these incentives will be available to participants that meet the Programs' requirements and can be verified by December 2005. The Programs are performance-based and no specific measures or equipment are required for participation or qualification.

The 2003 study will:

- Document energy savings and compare energy savings estimates for the PY 2003 program with the energy savings estimates from the PY 2002 program;
- Determine if there have been any changes in the building characteristics of program participants between the PY 2002 and PY 2003 programs;
- Investigate builders' perceptions of the California Energy Star® New Homes Program;
- Evaluate the effectiveness of program modifications made in PY 2003; and
- Recommend additional program modifications if warranted.

PY2003 and PY2004-5 Education and Training Services Program

The Statewide Education, Training, and Services Program is offered in the service territories of all four utilities. Three of the four utilities-- PG&E, SCE, and SCG--have physical energy centers, while SDG&E offers energy efficiency classes to customers using other facilities and non-utility sites.

The educational and informational efforts of the energy centers (physical and virtual) promote energy efficiency to a broad spectrum of market actors including consumers, midstream actors such as design, engineering, and contract communities, and upstream market actors. The centers also support other Public Goods Charge programs by distributing incentive and financing program promotional materials, and providing field support, seminars, displays, equipment demonstrations, and face-to-face contact with customers in a variety of venues, which include trade-shows and community meetings. The centers collect, transfer, research, evaluate, demonstrate, and showcase energy efficiency concepts, technologies, and products for manufacturers, businesses, researchers, educational institutions, and the general public. The centers are a physical "one-stop-shop" or single-source contact for the customer and other market actors, who thereby gain access to an abundance of energy efficiency resources.

The evaluation studies entail a needs assessment to determine how best the energy centers can improve current services and expand their reach to serve a larger market. Specifically, the PY2003 study is completing a customer segmentation analysis of each energy center's primary target population(s) (e.g., commercial and industrial customers, residential customers, or midstream / upstream market actors), exploring barriers to participation in energy center activities (such as distance and time), and developing recommendations for improving the promotion and targeting of existing services as well as new programs and services that focus on the needs and barriers not currently or effectively addressed by the energy centers.

An assessment of customer (market actor) needs and participation and of barriers to participation in energy center activities will enable program managers and planners to improve program course offerings and services. To the extent that the results of this assessment impact the program's ability to overcome barriers to the adoption and implementation of energy efficient technologies and practices, the evaluation will, ultimately, lead to greater achievement of program objectives and an improvement in future program performance.

To prepare for 2006 program needs, SCE added a small case study project to the 2003 evaluation that will document the energy savings achieved by participants in a small group of SCE Customer Technology Application Center courses. The

full evaluation report and the case study report are expected to be completed in second quarter 2005.

The basic design for the PY2004-5 study was developed in 2004, building on areas already covered by previous evaluations. The design was completed and the Request for Proposals was issued in March 2005.

PY2003 and PY2004-5 Codes and Standards Advocacy Studies

The statewide Codes and Standards Program supports upgrades and enhancements in energy efficiency standards and codes, develops protocols for high-efficiency processes not subject to code, and provides training for code enforcement officials. Codes and Standards Enhancement (CASE) studies for energy efficiency improvements are performed for promising design practices and technologies and are presented to standards and code-setting bodies. The utilities have developed CASE initiatives on various cost effective building and appliance energy efficiency measures. A summary report was completed for each CASE study active during 2003. The utility program goals were for the utilities, collectively, to report on no fewer than 23 CASE studies (new and existing) in 2003.

The 2002 study summarized the efforts at improving energy code enforcement and development at both the state and the local level. The study draws on the utilities' individual program reporting on CASE initiatives and develops a consolidated view of the codes and standards efforts statewide.

The 2003 add-on study objectives were to:

- Verify that the CASE initiatives were completed and delivered into the Title 24 revision process.
- Document the CASE initiative process for future evaluation efforts.
- Recommend benchmarking procedures for future CASE initiative evaluations.

The evaluation of the 2003 program was completed in 2004. Development of the plan for the 2004-5 evaluation is scheduled during the second quarter of 2005.

B. LOCAL PROGRAM EVALUATIONS

These studies are funded as part of the program budgets, but descriptions are given here so that all evaluation activity is summarized in one place. Some of these programs and their studies are funded with Public Goods Charge funds and others with energy procurement funds.

Local Demonstration and Information Transfer Program - 2002 and 2003
Data collection and analysis for the evaluation of the very small 2002 program was largely completed in 2003, with the final report issued in February 2004. It provides an analysis of a high-performance schools training seminar offered through the program. During 2004, the evaluation for the 2003 program was being conducted as a supplement to the evaluation of the statewide 2003 Emerging Technologies Program, since the activities are similar.

Pump Testing and Hydraulic Services Program – 2003 and 2004-5
This study includes verification activities, collection of data to develop energy savings impact estimates, and interviews, customer surveys and analysis for process evaluation. The 2003 program evaluation was completed in 2004. The 2004-5 program evaluation was designed to build on the 2003 activities. Its research plan was developed and submitted to the Energy Division in summer 2004, and study work began after it the plan was approved. The 2004-5 study includes post-improvement pump testing to establish a realization rate for the energy savings predicted for recommendations arising from pump tests.

2003 and 2004-5 Local Government Initiative Program
Data collection activities for the 2003 program evaluation consisted primarily of gathering data from officials of target jurisdictions, supplemented with information from program staff, program advisors, local builders, and local small businesses. Topics addressed included experiences with the program operations and market response, satisfaction levels and drivers of satisfaction, program-specific recommendations, and general recommendations for collaboration between SCE and the jurisdictions on energy efficiency activities. The study was completed in November 2004 and is described in the annotated bibliography.

A Request for Proposals for the evaluation of the 2004-5 program was developed and issued. Innovologie was selected as the winning bidder and approved by the Energy Division. The consultant developed and submitted a research plan that has been approved by Energy Division. The research plan includes verification of program activities and a process evaluation that will report on a variety of program design and operational issues: recruitment of jurisdictions; program organization, marketing, reporting and tracking; and a social network

analysis of relationships among jurisdictions, the utility, and their residents / customers.

2002 and 2003 In-Home Audits Program
While process evaluation and verification activities for the 2002 program were completed earlier, impact analysis could not be completed until April 2004, in order to provide adequate time for 2002 participants to undertake actions prompted by the audit.

The study of the 2003 program is being undertaken as a supplement to the evaluation of the 2003 statewide Home Energy Efficiency Surveys program. It shares the same evaluation goals as that study, which is described in Section A.

In 2004-5, the In-Home Audits Program was merged into the statewide Home Energy Efficiency Surveys program.

2003 and 2004-5 Small Business Hard-to-Reach Direct Install Program
Work on the evaluation of the 2003 program was completed in October 2004, with the publication of the final report that is included in the annotated bibliography. The study included both process and impact analysis.

EcoNorthwest developed the research design for the 2004-5 program study, submitted it to the Energy Division, and gained approval. Work on the study will begin in 2005.

University of California – California State Universities – Utilities Partnership
A Request for Proposals for the evaluation of this program was developed and issued. SBW Consulting was selected as the winning bidder and approved by the Energy Division. SBW developed and submitted a research plan that has been approved by Energy Division, and data collection has begun. The evaluation covers all three major aspects of the program: building retrofits, building retro-commissioning, and education / training activities. It includes a process evaluation, verification of activities, and an impact evaluation.

SCE-SoCalGas Los Angeles County Partnership
A Request for Proposals for the evaluation of this program was developed and issued. RLW Analytics was selected as the winning bidder and approved by the Energy Division. The consultant developed and submitted a research plan that has been approved by Energy Division, and data collection has begun. The evaluation work includes a process evaluation, verification of activities, and an energy savings impact evaluation of the building retrofits undertaken through this program.

SCE-SoCalGas Ventura County Partnership
A Request for Proposals for the evaluation of this program was developed and issued. A winning bidder was selected and approved by the Energy Division. The consultant developed and submitted a research plan that has been approved by Energy Division, and data collection has begun. The evaluation includes a process evaluation, verification of activities, and an energy savings impact analysis of the building retrofits undertaken through this program.

SCE-SoCalGas South Bay Cities Council of Governments Partnership
A Request for Proposals for the evaluation of this program was developed and issued. A winning bidder was selected and approved by the Energy Division. The consultant developed and submitted a research plan that has been approved by Energy Division, and data collection has begun. The evaluation includes a process evaluation and verification of program activities, and an energy savings impact analysis of the building retrofits undertaken through this program.

SCE-SoCalGas Community Energy Partnership
The consultant for this evaluation developed and submitted a research plan that has been approved by the Energy Division, and data collection began during 2004. The evaluation scope includes process evaluation (with early feedback on community events already provided), verification of program goal activities, and development of estimates of energy savings created by some program activities.

PG&E-SCE-SoCalGas Kern County Partnership
PG&E is managing the evaluation of this partnership program on behalf of the partners. It is being conducted as part of a study of multiple PG&E local programs. See the PG&E Annual Report for additional information.

SCE – City of Pomona Partnership
Quantec LLC was selected to conduct the evaluation of this small partnership program. The company developed a research plan that has been approved by the Energy Division and plans to perform most of the evaluation work in 2005.

VeSM Industrial Program
The Value and energy Stream Mapping Program was approved by the CPUC as a pilot program in late 2004. No evaluation activities were undertaken before the end of 2004.

Edison's IDEEA Program
Edison's Innovative Designs for Energy Efficiency Activities Program completed a two-phase solicitation of program proposals in fall 2004. A second round of solicitations was scheduled for and occurred in early 2005. No evaluation work was done during 2004.

Table 6.1
2005 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
MARKET ASSESSMENT & EVALUATION BUDGET (MA&E)

Study/Project (costs in $000's)	2-Year Statewide Budget	Statewide Annualized Budget	Annualized SCE Budget
STATEWIDE PROGRAM EM&V			
Residential Retrofit	$ 3,082,100	$ 1,541,050	$ 534,744
Single Family Rebates	1,293,450	646,725	224,414
Multi-Family Rebates	638,550	319,275	110,788
Residential Audits	408,550	204,275	70,883
Appliance Recycling	741,550	370,775	128,659
Nonresidential Retrofit	**3,580,050**	**1,790,025**	**621,139**
Standard Performance Ct.	1,358,750	679,375	235,743
Express Efficiency	1,224,750	612,375	212,494
Nonresidential Audits	838,500	419,250	145,480
Bldg. Operator Cert.	158,050	79,025	27,422
New Contruction	**2,126,750**	**1,063,375**	**368,991**
Energy Star Homes	1,023,500	511,750	177,577
Nonres. New Construction	1,103,250	551,625	191,414
Cross-Cutting Statewide	**1,154,100**	**577,050**	**200,236**
Education & Training	611,550	305,775	106,104
Emerging Tech. Demo.	284,700	142,350	49,395
Codes & Standards	257,850	128,925	44,737
Subtotal	**$ 9,943,000**	**$ 4,971,500**	**$ 1,725,111**
Energy Division Special Projects (Overarching Studies)			
Special Projects	$ 1,227,398	$ 613,699	$ 212,954
CALMAC Website & Wkshops	512,100	256,050	88,849
Organizations /Conferences	291,100	145,550	50,506
Evaluation Framework Additional Work	191,200	95,600	33,173
Industrial Energy Use Survey	1,574,750	787,375	273,219
Residential Energy Efficiency Onsite Survey	474,550	237,275	82,334
Efficiency Market Share Tracking Study	554,550	277,275	96,214
Nonresidential New Construction Technology Trends	106,850	53,425	18,538
Energy Efficiency Potential Updates	575,000	287,500	99,763
Database for Energy Efficiency Resources (DEER)	517,550	258,775	89,795
Retrofit Upgrade Opportunities Study	380,700	190,350	66,051
Best Practices Database	440,100	220,050	76,357
Demand Response/Energy Efficiency Interaction Study	76,850	38,425	13,333
CALMAC Study Reserve	384,200	192,100	66,659
Subtotal	**$ 7,306,898**	**$ 3,653,449**	**$ 1,267,747**
Energy Division Operating Costs			
Energy Division Operating Costs	$ 600,000	$ 300,000	$ 104,100
Subtotal	**$ 600,000**	**$ 300,000**	**$ 104,100**
STATEWIDE MA&E TOTAL	**$ 17,849,898**	**$ 8,924,949**	**$ 3,096,957**

2004 Performance Incentives

Summary

This section is not applicable for the 2004 Energy Efficiency Program Year.

There were no shareholder performance incentives authorized by the California Public Utilities Commission for 2004 Energy Efficiency Programs. The Energy Efficiency Policy Manual, adopted by Decision 01-11-066 stated, "In the past, the Commission has offered shareholder incentives to large IOUs for successful program delivery, in lieu of a profit margin. The Commission will no longer make a special provision for shareholder earnings." (D.01-11-066, Attachment 1, p.28) Decision D.02-03-056, authorizing the 2002 Statewide Energy Efficiency Programs, reiterated the Commission's position on this matter. There were no changes to this position for the 2004 energy efficiency programs.

Table 7.1
2005 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
COSTS OF SHAREHOLDER PERFORMANCE INCENTIVES
2004

THIS TABLE IS NOT APPLICABLE
TO THE 2004 ENERGY EFFICIENCY PROGRAMS

IOU Partnerships Program Area

BAKERSFIELD/KERN ENERGY WATCH

Program Description

SCE, Pacific Gas and Electric (PG&E), Southern California Gas Company (SoCalGas), the City of Bakersfield, the County of Kern and Staples / Hutchinson and Associates, Inc. entered into a partnership to reduce energy use by providing energy efficiency information and direct installation of energy-efficient equipment to the City and County's local community.

Specifically, this partnership offers direct installation services to hard-to-reach (HTR) customers, home buyers, and small businesses; free energy audits to both residential and nonresidential HTR customers; marketing and outreach to encourage participation in statewide energy efficiency programs; municipal building energy efficiency retrofits; support for codes and standards enforcement; and local training seminars for residential contractors, design / build firms, engineers and architects working on commercial properties.

2004 Results and Achievements

Marketing and outreach efforts for the partnership included the following:

- Coordination of a press conference featuring Bakersfield Mayor Harvey Hall to formally announce the energy program and activities

- Development of website at www.bkenergywatch.com to provide information on all services offered, and a toll free number at (888) 324-0930 that directs interested participants to appropriate utility programs and provides information on all program opportunities.

- Creation of several marketing pieces including a brochure distributed to residential customers during the home energy survey, and a brochure distributed to business owners during the nonresidential energy survey.

- Distribution of an Energy Watch coupon offering free energy surveys to homebuyers through partner Realtor® and mortgage lender partners.

- Development of a 30-minute Bakersfield & Kern County Energy Watch television infomercial featuring Bakersfield Mayor Harvey Hall, County

Supervisor Ray Watson, and Hispanic Chamber of Commerce President Tony Mendoza.

- Production of the Bakersfield & Kern County Energy Watch 60-second radio commercial and 30-second television commercial regarding the energy survey and direct installation programs. Both English and Spanish versions were created.

SCE completed five audits in 2004 on the County of Kern municipal buildings that were identified as potential sites for energy efficiency retrofits. One project was committed in 2004. The residential direct install component provided services in 2004 for 72 single family customers and 54 multifamily customers. The following chart shows the total measures committed for 2004 which results in committed energy and demand savings of 172 MWh and .02 MW.

Energy Efficiency Measures	Committed Units
Single-Family Direct Install	
ES Screw-in CFL (21 to 30 watts) for calc. use 25 Watts	236
ES Interior Hardwired CFL Fixtures (30 Watts)	214
ES Programmable Thermostats	12
Multi-Family Direct Install	
ES Screw-in CFL (21 to 30 watts) for calc. use 25 Watts	166
ES Interior Hardwired CFL Fixtures (30 Watts)	166
ES Exterior Hardwired CFL Fixtures (27 Watts)	12
ES Programmable Thermostats	
T-5 or T-8 Int. lamps with electronic ballasts - (4 ft. 1 lamp)	
T-5 or T-8 Int. lamps with electronic ballasts - (4 ft. 2 lamps)	
T-5 or T-8 Int. lamps with electronic ballasts - (8 ft. 1 lamp)	
T-5 or T-8 Int. lamps with electronic ballasts - (8 ft. 2 lamps)	
Municipal Buildings	
Lighting	53,247 Gross kWh
HVAC/Refrigeration	62,590 Gross kWh
Motors/Other	0 Gross kWh

IOU Partnerships Program Area

THE ENERGY COALITION

Program Description

The Energy Coalition is a complementary delivery mechanism for energy efficiency that draws upon the unique strengths of a myriad of energy stakeholders to create a powerful synergy. This partnership is multidimensional, beginning with SCE and SoCalGas as utility partners, The Energy Coalition as a facilitating partner, and ten southern California cities representing their constituents as participants.

The Partnership is between cities that are out to make a difference in the energy equation. Through the model approach, the serving utilities have a unique opportunity to develop strong ties working with the program's cities. It is about citizens and businesses working closely with community-based organizations to improve their financial condition. It is about dedicated school administrators, teachers, and students, working with their staffs and school districts to save precious resources. It is about hearing of a community event, and telling one's neighbor. It is about creating energy champions in California cities.

2004 Results and Achievements

The Partnership delivered annual energy savings of 5,893 MWh and 1.68 MW of demand reduction through the implementation of community events, community energy efficiency tune-ups, and PEAK Student activities.

Program highlights include the distribution of over 17,000 CFLs to city constituents and PEAK students and families. Over 1,000 torchieres were exchanged for residents' high energy consuming and potentially dangerous halogen torchieres in three participating cities.

The following represents a snapshot of activities by program component targeted by the CEP and its partner cities and utilities.

PEAK Students: Three of six targeted school districts have executed an Agreement in Principal for the program's implementation in the 2004 – 2005 school year. They are Santa Monica Malibu Unified School District, Desert Sands Unified School District in Palm Desert, and the Irvine Unified School District. These districts account for 2,000, 1,000, and 2,000 students respectively, resulting

in direct energy savings of 429 net annual MWh through the students' participation in the educational curriculum.

PEAK students have also been involved in community events, serving as fundraisers at community fairs – promoting energy efficiency in Irvine and Santa Monica and other venues – and volunteering at events in Hermosa Beach, Corona, and San Bernardino.

PEAK Households: Bringing the PEAK message home is projected to result in net annual participating household savings of 1,920 MWh of energy savings for participating households.

PEAK School Districts: The results presented show savings for three school districts, resulting in electricity savings of 750 net annual MWh.

Municipal Energy Actions: The cities of San Bernardino, Santa Clarita, and Irvine have been supported on their path to energy sustainability by program efforts and are collectively responsible for annual electricity savings of 900 MWh each year.

Community Efficiency Tune-Ups: 68 household Tune-Ups and 17 Small Business Tune-Ups were completed.

IOU Partnerships Program Area

LA COUNTY/SCE/SCG PARTNERSHIP

Program Description

In this program, the County of Los Angeles, SCE, and SoCalGas partnered together to implement energy efficiency projects in existing county facilities.

The partners leverage the energy efficiency expertise from: the utilities, relationships maintained by the County of Los Angeles' energy management organization, county departments; other county affiliated agencies (including the Office of Education, Public Housing, Metropolitan Transit Authority, Office of Small Business), and other local governments.

2004 Results and Achievements

The results of this program are as follows:

- selected a contractor to retrofit county fire stations and libraries;
- selected a contractor to perform retro-commissioning of 10 county buildings;
- conducted feasibility studies of nearby public agencies and provided three workshops to present the results of the study; and
- Committed 1,823 MWh energy savings and 0.94 MW demand reduction

In addition, the following projects were completed in 2004:

Public Housing Multi-family Metering Project
This partnership implemented a pilot project and installed 350 state-of-the-art meters in multi-family public housing facilities. The meters are equipped with an optical sensor that sends signals to a display unit inside the tenant's dwelling. This display shows real-time energy usage. In the evaluation, there were 350 test cases where the meters were installed and 383 control cases where no meter was installed but was used for comparison. The objective is to determine the tenant's behavioral changes in energy efficiency and conservation as a result of the project. Additional equipment was also installed in each complex to provide wireless harvesting of energy data into a collector with the capability to provide remote monitoring of these devices.

The Feasibility Study and Technology Transfer Workshop

This workshop studied the feasibility of establishing a formal, structured process and forum to encourage and enable public agencies to share best practices and experiences in energy efficiency and energy management with each other. The study attempted to determine whether and how to provide greater opportunity for public agencies in the Los Angeles and other nearby areas to collaborate on energy efficiency projects, pooling resources to save energy and help public agencies save money. This study is expected to provide better insight, identification, and understanding of public agency needs, as well as opportunities and channels to share ideas and collaborate on specific projects.

IOU Partnerships Program Area

CITY OF POMONA

Program Description

The City of Pomona Partnership Program offers direct installation of lighting and air conditioning measures to 12 City of Pomona facilities. It also includes the replacement of more than 900 incandescent pedestrian indicators with more energy efficiency LED units within the City. In addition, the partners implement an education and outreach energy efficiency campaign that targets vendors, businesses and residents.

2004 Results and Achievements

The majority of program activities completed in 2004 were related to marketing and outreach. These activities comprised of vendor seminars, city events, customer meetings, distribution of residential and business brochures, and website development. The marketing and outreach activities have been implemented as part of the program goal to provide energy efficiency information to hard-to-reach residential markets and underserved commercial markets. Of the activities proposed for 2004, all were completed except for second round small business and vendor seminars and a City event.

The Energy Efficiency Retrofit component of the program began in 2004, and preliminary activities were conducted. SCE assisted the City of Pomona with comprehensive site audits of the 12 proposed facilities for the program. These audits quantified lamp fixtures, occupancy sensors, air conditioner cooling capacity, and window film needed for the retrofits. City of Pomona utilized the audit results to support its request for proposal process.

IOU Partnerships Program Area

SOUTH BAY CITIES ENERGY EFFICIENCY RESOURCE CENTER

Program Description

The South Bay Energy Savings Center (SBESC) is a partnership with the South Bay Cities Council of Governments, SCE and SoCalGas and acts as a resource of energy efficiency information to member agencies, businesses and residential customers. This program is an education and outreach program.

The SBESC serves as the central clearinghouse for energy efficiency information and statewide and local energy efficiency programs. Located in Torrance, California, the SBESC is a lending library offering energy efficiency information and marketing materials which includes energy efficiency displays and demonstrations. These energy efficiency marketing materials and displays are available for local community events.

2004 Results and Achievements

During 2004, the center conducted 17 community events and nine workshops including Title 24 training for city building officials, architects and builders in the South Bay.

The Partnership has been successful at coordinating mobile home energy efficiency training in the area with a CPUC-funded direct install programs for mobile homes, connecting residents in mobile home parks with energy savings opportunities.

Marketing and Outreach

The SBESC launched an aggressive campaign targeting residents, businesses and government organizations in the South Bay. All training events were advertised in *The Daily Breeze* which reaches over 222,000 households as well as other local newspaper, e-mail blasts, community events, business and community organizations and local cable. SBESC also worked with member cities, public officials and community organizations to secure assistance in disseminating energy efficiency information and co-sponsoring training events.

IOU Partnerships Program Area

IOU/UC/CSU PARTNERSHIP

Program Description

The University of California / California State University (UC / CSU) and Investor-Owned Utility (IOU) Energy Efficiency Partnership is a statewide energy efficiency program that provides resources and expertise in energy-efficient equipment and practices for the 33 UC and CSU campuses served by California's four large IOUs. This program capitalizes on the resources and expertise of the UC / CSU and the California IOU's to ensure a successful and cost-effective program that meets all of the CPUC's energy efficiency objectives. It lays the groundwork for not only a continued UC / CSU comprehensive energy efficiency program but also establishes a model for statewide partnership programs.

This partnership program is comprised of three elements: Energy Efficiency Retrofits, Monitoring Based Commissioning (MBCx), and Energy Efficiency Education and Best Practices Development and Training.

2004 Results and Achievements

In 2004, the program identified retrofit projects at four campuses. The majority of the projects involved various lighting measures; however, one campus also included several chiller optimization controllers. Retrofit project commitments resulted in a total net annualized energy savings of 2,477 MWh and a net demand reduction of 0.4 MW. An MBCx project proposal form was also developed and several campus projects had undergone a statewide review process, but no formal selections were made by year end. In terms of Training and Education, a total of 11 courses were offered in 2004. This included sessions on Title 24, MBCx and Labs 21 as well as a program overview at the UC Sustainability Conference.

IOU Partnerships Program Area

VENTURA REGIONAL ENERGY ALLIANCE

Program Description

The Ventura Regional Energy Alliance (VREA), in partnership with SCE and SoCalGas proposed to build on the VREA's progress to date to further develop its core capabilities, to complete the development of its Energy Resource Center capability, and to implement a targeted Public Sector Program for public agencies throughout the Ventura region. This effort utilizes the strengths of the VREA and its utility partners to jointly overcome identified participation barriers, better serve local needs and hard-to-reach customers, and increase participation in energy efficiency programs.

2004 Results and Achievements

During 2004, the Ventura Energy Resource Center (VERC) was established in Ventura, California which is a central clearinghouse for energy information in the Ventura region and offers energy efficiency training for the public, business and residential sectors, lending Library (Educational Materials and Tools), and energy efficiency exhibits and displays.

Seven community events and four workshops were conducted including Title 24 training for city building officials, architects and builders in the Ventura region. VERC also recruited contractors to participate in the public facilities element of the program and identified several projects for possible implementation in 2005. Marketing and outreach was included on SCE's website, VERC's website, e-mail blasts to VERC members and SCE regional representatives, press releases and local newspaper advertisements. VERC staff published energy savings articles in local newspapers, and promotes the public facilities elements through council meetings and other public events.

VERC also worked with member cities, public officials and community organizations to secure assistance in disseminating energy efficiency information and co-sponsoring training events. Statewide and local energy efficiency marketing materials are displayed at the VERC and distributed at local community events.

Table 8.1
2005 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
IOU PARTNERSHIP PROGRAMS

	2004 Budget	[1]	2004 Recorded	[1,2]
Bakersfield/Kern Energy Watch - PGC	$ 500,000		$ 500,000	
The Energy Coalition - PGC	2,000,000		2,000,000	
LA County/SCE/SCG Partnerhsip - PGC	1,500,000		1,500,000	
City of Pomona - PGC	325,512		325,512	
South Bay Cities Energy Efficiency Center - PGC	305,494		416,092	
IOU/UC/CSU Partnership - PGC	2,250,000		2,319,046	
Ventura REA - PGC	636,575		636,575	
IOU Partnership Programs Total	$ 7,517,581		$ 7,697,224	

[1] Excludes Shareholder Incentives and Other Costs, as shown in Table TA 8.1.
[2] All Recorded amounts include payments in 2004 and amounts committed to projects in 2004. Committed amounts may not be fully realized.

Table 8.2
2005 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY PROGRAM EFFECTS: ELECTRIC
IOU PARTNERSHIP PROGRAMS

	2004 First Year Net Annualized Capacity Savings (MW)	[1,2]	2004 First Year Net Annualized Energy Savings (kWh)	[1,2]	2004 Net Lifecycle Energy Savings (kWh)	[1,2]
Bakersfield/Kern Energy Watch - PGC	0.02		171,784		2,061,411	
The Energy Coalition - PGC	1.68		5,892,733		70,712,791	
LA County/SCE/SCG Partnerhsip - PGC	0.94		1,822,980		21,875,761	
City of Pomona - PGC	-		-		-	
South Bay Cities Energy Efficiency Center - PGC	-		-		-	
IOU/UC/CSU Partnership - PGC	0.43		2,477,486		29,729,838	
Ventura REA - PGC	-		-		-	
IOU Partnership Programs Total	3.07		10,364,983		124,379,801	

[1] Net Savings reflect Commission-adopted net-to-gross ratios.
[2] Includes savings from projects both installed in 2004 and committed to projects in 2004.
Committed amounts may not be fully realized.

Table 8.3
2005 Energy Efficiency Annual Report
SUMMARY OF COST-EFFECTIVENESS: ELECTRIC
(Benefit-Cost Ratios)
IOU PARTNERSHIP PROGRAMS

	2004 Program Administrator Cost Test [1]	2004 Total Resource Cost Test [1]	2004 Levelized Cost (cents/kWh) [1]
Bakersfield/Kern Energy Watch - PGC	0.24	0.25	41.61
The Energy Coalition - PGC	0.98	0.78	6.39
LA County/SCE/SCG Partnerhsip - PGC	0.85	0.85	12.42
City of Pomona - PGC	-	-	-
South Bay Cities Energy Efficiency Center - PGC	-	-	-
IOU/UC/CSU Partnership - PGC	0.80	0.69	16.40
Ventura REA - PGC	-	-	-
IOU Partnership Programs Total	0.68	0.61	12.43

[1] Includes all costs depicted in Table TA 8.1 -
Program Cost Estimates Used for Cost-Effectiveness - Partnership Program Area.

Table 8.4
2005 Energy Efficiency Annual Report
SUMMARY OF COST-EFFECTIVENESS: ELECTRIC
IOU PARTNERSHIP PROGRAMS
(Net Benefits)

		2004 TRC
Bakersfield/Kern Energy Watch - PGC	$	(353,172)
The Energy Coalition - PGC		(545,506)
LA County/SCE/SCG Partnerhsip - PGC		(223,367)
City of Pomona - PGC		(325,512)
South Bay Cities Energy Efficiency Center - PGC		(416,092)
IOU/UC/CSU Partnership - PGC		(839,050)
Ventura REA - PGC		(636,575)
IOU Partnership Programs Total	$	(3,339,274)

Non-IOU Programs

Program Description

In Decisions D.03-12-060 and D.04-02-059, the Commission approved funding for programs to be implemented by entities, other than the investor-owned utilities, that include local governments, non-profit/community based organizations, and private firms.

The non-utility programs for which the Commission authorized funding complement the statewide and local programs offered by the utilities. They generally focus on hard-to-reach sectors such as very small commercial customers, mobile home residents in rural communities, agricultural and industrial customers. Some offer information, education, and training programs to a variety of customer segments. Among them are non-utility programs funded in 2002-03 that once again were selected by the Commission through a competitive bid process.

2004 Results and Achievements

Energy savings and demand reduction results for the non-utility programs offered in SCE's service territory are in the attached tables.

Table 9.1
2005 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
NON-IOU PROGRAMS

	2004 Budget	[1]	2004 Recorded	[1,2]
Mobile Energy Clinic	$ 362,730		$ 238,755	
Green Campus Pilot Program	295,041		98,777	
Green Schools Program	756,998		368,580	
Comprehensive Hard-to-Reach Mobile Home Program	1,250,000		1,177,342	
Energy Savers Program	1,511,905		1,432,510	
Building Energy Code Training	362,421		278,723	
Nonresidential Fenestration Certification Initiative (NFCI)	154,429	[3]	11,487	[3]
California Multi Measure Farm Program	88,716	[4]	79,040	[4]
Emerging Communities Energy Efficiency Program	1,069,998	[4]	986,194	[4]
Chinese Languate Efficiency Outreach (CLEOS)	271,644	[4]	236,839	[4]
Performance 4	1,091,463		327,867	
Designed for Comfort, Efficient Affordable Housing	423,223	[4]	142,536	[4]
Enhanced Automation Initiative	374,704		146,866	
Long Beach B.E.S.T. Program	824,749		921,914	
EEGOV B.E.S.T.	1,098,688		448,930	
Prototype Community Energy Efficiency Programs	736,834		539,813	
EnergySmart Grocer	2,743,888		1,160,570	
Building Tune-Up Program	1,820,763		1,976,444	
RCA Verification Program for New Air Conditioners	302,313		468,845	
Agricultural Pumping Efficiency Program	249,680	[4]	27,557	[4]
Residential Duct Services	367,500		142,666	
Non-IOU Programs Total	$ 16,157,686		$ 11,212,253	

[1] Data reflects approved workbooks submitted through December 2004, except where otherwise noted.
[2] All Recorded amounts include payments in 2004 and amounts committed to projects in 2004.
Committed amounts may not be fully realized.
[3] Data reflects the approved workbook through October 2004.
[4] Reflects the Workbook budget, which may differ from the Decision authorized budget.

Table 9.2
2005 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY PROGRAM EFFECTS: ELECTRIC
NON-IOU PROGRAMS

	2004 First Year Net Annualized Capacity Savings (MW)	[1,2,3]	2004 First Year Net Annualized Energy Savings (kWh)	[1,2,3]	2004 Net Lifecycle Energy Savings (kWh)	[1,2,3]
Mobile Energy Clinic	0.15		760,474		6,083,793	
Green Campus Pilot Program	-		-		-	
Green Schools Program	-		-		-	
Comprehensive Hard-to-Reach Mobile Home Program	1.43		3,286,211		34,173,763	
Energy Savers Program	1.32		6,583,763		105,220,576	
Building Energy Code Training	-		-		-	
Nonresidential Fenestration Certification Initiative (NFCI)	-	[4]	-	[4]	-	[4]
California Multi Measure Farm Program	0.04		188,250		2,787,750	
Emerging Communities Energy Efficiency Program	0.63		2,654,222		36,340,962	
Chinese Languate Efficiency Outreach (CLEOS)	-		-		-	
Performance 4	0.13		159,234		2,627,743	
Designed for Comfort, Efficient Affordable Housing	0.00		14,528		116,224	
Enhanced Automation Initiative	0.07		200,000		2,520,000	
Long Beach B.E.S.T. Program	0.65		2,812,615		37,625,314	
EEGOV B.E.S.T.	0.34		1,372,782		20,964,617	
Prototype Community Energy Efficiency Programs	-		-		-	
EnergySmart Grocer	1.08		7,744,643		86,006,530	
Building Tune-Up Program	2.54		9,451,520		75,612,160	
RCA Verification Program for New Air Conditioners	1.45		1,653,059		24,795,890	
Agricultural Pumping Efficiency Program	-		31,875		478,125	
Residential Duct Services	0.35		294,769		5,046,865	
Non-IOU Programs Total	10.16		37,207,946		440,400,312	

[1] Data reflects approved workbooks submitted through December 2004, except where otherwise noted.
[2] Net Savings reflect Commission-adopted net-to-gross ratios.
[3] Includes savings from projects both installed in 2004 and committed to projects in 2004.
Committed amounts may not be fully realized.
[4] Data reflects the approved workbook through October 2004.

Table 9.3
2005 Energy Efficiency Annual Report
SUMMARY OF COST-EFFECTIVENESS: ELECTRIC
(Benefit-Cost Ratios)
NON-IOU PROGRAMS

	2004 Program Administrator Cost Test	[1]	2004 Total Resource Cost Test	[1]	2004 Levelized Cost (cents/kWh)	[1]
Mobile Energy Clinic	1.46		1.75		4.59	
Green Campus Pilot Program	-		-		-	
Green Schools Program	-		-		-	
Comprehensive Hard-to-Reach Mobile Home Program	1.37		2.14		4.60	
Energy Savers Program	3.29		1.95		4.19	
Building Energy Code Training	-		-		-	
Nonresidential Fenestration Certification Initiative (NFCI)	-	[2]	-	[2]	-	[2]
California Multi Measure Farm Program	1.61		1.52		5.28	
Emerging Communities Energy Efficiency Program	1.70		3.10		3.84	
Chinese Languate Efficiency Outreach (CLEOS)	-		-		-	
Performance 4	0.92		0.69		30.87	
Designed for Comfort, Efficient Affordable Housing	0.12		0.11		187.05	
Enhanced Automation Initiative	0.94		0.77		11.62	
Long Beach B.E.S.T. Program	1.86		2.03		3.78	
EEGOV B.E.S.T.	2.15		2.18		3.77	
Prototype Community Energy Efficiency Programs	-		-		-	
EnergySmart Grocer	3.52		1.47		5.05	
Building Tune-Up Program	2.42		2.54		3.49	
RCA Verification Program for New Air Conditioners	2.41		2.59		3.11	
Agricultural Pumping Efficiency Program	0.79		0.59		13.66	
Residential Duct Services	2.22		1.44		8.20	
Non-IOU Programs Total	1.96		1.69		4.90	

[1] Ratios reflect data from approved workbooks submitted through December 2004, but may not match benefit-cost ratios in workbooks, due to workbook calculation errors.
[2] Data reflects the approved workbook through October 2004.

Table 9.4
2005 Energy Efficiency Annual Report
SUMMARY OF COST-EFFECTIVENESS: ELECTRIC
NON-IOU PROGRAMS
(Net Benefits)

		2004 TRC	
Mobile Energy Clinic	$	149,731	
Green Campus Pilot Program		(98,777)	
Green Schools Program		(368,580)	
Comprehensive Hard-to-Reach Mobile Home Program		856,963	
Energy Savers Program		2,290,477	
Building Energy Code Training		(278,723)	
Nonresidential Fenestration Certification Initiative (NFCI)		(11,487)	[2]
California Multi Measure Farm Program		43,574	
Emerging Communities Energy Efficiency Program		1,136,669	
Chinese Languate Efficiency Outreach (CLEOS)		(236,839)	
Performance 4		(137,574)	
Designed for Comfort, Efficient Affordable Housing		(138,597)	
Enhanced Automation Initiative		(41,142)	
Long Beach B.E.S.T. Program		869,221	
EEGOV B.E.S.T.		521,370	
Prototype Community Energy Efficiency Programs		(539,813)	
EnergySmart Grocer		1,301,928	
Building Tune-Up Program		2,905,548	
RCA Verification Program for New Air Conditioners		694,290	
Agricultural Pumping Efficiency Program		(15,149)	
Residential Duct Services		97,016	
Non-IOU Programs Total	$	9,000,107	

[1] Data reflects approved workbooks submitted through December 2004, except where otherwise noted.
[2] Data reflects the approved workbook through October 2004.

CONTENTS

Section I - General Information

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

Table TA 1.1 Avoided Costs for 2004-2005 Programs

The avoided cost forecast in Table TA 1.1 represents those costs utilized in the planning and delivery of SCE energy efficiency programs in 2004-2005. This forecast is consistent with the forecast utilized in SCE's September 23, 2003 Application for 2004-2005 energy efficiency program funding.

Avoided costs for the 2004-2005 programs, as presented in Table TA 1.1, reflect the statewide inputs to avoided costs as adopted in the Commission's Energy Efficiency Policy Manual, Decision 03-08-067. These costs remained unchanged from those adopted in Decision 01-11-066. These costs were also included in the program workbooks circulated by the Commission for public use in calculating the 2004-2005 program forecast cost effectiveness.

Table TA 1.1
2005 Energy Efficiency Annual Report
AVOIDED COSTS: ELECTRIC ($/kWh)

2004-2005				
Year	Gen $/kWh	T&D $/kWh	Env.Ext. $/kWh	Total $/kWh
2004	$0.05	$0.01	$0.01	$0.07
2005	$0.05	$0.01	$0.01	$0.07
2006	$0.05	$0.01	$0.01	$0.06
2007	$0.05	$0.01	$0.01	$0.07
2008	$0.05	$0.01	$0.01	$0.07
2009	$0.06	$0.01	$0.01	$0.07
2010	$0.06	$0.01	$0.01	$0.07
2011	$0.06	$0.01	$0.01	$0.08
2012	$0.06	$0.01	$0.01	$0.08
2013	$0.06	$0.01	$0.01	$0.08
2014	$0.07	$0.01	$0.01	$0.08
2015	$0.07	$0.01	$0.01	$0.09
2016	$0.07	$0.01	$0.01	$0.09
2017	$0.08	$0.01	$0.01	$0.10
2018	$0.08	$0.01	$0.01	$0.10
2019	$0.08	$0.01	$0.01	$0.11
2020	$0.09	$0.01	$0.01	$0.11
2021	$0.09	$0.01	$0.01	$0.12
2022	$0.10	$0.01	$0.01	$0.12
2023	$0.10	$0.01	$0.01	$0.13

Section II - Residential Program Area

This section contains narrative that documents and explains the data shown for Tables TA 2.1 through TA 2.5.

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

This table documents those costs used in determining the cost-effectiveness of residential energy efficiency programs. These tables provide all program costs, including costs expended in 2004 and those costs associated with commitments from 2004 programs.

Program Incentives (Recorded)
Incentive costs represent incentives paid to customers during 2004 (Actual) as well as incentives associated with commitments from the 2004 residential programs (Committed).

Program Administrative Costs (Recorded)
These costs include all expenditures directly charged to the program with the exception of incentive costs. The administrative costs consist of labor, non-labor, contract labor, and allocated material costs (See Also Table TA 2.2). These costs represent administrative costs expended during 2004 (Actual) as well as administrative costs associated with the handling of commitments from the 2004 residential programs (Committed).

Shareholder Incentives
Costs represented in the Shareholder Incentives column would represent an allocated amount of the total performance awards earned during a particular program year. There were no shareholder incentives authorized for 2004.

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

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

Incremental Measure Costs (Net)
These costs generally represent the incremental costs of energy efficiency measures over the standard replacement measures. SCE's incremental measure costs are typically derived from the latest cost source available for the particular measure(s), including recent measure cost studies. The gross amounts of these costs are reduced by appropriate net-to-gross ratios for the particular measure or end-use. The net-to-gross ratios are consistent with the ratios utilized in SCE's September 23, 2003 Application for 2004-2005 energy efficiency program funding.

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

This table documents the breakdown of the actual administrative costs used in determining the cost-effectiveness of residential energy efficiency programs. These tables provide detail of all actual program administrative costs expended in 2004. These costs include the costs of Market Assessment & Evaluation for the Residential Procurement-funded Energy Efficiency Programs, regulatory support, and other energy efficiency support costs.

Labor Costs (Actual)
Labor costs consist of SCE labor charges that are directly charged to the program. These costs include salaries and expenses of SCE employees engaged in developing energy efficiency marketing strategies, plans, and programs; developing program implementation procedures; reporting, monitoring, and evaluating systems. The reported costs reflect only the actual costs incurred in 2004 in support of 2004 residential programs.

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

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

Allocated Administrative Costs (Actual)
Allocated administrative costs represent those for building lease and maintenance costs and management oversight expenditures. In addition, the 2004 Allocated Administrative Costs (Actual) category includes costs related to systems support, regulatory support, internal audits, and other costs which are allocated to the programs.

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

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

The projected annual program energy reductions for the residential program area, presented in TA 2.3, are derived from ex ante estimates of energy savings. These estimates are based upon the measure level savings data submitted in SCE's September 23, 2003 Application for 2004-2005 Energy Efficiency Program Funding and adopted in Decisions D.03-12-060 and D.04-02-059. These estimates have been updated, as applicable, to correspond with the actual program implementation during 2004 and to reflect actual program results as of December 31, 2004. Recorded savings amounts reflect all 2004 program impacts, including impacts from measures installed in 2004 and those impacts associated with commitments from 2004 programs.

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

Program Energy Reduction Assumptions
Annual program energy reduction estimates for residential programs supplied in the September 23, 2003 Application for 2004-2005 Energy Efficiency Program Funding and submitted herein as the 2004 program results are the result of a summation of measure-level savings from the measures installed or committed to be installed as a result of the 2004 residential programs. The measure-level savings information used to calculate the 2004 program results are based upon the latest energy savings data available for the particular measure(s), including measurement studies, historical program results, and engineering estimates. The gross amounts of these costs are reduced by appropriate net-to-gross ratios for the particular measure or end-use.

The Effective Useful Life is the length of time (years) for which the load impacts of an energy efficiency measure are expected to last. The useful life estimates are also based upon the Energy Efficiency Policy Manual, adopted in Decision 03-08-067.

Table TA 2.4 Measure Detail - Residential Program Area

Table TA 2.4 provides measure-level detail for all of SCE's residential energy efficiency programs with 2004 energy saving goals.

End Use & Measure Description
Detail the actual measures installed or committed to be installed as a result of the 2004 residential programs.

Quantity (Recorded)
Derived from SCE's program tracking databases, the number of units installed or committed to be installed as a result of the 2004 residential programs.

Total Resource Costs – Administrative Costs (Recorded)
These costs include all expenditures directly charged to the program with the exception of incentive costs. These costs represent administrative costs expended during 2004 as well as administrative costs associated with the handling of commitments from the 2004 residential programs. The Summation of the "Total Resource Costs – Admin" and "Total Resource Costs – IMC" column values comprise the Total Resource Costs for Levelizing ("LCRC") as specified in the California Standard Practice Manual: Economic Analysis of Demand-Side Programs and Projects, October 2001.

Total Resource Costs – Incremental Measure Costs (Recorded)
These costs generally represent the incremental costs of energy efficiency measures over the standard replacement measures. SCE's incremental measure costs are typically derived from the latest cost source available for the particular measure(s), including recent measure cost studies. The gross amounts of these costs are reduced by appropriate net-to-gross ratios for the particular measure or end-use. The net-to-gross ratios are consistent with the ratios utilized in SCE's September 23, 2003 Application for 2004-2005 energy efficiency program funding. The Summation of the "Total Resource Costs – Admin" and "Total Resource Costs – IMC" column values comprise the Total Resource Costs for Levelizing ("LCRC") as specified in the California Standard Practice Manual: Economic Analysis of Demand-Side Programs and Projects, October 2001.

Total Resource Benefits – Lifecycle kWh
Annual net kWh savings multiplied by the measure Useful Life.

Useful Life
Assumption of the useful life of the measure, used to determine the lifecycle energy savings. The useful life estimates are consistent with the ratios utilized in SCE's September 23, 2003 Application for 2004-2005 energy efficiency program funding.

Levelized Costs
The TRC Levelized Cost, calculated pursuant to the California Standard Practice Manual: Economic Analysis of Demand-Side Programs and Projects, October 2001. These costs, represented as a cents / kWh, are calculated by the summation of the "Total Resource Costs – Admin" and "Total Resource Costs – IMC" column values which comprise the Total Resource Costs for Levelizing ("LCRC") divided by the Total Discounted Load Impacts of the Program ("IMP"). The discount rate utilized is 8.15 %, as specified in the Energy Efficiency Policy Manual, Decision 03-08-067.

Table TA 2.5 Distribution of RCP Payments - Residential Program Area

SCE's Residential Contractor Program (RCP) was designed to provide incentives to different energy service providers and customers. Table TA 2.5 identifies the distribution of recorded payments to project sponsors (multi-family), energy service providers, and contractors (single-family), and delineates any payments made to affiliates of the utility distribution company. Thus, the amounts in the "Total" column represent the total dollar amount allocated to a particular project sponsor or contractor. The table also demonstrates the payments made for particular end-uses. Each of these allocations of payments, by recipient and end-use, is based upon information contained in SCE's tracking system for this program.

Table TA 2.5 is not applicable to SCE's 2004 Energy Efficiency programs. SCE did not offer the RCP or a Residential SPC program in 2004.

Table TA 2.1
2005 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
PROGRAM COST ESTIMATES USED FOR COST-EFFECTIVENESS - RESIDENTIAL PROGRAM AREA
2004

	Program Incentives (Recorded) [1]		Program Administrative Costs (Recorded) [1]		Shareholder Incentives [1,2]	Other Costs [1,2,3]	Total Utility Costs [1]	Incremental Measure Costs [1]
	Actual	Committed	Actual	Committed				
Information	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
EMS	-	-	1,164,656	203,255	-	70,883	1,438,794	-
EEI								
SPCs (RCP)	-	-	-	-	-	-	-	-
Rebates	29,574,412	2,916,290	3,785,266	146,555	-	463,861	36,886,384	49,231,004
Loans	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-
Upstream Programs								
Information	-	-	-	-	-	-	-	-
Financial Assistance	-	-	-	-	-	-	-	-
Residential Total	$ 29,574,412	$ 2,916,290	$ 4,949,922	$ 349,810	$ -	$ 534,744	$ 38,325,178	$ 49,231,004

[1] Includes both PGC and Procurement funded programs.
[2] The Commission authorized no Shareholder Performance Awards in 2004.
[3] Statewide Market Assessment and Evaluation costs.

Table TA 2.2
2005 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
DIRECT AND ALLOCATED ADMINISTRATIVE COSTS - RESIDENTIAL PROGRAM AREA
2004

	Actual Labor [1]	Actual Non-Labor [1]	Actual Contract [1]	Actual Allocated [1]	Actual Admin Total [1]
Information	$ -	$ -	$ -	$ -	$ -
EMS	150,750	922,782	1,466	89,658	1,164,656
EEI					
SPCs (RCP)	-	-	-	-	-
Rebates	1,046,531	1,239,960	717,515	781,261	3,785,266
Loans	-	-	-	-	-
Other	-	-	-	-	-
Upstream Programs					
Information	-	-	-	-	-
Financial Assistance	-	-	-	-	-
Residential Total	$ 1,197,281	$ 2,162,742	$ 718,980	$ 870,919	$ 4,949,922

[1] Includes both PGC and Procurement funded programs.

Table TA 2.3
2005 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY PROGRAM EFFECTS: ELECTRIC
MARKET EFFECTS: PROJECTED ANNUAL PROGRAM ENERGY AND DEMAND REDUCTIONS- RESIDENTIAL PROGRAM AREA
2004

Information

Year	(MW)	(MWH)
2004	0.000	0
2005	0.000	0
2006	0.000	0
2007	0.000	0
2008	0.000	0
2009	0.000	0
2010	0.000	0
2011	0.000	0
2012	0.000	0
2013	0.000	0
2014	0.000	0
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
2022	0.000	0
2023	0.000	0
Total	0.000	0

EMS

Year	(MW)	(MWH)
2004	0.000	0
2005	0.000	0
2006	0.000	0
2007	0.000	0
2008	0.000	0
2009	0.000	0
2010	0.000	0
2011	0.000	0
2012	0.000	0
2013	0.000	0
2014	0.000	0
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
2022	0.000	0
2023	0.000	0
Total	0.000	0

EEI
SPCs (RCP)

Year	(MW)	MWH)
2004	0.000	0
2005	0.000	0
2006	0.000	0
2007	0.000	0
2008	0.000	0
2009	0.000	0
2010	0.000	0
2011	0.000	0
2012	0.000	0
2013	0.000	0
2014	0.000	0
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
2022	0.000	0
2023	0.000	0
Total	0.000	0

EEI
Rebates

Year	(MW)	(MWH)
2004	0.083	425,584
2005	0.083	425,584
2006	0.083	425,584
2007	0.083	425,584
2008	0.083	425,584
2009	0.083	425,584
2010	0.083	425,584
2011	0.083	425,584
2012	0.083	425,584
2013	0.000	0
2014	0.000	0
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
2022	0.000	0
2023	0.000	0
Total	0.083	3,830,257

EEI
Loans

Year	(MW)	(MWH)
2004	0.000	0
2005	0.000	0
2006	0.000	0
2007	0.000	0
2008	0.000	0
2009	0.000	0
2010	0.000	0
2011	0.000	0
2012	0.000	0
2013	0.000	0
2014	0.000	0
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
2022	0.000	0
2023	0.000	0
Total	0.000	0

EEI
Other

Year	(MW)	MWH)
2004	0.000	0
2005	0.000	0
2006	0.000	0
2007	0.000	0
2008	0.000	0
2009	0.000	0
2010	0.000	0
2011	0.000	0
2012	0.000	0
2013	0.000	0
2014	0.000	0
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
2022	0.000	0
2023	0.000	0
Total	0.000	0

Table TA 2.3
2005 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY PROGRAM EFFECTS: ELECTRIC
MARKET EFFECTS: PROJECTED ANNUAL PROGRAM ENERGY AND DEMAND REDUCTIONS- RESIDENTIAL PROGRAM AREA
2004

Upstream Programs Information Year	(MW)	(MWH)
2004	0.000	0
2005	0.000	0
2006	0.000	0
2007	0.000	0
2008	0.000	0
2009	0.000	0
2010	0.000	0
2011	0.000	0
2012	0.000	0
2013	0.000	0
2014	0.000	0
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
2022	0.000	0
2023	0.000	0
Total	0.000	0

Upstream Programs Financial Assistance Year	(MW)	(MWH)
2004	0.000	0
2005	0.000	0
2006	0.000	0
2007	0.000	0
2008	0.000	0
2009	0.000	0
2010	0.000	0
2011	0.000	0
2012	0.000	0
2013	0.000	0
2014	0.000	0
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
2022	0.000	0
2023	0.000	0
Total	0.000	0

Table TA 2.4
2005 Energy Efficiency Annual Report
MEASURE DETAIL: ELECTRIC
RESIDENTIAL PROGRAM AREA
2004

End Use	Measure Description	Quantity (Recorded)	Total Resource Costs (Recorded, $000) Admin	IMC	1st Year Net Energy Savings (kWh)	Total Resource Benefits (Lifecycle kWh)	Useful Life	Levelized Costs (cents/kWh)
Residential Refrigerator Recycling - PGC								
Refrigeration	Refrigerators	33,509	$ 532	$ 1,572	22,822,980	136,937,879	6	$ 2.00
Refrigeration	Freezers	4,315	90	312	3,872,626	23,235,757	6	2.26
Residential - Single Family EE Rebates - PGC								
SF Rebates	Pool Pump & Motor - Single Speed	2,275	428	961	2,578,915	38,683,725	15	6.35
SF Rebates	Pool Pump & Motor - Two speed	155	16	65	97,339	1,460,086	15	9.89
SF Rebates	Room A/C - 5,000 to 18,000 btuh	750	13	64	76,199	1,142,989	15	11.80
SF Rebates	Electric Water Heater >.93	42	1	2	6,392	83,095	13	6.41
SF Rebates	High Performance Window	408,721	90	611	451,678	9,033,559	20	15.99
SF Rebates	Programmable Thermostat	13,281	486	686	3,391,269	40,695,230	12	4.62
SF Rebates	Attic Insulation	5,087	0	2	138	2,755	20	171.28
SF Rebates	Wall Insulation	1,050	0	1	43	863	20	202.85
SF Rebates	Whole House Fan	1,755	151	222	807,520	14,535,366	18	4.97
SF Rebates	Evaporative Cooler Tier I	754	123	242	1,240,778	8,685,445	7	5.67
SF Rebates	Evaporative Cooler Tier I/damper	72	12	23	121,185	848,298	7	5.59
SF Rebates	Evaporative Cooler Tier II	5	1	2	8,779	61,452	7	5.44
SF Rebates	Evaporative Cooler Tier II/damper	4	1	1	7,851	54,960	7	5.06
SF Rebates	Energy Star AC - Tier I	657	43	372	231,551	4,167,915	18	19.33
SF Rebates	Energy Star AC - Tier I with TXV	602	42	341	227,019	4,086,333	18	18.20
SF Rebates	Central AC - Tier II	656	59	983	315,526	5,679,467	18	35.61
SF Rebates	Energy Star HP - Tier I	37	3	13	17,340	312,122	18	10.16
SF Rebates	Energy Star HP - Tier I, with TXV	145	14	51	72,711	1,308,802	18	9.63
SF Rebates	Central Heat Pump - Tier II	24	4	13	22,523	405,409	18	8.28
SF Rebates	Duct Test - Single Family	-	-	-	-	-	10	#DIV/0!
SF Rebates	Duct Sealing - Single Family	-	-	-	-	-	20	#DIV/0!
Upstream Lighting	Screw-in CFL 5 Watt <450 Lumens	-	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 7 Watt 450 to 799 Lumens	-	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 9 Watt 450 to 799 Lumens	-	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 10 Watt <450 Lumens	-	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 10 Watt 450 to 799 Lumens	-	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 10 Watt 800 to 1,099 Lumens	-	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 11 Watt <450 Lumens	-	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 11 Watt 450 to 799 Lumens	-	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 11 Watt 800 to 1,099 Lumens	-	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 12 Watt <450 Lumens (closed lamp)	-	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 12 Watt 450 to 799 Lumens	-	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 12 Watt 800 to 1,099 Lumens	-	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 13 Watt <450 Lumens (closed lamp)	-	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 13 Watt 450 to 799 Lumens	587	0	2	16,204	145,836	9	2.05
Upstream Lighting	Screw-in CFL 13 Watt 800 to 1,099 Lumens	197,094	33	675	9,470,919	85,238,267	9	1.20
Upstream Lighting	Screw-in CFL 14 Watt 450 to 799 Lumens	-	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 14 Watt 800 to 1,099 Lumens	30,528	5	105	1,435,744	12,921,696	9	1.23
Upstream Lighting	Screw-in CFL 15 Watt 450 to 799 Lumens	-	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 15 Watt 800 to 1,099 Lumens	1,500	0	5	69,012	621,108	9	1.25
Upstream Lighting	Screw-in CFL 16 Watt 450 to 799 Lumens	-	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 16 Watt 800 to 1,099 Lumens	-	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 16 Watt 1,100 to 1,399 Lumens	-	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 17 Watt 450 to 799 Lumens	-	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 17 Watt 800 to 1,099 Lumens	-	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 17 Watt 1,100 to 1,399 Lumens	-	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 18 Watt 450 to 799 Lumens	-	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 18 Watt 800 to 1,099 Lumens	-	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 18 Watt 1,100 to 1,399 Lumens	7,324	1	25	426,819	3,841,374	9	1.00
Upstream Lighting	Screw-in CFL 19 Watt 450 to 799 Lumens	-	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 19 Watt 800 to 1,099 Lumens	-	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 19 Watt 1,100 to 1,399 Lumens	-	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 20 Watt 800 to 1,099 Lumens	-	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 20 Watt 1,100 to 1,399 Lumens	150,266	29	515	8,449,758	76,047,819	9	1.04

Table TA 2.4
2005 Energy Efficiency Annual Report
MEASURE DETAIL: ELECTRIC
RESIDENTIAL PROGRAM AREA
2004

End Use	Measure Description	Quantity (Recorded)	Total Resource Costs (Recorded, $000) Admin	IMC	Total Resource Benefits (Lifecycle kWh)	Useful Life	Levelized Costs (cents/kWh)
Upstream Lighting	Screw-in CFL 21 Watt 800 to 1,099 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 21 Watt 1,100 to 1,399 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 22 Watt 800 to 1,099 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 22 Watt 1,100 to 1,399 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 23 Watt 800 to 1,099 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 23 Watt 1,100 to 1,399 Lumens	3,000	1	10	1,435,450	9	1.09
Upstream Lighting	Screw-in CFL 23 Watt 1400 to 1,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 23 Watt 1,600 to 1,999 Lumens	98,924	27	339	70,089,949	9	0.76
Upstream Lighting	Screw-in CFL 24 Watt 800 to 1,099 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 24 Watt 1,100 to 1,399 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 24 Watt 1400 to 1,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 24 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 25 Watt 800 to 1,099 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 25 Watt 1,100 to 1,399 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 25 Watt 1400 to 1,599 Lumens	2,304	1	8	1,378,032	9	0.89
Upstream Lighting	Screw-in CFL 25 Watt 1,600 to 1,999 Lumens	142,924	38	489	98,634,711	9	0.77
Upstream Lighting	Screw-in CFL 26 Watt 800 to 1,099 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 26 Watt 1,100 to 1,399 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 26 Watt 1400 to 1,599 Lumens	2,000	0	7	1,177,805	9	0.90
Upstream Lighting	Screw-in CFL 26 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 27 Watt 800 to 1,099 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 27 Watt 1,100 to 1,399 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 27 Watt 1400 to 1,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 27 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 28 Watt 1,100 to 1,399 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 28 Watt 1400 to 1,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 28 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 29 Watt 1,100 to 1,399 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 29 Watt 1400 to 1,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 29 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 30 Watt 1,100 to 1,399 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 30 Watt 1400 to 1,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 30 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 30 Watt 2,000 to 2,599 Lumens	60	0	0	49,689	9	0.65
Upstream Lighting	Screw-in CFL 31 Watt 1,100 to 1,399 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 31 Watt 1400 to 1,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 31 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 32 Watt 1,100 to 1,399 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 32 Watt 1400 to 1,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 32 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 33 Watt 1,100 to 1,399 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 33 Watt 1400 to 1,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 33 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 34 Watt 1,100 to 1,399 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 34 Watt 1400 to 1,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 34 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 35 Watt 1400 to 1,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 35 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 35 Watt 2,000 to 2,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 36 Watt 1400 to 1,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 36 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 36 Watt 2,000 to 2,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 37 Watt 1400 to 1,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 37 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 37 Watt 2,000 to 2,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 38 Watt 1400 to 1,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 38 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 38 Watt 2,000 to 2,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 38 Watt 2,600 to 3,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 39 Watt 1400 to 1,599 Lumens	-	-	-	-	9	#DIV/0!

Table TA 2.4
2005 Energy Efficiency Annual Report
MEASURE DETAIL: ELECTRIC
RESIDENTIAL PROGRAM AREA
2004

End Use	Measure Description	Quantity (Recorded)	Total Resource Costs (Recorded, $000) Admin	IMC	Total Resource Benefits (Lifecycle kWh)	Useful Life	Levelized Costs (cents/kWh)
Upstream Lighting	Screw-in CFL 39 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 39 Watt 2,000 to 2,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 39 Watt 2,600 to 3,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 40 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 40 Watt 2,000 to 2,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 40 Watt 2,600 to 3,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 41 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 41 Watt 2,000 to 2,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 41 Watt 2,600 to 3,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 42 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 42 Watt 2,000 to 2,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 42 Watt 2,600 to 3,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 43 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 43 Watt 2,000 to 2,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 43 Watt 2,600 to 3,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 44 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 44 Watt 2,000 to 2,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 44 Watt 2,600 to 3,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 45 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 45 Watt 2,000 to 2,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 45 Watt 2,600 to 3,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 46 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 46 Watt 2,000 to 2,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 46 Watt 2,600 to 3,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 47 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 47 Watt 2,000 to 2,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 47 Watt 2,600 to 3,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 48 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 48 Watt 2,000 to 2,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 48 Watt 2,600 to 3,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 49 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 49 Watt 2,000 to 2,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 49 Watt 2,600 to 3,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 50 Watt 2,000 to 2,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 50 Watt 2,600 to 3,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 50 Watt 3,600 to 4,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 51 Watt 2,000 to 2,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 51 Watt 2,600 to 3,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 51 Watt 3,600 to 4,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 52 Watt 2,000 to 2,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 52 Watt 2,600 to 3,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 52 Watt 3,600 to 4,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 53 Watt 2,000 to 2,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 53 Watt 2,600 to 3,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 53 Watt 3,600 to 4,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 54 Watt 2,000 to 2,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 54 Watt 2,600 to 3,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 54 Watt 3,600 to 4,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 55 Watt 2,000 to 2,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 55 Watt 2,600 to 3,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 55 Watt 3,600 to 4,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Interior Fixture 7 Watt 450 to 799 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 8 Watt 450 to 799 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 11 Watt 450 to 799 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 13 Watt 450 to 799 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 13 Watt 800 to 1,099 Lumens	1,089	0	28	823,911	20	7.03
Upstream Lighting	Interior Fixture 15 Watt 800 to 1,099 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 16 Watt 800 to 1,099 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 17 Watt 800 to 1,099 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 18 Watt 800 to 1,099 Lumens	-	-	-	-	20	#DIV/0!

Table TA 2.4
2005 Energy Efficiency Annual Report
MEASURE DETAIL: ELECTRIC
RESIDENTIAL PROGRAM AREA
2004

End Use	Measure Description	Quantity (Recorded)	Total Resource Costs (Recorded, $000) Admin	IMC	Total Resource Benefits (Lifecycle kWh)	Useful Life	Levelized Costs (cents/kWh)
Upstream Lighting	Interior Fixture 18 Watt 1,100 to 1,399 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 18 Watt 1,600 to 1,999 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 19 Watt 800 to 1,099 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 20 Watt 800 to 1,099 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 20 Watt 1,100 to 1,399 Lumens	232	0	6	260,916	20	4.75
Upstream Lighting	Interior Fixture 21 Watt 800 to 1,099 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 21 Watt 1,100 to 1,399 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 22 Watt 800 to 1,099 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 22 Watt 1,100 to 1,399 Lumens	1,860	1	48	2,015,764	20	4.93
Upstream Lighting	Interior Fixture 23 Watt 1,100 to 1,399 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 23 Watt 1400 to 1,599 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 24 Watt 1,100 to 1,399 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 24 Watt 1400 to 1,599 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 25 Watt 1400 to 1,599 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 25 Watt 1,600 to 1,999 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 26 Watt 1,100 to 1,399 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 26 Watt 1400 to 1,599 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 26 Watt 1,600 to 1,999 Lumens	833	0	21	1,260,456	20	3.54
Upstream Lighting	Interior Fixture 27 Watt 1400 to 1,599 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 27 Watt 1,600 to 1,999 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 28 Watt 1,600 to 1,999 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 29 Watt 1,600 to 1,999 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 30 Watt 1,600 to 1,999 Lumens	159	0	4	227,586	20	3.74
Upstream Lighting	Interior Fixture 30 Watt 2,000 to 2,599 Lumens	13,604	7	348	25,035,713	20	2.93
Upstream Lighting	Interior Fixture 32 Watt 2,000 to 2,599 Lumens	5	0	0	8,997	20	2.99
Upstream Lighting	Interior Fixture 36 Watt 1,600 to 1,999 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 38 Watt 2,000 to 2,599 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 40 Watt 2,000 to 2,599 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 42 Watt 2,000 to 2,599 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 44 Watt 2,000 to 2,599 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 45 Watt 2,000 to 2,599 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 48 Watt 3,600 to 4,599 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 50 Watt 2,600 to 3,599 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 52 Watt 3,600 to 4,599 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 54 Watt 3,600 to 4,599 Lumens	236	0	6	704,556	20	1.83
Upstream Lighting	Interior Fixture 55 Watt 2,600 to 3,599 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 55 Watt 3,600 to 4,599 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 64 Watt 3,600 to 4,599 Lumens	277	0	7	770,317	20	1.96
Upstream Lighting	Interior Fixture 78 Watt =4,600 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Torchiere 55 Watt	300	0	1	372,665	9	0.52
Upstream Lighting	Torchiere 63 Watt	-	-	-	-	9	#DIV/0!
Upstream Lighting	Torchiere 65 Watt	-	-	-	-	9	#DIV/0!
Upstream Lighting	Torchiere 70 Watt	-	-	-	-	9	#DIV/0!
Upstream Lighting	Exterior Fixture 7 Watt 450 to 799 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 11 Watt 450 to 799 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 13 Watt 450 to 799 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 13 Watt 800 to 1,099 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 16 Watt 800 to 1,099 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 18 Watt 800 to 1,099 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 18 Watt 1,100 to 1,399 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 18 Watt 1,600 to 1,999 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 19 Watt 800 to 1,099 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 19 Watt 1,100 to 1,399 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 20 Watt 800 to 1,099 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 20 Watt 1,100 to 1,399 Lumens	318	0	3	833,923	20	0.88
Upstream Lighting	Exterior Fixture 21 Watt 1,100 to 1,399 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 22 Watt 1,100 to 1,399 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 23 Watt 1,100 to 1,399 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 25 Watt 1,600 to 1,999 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 26 Watt 1400 to 1,599 Lumens	102	0	2	311,255	20	1.09

Table TA 2.4
2005 Energy Efficiency Annual Report
MEASURE DETAIL: ELECTRIC
RESIDENTIAL PROGRAM AREA
2004

End Use	Measure Description	Quantity (Recorded)	Total Resource Costs (Recorded, $000) Admin	IMC	1st Year Net Energy Savings (kWh)	Total Resource Benefits (Lifecycle kWh)	Useful Life	Levelized Costs (cents/kWh)
Upstream Lighting	Exterior Fixture 26 Watt 1,600 to 1,999 Lumens	-	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 27 Watt 1,600 to 1,999 Lumens	-	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 30 Watt 1,600 to 1,999 Lumens	-	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 32 Watt 1,600 to 1,999 Lumens	-	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 36 Watt 1,600 to 1,999 Lumens	-	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 38 Watt 2,000 to 2,599 Lumens	-	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 40 Watt 2,000 to 2,599 Lumens	-	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 42 Watt 2,000 to 2,599 Lumens	-	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 48 Watt 2,000 to 2,599 Lumens	-	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 50 Watt 2,600 to 3,599 Lumens	-	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 55 Watt 2,600 to 3,599 Lumens	-	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 55 Watt 3,600 to 4,599 Lumens	-	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 65 Watt 2,600 to 3,599 Lumens	-	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 65 Watt 3,600 to 4,599 Lumens	12,967	24	197	4,173,299	83,465,986	20	0.55
Upstream Lighting	Exterior Fixture 70 Watt 3,600 to 4,599 Lumens	-	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 70 Watt =4,600 Lumens	-	-	-	-	-	20	#DIV/0!
Residential - Multi-Family EE Rebates - PGC								
Residential All	ES Screw-in CFL 13 Watt-Exterior	222	1	1	20,582	164,656	8	1.77
Residential All	ES Screw-in CFL 20 Watt-Exterior	715	6	3	101,643	813,145	8	1.52
Residential All	ES Screw-in CFL 25 Watt-Exterior	535	6	2	103,453	827,626	8	1.40
Residential All	ES Screw-in CFL 13 Watt-Interior	1,021	2	4	41,470	331,757	8	2.69
Residential All	ES Screw-in CFL 20 Watt-Interior	31,458	117	120	1,944,354	15,554,833	8	2.13
Residential All	ES Screw-in CFL 25 Watt-Interior	6,214	32	24	526,731	4,213,846	8	1.84
Residential All	ES R30 Reflector CFL 15 Watt	4,846	38	18	637,552	5,100,419	8	1.56
Residential All	ES R40 Reflector CFL 23 Watt	515	6	2	104,342	834,738	8	1.38
Residential All	ES Indoor Fluorescent Fixtures	14,236	107	405	1,118,727	17,899,636	16	5.23
Residential All	ES Exterior Fluorescent Fixtures 13 Watt	3,506	33	41	340,526	5,448,423	16	2.45
Residential All	ES Exterior Fluorescent Fixtures 27 Watt	-	-	-	-	-	16	#DIV/0!
Residential All	T-8 or T-5 Lamo and Electronic. 2-foot lamo installe	-	-	-	-	-	16	#DIV/0!
Residential All	T-8 or T-5 Lamo and Electronic. 2-foot lamo installe	-	-	-	-	-	16	#DIV/0!
Residential All	T-8 or T-5 Lamo and Electronic. 2-foot lamo installe	-	-	-	-	-	16	#DIV/0!
Residential All	T-8 or T-5 Lamo and Electronic. 2-foot lamo installe	-	-	-	-	-	16	#DIV/0!
Residential All	T-8 or T-5 Lamo and Electronic. 2-foot lamo Remov	-	-	-	-	-	16	#DIV/0!
Residential All	T-8 or T-5 Lamo and Electronic. 3-foot lamo installe	1	0	0	85	1,364	16	3.59
Residential All	T-8 or T-5 Lamo and Electronic. 3-foot lamo installe	1	0	0	85	1,364	16	3.59
Residential All	T-8 or T-5 Lamo and Electronic. 3-foot lamo installe	-	-	-	-	-	16	#DIV/0!
Residential All	T-8 or T-5 Lamp and Electronic, 3-foot lamp installe	-	-	-	-	-	16	#DIV/0!
Residential All	T-8 or T-5 Lamp and Electronic, 3-foot lamp remove	-	-	-	-	-	16	#DIV/0!
Residential All	T-8 or T-5 Lamp and Electronic, 4-foot lamp installe	2,519	19	10	198,055	3,168,881	16	1.67
Residential All	T-8 or T-5 Lamp and Electronic, 4-foot lamp installe	1,581	12	6	124,305	1,988,885	16	1.67
Residential All	T-8 or T-5 Lamp and Electronic, 4-foot lamp installe	257	2	1	20,206	323,304	16	1.67
Residential All	T-8 or T-5 Lamp and Electronic, 4-foot lamp installe	257	2	1	20,206	323,304	16	1.67
Residential All	T-8 or T-5 Lamp and Electronic, 4-foot lamp remove	446	13	14	140,921	2,254,744	16	2.22
Residential All	T-8 or T-5 Lamp and Electronic, 8-foot lamp installe	48	0	1	3,174	50,790	16	4.09
Residential All	T-8 or T-5 Lamo and Electronic. 8-foot lamo installe	-	-	-	-	-	16	#DIV/0!
Residential All	T-8 or T-5 Lamo and Electronic. 8-foot lamo installe	-	-	-	-	-	16	#DIV/0!
Residential All	T-8 or T-5 Lamo and Electronic. 8-foot lamo installe	-	-	-	-	-	16	#DIV/0!
Residential All	T-8 or T-5 Lamo and Electronic. 8-foot lamo remove	-	-	-	-	-	16	#DIV/0!
Residential All	Electronic Ballast, Non-Dimming	-	-	-	-	-	16	#DIV/0!
Residential All	Energy Star Ceiling Fan w/ CFL	5	0	0	143	2,152	15	19.37
Residential All	Room A/C - 5,000 to 18,000 btuh	47	0	4	5,270	79,057	15	11.00
Residential All	High Performance Window	3,235	0	5	4,119	82,390	20	13.23
Residential All	Programmable Thermostat	3,154	61	163	817,057	8,987,626	11	3.87
Residential All	Attic Insulation	-	-	-	-	-	20	#DIV/0!
Residential All	Wall Insulation	-	-	-	-	-	20	#DIV/0!
Residential All	Energy Star AC - Tier I	-	-	-	-	-	15	#DIV/0!
Residential All	Energy Star AC - Tier I with TXV	1	0	1	374	5,610	15	18.93
Residential All	Central AC - Tier II	-	-	-	-	-	15	#DIV/0!
Residential All	Energy Star HP - Tier I	-	-	-	-	-	15	#DIV/0!

Table TA 2.4
2005 Energy Efficiency Annual Report
MEASURE DETAIL: ELECTRIC
RESIDENTIAL PROGRAM AREA
2004

End Use	Measure Description	Quantity (Recorded)	Total Resource Costs (Recorded, $000) Admin	IMC	1st Year Net Energy Savings (kWh)	Total Resource Benefits (Lifecycle kWh)	Useful Life	Levelized Costs (cents/kWh)
Residential All	Energy Star HP - Tier I with TXV	5	0	2	2,488	37,313	15	9.48
Residential All	Central Heat Pump - Tier II	-	-	-	-	-	15	#DIV/0!
Residential All	Package Terminal AC (>2, <50 tons)	-	-	-	-	-	15	#DIV/0!
Residential All	Package Terminal HP	-	-	-	-	-	15	#DIV/0!
Residential All	Occupancy Sensor wall mounted	-	-	-	-	-	8	#DIV/0!
Residential All	Occupancy Sensor ceiling mounted	-	-	-	-	-	8	#DIV/0!
Residential All	Photocell	-	-	-	-	-	8	#DIV/0!
Residential All	Exit Sign Retrofit Kit (LED)	-	-	-	-	-	16	#DIV/0!
Residential All	LED Exit Sign	375	10	31	104,420	1,670,722	16	4.52
Residential All	2.0 gpm Showerhead	-	-	-	-	-	10	#DIV/0!
Residential All	Duct Test - Multifamily	-	-	-	-	-	10	#DIV/0!
Residential All	Duct Test - Mobile Homes	-	-	-	-	-	10	#DIV/0!
Residential All	Duct Sealing - Multi Family	-	-	-	-	-	18	#DIV/0!
Residential All	Duct Sealing - Mobile Homes	-	-	-	-	-	18	#DIV/0!
Residential All	Turn-In-Torchiere Floor Lamps replacing halogen la	-	-	-	-	-	9	#DIV/0!
Residential All	Electric Water Heater EF .93	-	-	-	-	-	13	#DIV/0!
Residential Refrigerator Recycling - IRP								
Refrigeration	Refrigerators	12,120	235	568	8,254,932	49,529,592	6	2.12
Refrigeration	Freezers	1,307	33	95	1,173,006	7,038,038	6	2.37
Residential - Single Family EE Rebates - IRP								
SF Rebates	Pool Pump & Motor - Single Speed	3,498	154	1,478	3,965,294	59,479,415	15	4.85
SF Rebates	Pool Pump & Motor - Two speed	-	-	-	-	-	15	#DIV/0!
SF Rebates	Room A/C - 5,000 to 18,000 btuh	1,180	5	100	119,887	1,798,303	15	10.30
SF Rebates	Electric Water Heater >.93	5	0	0	761	9,892	13	4.93
SF Rebates	High Performance Window	1,260,499	65	1,885	1,392,980	27,859,596	20	14.41
SF Rebates	ES Refrigerator	35,307	101	2,768	2,616,647	39,249,705	15	12.93
SF Rebates	Programmable Thermostat	13,390	114	691	3,419,102	41,029,224	12	3.15
SF Rebates	Attic Insulation	4,567	0	2	124	2,474	20	169.70
SF Rebates	Wall Insulation	-	-	-	-	-	20	#DIV/0!
SF Rebates	Whole House Fan	2,289	46	289	1,053,227	18,958,092	18	3.43
SF Rebates	Evaporative Cooler Tier I	530	20	170	872,165	6,105,154	7	4.20
SF Rebates	Evaporative Cooler Tier I/damper	90	3	29	151,482	1,060,373	7	4.12
SF Rebates	Evaporative Cooler Tier II	-	-	-	-	-	7	#DIV/0!
SF Rebates	Evaporative Cooler Tier II/damper	4	0	1	7,851	54,960	7	3.60
SF Rebates	Desert Area Air Conditioning	1,036	50	1,553	1,140,552	20,529,944	18	15.15
SF Rebates	Energy Star AC - Tier I	372	6	211	131,106	2,359,915	18	17.78
SF Rebates	Energy Star AC - Tier I with TXV	3,585	59	2,029	1,351,929	24,334,724	18	16.65
SF Rebates	Central AC - Tier II	4,365	91	6,542	2,099,498	37,790,969	18	34.06
SF Rebates	Energy Star HP - Tier I	13	0	5	6,092	109,664	18	8.62
SF Rebates	Energy Star HP - Tier I, with TXV	-	-	-	-	-	18	#DIV/0!
SF Rebates	Central Heat Pump - Tier II	39	2	21	36,599	658,790	18	6.74
SF Rebates	Duct Test - Single Family	-	-	-	-	-	10	#DIV/0!
SF Rebates	Duct Sealing - Single Family	-	-	-	-	-	20	#DIV/0!
Upstream Lighting	Screw-in CFL 5 Watt <450 Lumens	-	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 7 Watt 450 to 799 Lumens	-	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 9 Watt 450 to 799 Lumens	-	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 10 Watt <450 Lumens	-	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 10 Watt 450 to 799 Lumens	-	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 10 Watt 800 to 1,099 Lumens	-	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 11 Watt <450 Lumens	-	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 11 Watt 450 to 799 Lumens	-	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 11 Watt 800 to 1,099 Lumens	-	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 12 Watt <450 Lumens (closed lamp)	-	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 12 Watt 450 to 799 Lumens	-	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 12 Watt 800 to 1,099 Lumens	-	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 13 Watt <450 Lumens (closed lamp)	-	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 13 Watt 450 to 799 Lumens	53,413	0	183	1,474,455	13,270,097	9	2.00

Table TA 2.4
2005 Energy Efficiency Annual Report
MEASURE DETAIL: ELECTRIC
RESIDENTIAL PROGRAM AREA
2004

End Use	Measure Description	Quantity (Recorded)	Total Resource Costs (Recorded, $000) Admin	IMC	Total Resource Benefits (Lifecycle kWh)	Useful Life	Levelized Costs (cents/kWh)
Upstream Lighting	Screw-in CFL 13 Watt 800 to 1,099 Lumens	919,778	7	3,149	397,781,175	9	1.15
Upstream Lighting	Screw-in CFL 14 Watt 450 to 799 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 14 Watt 800 to 1,099 Lumens	292,264	2	1,001	123,707,635	9	1.18
Upstream Lighting	Screw-in CFL 15 Watt 450 to 799 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 15 Watt 800 to 1,099 Lumens	41,401	0	142	17,142,995	9	1.20
Upstream Lighting	Screw-in CFL 16 Watt 450 to 799 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 16 Watt 800 to 1,099 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 16 Watt 1,100 to 1,399 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 17 Watt 450 to 799 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 17 Watt 800 to 1,099 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 17 Watt 1,100 to 1,399 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 18 Watt 450 to 799 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 18 Watt 800 to 1,099 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 18 Watt 1,100 to 1,399 Lumens	844,036	7	2,890	442,689,454	9	0.95
Upstream Lighting	Screw-in CFL 19 Watt 450 to 799 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 19 Watt 800 to 1,099 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 19 Watt 1,100 to 1,399 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 20 Watt 800 to 1,099 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 20 Watt 1,100 to 1,399 Lumens	486,817	4	1,667	246,372,242	9	0.98
Upstream Lighting	Screw-in CFL 21 Watt 800 to 1,099 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 21 Watt 1,100 to 1,399 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 22 Watt 800 to 1,099 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 22 Watt 1,100 to 1,399 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 23 Watt 800 to 1,099 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 23 Watt 1,100 to 1,399 Lumens	7,999	0	27	3,827,387	9	1.04
Upstream Lighting	Screw-in CFL 23 Watt 1400 to 1,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 23 Watt 1,600 to 1,999 Lumens	892,142	11	3,055	632,103,305	9	0.70
Upstream Lighting	Screw-in CFL 24 Watt 800 to 1,099 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 24 Watt 1,100 to 1,399 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 24 Watt 1400 to 1,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 24 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 25 Watt 800 to 1,099 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 25 Watt 1,100 to 1,399 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 25 Watt 1400 to 1,599 Lumens	3,000	0	10	1,794,312	9	0.83
Upstream Lighting	Screw-in CFL 25 Watt 1,600 to 1,999 Lumens	418,963	5	1,435	289,134,746	9	0.72
Upstream Lighting	Screw-in CFL 26 Watt 800 to 1,099 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 26 Watt 1,100 to 1,399 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 26 Watt 1400 to 1,599 Lumens	103,320	1	354	60,845,396	9	0.85
Upstream Lighting	Screw-in CFL 26 Watt 1,600 to 1,999 Lumens	299,088	3	1,024	203,654,522	9	0.73
Upstream Lighting	Screw-in CFL 27 Watt 800 to 1,099 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 27 Watt 1,100 to 1,399 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 27 Watt 1400 to 1,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 27 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 28 Watt 1,100 to 1,399 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 28 Watt 1400 to 1,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 28 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 29 Watt 1,100 to 1,399 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 29 Watt 1400 to 1,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 29 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 30 Watt 1,100 to 1,399 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 30 Watt 1400 to 1,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 30 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 30 Watt 2,000 to 2,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 31 Watt 1,100 to 1,399 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 31 Watt 1400 to 1,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 31 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 32 Watt 1,100 to 1,399 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 32 Watt 1400 to 1,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 32 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 33 Watt 1,100 to 1,399 Lumens	-	-	-	-	9	#DIV/0!

Table TA 2.4
2005 Energy Efficiency Annual Report
MEASURE DETAIL: ELECTRIC
RESIDENTIAL PROGRAM AREA
2004

End Use	Measure Description	Quantity (Recorded)	Total Resource Costs (Recorded, $000) Admin	IMC	Total Resource Benefits (Lifecycle kWh)	Useful Life	Levelized Costs (cents/kWh)
Upstream Lighting	Screw-in CFL 33 Watt 1400 to 1,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 33 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 34 Watt 1,100 to 1,399 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 34 Watt 1400 to 1,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 34 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 35 Watt 1400 to 1,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 35 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 35 Watt 2,000 to 2,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 36 Watt 1400 to 1,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 36 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 36 Watt 2,000 to 2,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 37 Watt 1400 to 1,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 37 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 37 Watt 2,000 to 2,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 38 Watt 1400 to 1,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 38 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 38 Watt 2,000 to 2,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 38 Watt 2,600 to 3,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 39 Watt 1400 to 1,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 39 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 39 Watt 2,000 to 2,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 39 Watt 2,600 to 3,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 40 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 40 Watt 2,000 to 2,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 40 Watt 2,600 to 3,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 41 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 41 Watt 2,000 to 2,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 41 Watt 2,600 to 3,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 42 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 42 Watt 2,000 to 2,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 42 Watt 2,600 to 3,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 43 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 43 Watt 2,000 to 2,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 43 Watt 2,600 to 3,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 44 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 44 Watt 2,000 to 2,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 44 Watt 2,600 to 3,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 45 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 45 Watt 2,000 to 2,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 45 Watt 2,600 to 3,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 46 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 46 Watt 2,000 to 2,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 46 Watt 2,600 to 3,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 47 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 47 Watt 2,000 to 2,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 47 Watt 2,600 to 3,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 48 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 48 Watt 2,000 to 2,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 48 Watt 2,600 to 3,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 49 Watt 1,600 to 1,999 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 49 Watt 2,000 to 2,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 49 Watt 2,600 to 3,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 50 Watt 2,000 to 2,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 50 Watt 2,600 to 3,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 50 Watt 3,600 to 4,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 51 Watt 2,000 to 2,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 51 Watt 2,600 to 3,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 51 Watt 3,600 to 4,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 52 Watt 2,000 to 2,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 52 Watt 2,600 to 3,599 Lumens	-	-	-	-	9	#DIV/0!

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2005 Energy Efficiency Annual Report
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2004

End Use	Measure Description	Quantity (Recorded)	Total Resource Costs (Recorded, $000) Admin	IMC	Total Resource Benefits (Lifecycle kWh)	Useful Life	Levelized Costs (cents/kWh)
Upstream Lighting	Screw-in CFL 52 Watt 3,600 to 4,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 53 Watt 2,000 to 2,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 53 Watt 2,600 to 3,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 53 Watt 3,600 to 4,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 54 Watt 2,000 to 2,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 54 Watt 2,600 to 3,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 54 Watt 3,600 to 4,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 55 Watt 2,000 to 2,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 55 Watt 2,600 to 3,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Screw-in CFL 55 Watt 3,600 to 4,599 Lumens	-	-	-	-	9	#DIV/0!
Upstream Lighting	Interior Fixture 7 Watt 450 to 799 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 8 Watt 450 to 799 Lumens	355	0	9	123,404	20	15.17
Upstream Lighting	Interior Fixture 11 Watt 450 to 799 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 13 Watt 450 to 799 Lumens	72	0	2	17,667	20	21.49
Upstream Lighting	Interior Fixture 13 Watt 800 to 1,099 Lumens	3,209	0	82	2,427,852	20	6.97
Upstream Lighting	Interior Fixture 15 Watt 800 to 1,099 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 16 Watt 800 to 1,099 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 17 Watt 800 to 1,099 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 18 Watt 800 to 1,099 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 18 Watt 1,100 to 1,399 Lumens	17,814	0	456	20,762,858	20	4.53
Upstream Lighting	Interior Fixture 18 Watt 1,600 to 1,999 Lumens	7,536	0	193	12,635,882	20	3.15
Upstream Lighting	Interior Fixture 19 Watt 800 to 1,099 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 20 Watt 800 to 1,099 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 20 Watt 1,100 to 1,399 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 21 Watt 800 to 1,099 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 21 Watt 1,100 to 1,399 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 22 Watt 800 to 1,099 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 22 Watt 1,100 to 1,399 Lumens	7,196	0	184	7,798,622	20	4.87
Upstream Lighting	Interior Fixture 23 Watt 1,100 to 1,399 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 23 Watt 1400 to 1,599 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 24 Watt 1,100 to 1,399 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 24 Watt 1400 to 1,599 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 25 Watt 1400 to 1,599 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 25 Watt 1,600 to 1,999 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 26 Watt 1,100 to 1,399 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 26 Watt 1400 to 1,599 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 26 Watt 1,600 to 1,999 Lumens	3,112	0	80	4,708,929	20	3.49
Upstream Lighting	Interior Fixture 27 Watt 1400 to 1,599 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 27 Watt 1,600 to 1,999 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 28 Watt 1,600 to 1,999 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 29 Watt 1,600 to 1,999 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 30 Watt 1,600 to 1,999 Lumens	5,966	0	153	8,539,494	20	3.69
Upstream Lighting	Interior Fixture 30 Watt 2,000 to 2,599 Lumens	16,625	0	426	30,595,320	20	2.87
Upstream Lighting	Interior Fixture 32 Watt 2,000 to 2,599 Lumens	2,665	0	68	4,795,465	20	2.93
Upstream Lighting	Interior Fixture 36 Watt 1,600 to 1,999 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 38 Watt 2,000 to 2,599 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 40 Watt 2,000 to 2,599 Lumens	1,277	0	33	2,088,968	20	3.23
Upstream Lighting	Interior Fixture 42 Watt 2,000 to 2,599 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 44 Watt 2,000 to 2,599 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 45 Watt 2,000 to 2,599 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 48 Watt 3,600 to 4,599 Lumens	310	0	8	963,510	20	1.70
Upstream Lighting	Interior Fixture 50 Watt 2,600 to 3,599 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 52 Watt 3,600 to 4,599 Lumens	1,192	0	31	3,607,354	20	1.75
Upstream Lighting	Interior Fixture 54 Watt 3,600 to 4,599 Lumens	84	0	2	250,774	20	1.77
Upstream Lighting	Interior Fixture 55 Watt 2,600 to 3,599 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Interior Fixture 55 Watt 3,600 to 4,599 Lumens	145	0	4	429,919	20	1.78
Upstream Lighting	Interior Fixture 64 Watt 3,600 to 4,599 Lumens	8,775	0	225	24,402,643	20	1.90
Upstream Lighting	Interior Fixture 78 Watt =4,600 Lumens	316	0	8	788,311	20	2.12
Upstream Lighting	Torchiere 55 Watt	1,605	0	6	1,993,757	9	0.47
Upstream Lighting	Torchiere 63 Watt	-	-	-	-	9	#DIV/0!

Table TA 2.4
2005 Energy Efficiency Annual Report
MEASURE DETAIL: ELECTRIC
RESIDENTIAL PROGRAM AREA
2004

End Use	Measure Description	Quantity (Recorded)	Total Resource Costs (Recorded, $000) Admin	IMC	Total Resource Benefits (Lifecycle kWh)	Useful Life	Levelized Costs (cents/kWh)
Upstream Lighting	Torchiere 65 Watt	-	-	-	-	9	#DIV/0!
Upstream Lighting	Torchiere 70 Watt	1,920	0	28	2,120,049	9	1.89
Upstream Lighting	Exterior Fixture 7 Watt 450 to 799 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 11 Watt 450 to 799 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 13 Watt 450 to 799 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 13 Watt 800 to 1,099 Lumens	1,129	0	12	2,530,044	20	0.96
Upstream Lighting	Exterior Fixture 16 Watt 800 to 1,099 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 18 Watt 800 to 1,099 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 18 Watt 1,100 to 1,399 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 18 Watt 1,600 to 1,999 Lumens	5,616	0	85	21,957,212	20	0.80
Upstream Lighting	Exterior Fixture 19 Watt 800 to 1,099 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 19 Watt 1,100 to 1,399 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 20 Watt 800 to 1,099 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 20 Watt 1,100 to 1,399 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 21 Watt 1,100 to 1,399 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 22 Watt 1,100 to 1,399 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 23 Watt 1,100 to 1,399 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 25 Watt 1,600 to 1,999 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 26 Watt 1400 to 1,599 Lumens	222	0	3	677,437	20	1.03
Upstream Lighting	Exterior Fixture 26 Watt 1,600 to 1,999 Lumens	1,599	0	24	5,641,784	20	0.89
Upstream Lighting	Exterior Fixture 27 Watt 1,600 to 1,999 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 30 Watt 1,600 to 1,999 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 32 Watt 1,600 to 1,999 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 36 Watt 1,600 to 1,999 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 38 Watt 2,000 to 2,599 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 40 Watt 2,000 to 2,599 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 42 Watt 2,000 to 2,599 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 48 Watt 2,000 to 2,599 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 50 Watt 2,600 to 3,599 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 55 Watt 2,600 to 3,599 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 55 Watt 3,600 to 4,599 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 65 Watt 2,600 to 3,599 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 65 Watt 3,600 to 4,599 Lumens	50,262	4	764	323,526,442	20	0.49
Upstream Lighting	Exterior Fixture 70 Watt 3,600 to 4,599 Lumens	-	-	-	-	20	#DIV/0!
Upstream Lighting	Exterior Fixture 70 Watt= 4,600 Lumens	-	-	-	-	20	#DIV/0!
Residential - Multi-Family EE Rebates - IRP							
Residential All	ES Screw-in CFL 13 Watt-Exterior	173	0	1	129,335	8	0.85
Residential All	ES Screw-in CFL 20 Watt-Exterior	2,024	2	8	2,320,152	8	0.60
Residential All	ES Screw-in CFL 25 Watt-Exterior	472	1	2	735,980	8	0.48
Residential All	ES Screw-in CFL 13 Watt-Interior	3,020	1	12	989,110	8	1.77
Residential All	ES Screw-in CFL 20 Watt-Interior	72,219	36	275	35,993,950	8	1.21
Residential All	ES Screw-in CFL 25 Watt-Interior	10,307	7	39	7,045,041	8	0.92
Residential All	ES R30 Reflector CFL 15 Watt	17,956	19	224	19,049,161	8	1.78
Residential All	ES R40 Reflector CFL 23 Watt	673	1	10	1,099,517	8	1.36
Residential All	ES Indoor Fluorescent Fixtures	33,013	33	940	41,839,356	16	4.25
Residential All	ES Exterior Fluorescent Fixtures 13 Watt	11,853	15	137	18,566,539	16	1.49
Residential All	ES Exterior Fluorescent Fixtures 27 Watt	1,904	5	32	5,910,625	16	1.14
Residential All	T-8 or T-5 Lamp and Electronic. 2-foot lamp installed	284	0	5	333,189	16	2.91
Residential All	T-8 or T-5 Lamp and Electronic. 2-foot lamp installe	283	0	5	332,016	16	2.91
Residential All	T-8 or T-5 Lamp and Electronic. 2-foot lamp installed	-	-	-	-	16	#DIV/0!
Residential All	T-8 or T-5 Lamp and Electronic. 2-foot lamp installed	-	-	-	-	16	#DIV/0!
Residential All	T-8 or T-5 Lamp and Electronic. 2-foot lamp Remov	-	-	-	-	16	#DIV/0!
Residential All	T-8 or T-5 Lamp and Electronic. 3-foot lamp installed	-	-	-	-	16	#DIV/0!
Residential All	T-8 or T-5 Lamp and Electronic. 3-foot lamp installed	-	-	-	-	16	#DIV/0!
Residential All	T-8 or T-5 Lamp and Electronic. 3-foot lamp installed	-	-	-	-	16	#DIV/0!
Residential All	T-8 or T-5 Lamp and Electronic. 3-foot lamp installed	-	-	-	-	16	#DIV/0!
Residential All	T-8 or T-5 Lamp and Electronic. 3-foot lamp remove	-	-	-	-	16	#DIV/0!
Residential All	T-8 or T-5 Lamp and Electronic. 4-foot lamp installed	4,937	5	66	6,260,148	16	2.07
Residential All	T-8 or T-5 Lamp and Electronic. 4-foot lamp installed	4,445	4	59	5,636,289	16	2.07

Table TA 2.4
2005 Energy Efficiency Annual Report
MEASURE DETAIL: ELECTRIC
RESIDENTIAL PROGRAM AREA
2004

End Use	Measure Description	Quantity (Recorded)	Total Resource Costs (Recorded, $000) Admin	IMC	1st Year Net Energy Savings (kWh)	Total Resource Benefits (Lifecycle kWh)	Useful Life	Levelized Costs (cents/kWh)
Residential All	T-8 or T-5 Lamp and Electronic, 4-foot lamp installe	203	0	3	15,961	255,372	16	2.08
Residential All	T-8 or T-5 Lamp and Electronic, 4-foot lamp installe	183	0	2	14,388	230,212	16	2.08
Residential All	T-8 or T-5 Lamp and Electronic, 4-foot lamp remove	98	0	3	30,965	495,437	16	1.27
Residential All	T-8 or T-5 Lamp and Electronic, 8-foot lamp installe	146	0	3	9,655	154,486	16	3.14
Residential All	T-8 or T-5 Lamp and Electronic, 8-foot lamp installe	100	0	2	6,613	105,812	16	3.14
Residential All	T-8 or T-5 Lamp and Electronic, 8-foot lamp installe	-	-	-	-	-	16	#DIV/0!
Residential All	T-8 or T-5 Lamp and Electronic, 8-foot lamp installe	-	-	-	-	-	16	#DIV/0!
Residential All	T-8 or T-5 Lamp and Electronic, 8-foot lamp remove	-	-	-	-	-	16	#DIV/0!
Residential All	Electronic Ballast, Non-Dimming	-	-	-	-	-	16	#DIV/0!
Residential All	Energy Star Ceiling Fan w/ CFL	36	0	2	1,033	15,496	15	18.43
Residential All	Room A/C - 5,000 to 18,000 btuh	53	0	5	5,943	89,149	15	10.06
Residential All	High Performance Window	18,789	0	28	23,926	478,523	20	12.24
Residential All	Programmable Thermostat	2,415	6	125	625,616	6,881,774	11	2.95
Residential All	Attic Insulation	32,184	0	14	865	17,295	20	170.72
Residential All	Wall Insulation	22,683	0	18	925	18,491	20	202.55
Residential All	Energy Star AC - Tier I	-	-	-	-	-	15	#DIV/0!
Residential All	Energy Star AC - Tier I with TXV	-	-	-	-	-	15	#DIV/0!
Residential All	Central AC - Tier II	3	0	4	1,432	21,474	15	37.18
Residential All	Energy Star HP - Tier I	-	-	-	-	-	15	#DIV/0!
Residential All	Energy Star HP - Tier I with TXV	-	-	-	-	-	15	#DIV/0!
Residential All	Central Heat Pump - Tier II	-	-	-	-	-	15	#DIV/0!
Residential All	Package Terminal AC (>2, <50 tons)	76	1	13	77,121	1,156,809	15	2.16
Residential All	Package Terminal HP	10	0	3	8,839	132,578	15	4.16
Residential All	Occupancy Sensor wall mounted	-	-	-	-	-	8	#DIV/0!
Residential All	Occupancy Sensor ceiling mounted	-	-	-	-	-	8	#DIV/0!
Residential All	Photocell	11	0	1	1,030	8,236	8	17.95
Residential All	Exit Sign Retrofit Kit (LED)	-	-	-	-	-	16	#DIV/0!
Residential All	LED Exit Sign	177	1	15	49,286	788,581	16	3.57
Residential All	2.0 gpm Showerhead	-	-	-	-	-	10	#DIV/0!
Residential All	Faucet Aerator	-	-	-	-	-	10	#DIV/0!
Residential All	Turn-In-Torchiere Floor Lamps replacing halogen la	4,008	9	105	976,749	8,790,742	9	1.88
Residential All	Pool Pump & Motor - Single Speed	4	0	1	5,005	75,070	15	2.93
Residential All	Pool Pump & Motor - Two speed	-	-	-	-	-	15	#DIV/0!
Residential All	Duct Test - Multifamily	1,381	-	123	-	-	10	#DIV/0!
Residential All	Duct Test - Mobile Homes	-	-	-	-	-	10	#DIV/0!
Residential All	Duct Sealing - Multi Family	1,381	5	440	369,168	6,645,024	18	13.01
Residential All	Duct Sealing - Mobile Homes	-	-	-	-	-	18	#DIV/0!
Residential All	Electric Water Heater EF .93	1	0	0	248	3,225	13	2.89

Table TA 2.5a
2005 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
DISTRIBUTION OF RCP PAYMENTS - RESIDENTIAL PROGRAM AREA
SINGLE-FAMILY PROGRAM AREA
2004

THIS TABLE IS NOT APPLICABLE
TO THE 2004 ENERGY EFFICIENCY PROGRAMS

Table TA 2.5b
2005 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
DISTRIBUTION OF RCP PAYMENTS - RESIDENTIAL PROGRAM AREA
MULTI-FAMILY PROGRAM AREA
2004

THIS TABLE IS NOT APPLICABLE
TO THE 2004 ENERGY EFFICIENCY PROGRAMS

Section III - Nonresidential Program Area

This section contains narrative that documents and explains the data shown for Tables TA 3.1 through TA 3.5.

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

This table documents those costs used in determining the cost-effectiveness of nonresidential energy efficiency programs. These tables provide all program costs, including costs expended in 2004 and those costs associated with commitments from 2004 programs.

Program Incentives (Recorded)
Incentive costs represent incentives paid to customers during 2004 (Actual) as well as incentives associated with commitments from the 2004 nonresidential programs (Committed).

Program Administrative Costs (Recorded)
These costs include all expenditures directly charged to the program with the exception of incentive costs. The administrative costs consist of labor, non-labor, contract labor, and allocated material costs (See Also Table TA 3.2). These costs represent administrative costs expended during 2004 (Actual) as well as administrative costs associated with the handling of commitments from the 2004 nonresidential programs (Committed).

Shareholder Incentives
Costs represented in the Shareholder Incentives column would represent an allocated amount of the total performance awards earned during a particular program year. There were no shareholder incentives authorized for 2004.

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

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

Incremental Measure Costs (Net)
These costs generally represent the incremental costs of energy efficiency measures over the standard replacement measures. SCE's incremental measure costs are typically derived from the latest cost source available for the particular measure(s), including recent measure cost studies. The gross amounts of these costs are reduced by appropriate net-to-gross ratios for the particular measure or end-use. The net-to-gross ratios are consistent with the ratios utilized in SCE's September 23, 2003 Application for 2004-2005 energy efficiency program funding.

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

This table documents the breakdown of the actual administrative costs used in determining the cost-effectiveness of nonresidential energy efficiency programs. These tables provide detail of all actual program administrative costs expended in 2004. These costs include the costs of Market Assessment & Evaluation for the Nonresidential Local and Procurement-funded Energy Efficiency Programs, regulatory support, and other energy efficiency support costs.

Labor Costs (Actual)
Labor costs consist of SCE labor charges that are directly charged to the program. These costs include salaries and expenses of SCE employees engaged in developing energy efficient marketing strategies, plans, and programs; developing program implementation procedures; reporting, monitoring, and evaluating systems. The reporting costs reflect only the actual costs incurred in 2004 in support of 2004 nonresidential programs.

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

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

Allocated Administrative Costs (Actual)
Allocated administrative costs represent those for building lease and maintenance costs and management oversight expenditures. In addition, the 2004 Allocated Administrative Costs (Actual) category includes costs related to systems support, regulatory support, internal audits, and other costs which are allocated to the programs.

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

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

The projected annual program energy reductions for the nonresidential program area, presented in TA 3.3, are derived from ex ante estimates of energy savings. These estimates are based upon the measure level savings data submitted in SCE's September 23, 2003 Application for 2004-2005 Energy Efficiency Program Funding and adopted in Decisions D.03-12-060 and D.04-02-059. These estimates have been updated, as applicable, to correspond with the actual program implementation during 2004 and to reflect actual program results as of December 31, 2004. Recorded savings amounts reflect all 2004 program impacts, including impacts from measures installed in 2004 and those impacts associated with commitments from 2004 programs.

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

Program Energy Reduction Assumptions
Annual program energy reduction estimates for nonresidential programs supplied in the September 23, 2003 Application for 2004-2005 Energy Efficiency Program Funding and submitted herein as the 2004 program results are the result of a summation of measure-level savings from the measures installed or committed to be installed as a result of the 2004 nonresidential programs. The measure-level savings information used to calculate the 2004 program results are based upon the latest energy savings data available for the particular measure(s), including measurement studies, historical program results, and engineering estimates. The gross amounts of these costs are reduced by appropriate net-to-gross ratios for the particular measure or end-use.

The Effective Useful Life is the length of time (years) for which the load impacts of an energy efficiency measure are expected to last. The useful life estimates are also based upon the Energy Efficiency Policy Manual, adopted in Decision 03-08-067.

Table TA 3.4 Measure Detail - Nonresidential Program Area

Table TA 3.4 provides measure-level detail for all of SCE's nonresidential energy efficiency programs with 2004 energy saving goals.

End Use & Measure Description
Detail the actual measures installed or committed to be installed as a result of the 2004 nonresidential programs.

Quantity (Recorded)
Derived from SCE's program tracking databases, the number of units installed or committed to be installed as a result of the 2004 nonresidential programs.

Total Resource Costs – Administrative Costs (Recorded)
These costs include all expenditures directly charged to the program with the exception of incentive costs. These costs represent administrative costs expended during 2004 as well as administrative costs associated with the handling of commitments from the 2004 nonresidential programs. The Summation of the "Total Resource Costs – Admin" and "Total Resource Costs – IMC" column values comprise the Total Resource Costs for Levelizing ("LCRC") as specified in the California Standard Practice Manual: Economic Analysis of Demand-Side Programs and Projects, October 2001.

Total Resource Costs – Incremental Measure Costs (Recorded)
These costs generally represent the incremental costs of energy efficiency measures over the standard replacement measures. SCE's incremental measure costs are typically derived from the latest cost source available for the particular measure(s), including recent measure cost studies. The gross amounts of these costs are reduced by appropriate net-to-gross ratios for the particular measure or end-use. The net-to-gross ratios are consistent with the ratios utilized in SCE's September 23, 2003 Application for 2004-2005 energy efficiency program funding. The Summation of the "Total Resource Costs – Admin" and "Total Resource Costs – IMC" column values comprise the Total Resource Costs for Levelizing ("LCRC") as specified in the California Standard Practice Manual: Economic Analysis of Demand-Side Programs and Projects, October 2001.

Total Resource Benefits – Lifecycle kWh
Annual net kWh savings multiplied by the measure Useful Life.

Useful Life
Assumption of the useful life of the measure, used to determine the lifecycle energy savings. The useful life estimates are consistent with the ratios utilized in SCE's September 23, 2003 Application for 2004-2005 energy efficiency program funding.

Levelized Costs
The TRC Levelized Cost, calculated pursuant to the California Standard Practice Manual: Economic Analysis of Demand-Side Programs and Projects, October 2001. These costs, represented as a cents / kWh, are calculated by the summation of the "Total Resource Costs – Admin" and "Total Resource Costs – IMC" column values which comprise the Total Resource Costs for Levelizing ("LCRC") divided by the Total Discounted Load Impacts of the Program ("IMP"). The discount rate utilized is 8.15 %, as specified in the Energy Efficiency Policy Manual, Decision 03-08-067.

Table TA 3.5 Distribution of SPC Payments - Nonresidential Program Area

SCE's Nonresidential Standard Performance Contracting (SPC) programs were designed to provide funding to a number of different energy service providers and customers alike. Table TA 3.5 identifies the distribution of recorded payments to energy service providers and customers, and delineates any payments made to affiliates of the utility distribution company. Thus, the amounts in the "Total" column represent the total dollar amount allocated to a particular energy service company or customer. The table also demonstrates the payments made for particular end-uses. Each of these allocations of payments, by recipient and end-use, is based upon information contained in SCE's tracking system for these programs.

Table TA 3.1
2005 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
PROGRAM COST ESTIMATES USED FOR COST-EFFECTIVENESS - NONRESIDENTIAL PROGRAM AREA
2004

	Program Incentives (Recorded) [1]		Program Administrative Costs (Recorded) [1]		Shareholder Incentives [1,2]	Other Costs [1,2,3]	Total Utility Costs [1]	Incremental Measure Costs [1]
	Actual	Committed	Actual	Committed				
Information	$ -	$ -	$ 170,287	$ 1,149	$ -	$ 27,422	$ 198,857	$ -
EMS								
Large	-	-	-	-	-	-	-	-
Small/Medium	-	-	3,132,651	58,607	-	145,480	3,336,738	-
EEI: Customized Rebates								
Large	-	35,000	18,554	416,446	-	-	470,000	17,136
Small/Medium	-	-	-	-	-	-	-	-
EEI: Prescriptive Rebates								
Large	-	-	-	-	-	-	-	-
Small/Medium	5,930,533	2,212,411	2,828,822	550,238	-	212,494	11,734,498	20,856,326
EEI: SPCs								
Large	3,685,284	18,437,537	3,884,163	391,176	-	235,743	26,633,902	42,631,249
Small/Medium	-	- -	-	-	-	-	-	-
Upstream Programs								
Information	-	-	-	-	-	-	-	-
Financial Assistance	-	-	-	-	-	-	-	-
Nonresidential Total	$ 9,615,817	$ 20,684,948	$ 10,034,476	$ 1,417,616	$ -	$ 621,139	$ 42,373,996	$ 63,504,710

[1] Includes both PGC and Procurement funded programs.
[2] The Commission authorized no Shareholder Performance Awards in 2004.
[3] Statewide Market Assessment and Evaluation costs.

Table TA 3.2
2005 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
DIRECT AND ALLOCATED ADMINISTRATIVE COSTS - NONRESIDENTIAL PROGRAM AREA
2004

	Actual Labor	[1]	Actual Non-Labor	[1]	Actual Contract	[1]	Actual Allocated	[1]	Actual Admin Total	[1]
Information	$ 28,926		$ 113,510		$ 80		$ 27,771		$ 170,287	
EMS										
Large	-		-		-		-		-	
Small/Medium	2,010,493		539,907		196,998		385,253		3,132,651	
EEI: Customized Rebates										
Large	-		9,581		3,200		5,773		18,554	
Small/Medium	-		-		-		-		-	
EEI: Prescriptive Rebates										
Large	-		-		-		-		-	
Small/Medium	1,051,638		742,793		565,008		469,383		2,828,822	
EEI: SPCs										
Large	1,081,365		1,977,151		195,720		629,927		3,884,163	
Small/Medium	-		-		-		-		-	
Upstream Programs										
Information	-		-		-		-		-	
Financial Assistance	-		-		-		-		-	
Nonresidential Total	$ 4,172,421		$ 3,382,942		$ 961,005		$ 1,518,107		$ 10,034,476	

[1] Includes both PGC and Procurement funded programs.

Table TA 3.3
2005 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY PROGRAM EFFECTS: ELECTRIC
MARKET EFFECTS: PROJECTED ANNUAL PROGRAM ENERGY AND DEMAND REDUCTIONS - NONRESIDENTIAL PROGRAM AREA
2004

Information

Year	(MW)	(MWH)
2004	0.000	0
2005	0.000	0
2006	0.000	0
2007	0.000	0
2008	0.000	0
2009	0.000	0
2010	0.000	0
2011	0.000	0
2012	0.000	0
2013	0.000	0
2014	0.000	0
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
2022	0.000	0
2023	0.000	0
Total	0.000	0

EMS
Large

Year	(MW)	(MWH)
2004	0.000	0
2005	0.000	0
2006	0.000	0
2007	0.000	0
2008	0.000	0
2009	0.000	0
2010	0.000	0
2011	0.000	0
2012	0.000	0
2013	0.000	0
2014	0.000	0
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
2022	0.000	0
2023	0.000	0
Total	0.000	0

EMS
Small/Medium

Year	(MW)	(MWH)
2004	0.000	0
2005	0.000	0
2006	0.000	0
2007	0.000	0
2008	0.000	0
2009	0.000	0
2010	0.000	0
2011	0.000	0
2012	0.000	0
2013	0.000	0
2014	0.000	0
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
2022	0.000	0
2023	0.000	0
Total	0.000	0

EEI: Customized Rebates
Large

Year	(MW)	(MWH)
2004	0.000	235
2005	0.000	235
2006	0.000	235
2007	0.000	235
2008	0.000	235
2009	0.000	235
2010	0.000	235
2011	0.000	235
2012	0.000	235
2013	0.000	235
2014	0.000	235
2015	0.000	235
2016	0.000	235
2017	0.000	235
2018	0.000	235
2019	0.000	235
2020	0.000	235
2021	0.000	235
2022	0.000	235
2023	0.000	235
Total	0.000	4,704

EEI: Customized Rebates
Small/Medium

Year	(MW)	(MWH)
2004	0.000	0
2005	0.000	0
2006	0.000	0
2007	0.000	0
2008	0.000	0
2009	0.000	0
2010	0.000	0
2011	0.000	0
2012	0.000	0
2013	0.000	0
2014	0.000	0
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
2022	0.000	0
2023	0.000	0
Total	0.000	0

EEI: Prescriptive Rebates
Large

Year	(MW)	(MWH)
2004	0.000	0
2005	0.000	0
2006	0.000	0
2007	0.000	0
2008	0.000	0
2009	0.000	0
2010	0.000	0
2011	0.000	0
2012	0.000	0
2013	0.000	0
2014	0.000	0
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
2022	0.000	0
2023	0.000	0
Total	0.000	0

Table TA 3.3
2005 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY PROGRAM EFFECTS: ELECTRIC
MARKET EFFECTS: PROJECTED ANNUAL PROGRAM ENERGY AND DEMAND REDUCTIONS - NONRESIDENTIAL PROGRAM AREA
2004

EEI: Prescriptive Rebates
Small/Medium

Year	(MW)	(MWH)
2004	0.036	159,893
2005	0.036	159,893
2006	0.036	159,893
2007	0.036	159,893
2008	0.036	159,893
2009	0.036	159,893
2010	0.036	159,893
2011	0.036	159,893
2012	0.036	159,893
2013	0.036	159,893
2014	0.036	159,893
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
2022	0.000	0
2023	0.000	0
Total	0.036	1,758,821

EEI: SPCs
Large

Year	(MW)	(MWH)
2004	0.030	221,517
2005	0.030	221,517
2006	0.030	221,517
2007	0.030	221,517
2008	0.030	221,517
2009	0.030	221,517
2010	0.030	221,517
2011	0.030	221,517
2012	0.030	221,517
2013	0.030	221,517
2014	0.030	221,517
2015	0.030	221,517
2016	0.030	221,517
2017	0.030	221,517
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
2022	0.000	0
2023	0.000	0
Total	0.030	3,101,239

EEI: SPCs
Small/Medium

Year	(MW)	(MWH)
2004	0.000	0
2005	0.000	0
2006	0.000	0
2007	0.000	0
2008	0.000	0
2009	0.000	0
2010	0.000	0
2011	0.000	0
2012	0.000	0
2013	0.000	0
2014	0.000	0
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
2022	0.000	0
2023	0.000	0
Total	0.000	0

Upstream Programs
Information

Year	(MW)	(MWH)
2004	0.000	0
2005	0.000	0
2006	0.000	0
2007	0.000	0
2008	0.000	0
2009	0.000	0
2010	0.000	0
2011	0.000	0
2012	0.000	0
2013	0.000	0
2014	0.000	0
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
2022	0.000	0
2023	0.000	0
Total	0.000	0

Upstream Programs
Financial Assistance

Year	(MW)	(MWH)
2004	0.000	0
2005	0.000	0
2006	0.000	0
2007	0.000	0
2008	0.000	0
2009	0.000	0
2010	0.000	0
2011	0.000	0
2012	0.000	0
2013	0.000	0
2014	0.000	0
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
2022	0.000	0
2023	0.000	0
Total	0.000	0

Table TA 3.4
2005 Energy Efficiency Annual Report
MEASURE DETAIL: ELECTRIC
NONRESIDENTIAL PROGRAM AREA
2004

End Use	Measure Description	Quantity (Recorded)	Total Resource Costs (Recorded, $000) Admin	IMC	Total Resource Benefits (Lifecycle kWh)	Useful Life	Levelized Costs (cents/kWh)
Express Efficiency - PGC							
HVAC	Package Terminal Air Conditioners	1,379	$ 13	$ 86	7,607,049	15	$ 2.31
HVAC	Package single Tier 1-air cooled	-	-	-	-	15	#DIV/0!
HVAC	Split System single Tier 1- air cooled	-	-	-	-	15	#DIV/0!
HVAC	Package single Tier 2 - air cooled	-	-	-	-	15	#DIV/0!
HVAC	Split System single Tier 2- air cooled	-	-	-	-	15	#DIV/0!
HVAC	Package single Tier 3 - air cooled	-	-	-	-	15	#DIV/0!
HVAC	Split System Tier 3 - air cooled	-	-	-	-	15	#DIV/0!
HVAC	65-135kBTU air cooled, package or split Tier 2	-	-	-	-	15	#DIV/0!
HVAC	65-135kBTU water/evap cooled, package or split Tie	-	-	-	-	15	#DIV/0!
HVAC	135-240 kBTU air cooled, package or split Tier 2	-	-	-	-	15	#DIV/0!
HVAC	135-240 kBTU water/evap cooled, package or split T	-	-	-	-	15	#DIV/0!
HVAC	>240 kBTU air cooled, package or split Tier 2	-	-	-	-	15	#DIV/0!
HVAC	Variable-Frequency Drives - HVAC Fans	2,788	53	541	30,225,420	15	3.47
HVAC	Setback Programmable Thermostats	771	65	43	33,324,224	11	0.50
HVAC	Reflective Window Film - Coastal	25,804	6	44	3,220,314	10	2.37
HVAC	Reflective Window Film - Inland	18,173	6	31	2,791,430	10	1.98
HVAC	Reflective Window Film - Desert	4,724	2	8	1,088,364	10	1.42
HVAC	Evaporative Coolers	11	0	1	170,280	15	1.70
HVAC	Cool Roof	857,559	11	173	6,174,425	15	5.26
Lighting	Screw-in Compact Fluorescent Lamp, 5 - 13 watts	548	1	8	611,242	8	2.04
Lighting	Screw-in Compact Fluorescent Lamp, 14-26 watts	89,023	341	973	158,554,379	8	1.16
Lighting	Screw-in Compact Fluorescent Lamp. 14-26 watts w	32,133	123	351	57,230,467	8	1.16
Lighting	Screw-in Compact Fluorescent Lamp, >=27watts	15,514	113	313	52,471,376	8	1.14
Lighting	Hardwired Fluorescent Fixture, 5-13 watts	450	2	16	1,457,222	16	2.31
Lighting	Hardwired Fluorescent Fixture, 14-26 watts	869	8	37	4,627,563	16	1.76
Lighting	Hardwired Fluorescent Fixture. 27-65 watts/incandes	1,013	18	88	10,351,388	16	1.87
Lighting	Hardwired Fluorescent Fixture. 27-65 watts/mercurv	178	1	16	858,214	16	3.62
Lighting	Hardwired Fluorescent Fixture. 66-90 watts/incande	160	4	22	2,486,993	16	1.90
Lighting	Hardwired Fluorescent Fixture. 66-90 watts/mercurv	-	-	-	-	16	#DIV/0!
Lighting	Hardwired Fluorescent Fixture. >90 watts/incandesc	61	2	8	948,166	16	1.90
Lighting	Hardwired Fluorescent Fixture. >90 watts/mercurv v	1	0	0	8,348	16	3.27
Lighting	Induction Lamps and fixtures 55 - 100 watts	-	-	-	-	16	#DIV/0!
Lighting	Induction Lamps and fixtures >100 watts	-	-	-	-	16	#DIV/0!
Lighting	LED Exit Sign	7,221	67	769	38,970,940	16	3.92
Lighting	LED Channel Signage (Red) indoor <2ft	-	-	-	-	16	#DIV/0!
Lighting	LED Channel Signage (Red) indoor >2ft	-	-	-	-	16	#DIV/0!
Lighting	LED Channel Signage (Red) outdoor <2ft	-	-	-	-	16	#DIV/0!
Lighting	LED Channel Signage (Red) outdoor >2ft	-	-	-	-	16	#DIV/0!
Lighting	T-8 or T-5 Lamp and Electronic ballast - 2 foot Insta	4,876	6	98	3,473,759	16	5.48
Lighting	T-8 or T-5 Lamp and Electronic, 2-foot lamp remove	2,231	10	41	6,020,487	16	1.55
Lighting	T-8 or T-5 Lamp and Electronic ballast - 3 foot Insta	451	1	9	376,474	16	4.72
Lighting	T-8 or T-5 Lamp and Electronic, 3-foot lamp remove	20	0	0	63,326	16	1.36
Lighting	T-8 or T-5 Lamp and Electronic ballast - 4 foot Insta	212,782	281	917	163,839,825	16	1.33
Lighting	T-8 or T5 Lamp and Electronic. 4-foot lamp remove	37,177	197	1,249	115,038,605	16	2.29
Lighting	T-8 or T-5 Lamp and Electronic. 8-foot lamp installe	7,776	9	146	5,036,161	16	5.59
Lighting	T-8 or T-5 Lamp and Electronic. 8-foot lamp remove	6,085	59	292	34,593,021	16	1.85
Lighting	Electronic Ballast, Non-Dimming	11,042	10	138	5,562,200	16	4.83
Lighting	Electronic Ballast, Dimming(with daylighting)	103	0	4	96,357	16	8.18
Lighting	Interior pulse start HID fixture 0-35 watts incandesce	-	-	-	-	16	#DIV/0!
Lighting	Interior pulse start HID fixture 0-35 watts mercurv va	-	-	-	-	16	#DIV/0!
Lighting	Interior pulse start HID fixture 36-70 watts incandesc	4	0	1	31,663	16	4.10
Lighting	Interior pulse start HID fixture 36-70 watts mercurv v	-	-	-	-	16	#DIV/0!
Lighting	Interior pulse start HID fixture 71-100 watts incande	-	-	-	-	16	#DIV/0!
Lighting	Interior pulse start HID fixture 71-100 watts mercurv	-	-	-	-	16	#DIV/0!
Lighting	Interior pulse start HID fixture 101-175 watts incande	1	0	0	20,869	16	0.58
Lighting	Interior pulse start HID fixture 101-175 watts mercun	-	-	-	-	16	#DIV/0!
Lighting	Interior pulse start HID fixture 176 - 250 watts mercu	-	-	-	-	16	#DIV/0!
Lighting	Interior pulse start HID fixture 176-250 watts incande	-	-	-	-	16	#DIV/0!

Table TA 3.4
2005 Energy Efficiency Annual Report
MEASURE DETAIL: ELECTRIC
NONRESIDENTIAL PROGRAM AREA
2004

End Use	Measure Description	Quantity (Recorded)	Total Resource Costs (Recorded, $000) Admin	IMC	Total Resource Benefits (Lifecycle kWh)	Useful Life	Levelized Costs (cents/kWh)
Lighting	Interior pulse start HID fixture 251 - 400 watts mercu	97	6	14	3,371,473	16	1.07
Lighting	Interior pulse start HID fixture 251-400 watts incande	13	1	0	593,108	16	0.44
Lighting	Exterior pulse start HID fixture 0-100 watts incandes	3	0	0	34,782	16	1.75
Lighting	Exterior pulse start HID fixture 0-100 watts mercury	14	0	1	75,978	16	3.38
Lighting	Exterior pulse start HID fixture 101-175 watts incand	4	0	1	81,405	16	1.60
Lighting	Exterior pulse start HID fixture 101-175 watts mercu	4	0	1	28,368	16	4.02
Lighting	Exterior pulse start HID fixture > 176 watts incandes	95	5	18	2,823,888	16	1.49
Lighting	Exterior pulse start HID fixture > 176 watts mercury	162	3	31	1,858,252	16	3.37
Lighting	Ceramic Metal Halide (CMH) ,75 watts	188	2	14	1,089,315	16	2.58
Lighting	Interior Pulse Start Metal Halide (400 W replacemer	823	12	101	5,767,767	10	2.93
Lighting	Interior HO T-5 4 lamp fixture retrofits	7,841	185	1,897	107,912,233	16	3.52
Lighting	Occupancy Sensor wall mounted	747	5	32	2,392,112	8	2.19
Lighting	Occupancy Sensor ceiling mounted	2,313	55	178	25,383,195	8	1.28
Lighting	Plug Load sensor	-	-	-	-	8	#DIV/0!
Lighting	Photocell	91	3	1	1,244,216	8	0.40
Lighting	Timeclock	49	1	1	669,962	8	0.61
Refrigeration	Night Covers for Display Cases - med temp	-	-	-	-	5	#DIV/0!
Refrigeration	Night Covers for Display Cases - low temp	88	0	1	24,922	5	4.25
Refrigeration	Infiltration Barrier for Walk-ins (strip curtains)	1,823	9	25	3,255,077	4	1.24
Refrigeration	Retrofit Glass doors on open vertical display cases	-	-	-	-	12	#DIV/0!
Refrigeration	Retrofit Glass doors on open vertical display cases	19	0	5	252,806	12	3.35
Refrigeration	Replace reach in case w/doors with hi eff case with s	-	-	-	-	12	#DIV/0!
Refrigeration	New Low Temp reach in Display Case with doors/ n	1,195	38	516	22,173,082	16	4.56
Refrigeration	New Medium Temp reach in Display Case with Doo	-	-	-	-	16	#DIV/0!
Refrigeration	Special Doors with Low Anti-Sweat Heat low temp)	-	-	-	-	12	#DIV/0!
Refrigeration	Anti-Sweat Heat Controller	-	-	-	-	8	#DIV/0!
Refrigeration	Insulate Bare Suction Pipes	-	-	-	-	11	#DIV/0!
Refrigeration	Main door Cooler Door Gaskets (Walk-in)	929	20	4	7,457,985	4	0.40
Refrigeration	Main Door Freezer Door Gaskets(Walk-in)	89	2	0	714,620	4	0.40
Refrigeration	Auto-closer for Coolers	2	0	0	54,298	8	0.92
Refrigeration	Auto-closer for Freezers	-	-	-	-	8	#DIV/0!
Refrigeration	Auto-closer for Glass Doors for Walk-In Coolers	-	-	-	-	8	#DIV/0!
Refrigeration	Oversized Air Cooled Condenser	-	-	-	-	16	#DIV/0!
Refrigeration	Oversized Evaporative Cooled Condenser	53	1	14	769,370	16	3.71
Refrigeration	Air cooled to Evaporative cooled condensers -conve	-	-	-	-	16	#DIV/0!
Refrigeration	Air cooled to Evaporative cooled condensers - multi	-	-	-	-	16	#DIV/0!
Refrigeration	Multiplex Compressor System air cooled	-	-	-	-	12	#DIV/0!
Refrigeration	Multiplex Compressor System - evap cooled	-	-	-	-	12	#DIV/0!
Refrigeration	Multiplex Compressor System w/ eff cond - air coole	-	-	-	-	12	#DIV/0!
Refrigeration	Multiplex Compressor System w/ eff cond - evap co	-	-	-	-	12	#DIV/0!
Refrigeration	Floating Head Pressure Controller - air cooled	-	-	-	-	16	#DIV/0!
Refrigeration	Floating Head Pressure Controller - evap cooled	-	-	-	-	16	#DIV/0!
Refrigeration	Efficient Evaporator Fan Motors (SHP to PSC)	-	-	-	-	16	#DIV/0!
Refrigeration	Efficient Evaporator Fan Motors (SHP to ECM)	-	-	-	-	16	#DIV/0!
Refrigeration	High Efficiency Compressor	-	-	-	-	15	#DIV/0!
Refrigeration	Evaporative Fan Controller	-	-	-	-	5	#DIV/0!
Refrigeration	Vending Machine Controller	133	5	26	3,045,168	15	1.79
Agricultural	Sprinkler to Micro-Irrigation conversion	1,706	29	491	18,310,157	20	5.85
Agricultural	Low pressure impact sprinkler nozzles(permanent)	-	-	-	-	5	#DIV/0!
Agricultural	Low pressure impact sprinkler nozzles(portable)	-	-	-	-	5	#DIV/0!
Agricultural	Variable Frequency Drives for Injectin Molding Mach	-	-	-	-	15	#DIV/0!
Motors	Motors 1-200 HP	-	-	-	-	15	#DIV/0!
Food Service	Pressureless Steamers <=0.4 kW idle	-	-	-	-	12	#DIV/0!
Food Service	Pressureless Steamers <=0.2 kW idle	2	0	1	179,251	12	1.16
Food Service	Insulated Holding Cabinet- Full Size <=.8 kW	4	0	4	179,712	12	3.73
Food Service	Insulated Holding Cabinet- Full Size <=.6 kW	-	-	-	-	12	#DIV/0!

Table TA 3.4
2005 Energy Efficiency Annual Report
MEASURE DETAIL: ELECTRIC
NONRESIDENTIAL PROGRAM AREA
2004

End Use	Measure Description	Quantity (Recorded)	Total Resource Costs (Recorded, $000) Admin	IMC	Total Resource Benefits (Lifecycle kWh)	Useful Life	Levelized Costs (cents/kWh)
Food Service	Insulated Holding Cabinet-Three Quarter Size <=.8 l	4	0	3	128,563	12	4.14
Food Service	Insulated Holding Cabinet-Three Quarter Size <=.6 l	-	-	-	-	12	#DIV/0!
Food Service	Insulated Holding Cabinet-Half Size <=.4 kW	3	0	2	67,392	12	4.42
Food Service	Insulated Holding Cabinet-Half Size <=.3 kW	-	-	-	-	12	#DIV/0!
SPC - PGC							
Air Conditioning	Com. Early Retirement Package Units	1,508,854	21	145	5,280,989	5	3.95
Air Conditioning	Com. Customized - Space Conditioning	3,677,940	109	556	38,618,370	15	3.04
Air Conditioning	Com. EMS (Space Conditioning)	2,276,218	67	344	23,900,289	15	3.04
Air Conditioning	Com. Chillers	2,813,994	100	211	39,395,916	20	1.62
Air Conditioning	Com. Early Retirement Chillers, traditional	416,584	2	32	729,022	20	9.59
Air Conditioning	Com. Early Retirement Chillers	644,216	2	95	450,951	8	29.89
Air Conditioning	Ind. Customized - Space Conditioning	116,193	4	18	1,220,027	15	3.05
Air Conditioning	Ind. Chillers	1,885,298	67	141	26,394,172	20	1.62
Lighting	Com. Indoor Lighting Sys. Mod.	35,443	1	4	396,962	16	2.15
Lighting	Com. Indoor Lighting Sys. Repl.	8,254,296	255	396	92,448,115	16	1.29
Lighting	Com. Outdoor Lighting	104,596	3	5	1,171,475	16	1.29
Lighting	Com. Lighting Controls	3,601,902	111	364	40,341,302	16	2.15
Lighting	Ind. Indoor Lighting Sys. Mod.	-	-	-	-	16	#DIV/0!
Lighting	Ind. Indoor Lighting Sys. Repl.	-	-	-	-	16	#DIV/0!
Lighting	Ind. Outdoor Lighting Sys. Mod.	-	-	-	-	16	#DIV/0!
Lighting	Ind. Outdoor Lighting Sys. Repl.	-	-	-	-	16	#DIV/0!
Lighting	Ind. LED Lamps	-	-	-	-	16	#DIV/0!
Other	Com. Customized - Process	15,992,435	473	2,463	167,920,568	15	3.09
Other	Com. Customized - Refrigeration	5,445,279	161	953	57,175,430	15	3.45
Other	Com. Customized - Pumping	523,933	16	81	5,501,297	15	3.09
Other	Ind. Motors	-	-	-	-	15	#DIV/0!
Other	Ind. Adj. Speed Drive	3,499,202	104	539	36,741,621	15	3.09
Other	Ind. Pump System Controls	211,297	6	33	2,218,619	15	3.09
Other	Ind. Cooling Towers	-	-	-	-	15	#DIV/0!
Other	Ind. Customized - Process	8,777,316	260	1,352	92,161,818	15	3.09
Other	Early Retirement Motors	-	-	-	-	7	#DIV/0!
HVAC	Package Terminal Air Conditioners	-	-	-	-	15	#DIV/0!
HVAC	Package single Tier 1-air cooled	-	-	-	-	15	#DIV/0!
HVAC	Split System single Tier 1- air cooled	-	-	-	-	15	#DIV/0!
HVAC	Package single Tier 2 - air cooled	-	-	-	-	15	#DIV/0!
HVAC	Split System single Tier 2- air cooled	-	-	-	-	15	#DIV/0!
HVAC	Package single Tier 3 - air cooled	-	-	-	-	15	#DIV/0!
HVAC	Split System Tier 3 - air cooled	-	-	-	-	15	#DIV/0!
HVAC	65-135kBTU air cooled, package or split Tier 2	-	-	-	-	15	#DIV/0!
HVAC	65-135kBTU water/evap cooled, package or split Tie	-	-	-	-	15	#DIV/0!
HVAC	135-240 kBTU air cooled, package or split Tier 2	-	-	-	-	15	#DIV/0!
HVAC	135-240 kBTU water/evap cooled, package or split T	-	-	-	-	15	#DIV/0!
HVAC	>240 kBTU air cooled, package or split Tier 2	-	-	-	-	15	#DIV/0!
HVAC	Variable-Frequency Drives - HVAC Fans	3,668	85	519	29,985,407	15	3.56
HVAC	Setback Programmable Thermostats	143	14	6	4,506,802	11	0.69
HVAC	Reflective Window Film - Coastal	24,642	7	31	2,242,471	10	2.55
HVAC	Reflective Window Film - Inland	-	-	-	-	10	#DIV/0!
HVAC	Reflective Window Film - Desert	-	-	-	-	10	#DIV/0!
HVAC	Evaporative Coolers	-	-	-	-	15	#DIV/0!
HVAC	Cool Roof	429,720	6	63	2,256,030	15	5.45
Lighting	Screw-in Compact Fluorescent Lamp, 5 - 13 watts	170	0	2	138,258	8	2.22
Lighting	Screw-in Compact Fluorescent Lamp, 14-26 watts	2,158	10	17	2,802,559	8	1.34
Lighting	Screw-in Compact Fluorescent Lamp, 14-26 watts w	3,287	15	26	4,268,779	8	1.34
Lighting	Screw-in Compact Fluorescent Lamp, >=27watts	9,858	84	145	24,311,633	8	1.32
Lighting	Linear Fluorescent Electronic Ballast. Non-Dimming	-	-	-	-	16	#DIV/0!

Table TA 3.4
2005 Energy Efficiency Annual Report
MEASURE DETAIL: ELECTRIC
NONRESIDENTIAL PROGRAM AREA
2004

End Use	Measure Description	Quantity (Recorded)	Total Resource Costs (Recorded, $000) Admin	IMC	Total Resource Benefits (Lifecycle kWh)	Useful Life	Levelized Costs (cents/kWh)
Lighting	Linear Fluorescent Electronic Ballast, Dimming	-	-	-	-	16	#DIV/0!
Lighting	Hardwired Fluorescent Fixture, 5-13 watts	-	-	-	-	16	#DIV/0!
Lighting	Hardwired Fluorescent Fixture, 14-26 watts	-	-	-	-	16	#DIV/0!
Lighting	Hardwired Fluorescent Fixture. 27-65 watts(incandes	-	-	-	-	16	#DIV/0!
Lighting	Hardwired Fluorescent Fixture. 27-65 watts(mercurv	-	-	-	-	16	#DIV/0!
Lighting	Hardwired Fluorescent Fixture. 66-90 watts(incande	7	0	1	79,341	16	2.09
Lighting	Hardwired Fluorescent Fixture. 66-90 watts/mercurv	-	-	-	-	16	#DIV/0!
Lighting	Hardwired Fluorescent Fixture. >90 watts(incandesc	11	0	1	124,678	16	2.09
Lighting	Hardwired Fluorescent Fixture. >90 watts/mercurv v	-	-	-	-	16	#DIV/0!
Lighting	Induction Lamps and fixtures 55 - 100 watts	-	-	-	-	16	#DIV/0!
Lighting	Induction Lamps and fixtures >100 watts	-	-	-	-	16	#DIV/0!
Lighting	LED Exit Sign	906	10	70	3,565,296	16	4.11
Lighting	LED Channel Signage (Red) indoor <2ft	-	-	-	-	16	#DIV/0!
Lighting	LED Channel Signage (Red) indoor >2ft	-	-	-	-	16	#DIV/0!
Lighting	LED Channel Signage (Red) outdoor <2ft	-	-	-	-	16	#DIV/0!
Lighting	LED Channel Signage (Red) outdoor >2ft	-	-	-	-	16	#DIV/0!
Lighting	T-8 or T-5 Lamp and Electronic ballast - 2 foot	1,163	2	17	604,139	16	5.67
Lighting	T-8 or T-5 Lamp and Electronic. 2-foot lamp remove	61	0	1	120,030	16	1.74
Lighting	T-8 or T-5 Lamp and Electronic ballast - 3 foot	1,940	3	29	1,180,838	16	4.91
Lighting	T-8 or T-5 Lamp and Electronic. 3-foot lamp remove	1	0	0	2,307	16	1.55
Lighting	T-8 or T-5 Lamp and Electronic ballast - 4 foot	80,856	125	254	45,397,094	16	1.52
Lighting	T-8 or T5 Lamp and Electronic. 4-foot lamp remove	8,739	54	214	19,717,746	16	2.48
Lighting	T-8 or T-5 Lamp and Electronic. 8-foot lamp installe	441	1	6	208,264	16	5.78
Lighting	T-8 or T-5 Lamp and Electronic. 8-foot lamp remove	1,665	19	58	6,901,899	16	2.04
Lighting	Interior pulse start HID fixture 0-35 watts incandesce	-	-	-	-	16	#DIV/0!
Lighting	Interior pulse start HID fixture 0-35 watts mercurv va	-	-	-	-	16	#DIV/0!
Lighting	Interior pulse start HID fixture 36-70 watts incandesc	-	-	-	-	16	#DIV/0!
Lighting	Interior pulse start HID fixture 36-70 watts mercurv v	-	-	-	-	16	#DIV/0!
Lighting	Interior pulse start HID fixture 71-100 watts incande	51	1	4	457,610	16	1.93
Lighting	Interior pulse start HID fixture 71-100 watts mercurv	43	0	2	160,194	16	3.25
Lighting	Interior pulse start HID fixture 101-175 watts incande	-	-	-	-	16	#DIV/0!
Lighting	Interior pulse start HID fixture 101-175 watts mercun	-	-	-	-	16	#DIV/0!
Lighting	Interior pulse start HID fixture 176 - 250 watts mercu	-	-	-	-	16	#DIV/0!
Lighting	Interior pulse start HID fixture 176-250 watts incande	-	-	-	-	16	#DIV/0!
Lighting	Interior pulse start HID fixture 251 - 400 watts mercu	-	-	-	-	16	#DIV/0!
Lighting	Interior pulse start HID fixture 251-400 watts incande	3	0	0	99,803	16	0.63
Lighting	Exterior pulse start HID fixture 0-100 watts incandes	29	1	2	245,168	16	1.94
Lighting	Exterior pulse start HID fixture 0-100 watts mercury v	-	-	-	-	16	#DIV/0!
Lighting	Exterior pulse start HID fixture 101-175 watts incand	-	-	-	-	16	#DIV/0!
Lighting	Exterior pulse start HID fixture 101-175 watts mercu	-	-	-	-	16	#DIV/0!
Lighting	Exterior pulse start HID fixture > 176 watts incandes	-	-	-	-	16	#DIV/0!
Lighting	Exterior pulse start HID fixture > 176 watts mercury v	2	0	0	16,733	16	3.56
Lighting	Ceramic Metal Halide (CMH) ,75 watts	-	-	-	-	16	#DIV/0!
Lighting	Interior Pulse Start Metal Halide (400 W replacemer	25	0	2	77,700	10	4.81
Lighting	Interior HO T-5 4 lamp fixture retrofits	6,825	189	1,204	68,490,240	16	3.71
Lighting	Occupancy Sensor wall mounted	3,496	28	110	8,163,176	8	2.37
Lighting	Occupancy Sensor ceiling mounted	3,991	110	223	31,935,910	8	1.46
Lighting	Plug Load sensor	43	0	1	111,686	8	1.24
Lighting	Photocell	229	8	2	2,283,064	8	0.58
Lighting	Timeclock	1,043	36	23	10,398,382	8	0.79
Refrigeration	Night Covers for Display Cases - med temp	6,794	14	44	3,519,292	5	2.07
Refrigeration	Night Covers for Display Cases - low temp	-	-	-	-	5	#DIV/0!
Refrigeration	Infiltration Barrier for Walk-ins (strip curtains)	105	1	1	136,710	4	1.43
Refrigeration	Retrofit Glass doors on open vertical display cases	-	-	-	-	12	#DIV/0!
Refrigeration	Retrofit Glass doors on open vertical display cases	-	-	-	-	12	#DIV/0!
Refrigeration	Replace reach in case w/doors with hi eff case with s	-	-	-	-	12	#DIV/0!
Refrigeration	New Low Temp reach in Display Case with doors/ n	-	-	-	-	16	#DIV/0!
Refrigeration	New Medium Temp reach in Display Case with Doo	-	-	-	-	16	#DIV/0!
Refrigeration	Special Doors with Low Anti-Sweat Heat low temp)	-	-	-	-	12	#DIV/0!

Table TA 3.4
2005 Energy Efficiency Annual Report
MEASURE DETAIL: ELECTRIC
NONRESIDENTIAL PROGRAM AREA
2004

End Use	Measure Description	Quantity (Recorded)	Total Resource Costs (Recorded, $000) Admin	IMC	Total Resource Benefits (Lifecycle kWh)	Useful Life	Levelized Costs (cents/kWh)
Refrigeration	Anti-Sweat Heat Controller	-	-	-	-	8	#DIV/0!
Refrigeration	Insulate Bare Suction Pipes	-	-	-	-	11	#DIV/0!
Refrigeration	Main door Cooler Door Gaskets (Walk-in)	117	3	0	685,012	4	0.59
Refrigeration	Main Door Freezer Door Gaskets(Walk-in)	90	2	0	526,932	4	0.59
Refrigeration	Auto-closer for Coolers	-	-	-	-	8	#DIV/0!
Refrigeration	Auto-closer for Freezers	-	-	-	-	8	#DIV/0!
Refrigeration	Auto-closer for Glass Doors for Walk-In Coolers	-	-	-	-	8	#DIV/0!
Refrigeration	Oversized Air Cooled Condenser	-	-	-	-	16	#DIV/0!
Refrigeration	Oversized Evaporative Cooled Condenser	-	-	-	-	16	#DIV/0!
Refrigeration	Air cooled to Evaporative cooled condensers -conve	708	20	248	7,437,965	16	6.58
Refrigeration	Air cooled to Evaporative cooled condensers - multi	-	-	-	-	16	#DIV/0!
Refrigeration	Multiplex Compressor System air cooled	-	-	-	-	12	#DIV/0!
Refrigeration	Multiplex Compressor System - evap cooled	-	-	-	-	12	#DIV/0!
Refrigeration	Multiplex Compressor System w/ eff cond - air coole	-	-	-	-	12	#DIV/0!
Refrigeration	Multiplex Compressor System w/ eff cond - evap co	-	-	-	-	12	#DIV/0!
Refrigeration	Floating Head Pressure Controller - air cooled	-	-	-	-	16	#DIV/0!
Refrigeration	Floating Head Pressure Controller - evap cooled	-	-	-	-	16	#DIV/0!
Refrigeration	Efficient Evaporator Fan Motors (SHP to PSC)	-	-	-	-	16	#DIV/0!
Refrigeration	Efficient Evaporator Fan Motors (SHP to ECM)	-	-	-	-	16	#DIV/0!
Refrigeration	High Efficiency Compressor	-	-	-	-	15	#DIV/0!
Refrigeration	Evaporative Fan Controller	-	-	-	-	5	#DIV/0!
Refrigeration	Vending Machine Controller	16	1	2	267,120	15	1.98
Agricultural	Sprinkler to Micro-Irrigation conversion	-	-	-	-	20	#DIV/0!
Agricultural	Low pressure impact sprinkler nozzles(permanent)	-	-	-	-	5	#DIV/0!
Agricultural	Low pressure impact sprinkler nozzles(portable)	-	-	-	-	5	#DIV/0!
Agricultural	Variable Frequency Drives for Injectin Molding Mac	-	-	-	-	15	#DIV/0!
Motors	Motors 1-200 HP	-	-	-	-	15	#DIV/0!
Food Service	Pressureless Steamers <=0.4 kW idle	-	-	-	-	12	#DIV/0!
Food Service	Pressureless Steamers <=0.2 kW idle	-	-	-	-	12	#DIV/0!
Food Service	Insulated Holding Cabinet- Full Size <=.8 kW	5	0	4	163,800	12	3.92
Food Service	Insulated Holding Cabinet- Full Size <=.6 kW	-	-	-	-	12	#DIV/0!
Food Service	Insulated Holding Cabinet-Three Quarter Size <=.8 k	-	-	-	-	12	#DIV/0!
Food Service	Insulated Holding Cabinet-Three Quarter Size <=.6 k	-	-	-	-	12	#DIV/0!
Food Service	Insulated Holding Cabinet-Half Size <=.4 kW	6	0	3	98,280	12	4.60
Food Service	Insulated Holding Cabinet-Half Size <=.3 kW	-	-	-	-	12	#DIV/0!
Express Efficiency - IRP							
HVAC	Package Terminal Air Conditioners	959	1	60	5,290,182	15	2.04
HVAC	Package single Tier 1-air cooled	25	0	4	219,816	15	3.14
HVAC	Split System single Tier 1- air cooled	-	-	-	-	15	#DIV/0!
HVAC	Package single Tier 2 - air cooled	-	-	-	-	15	#DIV/0!
HVAC	Split System single Tier 2- air cooled	-	-	-	-	15	#DIV/0!
HVAC	Package single Tier 3 - air cooled	62	0	25	678,585	15	6.58
HVAC	Split System Tier 3 - air cooled	-	-	-	-	15	#DIV/0!
HVAC	65-135kBTU air cooled, package or split Tier 2	31	0	2	115,457	15	3.64
HVAC	65-135kBTU water/evap cooled, package or split Tie	-	-	-	-	15	#DIV/0!
HVAC	135-240 kBTU air cooled, package or split Tier 2	31	0	2	125,664	15	3.36
HVAC	135-240 kBTU water/evap cooled, package or split T	-	-	-	-	15	#DIV/0!
HVAC	>240 kBTU air cooled, package or split Tier 2	-	-	-	-	15	#DIV/0!
HVAC	Variable-Frequency Drives - HVAC Fans	180	0	35	1,951,776	15	3.20
HVAC	Setback Programmable Thermostats	1,384	14	77	59,819,359	11	0.24
HVAC	Reflective Window Film - Coastal	14,795	0	25	1,846,475	10	2.10
HVAC	Reflective Window Film - Inland	19,212	1	33	2,950,963	10	1.71
HVAC	Reflective Window Film - Desert	1,992	0	3	458,957	10	1.16
HVAC	Evaporative Coolers	-	-	-	-	15	#DIV/0!
HVAC	Cool Roof	267,794	0	54	1,928,117	15	4.99

Table TA 3.4
2005 Energy Efficiency Annual Report
MEASURE DETAIL: ELECTRIC
NONRESIDENTIAL PROGRAM AREA
2004

End Use	Measure Description	Quantity (Recorded)	Total Resource Costs (Recorded, $000) Admin	IMC	Total Resource Benefits (Lifecycle kWh)	Useful Life	Levelized Costs (cents/kWh)
Lighting	Screw-in Compact Fluorescent Lamp, 5 - 13 watts	109	0	2	121,579	8	1.77
Lighting	Screw-in Compact Fluorescent Lamp, 14-26 watts	67,348	31	736	119,960,815	8	0.89
Lighting	Screw-in Compact Fluorescent Lamp, 14-26 watts	34,922	16	382	62,197,814	8	0.89
Lighting	Screw-in Compact Fluorescent Lamp, >=27watts	17,213	15	347	58,217,726	8	0.87
Lighting	Hardwired Fluorescent Fixture, 5-13 watts	123	0	4	398,307	16	2.04
Lighting	Hardwired Fluorescent Fixture, 14-26 watts	477	1	20	2,540,101	16	1.49
Lighting	Hardwired Fluorescent Fixture. 27-65 watts(incande	560	1	49	5,722,386	16	1.60
Lighting	Hardwired Fluorescent Fixture. 27-65 watts(mercury	160	0	14	771,428	16	3.34
Lighting	Hardwired Fluorescent Fixture. 66-90 watts(incande	66	0	9	1,025,885	16	1.63
Lighting	Hardwired Fluorescent Fixture. 66-90 watts(mercur	-	-	-	-	16	#DIV/0!
Lighting	Hardwired Fluorescent Fixture. >90 watts(incandes	262	1	35	4,072,451	16	1.63
Lighting	Hardwired Fluorescent Fixture. >90 watts(mercury v	279	0	38	2,328,965	16	3.00
Lighting	Induction Lamps and fixtures 55 - 100 watts	-	-	-	-	16	#DIV/0!
Lighting	Induction Lamps and fixtures >100 watts	-	-	-	-	16	#DIV/0!
Lighting	LED Exit Sign	4,040	4	431	21,803,434	16	3.64
Lighting	LED Channel Signage (Red) indoor <2ft	-	-	-	-	16	#DIV/0!
Lighting	LED Channel Signage (Red) indoor >2ft	-	-	-	-	16	#DIV/0!
Lighting	LED Channel Signage (Red) outdoor <2ft	-	-	-	-	16	#DIV/0!
Lighting	LED Channel Signage (Red) outdoor >2ft	-	-	-	-	16	#DIV/0!
Lighting	T-8 or T-5 Lamp and Electronic ballast - 2 foot Insta	2,301	0	46	1,639,278	16	5.20
Lighting	T-8 or T-5 Lamp and Electronic. 2-foot lamp remove	454	0	8	1,225,146	16	1.27
Lighting	T-8 or T-5 Lamp and Electronic ballast - 3 foot Insta	354	0	7	295,503	16	4.44
Lighting	T-8 or T-5 Lamp and Electronic. 3-foot lamp remove	-	-	-	-	16	#DIV/0!
Lighting	T-8 or T-5 Lamp and Electronic ballast - 4 foot Insta	147,612	23	636	113,659,634	16	1.06
Lighting	T-8 or T5 Lamp and Electronic. 4-foot lamp remove	32,152	20	1,080	99,489,503	16	2.02
Lighting	T-8 or T-5 Lamp and Electronic. 8-foot lamp installe	4,247	1	80	2,750,588	16	5.31
Lighting	T-8 or T-5 Lamp and Electronic. 8-foot lamp remove	1,818	2	87	10,335,269	16	1.58
Lighting	Electronic Ballast, Non-Dimming	1,664	0	21	838,209	16	4.56
Lighting	Electronic Ballast, Dimming(with daylighting)	-	-	-	-	16	#DIV/0!
Lighting	Interior pulse start HID fixture 0-35 watts incandesc	-	-	-	-	16	#DIV/0!
Lighting	Interior pulse start HID fixture 0-35 watts mercury va	-	-	-	-	16	#DIV/0!
Lighting	Interior pulse start HID fixture 36-70 watts incandes	-	-	-	-	16	#DIV/0!
Lighting	Interior pulse start HID fixture 36-70 watts mercury v	-	-	-	-	16	#DIV/0!
Lighting	Interior pulse start HID fixture 71-100 watts incande	-	-	-	-	16	#DIV/0!
Lighting	Interior pulse start HID fixture 71-100 watts mercury	-	-	-	-	16	#DIV/0!
Lighting	Interior pulse start HID fixture 101-175 watts incand	1	0	0	20,869	16	0.31
Lighting	Interior pulse start HID fixture 101-175 watts mercu	12	0	2	64,765	16	4.91
Lighting	Interior pulse start HID fixture 176 - 250 watts merc	-	-	-	-	16	#DIV/0!
Lighting	Interior pulse start HID fixture 176-250 watts incand	-	-	-	-	16	#DIV/0!
Lighting	Interior pulse start HID fixture 251 - 400 watts merc	1	0	0	45,624	16	0.61
Lighting	Interior pulse start HID fixture 251-400 watts incand	81	1	2	2,815,354	16	0.20
Lighting	Exterior pulse start HID fixture 0-100 watts incandes	2	0	0	23,188	16	1.47
Lighting	Exterior pulse start HID fixture 0-100 watts mercury	-	-	-	-	16	#DIV/0!
Lighting	Exterior pulse start HID fixture 101-175 watts incan	20	0	3	407,025	16	1.33
Lighting	Exterior pulse start HID fixture 101-175 watts mercu	-	-	-	-	16	#DIV/0!
Lighting	Exterior pulse start HID fixture > 176 watts incandes	-	-	-	-	16	#DIV/0!
Lighting	Exterior pulse start HID fixture > 176 watts mercury	60	0	12	688,242	16	3.09
Lighting	Ceramic Metal Halide (CMH) ,75 watts	1,350	1	97	7,112,448	16	2.53
Lighting	Interior Pulse Start Metal Halide (400 W replacemen	194	0	24	826,906	10	4.36
Lighting	Interior HO T-5 4 lamp fixture retrofits	7,728	22	1,870	106,357,064	16	3.25
Lighting	Occupancy Sensor wall mounted	1,226	1	53	3,926,009	8	1.92
Lighting	Occupancy Sensor ceiling mounted	1,842	5	141	20,214,373	8	1.02
Lighting	Plug Load sensor	-	-	-	-	8	#DIV/0!
Lighting	Photocell	62	0	1	847,708	8	0.13
Lighting	Timeclock	28	0	1	382,836	8	0.34
Refrigeration	Night Covers for Display Cases - med temp	-	-	-	-	5	#DIV/0!
Refrigeration	Night Covers for Display Cases - low temp	92	0	1	174,744	5	0.63
Refrigeration	Infiltration Barrier for Walk-ins (strip curtains)	494	0	7	882,783	4	0.95
Refrigeration	Retrofit Glass doors on open vertical display cases	-	-	-	-	12	#DIV/0!

Table TA 3.4
2005 Energy Efficiency Annual Report
MEASURE DETAIL: ELECTRIC
NONRESIDENTIAL PROGRAM AREA
2004

End Use	Measure Description	Quantity (Recorded)	Total Resource Costs (Recorded, $000) Admin	IMC	Total Resource Benefits (Lifecycle kWh)	Useful Life	Levelized Costs (cents/kWh)
Refrigeration	Retrofit Glass doors on open vertical display cases (	-	-	-	-	12	#DIV/0!
Refrigeration	Replace reach in case w/doors with hi eff case with	-	-	-	-	12	#DIV/0!
Refrigeration	New Low Temp reach in Display Case with doors(re	-	-	-	-	16	#DIV/0!
Refrigeration	New Medium Temp reach in Display Case with Doo	35	0	15	312,346	16	8.87
Refrigeration	Special Doors with Low Anti-Sweat Heat low temp)	-	-	-	-	12	#DIV/0!
Refrigeration	Anti-Sweat Heat Controller	45	0	2	118,541	8	2.89
Refrigeration	Insulate Bare Suction Pipes	-	-	-	-	11	#DIV/0!
Refrigeration	Main door Cooler Door Gaskets (Walk-in)	146	0	1	1,174,948	4	0.11
Refrigeration	Main Door Freezer Door Gaskets(Walk-in)	94	0	0	750,753	4	0.11
Refrigeration	Auto-closer for Coolers	2	0	0	54,298	8	0.65
Refrigeration	Auto-closer for Freezers	-	-	-	-	8	#DIV/0!
Refrigeration	Auto-closer for Glass Doors for Walk-In Coolers	-	-	-	-	8	#DIV/0!
Refrigeration	Oversized Air Cooled Condenser	-	-	-	-	16	#DIV/0!
Refrigeration	Oversized Evaporative Cooled Condenser	-	-	-	-	16	#DIV/0!
Refrigeration	Air cooled to Evaporative cooled condensers -conve	-	-	-	-	16	#DIV/0!
Refrigeration	Air cooled to Evaporative cooled condensers - multi	-	-	-	-	16	#DIV/0!
Refrigeration	Multiplex Compressor System air cooled	-	-	-	-	12	#DIV/0!
Refrigeration	Multiplex Compressor System - evap cooled	-	-	-	-	12	#DIV/0!
Refrigeration	Multiplex Compressor System w/ eff cond - air cool	-	-	-	-	12	#DIV/0!
Refrigeration	Multiplex Compressor System w/ eff cond - evap coo	-	-	-	-	12	#DIV/0!
Refrigeration	Floating Head Pressure Controller - air cooled	-	-	-	-	16	#DIV/0!
Refrigeration	Floating Head Pressure Controller - evap cooled	-	-	-	-	16	#DIV/0!
Refrigeration	Efficient Evaporator Fan Motors (SHP to PSC)	-	-	-	-	16	#DIV/0!
Refrigeration	Efficient Evaporator Fan Motors (SHP to ECM)	-	-	-	-	16	#DIV/0!
Refrigeration	High Efficiency Compressor	-	-	-	-	15	#DIV/0!
Refrigeration	Evaporative Fan Controller	-	-	-	-	5	#DIV/0!
Refrigeration	Vending Machine Controller	2	0	0	45,792	15	1.52
Agricultural	Sprinkler to Micro-Irrigation conversion	2,486	5	716	26,679,594	20	5.57
Agricultural	Low pressure impact sprinkler nozzles(permanent)	-	-	-	-	5	#DIV/0!
Agricultural	Low pressure impact sprinkler nozzles(portable)	-	-	-	-	5	#DIV/0!
Agricultural	Variable Frequency Drives for Injectin Molding Mach	-	-	-	-	15	#DIV/0!
Motors	Motors 1-200 HP	-	-	-	-	15	#DIV/0!
Food Service	Pressureless Steamers <=0.4 kW idle	2	0	-	152,525	12	0.04
Food Service	Pressureless Steamers <=0.2 kW idle	2	0	1	179,251	12	0.90
Food Service	Insulated Holding Cabinet- Full Size <=.8 kW	8	0	8	359,424	12	3.47
Food Service	Insulated Holding Cabinet- Full Size <=.6 kW	-	-	-	-	12	#DIV/0!
Food Service	Insulated Holding Cabinet-Three Quarter Size <=.8	3	0	2	96,422	12	3.87
Food Service	Insulated Holding Cabinet-Three Quarter Size <=.6	75	1	58	3,326,400	12	2.82
Food Service	Insulated Holding Cabinet-Half Size <=.4 kW	9	0	5	202,176	12	4.15
Food Service	Insulated Holding Cabinet-Half Size <=.3 kW	-	-	-	-	12	#DIV/0!
SPC - IRP							
Air Conditioning	Com. Early Retirement Package Units	523,821	1	50	1,005,198	5	6.41
Air Conditioning	Com. Customized - Space Conditioning	2,931,874	23	443	30,784,677	15	2.67
Air Conditioning	Com. EMS (Space Conditioning)	4,149,024	32	627	43,564,752	15	2.67
Air Conditioning	Com. Chillers	4,871,081	45	365	68,195,134	20	1.24
Air Conditioning	Com. Early Retirement Chillers, traditional	6,835,712	8	526	11,662,336	20	9.43
Air Conditioning	Com. Early Retirement Chillers	15,797,072	10	2,322	11,057,950	8	29.53
Air Conditioning	Ind. Customized - Space Conditioning	392,123	3	59	4,117,292	15	2.67
Air Conditioning	Ind. Chillers	2,978,701	28	223	41,701,814	20	1.24
Lighting	Com. Indoor Lighting Sys. Mod.	969,441	8	98	10,857,739	16	1.78
Lighting	Com. Indoor Lighting Sys. Repl.	9,133,192	73	439	102,291,750	16	0.91
Lighting	Com. Outdoor Lighting	467,057	4	22	5,231,038	16	0.91
Lighting	Com. Lighting Controls	3,457,211	28	349	38,720,763	16	1.78
Lighting	Ind. Indoor Lighting Sys. Mod.	13,244	0	1	148,333	16	1.78
Lighting	Ind. Indoor Lighting Sys. Repl.	252,560	2	12	2,828,672	16	0.91

Table TA 3.4
2005 Energy Efficiency Annual Report
MEASURE DETAIL: ELECTRIC
NONRESIDENTIAL PROGRAM AREA
2004

End Use	Measure Description	Quantity (Recorded)	Total Resource Costs (Recorded, $000) Admin	IMC	Total Resource Benefits (Lifecycle kWh)	Useful Life	Levelized Costs (cents/kWh)
Lighting	Ind. Outdoor Lighting Sys. Mod.	-	-	-	-	16	#DIV/0!
Lighting	Ind. Outdoor Lighting Sys. Repl.	-	-	-	-	16	#DIV/0!
Lighting	Ind. LED Lamps	-	-	-	-	16	#DIV/0!
Other	Com. Customized - Process	61,804,050	477	9,518	648,942,520	15	2.72
Other	Com. Customized - Refrigeration	6,319,646	49	1,106	66,356,283	15	3.08
Other	Com. Customized - Pumping	2,556,909	20	394	26,847,545	15	2.72
Other	Ind. Motors	6,749,365	52	1,039	70,868,333	15	2.72
Other	Ind. Adj. Speed Drive	6,054,186	47	932	63,568,953	15	2.72
Other	Ind. Pump System Controls	222,753	2	34	2,338,907	15	2.72
Other	Ind. Cooling Towers	1,183,200	9	182	12,423,600	15	2.72
Other	Ind. Customized - Process	33,898,802	261	5,220	355,937,421	15	2.72
Other	Early Retirement Motors	226,555	0	30	158,589	7	25.40
HVAC	Package Terminal Air Conditioners	50	0	2	201,117	15	2.13
HVAC	Package single Tier 1-air cooled	-	-	-	-	15	#DIV/0!
HVAC	Split System single Tier 1- air cooled	-	-	-	-	15	#DIV/0!
HVAC	Package single Tier 2 - air cooled	-	-	-	-	15	#DIV/0!
HVAC	Split System single Tier 2- air cooled	-	-	-	-	15	#DIV/0!
HVAC	Package single Tier 3 - air cooled	-	-	-	-	15	#DIV/0!
HVAC	Split System Tier 3 - air cooled	-	-	-	-	15	#DIV/0!
HVAC	65-135kBTU air cooled, package or split Tier 2	-	-	-	-	15	#DIV/0!
HVAC	65-135kBTU water/evap cooled, package or split Tie	-	-	-	-	15	#DIV/0!
HVAC	135-240 kBTU air cooled, package or split Tier 2	-	-	-	-	15	#DIV/0!
HVAC	135-240 kBTU water/evap cooled, package or split T	-	-	-	-	15	#DIV/0!
HVAC	>240 kBTU air cooled, package or split Tier 2	-	-	-	-	15	#DIV/0!
HVAC	Variable-Frequency Drives - HVAC Fans	2,709	16	383	22,094,720	15	3.20
HVAC	Setback Programmable Thermostats	2,342	60	95	73,810,706	11	0.33
HVAC	Reflective Window Film - Coastal	8,275	1	10	753,025	10	2.19
HVAC	Reflective Window Film - Inland	8,612	1	11	964,544	10	1.80
HVAC	Reflective Window Film - Desert	-	-	-	-	10	#DIV/0!
HVAC	Evaporative Coolers	494	4	44	5,576,025	15	1.52
HVAC	Cool Roof	1,058,234	4	156	5,555,739	15	5.08
Lighting	Screw-in Compact Fluorescent Lamp, 5 - 13 watts	1,438	1	14	1,169,554	8	1.86
Lighting	Screw-in Compact Fluorescent Lamp, 14-26 watts	6,930	8	55	8,999,894	8	0.98
Lighting	Screw-in Compact Fluorescent Lamp, 14-26 watts	1,163	1	9	1,510,365	8	0.98
Lighting	Screw-in Compact Fluorescent Lamp, >=27watts	528	1	8	1,302,140	8	0.96
Lighting	Linear Fluorescent Electronic Ballast, Non-Dimming	-	-	-	-	16	#DIV/0!
Lighting	Linear Fluorescent Electronic Ballast, Dimming	-	-	-	-	16	#DIV/0!
Lighting	Hardwired Fluorescent Fixture, 5-13 watts	-	-	-	-	16	#DIV/0!
Lighting	Hardwired Fluorescent Fixture, 14-26 watts	263	1	8	1,021,194	16	1.58
Lighting	Hardwired Fluorescent Fixture, 27-65 watts(incande	5	0	0	37,251	16	1.69
Lighting	Hardwired Fluorescent Fixture, 27-65 watts(mercury	-	-	-	-	16	#DIV/0!
Lighting	Hardwired Fluorescent Fixture, 66-90 watts(incande	271	2	27	3,071,488	16	1.72
Lighting	Hardwired Fluorescent Fixture, 66-90 watts(mercur	-	-	-	-	16	#DIV/0!
Lighting	Hardwired Fluorescent Fixture, >90 watts(incandes	102	1	10	1,156,064	16	1.72
Lighting	Hardwired Fluorescent Fixture, >90 watts(mercury v	24	0	2	146,082	16	3.09
Lighting	Induction Lamps and fixtures 55 - 100 watts	-	-	-	-	16	#DIV/0!
Lighting	Induction Lamps and fixtures >100 watts	-	-	-	-	16	#DIV/0!
Lighting	LED Exit Sign	1,853	5	144	7,292,006	16	3.73
Lighting	LED Channel Signage (Red) indoor <2ft	-	-	-	-	16	#DIV/0!
Lighting	LED Channel Signage (Red) indoor >2ft	-	-	-	-	16	#DIV/0!
Lighting	LED Channel Signage (Red) outdoor <2ft	-	-	-	-	16	#DIV/0!
Lighting	LED Channel Signage (Red) outdoor >2ft	-	-	-	-	16	#DIV/0!
Lighting	T-8 or T-5 Lamp and Electronic ballast - 2 foot	3,550	1	52	1,844,158	16	5.30
Lighting	T-8 or T-5 Lamp and Electronic. 2-foot lamp remove	12	0	0	23,610	16	1.36
Lighting	T-8 or T-5 Lamp and Electronic ballast - 3 foot	156	0	2	94,942	16	4.54
Lighting	T-8 or T-5 Lamp and Electronic. 3-foot lamp remove	-	-	-	-	16	#DIV/0!
Lighting	T-8 or T-5 Lamp and Electronic ballast - 4 foot	134,522	54	423	75,528,062	16	1.15

Table TA 3.4
2005 Energy Efficiency Annual Report
MEASURE DETAIL: ELECTRIC
NONRESIDENTIAL PROGRAM AREA
2004

End Use	Measure Description	Quantity (Recorded)	Total Resource Costs (Recorded, $000) Admin	IMC	Total Resource Benefits (Lifecycle kWh)	Useful Life	Levelized Costs (cents/kWh)
Lighting	T-8 or T5 Lamp and Electronic. 4-foot lamp remove	20,839	34	511	47,018,966	16	2.11
Lighting	T-8 or T-5 Lamp and Electronic. 8-foot lamp installe	3,461	1	47	1,634,461	16	5.41
Lighting	T-8 or T-5 Lamp and Electronic. 8-foot lamp remove	867	3	30	3,593,957	16	1.67
Lighting	Interior pulse start HID fixture 0-35 watts incandesc	-	-	-	-	16	#DIV/0!
Lighting	Interior pulse start HID fixture 0-35 watts mercury va	-	-	-	-	16	#DIV/0!
Lighting	Interior pulse start HID fixture 36-70 watts incandes	-	-	-	-	16	#DIV/0!
Lighting	Interior pulse start HID fixture 36-70 watts mercury v	-	-	-	-	16	#DIV/0!
Lighting	Interior pulse start HID fixture 71-100 watts incandes	-	-	-	-	16	#DIV/0!
Lighting	Interior pulse start HID fixture 71-100 watts mercury	-	-	-	-	16	#DIV/0!
Lighting	Interior pulse start HID fixture 101-175 watts incand	6	0	0	91,302	16	0.40
Lighting	Interior pulse start HID fixture 101-175 watts mercu	585	2	61	2,302,205	16	5.00
Lighting	Interior pulse start HID fixture 176 - 250 watts merc	11	0	1	105,045	16	2.14
Lighting	Interior pulse start HID fixture 176-250 watts incand	13	0	0	315,146	16	0.30
Lighting	Interior pulse start HID fixture 251 - 400 watts merc	-	-	-	-	16	#DIV/0!
Lighting	Interior pulse start HID fixture 251-400 watts incand	35	1	1	1,164,352	16	0.25
Lighting	Exterior pulse start HID fixture 0-100 watts incandes	122	1	8	1,031,386	16	1.57
Lighting	Exterior pulse start HID fixture 0-100 watts mercury	-	-	-	-	16	#DIV/0!
Lighting	Exterior pulse start HID fixture 101-175 watts incan	-	-	-	-	16	#DIV/0!
Lighting	Exterior pulse start HID fixture 101-175 watts mercu	116	0	12	599,872	16	3.84
Lighting	Exterior pulse start HID fixture > 176 watts incandes	-	-	-	-	16	#DIV/0!
Lighting	Exterior pulse start HID fixture > 176 watts mercury	2	0	0	16,733	16	3.18
Lighting	Ceramic Metal Halide (CMH) ,75 watts	411	1	22	1,578,898	16	2.63
Lighting	Interior Pulse Start Metal Halide (400 W replacemen	282	1	25	876,456	10	4.45
Lighting	Interior HO T-5 4 lamp fixture retrofits	23,072	166	4,070	231,532,134	16	3.34
Lighting	Occupancy Sensor wall mounted	2,126	4	67	4,964,232	8	2.01
Lighting	Occupancy Sensor ceiling mounted	7,386	53	414	59,102,630	8	1.11
Lighting	Plug Load sensor	-	-	-	-	8	#DIV/0!
Lighting	Photocell	51	0	0	508,458	8	0.22
Lighting	Timeclock	32	0	1	319,032	8	0.43
Refrigeration	Night Covers for Display Cases - med temp	-	-	-	-	5	#DIV/0!
Refrigeration	Night Covers for Display Cases - low temp	-	-	-	-	5	#DIV/0!
Refrigeration	Infiltration Barrier for Walk-ins (strip curtains)	4,325	6	42	5,631,150	4	1.05
Refrigeration	Retrofit Glass doors on open vertical display cases	-	-	-	-	12	#DIV/0!
Refrigeration	Retrofit Glass doors on open vertical display cases (	-	-	-	-	12	#DIV/0!
Refrigeration	Replace reach in case w/doors with hi eff case with	-	-	-	-	12	#DIV/0!
Refrigeration	New Low Temp reach in Display Case with doors(re	1,204	12	379	16,289,638	16	4.38
Refrigeration	New Medium Temp reach in Display Case with Doo	-	-	-	-	16	#DIV/0!
Refrigeration	Special Doors with Low Anti-Sweat Heat low temp)	-	-	-	-	12	#DIV/0!
Refrigeration	Anti-Sweat Heat Controller	-	-	-	-	8	#DIV/0!
Refrigeration	Insulate Bare Suction Pipes	-	-	-	-	11	#DIV/0!
Refrigeration	Main door Cooler Door Gaskets (Walk-in)	2,065	14	7	12,090,162	4	0.21
Refrigeration	Main Door Freezer Door Gaskets(Walk-in)	188	1	1	1,100,702	4	0.21
Refrigeration	Auto-closer for Coolers	-	-	-	-	8	#DIV/0!
Refrigeration	Auto-closer for Freezers	-	-	-	-	8	#DIV/0!
Refrigeration	Auto-closer for Glass Doors for Walk-In Coolers	-	-	-	-	8	#DIV/0!
Refrigeration	Oversized Air Cooled Condenser	-	-	-	-	16	#DIV/0!
Refrigeration	Oversized Evaporative Cooled Condenser	1,598	12	312	16,785,328	16	3.52
Refrigeration	Air cooled to Evaporative cooled condensers -conve	266	6	93	8,425,178	16	2.15
Refrigeration	Air cooled to Evaporative cooled condensers - multi	-	-	-	-	16	#DIV/0!
Refrigeration	Multiplex Compressor System air cooled	-	-	-	-	12	#DIV/0!
Refrigeration	Multiplex Compressor System - evap cooled	-	-	-	-	12	#DIV/0!
Refrigeration	Multiplex Compressor System w/ eff cond - air cool	-	-	-	-	12	#DIV/0!
Refrigeration	Multiplex Compressor System w/ eff cond - evap coo	-	-	-	-	12	#DIV/0!
Refrigeration	Floating Head Pressure Controller - air cooled	-	-	-	-	16	#DIV/0!
Refrigeration	Floating Head Pressure Controller - evap cooled	-	-	-	-	16	#DIV/0!
Refrigeration	Efficient Evaporator Fan Motors (SHP to PSC)	-	-	-	-	16	#DIV/0!
Refrigeration	Efficient Evaporator Fan Motors (SHP to ECM)	-	-	-	-	16	#DIV/0!
Refrigeration	High Efficiency Compressor	-	-	-	-	15	#DIV/0!
Refrigeration	Evaporative Fan Controller	-	-	-	-	5	#DIV/0!

Table TA 3.4
2005 Energy Efficiency Annual Report
MEASURE DETAIL: ELECTRIC
NONRESIDENTIAL PROGRAM AREA
2004

End Use	Measure Description	Quantity (Recorded)	Total Resource Costs (Recorded, $000) Admin	IMC	Total Resource Benefits (Lifecycle kWh)	Useful Life	Levelized Costs (cents/kWh)
Refrigeration	Vending Machine Controller	68	1	10	1,135,260	15	1.61
Agricultural	Sprinkler to Micro-Irrigation conversion	-	-	-	-	20	#DIV/0!
Agricultural	Low pressure impact sprinkler nozzles(permanent)	-	-	-	-	5	#DIV/0!
Agricultural	Low pressure impact sprinkler nozzles(portable)	-	-	-	-	5	#DIV/0!
Agricultural	Variable Frequency Drives for Injectin Molding Macl	-	-	-	-	15	#DIV/0!
Motors	Motors 1-200 HP	-	-	-	-	15	#DIV/0!
Food Service	Pressureless Steamers <=0.4 kW idle	-	-	-	-	12	#DIV/0!
Food Service	Pressureless Steamers <=0.2 kW idle	-	-	-	-	12	#DIV/0!
Food Service	Insulated Holding Cabinet- Full Size <=.8 kW	5	0	4	163,800	12	3.56
Food Service	Insulated Holding Cabinet- Full Size <=.6 kW	-	-	-	-	12	#DIV/0!
Food Service	Insulated Holding Cabinet-Three Quarter Size <=.8	-	-	-	-	12	#DIV/0!
Food Service	Insulated Holding Cabinet-Three Quarter Size <=.6	-	-	-	-	12	#DIV/0!
Food Service	Insulated Holding Cabinet-Half Size <=.4 kW	-	-	-	-	12	#DIV/0!
Food Service	Insulated Holding Cabinet-Half Size <=.3 kW	-	-	-	-	12	#DIV/0!
Upstream Motors and HVAC Rebates - IRP							
HVAC	Package single Tier 1-air cooled	3,932	210	596	35,091,396	15	4.07
HVAC	Split System single Tier 1- air cooled	101	5	20	772,363	15	5.62
HVAC	Package single Tier 2 - air cooled	7,673	457	2,328	76,299,068	15	6.46
HVAC	Split System single Tier 2- air cooled	544	31	212	5,237,232	15	8.22
HVAC	Package single Tier 3 - air cooled	12	1	5	131,128	15	7.60
HVAC	Split System Tier 3 - air cooled	-	-	-	-	15	#DIV/0!
HVAC	65-135kBTU air cooled, package or split Tier 2	4,769	106	362	17,763,528	15	4.66
HVAC	65-135kBTU water/evap cooled, package or split Tie	9	0	1	35,196	15	4.66
HVAC	135-240 kBTU air cooled, package or split Tier 2	464	11	35	1,873,645	15	4.38
HVAC	135-240 kBTU water/evap cooled, package or split	-	-	-	-	15	#DIV/0!
HVAC	>240 kBTU air cooled, package or split Tier 2	857	23	65	3,792,063	15	4.09
Motors	Motors 1 HP	51	0	1	43,868	8	3.28
Motors	Motors 1.5 HP	24	0	0	25,068	8	2.49
Motors	Motors 2 HP	109	1	1	151,519	8	2.13
Motors	Motors 3 HP	82	1	2	192,707	8	2.23
Motors	Motors 5 HP	122	4	4	629,637	16	2.32
Motors	Motors 7.5 HP	55	3	2	517,018	16	1.89
Motors	Motors 10 HP	65	4	6	703,872	16	2.54
Motors	Motors 15 HP	62	5	5	887,562	16	2.18
Motors	Motors 20 HP	56	6	8	1,069,179	16	2.36
Motors	Motors 25 HP	32	15	4	2,533,786	16	1.38
Motors	Motors 30 HP	36	20	5	3,496,919	16	1.32
Motors	Motors 40 HP	36	24	5	4,134,482	16	1.28
Motors	Motors 50 HP	23	21	7	3,510,897	16	1.41
Motors	Motors 60 HP	8	7	1	1,229,906	16	1.22
Motors	Motors 75 HP	13	14	1	2,449,275	16	1.17
Motors	Motors 100 HP	10	14	0	2,341,786	16	1.08
Motors	Motors 125 HP	1	2	0	317,537	16	1.09
Motors	Motors 150 HP	4	8	0	1,334,354	16	1.08
Motors	Motors 200 HP	8	21	0	3,558,359	16	1.08
VeSM Advantage Plus2 - IRP							
Other	Value Energy Stream Implementation - Medium	1	155	8	1,680,000	20	20.07
Other	Value Energy Stream Implementation - Large	1	280	9	3,024,000	20	19.65

Table TA 3.5a
2005 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
DISTRIBUTION OF SPC PAYMENTS - NONRESIDENTIAL PROGRAM AREA
LARGE SPC
2004

	Lighting [1,2]	HVAC [1,2]	Other [1,2]	Total [1,2]
Edison Source	$ -	$ -	$ -	$ -
Total Affiliate	$ -	$ -	$ -	$ -
ESCO 1	$ 164,301	$ 71,148	$ -	$ 235,448
ESCO 2	-	-	65,750	65,750
ESCO 3	-	125,471	78,361	203,833
ESCO 4	-	134,568	7,835	142,402
ESCO 5	-	-	3,919	3,919
ESCO 6	7,995	95,930	32,487	136,412
ESCO 7	273,554	-	150,890	424,444
ESCO 8	12,300	-	-	12,300
ESCO 9	340,077	-	-	340,077
ESCO 10	8,697	-	-	8,697
ESCO 11	233,082	-	-	233,082
ESCO 12	41,619	-	-	41,619
ESCO 13	16,430	8,592	138,375	163,397
ESCO 14	5,486	2,471	-	7,957
ESCO 15	2,259	-	-	2,259
ESCO 16	-	65,000	378,341	443,341
ESCO 17	-	11,855	-	11,855
ESCO 18	-	714	2,692	3,406
ESCO 19	5,225	-	-	5,225
ESCO 20	16,311	-	-	16,311
ESCO 21	2,444	28,380	12,120	42,944
ESCO 22	4,030	4,094	13,993	22,117
ESCO 23	27,096	-	30,210	57,306
ESCO 24	336	822	413	1,572
ESCO 25	92,651	-	-	92,651
ESCO 26	-	110,938	-	110,938
ESCO 27	3,031	-	-	3,031
ESCO 28	-	37,731	33,055	70,786
ESCO 29	-	-	9,466	9,466
ESCO 30	-	-	54,767	54,767
ESCO 31	139,646	-	-	139,646
ESCO 32	16,001	-	-	16,001
ESCO 33	-	-	22,289	22,289
ESCO 34	-	29,970	-	29,970
ESCO 35	-	-	14,633	14,633
ESCO 36	56,475	-	-	56,475
ESCO 37	38,638	-	-	38,638
ESCO 38	27,758	-	-	27,758
ESCO 39	143,012	-	-	143,012
ESCO 40	-	16,044	1,760	17,804
ESCO 41	-	-	472,875	472,875
ESCO 42	20,250	-	-	20,250
ESCO 43	12,006	-	204,695	216,701
ESCO 44	21,653	-	-	21,653
ESCO 45	110,868	-	-	110,868
ESCO 46	179,950	-	-	179,950
ESCO 47	23,109	8,489	59,960	91,558
ESCO 48	4,078	654,138	60,450	718,666
ESCO 49	19,131	-	-	19,131
ESCO 50	207,141	-	-	207,141
ESCO 51	89,819	-	-	89,819
ESCO 52	6,750	-	-	6,750

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SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
DISTRIBUTION OF SPC PAYMENTS - NONRESIDENTIAL PROGRAM AREA
LARGE SPC
2004

	Lighting [1,2]	HVAC [1,2]	Other [1,2]	Total [1,2]
ESCO 53	-	198,158	-	198,158
ESCO 54	8,870	-	-	8,870
ESCO 55	-	-	12,113	12,113
ESCO 56	9,474	-	-	9,474
ESCO 57	-	800	-	800
ESCO 58	-	-	38,293	38,293
ESCO 59	11,276	13,824	-	25,100
ESCO 60	40,176	49,976	202,195	292,347
ESCO 61	38,519	-	-	38,519
ESCO 62	-	-	43,885	43,885
Total ESCO	$ 2,481,523	$ 1,669,111	$ 2,145,825	$ 6,296,458
Customer Project 1	$ 1,190	$ 5,850	$ -	$ 7,040
Customer Project 2	13,826	-	3,326	17,152
Customer Project 3	25,269	-	-	25,269
Customer Project 4	-	8,050	-	8,050
Customer Project 5	-	-	34,197	34,197
Customer Project 6	9,375	-	-	9,375
Customer Project 7	-	-	12,902	12,902
Customer Project 8	-	-	11,619	11,619
Customer Project 9	-	-	11,307	11,307
Customer Project 10	-	-	17,488	17,488
Customer Project 11	14,532	-	-	14,532
Customer Project 12	39,746	-	-	39,746
Customer Project 13	-	-	10,507	10,507
Customer Project 14	-	111,575	192,997	304,572
Customer Project 15	-	-	15,777	15,777
Customer Project 16	-	-	17,015	17,015
Customer Project 17	13,050	21,148	-	34,198
Customer Project 18	-	-	3,224	3,224
Customer Project 19	-	-	25,510	25,510
Customer Project 20	-	-	60,622	60,622
Customer Project 21	-	2,890	89,050	91,940
Customer Project 22	-	-	7,812	7,812
Customer Project 23	-	-	16,734	16,734
Customer Project 24	-	-	19,787	19,787
Customer Project 25	10,137	-	1,048	11,185
Customer Project 26	-	-	26,490	26,490
Customer Project 27	-	-	207,000	207,000
Customer Project 28	40,320	-	11,743	52,063
Customer Project 29	-	-	16,874	16,874
Customer Project 30	1,215	-	-	1,215
Customer Project 31	-	57,585	-	57,585
Customer Project 32	-	74,646	1,872	76,518
Customer Project 33	-	-	15,993	15,993
Customer Project 34	2,738	2,000	-	4,738
Customer Project 35	-	-	4,121	4,121
Customer Project 36	-	-	3,951	3,951
Customer Project 37	6,628	-	-	6,628
Customer Project 38	-	-	27,112	27,112
Customer Project 39	8,459	-	-	8,459
Customer Project 40	16,302	-	-	16,302
Customer Project 41	-	20,376	2,897	23,273
Customer Project 42	-	5,000	-	5,000

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DISTRIBUTION OF SPC PAYMENTS - NONRESIDENTIAL PROGRAM AREA
LARGE SPC
2004

	Lighting	[1,2]	HVAC	[1,2]	Other	[1,2]	Total	[1,2]
Customer Project 43	2,800		-		-		2,800	
Customer Project 44	2,344		-		-		2,344	
Customer Project 45	-		5,500		-		5,500	
Customer Project 46	6,458		-		-		6,458	
Customer Project 47	-		-		7,119		7,119	
Customer Project 48	-		-		457,921		457,921	
Customer Project 49	-		-		301,074		301,074	
Customer Project 50	32,941		-		-		32,941	
Customer Project 51	-		-		5,664		5,664	
Customer Project 52	-		2,549		-		2,549	
Customer Project 53	-		-		4,788		4,788	
Customer Project 54	-		-		6,679		6,679	
Customer Project 55	-		4,800		9,341		14,141	
Customer Project 56	69,391		-		-		69,391	
Customer Project 57	-		25,926		8,842		34,767	
Customer Project 58	16,503		-		-		16,503	
Customer Project 59	3,020		-		-		3,020	
Customer Project 60	4,614		-		-		4,614	
Customer Project 61	1,955		12,000		-		13,955	
Customer Project 62	25,115		7,635		1,729		34,479	
Customer Project 63	-		-		32,425		32,425	
Customer Project 64	-		-		21,754		21,754	
Customer Project 65	-		10,500		7,550		18,050	
Customer Project 66	-		-		285,216		285,216	
Customer Project 67	-		13,840		-		13,840	
Customer Project 68	-		111,757		-		111,757	
Customer Project 69	-		-		15,291		15,291	
Customer Project 70	13,875		-		-		13,875	
Customer Project 71	28,982		-		-		28,982	
Customer Project 72	-		-		61,146		61,146	
Customer Project 73	-		-		15,000		15,000	
Customer Project 74	-		12,240		-		12,240	
Customer Project 75	-		20,000		-		20,000	
Customer Project 76	-		13,085		-		13,085	
Customer Project 77	-		148,527		13,572		162,099	
Customer Project 78	5,191		10,159		21,851		37,200	
Customer Project 79	-		-		6,934		6,934	
Customer Project 80	-		15,618		-		15,618	
Customer Project 81	-		16,346		-		16,346	
Customer Project 82	13,958		-		-		13,958	
Customer Project 83	-		-		59,939		59,939	
Customer Project 84	-		519		-		519	
Customer Project 85	-		-		7,094		7,094	
Customer Project 86	-		3,000		-		3,000	
Customer Project 87	-		10,000		-		10,000	
Customer Project 88	16,891		7,865		-		24,756	
Customer Project 89	30,839		-		-		30,839	
Customer Project 90	-		-		5,989		5,989	
Customer Project 91	-		-		23,692		23,692	
Customer Project 92	-		-		12,643		12,643	
Customer Project 93	-		-		2,916		2,916	
Customer Project 94	-		-		8,275		8,275	
Customer Project 95	-		-		105,604		105,604	
Customer Project 96	3,525		-		-		3,525	
Customer Project 97	24,781		-		-		24,781	
Customer Project 98	17,900		30,834		1,848		50,582	

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SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
DISTRIBUTION OF SPC PAYMENTS - NONRESIDENTIAL PROGRAM AREA
LARGE SPC
2004

	Lighting	[1,2]	HVAC	[1,2]	Other	[1,2]	Total	[1,2]
Customer Project 99	-		-		17,133		17,133	
Customer Project 100	7,989		-		-		7,989	
Customer Project 101	21,647		-		-		21,647	
Customer Project 102	-		-		29,757		29,757	
Customer Project 103	-		-		39,110		39,110	
Customer Project 104	-		-		25,269		25,269	
Customer Project 105	-		-		22,212		22,212	
Customer Project 106	-		-		18,989		18,989	
Customer Project 107	27,667		-		-		27,667	
Customer Project 108	6,830		-		-		6,830	
Customer Project 109	65,768		-		-		65,768	
Customer Project 110	-		5,200		-		5,200	
Customer Project 111	-		23,910		-		23,910	
Customer Project 112	-		3,135		-		3,135	
Customer Project 113	-		-		2,948		2,948	
Customer Project 114	19,887		-		-		19,887	
Customer Project 115	-		-		138,874		138,874	
Customer Project 116	-		-		9,921		9,921	
Customer Project 117	-		8,150		863		9,013	
Customer Project 118	-		-		16,181		16,181	
Customer Project 119	3,570		-		-		3,570	
Customer Project 120	7,200		-		-		7,200	
Customer Project 121	37,842		800		8,998		47,640	
Customer Project 122	-		-		51,651		51,651	
Customer Project 123	-		-		8,817		8,817	
Customer Project 124	-		-		2,290		2,290	
Customer Project 125	-		-		4,000		4,000	
Customer Project 126	9,665		-		-		9,665	
Customer Project 127	-		-		10,545		10,545	
Customer Project 128	-		-		67,093		67,093	
Customer Project 129	-		1,200		78,531		79,731	
Customer Project 130	-		-		26,417		26,417	
Customer Project 131	9,012		-		-		9,012	
Customer Project 132	-		26,563		-		26,563	
Customer Project 133	-		-		14,377		14,377	
Customer Project 134	-		-		45,517		45,517	
Customer Project 135	-		6,510				6,510	
Customer Project 136	-		7,378				7,378	
Customer Project 137	13,563		-				13,563	
Customer Project 138	-		-		6,293		6,293	
Customer Project 139	6,138		-		-		6,138	
Customer Project 140	-		-		29,360		29,360	
Customer Project 141	17,689		-		-		17,689	
Customer Project 142	-		-		1,058		1,058	
Customer Project 143	-		-		8,350		8,350	
Customer Project 144	679,425		-		-		679,425	
Customer Project 145	8,576		-		-		8,576	
Customer Project 146	5,000		21,039		57,600		83,639	
Customer Project 147	-		-		9,988		9,988	
Customer Project 148	22,005		1,000		-		23,005	
Customer Project 149	-		-		50,995		50,995	
Customer Project 150	-		30,078		-		30,078	
Customer Project 151	1,215		-		-		1,215	
Customer Project 152	11,065		-		376		11,441	
Customer Project 153	-		-		28,827		28,827	
Customer Project 154	-		16,000		-		16,000	

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SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
DISTRIBUTION OF SPC PAYMENTS - NONRESIDENTIAL PROGRAM AREA
LARGE SPC
2004

	Lighting [1,2]	HVAC [1,2]	Other [1,2]	Total [1,2]
Customer Project 155	-	-	18,597	18,597
Customer Project 156	5,326	324	-	5,650
Customer Project 157	9,670	-	-	9,670
Customer Project 158	7,854	-	-	7,854
Customer Project 159	-	-	298,504	298,504
Customer Project 160	-	44,521	-	44,521
Customer Project 161	5,400	-	788	6,188
Customer Project 162	-	-	1,152	1,152
Customer Project 163	-	-	42,027	42,027
Customer Project 164	7,500	-	9,335	16,835
Customer Project 165	-	5,169	-	5,169
Customer Project 166	-	79,154	-	79,154
Customer Project 167	57,841	136,212	-	194,053
Customer Project 168	-	-	18,922	18,922
Customer Project 169	-	-	6,482	6,482
Customer Project 170	-	-	23,322	23,322
Customer Project 171	-	246,231	226,406	472,637
Customer Project 172	1,827	-	3,530	5,356
Customer Project 173	-	-	4,260	4,260
Customer Project 174	-	-	16,061	16,061
Customer Project 175	-	-	1,710	1,710
Customer Project 176	9,360	-	-	9,360
Customer Project 177	-	94,703	-	94,703
Customer Project 178	3,549	-	-	3,549
Customer Project 179	-	3,415	44,211	47,626
Customer Project 180	-	21,100	-	21,100
Customer Project 181	-	-	2,916	2,916
Customer Project 182	462	-	-	462
Customer Project 183	43,505	-	-	43,505
Customer Project 184	-	5,898	3,370	9,268
Customer Project 185	3,600	-	-	3,600
Customer Project 186	-	2,000	-	2,000
Customer Project 187	-	1,000	-	1,000
Customer Project 188	1,402	-	-	1,402
Customer Project 189	-	-	74,978	74,978
Customer Project 190	36,917	-	-	36,917
Customer Project 191	-	-	8,371	8,371
Customer Project 192	-	-	272,197	272,197
Customer Project 193	81,720	-	279,252	360,972
Customer Project 194	1,750	-	-	1,750
Customer Project 195	4,320	-	-	4,320
Customer Project 196	-	4,746	57,176	61,922
Customer Project 197	-	-	6,322	6,322
Customer Project 198	-	-	500,000	500,000
Customer Project 199	-	27,160	-	27,160
Customer Project 200	-	-	30,910	30,910
Customer Project 201	1,900	-	-	1,900
Customer Project 202	4,267	1,500	-	5,767
Customer Project 203	-	1,600	-	1,600
Customer Project 204	-	-	6,795	6,795
Customer Project 205	-	413	-	413
Customer Project 206	-	-	17,600	17,600
Customer Project 207	23,700	-	-	23,700
Customer Project 208	2,405	1,556	-	3,961
Customer Project 209	40,387	33,348	-	73,735
Customer Project 210	38,442	26,380	2,500	67,322

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DISTRIBUTION OF SPC PAYMENTS - NONRESIDENTIAL PROGRAM AREA
LARGE SPC
2004

	Lighting [1,2]	HVAC [1,2]	Other [1,2]	Total [1,2]
Customer Project 211	9,391	-	-	9,391
Customer Project 212	-	-	8,587	8,587
Customer Project 213	-	-	5,086	5,086
Customer Project 214	8,154	-	-	8,154
Customer Project 215	-	-	415,740	415,740
Customer Project 216	-	-	18,000	18,000
Customer Project 217	-	-	11,922	11,922
Customer Project 218	42,630	-	-	42,630
Customer Project 219	-	-	315,926	315,926
Customer Project 220	3,328	-	-	3,328
Customer Project 221	-	15,600	15,137	30,737
Customer Project 222	-	65,186	35,870	101,056
Customer Project 223	6,075	-	4,188	10,263
Customer Project 224	-	-	3,367	3,367
Customer Project 225	-	8,634	-	8,634
Customer Project 226	-	16,000	-	16,000
Customer Project 227	31,892	-	-	31,892
Customer Project 228	-	-	11,448	11,448
Customer Project 229	47,625	24,800	-	72,425
Customer Project 230	30,990	-	-	30,990
Customer Project 231	7,707	-	-	7,707
Customer Project 232	-	-	26,048	26,048
Customer Project 233	-	7,640	-	7,640
Customer Project 234	-	12,490	-	12,490
Customer Project 235	105,358	71,537	-	176,895
Customer Project 236	-	127,971	-	127,971
Customer Project 237	-	-	8,766	8,766
Customer Project 238	-	-	65,750	65,750
Customer Project 239	-	-	41,200	41,200
Customer Project 240	-	-	4,433	4,433
Customer Project 241	-	-	4,479	4,479
Customer Project 242	12,024	34,675	1,398	48,097
Customer Project 243	356	-	-	356
Customer Project 244	-	-	33,696	33,696
Customer Project 245	-	-	2,349	2,349
Customer Project 246	-	43,318	-	43,318
Customer Project 247	-	-	10,050	10,050
Customer Project 248	-	-	4,825	4,825
Customer Project 249	-	40,254	-	40,254
Customer Project 250	-	-	7,258	7,258
Customer Project 251	-	-	3,940	3,940
Customer Project 252	31,125	-	-	31,125
Customer Project 253	-	-	1,908	1,908
Customer Project 254	-	-	34,439	34,439
Customer Project 255	-	-	10,282	10,282
Customer Project 256	-	-	62,624	62,624
Customer Project 257	-	-	8,965	8,965
Customer Project 258	-	-	7,709	7,709
Customer Project 259	-	-	326,701	326,701
Customer Project 260	11,607	-	1,800	13,407
Customer Project 261	11,353	-	-	11,353
Customer Project 262	-	-	16,292	16,292
Customer Project 263	-	-	34,487	34,487
Customer Project 264	-	-	37,128	37,128
Customer Project 265	-	242,903	-	242,903
Customer Project 266	-	-	39,121	39,121

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SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
DISTRIBUTION OF SPC PAYMENTS - NONRESIDENTIAL PROGRAM AREA
LARGE SPC
2004

	Lighting	[1,2]	HVAC	[1,2]	Other	[1,2]	Total	[1,2]
Customer Project 267	-		-		6,535		6,535	
Customer Project 268	-		-		500,000		500,000	
Customer Project 269	-		-		27,500		27,500	
Customer Project 270	-		60,762		-		60,762	
Customer Project 271	69,099		-		-		69,099	
Customer Project 272	-		-		4,232		4,232	
Customer Project 273	-		1,013		-		1,013	
Customer Project 274	6,851		-		-		6,851	
Customer Project 275	12,990		-		22,846		35,836	
Customer Project 276	4,921		-		-		4,921	
Customer Project 277	-		1,176		5,174		6,350	
Customer Project 278	-		112,341		960		113,301	
Customer Project 279	-		20,844		-		20,844	
Customer Project 280	-		8,640		1,148		9,788	
Customer Project 281	13,050		13,600		50,943		77,593	
Customer Project 282	-		15,731		-		15,731	
Customer Project 283	1,931		10,400		1,501		13,832	
Customer Project 284	7,881		-		-		7,881	
Customer Project 285	-		-		16,687		16,687	
Customer Project 286	-		9,352		10,777		20,129	
Customer Project 287	208,915		-		-		208,915	
Customer Project 288	-		-		6,939		6,939	
Customer Project 289	3,675		-		-		3,675	
Customer Project 290	15,000		-		-		15,000	
Customer Project 291	5,390		-		-		5,390	
Customer Project 292	10,896		-		-		10,896	
Customer Project 293	1,666		-		-		1,666	
Customer Project 294	9,480		-		-		9,480	
Customer Project 295	20,104		-		-		20,104	
Customer Project 296	5,832		-		-		5,832	
Customer Project 297	-		-		9,679		9,679	
Customer Project 298	-		-		48,419		48,419	
Customer Project 299	-		-		1,268		1,268	
Customer Project 300	-		-		53,100		53,100	
Customer Project 301	3,639		-		-		3,639	
Customer Project 302	-		-		7,968		7,968	
Customer Project 303	26,147		40,282		-		66,428	
Customer Project 304	-		37,614		-		37,614	
Customer Project 305	-		-		16,521		16,521	
Customer Project 306	-		-		4,214		4,214	
Customer Project 307	6,837		-		-		6,837	
Customer Project 308	-		28,827		-		28,827	
Customer Project 309	-		-		16,038		16,038	
Customer Project 310	-		-		2,619		2,619	
Customer Project 311	-		171,001		-		171,001	
Customer Project 312	12,251		-		-		12,251	
Customer Project 313	12,194		-		-		12,194	
Customer Project 314	-		-		370,254		370,254	
Customer Project 315	-		-		3,120		3,120	
Customer Project 316	-		-		6,084		6,084	
Customer Project 317	-		-		5,922		5,922	
Customer Project 318	-		-		38,317		38,317	
Customer Project 319	-		-		4,891		4,891	
Customer Project 320	7,650		-		10,000		17,650	
Customer Project 321	-		-		87,176		87,176	
Customer Project 322	-		-		29,984		29,984	

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DISTRIBUTION OF SPC PAYMENTS - NONRESIDENTIAL PROGRAM AREA
LARGE SPC
2004

	Lighting [1,2]	HVAC [1,2]	Other [1,2]	Total [1,2]
Customer Project 323	-	-	43,426	43,426
Customer Project 324	-	12,000	360	12,360
Customer Project 325	-	-	350,772	350,772
Customer Project 326	23,699	-	-	23,699
Customer Project 327	80,859	-	20,808	101,667
Customer Project 328	-	47,575	-	47,575
Customer Project 329	-	1,739	-	1,739
Customer Project 330	-	32,286	-	32,286
Customer Project 331	8,075	-	-	8,075
Customer Project 332	29,100	-	-	29,100
Customer Project 333	-	-	749,848	749,848
Customer Project 334	-	-	2,887	2,887
Customer Project 335	1,318	450	224	1,992
Customer Project 336	5,518	2,657	5,019	13,193
Customer Project 337	-	-	12,841	12,841
Customer Project 338	-	-	21,031	21,031
Customer Project 339	-	-	9,412	9,412
Customer Project 340	-	92,914	2,351	95,265
Customer Project 341	6,896	14,045	-	20,941
Customer Project 342	-	65,600	10,296	75,896
Customer Project 343	33,403	-	-	33,403
Customer Project 344	-	-	38,048	38,048
Customer Project 345	-	-	6,987	6,987
Customer Project 346	-	18,290	-	18,290
Customer Project 347	1,257	-	-	1,257
Customer Project 348	5,948	-	-	5,948
Customer Project 349	-	-	48,114	48,114
Customer Project 350	14,227	-	-	14,227
Customer Project 351	-	20,180	-	20,180
Customer Project 352	-	-	6,039	6,039
Customer Project 353	22,503	-	16,072	38,575
Customer Project 354	30,997	6,094	-	37,091
Customer Project 355	-	-	6,200	6,200
Customer Project 356	-	-	3,881	3,881
Customer Project 357	6,872	-	-	6,872
Customer Project 358	-	-	5,712	5,712
Customer Project 359	-	1,200	-	1,200
Customer Project 360	28,804	108	2,250	31,162
Total Customer Projects	$ 3,024,208	$ 3,236,938	$ 9,565,216	$ 15,826,362
Total Payments	$ 5,505,731	$ 4,906,049	$ 11,711,040	$ 22,122,820

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

Table TA 3.5b
2005 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
DISTRIBUTION OF SPC PAYMENTS - NONRESIDENTIAL PROGRAM AREA
SMALL SPC
2004

THIS TABLE IS NOT APPLICABLE
TO THE 2004 ENERGY EFFICIENCY PROGRAMS

Section IV - New Construction Program Area

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

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

This table documents those costs used in determining the cost-effectiveness of new construction energy efficiency programs. These tables provide all program costs, including costs expended in 2004 and those costs associated with commitments from 2004 programs.

Program Incentives (Recorded)
Incentive costs represent incentives paid to customers during 2004 (Actual) as well as incentives associated with commitments from the 2004 new construction programs (Committed).

Program Administrative Costs (Recorded)
These costs include all expenditures directly charged to the program with the exception of incentive costs. The administrative costs consist of labor, non-labor, contract labor, and allocated material costs (See Also Table TA 4.2). These costs represent administrative costs expended during 2004 (Actual) as well as administrative costs associated with the handling of commitments from the 2004 new construction programs (Committed).

Shareholder Incentives
Costs represented in the Shareholder Incentives column would represent an allocated amount of the total performance awards earned during a particular program year. There were no shareholder incentives authorized for 2004.

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

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

Incremental Measure Costs (Net)
These costs generally represent the incremental costs of energy efficiency measures over the standard replacement measures. SCE's incremental measure costs are typically derived from the latest cost source available for the particular measure(s), including recent measure cost studies. The gross amounts of these costs are reduced by appropriate net-to-gross ratios for the particular measure or end-use. The net-to-gross ratios are consistent with the ratios utilized in SCE's September 23, 2003 Application for 2004-2005 energy efficiency program funding.

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

This table documents the breakdown of the actual administrative costs used in determining the cost-effectiveness of new construction energy efficiency programs. These tables provide detail of all actual program administrative costs expended in 2004. These costs include the costs of Market Assessment & Evaluation for the New Construction Procurement-funded Energy Efficiency Programs, regulatory support, and other energy efficiency support costs.

Labor Costs (Actual)
Labor costs consist of SCE labor charges that are directly charged to the program. These costs include salaries and expenses of SCE employees engaged in developing energy efficiency marketing strategies, plans, and programs; developing program implementation procedures; reporting, monitoring, and evaluating systems. The reported costs reflect only the actual costs incurred in 2004 in support of 2004 new construction programs.

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

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

Allocated Administrative Costs (Actual)
Allocated administrative costs represent those for building lease and maintenance costs and management oversight expenditures. In addition, the 2004 Allocated Administrative Costs (Actual) category includes costs related to systems support, regulatory support, internal audits, and other costs which are allocated to the programs.

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

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

The projected annual program energy reductions for the new construction program area, presented in TA 4.3, are derived from ex ante estimates of energy savings. These estimates are based upon the measure level savings data submitted in SCE's September 23, 2003 Application for 2004-2005 Energy Efficiency Program Funding and adopted in Decisions D.03-12-060 and D.04-02-059. These estimates have been updated, as applicable, to correspond with the actual program implementation during 2004 and to reflect actual program results as of December 31, 2004. Recorded savings amounts reflect all 2004 program impacts, including impacts from measures installed in 2004 and those impacts associated with commitments from 2004 programs.

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

Program Energy Reduction Assumptions
Annual program energy reduction estimates for new construction programs supplied in SCE's September 23, 2003 Application for 2004-2005 Energy Efficiency Program Funding and submitted herein as the 2004 program results are the result of a summation of measure-level savings from the measures installed or committed to be installed as a result of the 2004 new construction programs. The measure-level savings information used to calculate the 2004 program results are based upon the latest energy savings data available for the particular measure(s), including measurement studies, historical program results, and engineering estimates. The gross amounts of these costs are reduced by appropriate net-to-gross ratios for the particular measure or end-use.

The Effective Useful Life is the length of time (years) for which the load impacts of an energy efficiency measure are expected to last. The useful life estimates are also based upon the Energy Efficiency Policy Manual, adopted in Decision 03-08-067.

Table TA 4.4 Measure Detail – New Construction Program Area

Table TA 4.4 provides measure-level detail for all of SCE's new construction energy efficiency programs with 2004 energy saving goals.

End Use & Measure Description
Detail the actual measures installed or committed to be installed as a result of the 2004 new construction programs.

Quantity (Recorded)
Derived from SCE's program tracking databases, the number of units installed or committed to be installed as a result of the 2004 new construction programs.

Total Resource Costs – Administrative Costs (Recorded)
These costs include all expenditures directly charged to the program with the exception of incentive costs. These costs represent administrative costs expended during 2004 as well as administrative costs associated with the handling of commitments from the 2004 new construction programs. The Summation of the "Total Resource Costs – Admin" and "Total Resource Costs – IMC" column values comprise the Total Resource Costs for Levelizing ("LCRC") as specified in the California Standard Practice Manual: Economic Analysis of Demand-Side Programs and Projects, October 2001.

Total Resource Costs – Incremental Measure Costs (Recorded)
These costs generally represent the incremental costs of energy efficiency measures over the standard replacement measures. SCE's incremental measure costs are typically derived from the latest cost source available for the particular measure(s), including recent measure cost studies. The gross amounts of these costs are reduced by appropriate net-to-gross ratios for the particular measure or end-use. The net-to-gross ratios are consistent with the ratios utilized in SCE's September 23, 2003 Application for 2004-2005 energy efficiency program funding. The Summation of the "Total Resource Costs – Admin" and "Total Resource Costs – IMC" column values comprise the Total Resource Costs for Levelizing ("LCRC") as specified in the California Standard Practice Manual: Economic Analysis of Demand-Side Programs and Projects, October 2001.

Total Resource Benefits – Lifecycle kWh
Annual net kWh savings multiplied by the measure Useful Life.

Useful Life
Assumption of the useful life of the measure, used to determine the lifecycle energy savings. The useful life estimates are consistent with the ratios utilized in SCE's September 23, 2003 Application for 2004-2005 energy efficiency program funding.

Levelized Costs
The TRC Levelized Cost, calculated pursuant to the California Standard Practice Manual: Economic Analysis of Demand-Side Programs and Projects, October 2001. These costs, represented as a cents / kWh, are calculated by the summation of the "Total Resource Costs – Admin" and "Total Resource Costs – IMC" column values which comprise the Total Resource Costs for Levelizing ("LCRC") divided by the Total Discounted Load Impacts of the Program ("IMP"). The discount rate utilized is 8.15 %, as specified in the Energy Efficiency Policy Manual, Decision 03-08-067.

Table TA 4.1
2005 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
PROGRAM COST ESTIMATES USED FOR COST-EFFECTIVENESS - NEW CONSTRUCTION PROGRAM AREA
2004

	Program Incentives (Recorded) [1]		Program Administrative Costs (Recorded) [1]		Shareholder Incentives [1,2]	Other Costs [1,2,3]	Total Utility Costs [1]	Incremental Measure Costs [1]
	Actual	Committed	Actual	Committed				
Residential	$ 142,100	$ 4,409,710	$ 1,507,935	$ 782,038	$ -	$ 177,577	$ 7,019,360	$ 4,412,322
Nonresidential	789,203	5,509,853	1,672,206	4,132,727	-	191,414	12,295,403	27,954,255
New Construction Total	$ 931,303	$ 9,919,563	$ 3,180,141	$ 4,914,765	$ -	$ 368,991	$ 19,314,763	$ 32,366,577

[1] Includes both PGC and Procurement funded programs.
[2] The Commission authorized no Shareholder Performance Awards in 2004.
[3] Statewide Market Assessment and Evaluation costs.

Table TA 4.2
2005 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
DIRECT AND ALLOCATED ADMINISTRATIVE COSTS - NEW CONSTRUCTION PROGRAM AREA
2004

	Actual Labor [1]	Actual Non-Labor [1]	Actual Contract [1]	Actual Allocated [1]	Actual Admin Total [1]
Residential	$ 310,463	$ 930,584	$ 52,921	$ 213,966	$ 1,507,935
Nonresidential	761,676	305,452	77,182	527,896	1,672,206
New Construction Total	$ 1,072,139	$ 1,236,036	$ 130,104	$ 741,862	$ 3,180,141

[1] Includes both PGC and Procurement funded programs.

Table TA 4.3
2005 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY PROGRAM EFFECTS: ELECTRIC
MARKET EFFECTS: PROJECTED ANNUAL PROGRAM ENERGY AND DEMAND REDUCTIONS - NEW CONSTRUCTION PROGRAM AREA
2004

Residential			Nonresidential		
Year	(MW)	(MWH)	Year	(MW)	(MWH)
2004	0.009	8,430	2004	0.014	121,086
2005	0.009	8,430	2005	0.014	121,086
2006	0.009	8,430	2006	0.014	121,086
2007	0.009	8,430	2007	0.014	121,086
2008	0.009	8,430	2008	0.014	121,086
2009	0.009	8,430	2009	0.014	121,086
2010	0.009	8,430	2010	0.014	121,086
2011	0.009	8,430	2011	0.014	121,086
2012	0.009	8,430	2012	0.014	121,086
2013	0.009	8,430	2013	0.014	121,086
2014	0.009	8,430	2014	0.014	121,086
2015	0.009	8,430	2015	0.014	121,086
2016	0.009	8,430	2016	0.014	121,086
2017	0.009	8,430	2017	0.014	121,086
2018	0.009	8,430	2018	0.014	121,086
2019	0.009	8,430	2019	0.014	121,086
2020	0.009	8,430	2020	0.014	121,086
2021	0.009	8,430	2021	0.014	121,086
2022	0.000	0	2022	0.000	0
2023	0.000	0	2023	0.000	0
Total	0.009	151,748	Total	0.014	2,179,540

Table TA 4.4
2005 Energy Efficiency Annual Report
MEASURE DETAIL: ELECTRIC
NEW CONSTRUCTION PROGRAM AREA
2004

End Use	Measure Description	Quantity (Recorded)	Total Resource Costs (Recorded, $000) Admin	IMC	Total Resource Benefits (Lifecycle kWh)	Useful Life	Levelized Costs (cents/kWh)
California Energy Star New Homes Program - PGC							
Whole House - Single Family	SF Home 15% Inland	1,325	$ 345	$ 497	21,999,240	18	$ 7.42
Whole House - Single Family	SF Home 20% Inland	2,700	910	1,782	58,086,720	18	8.99
Whole House - Multi-Family	MF Home 15%	1,695	551	305	7,590,888	18	21.88
Savings By Design - PGC							
Nonresidential Cooling	HVAC: Energy Reduction	10,894,724	167	1,876	133,801,609	15	2.70
Nonresidential Lighting	Daylighting Controls	3,844,456	61	473	50,362,667	16	1.94
Nonresidential Lighting	LPD Reductions	8,053,156	128	1,057	105,496,959	16	2.05
Nonresidential Refrigeration	Supermarket Systems	-	-	-	-	14	#DIV/0!
Nonresidential Other	Whole Building - Owner Incentive	40,267,001	642	9,245	527,500,788	16	3.42
Nonresidential Other	Whole Building - Design Team Incentive	1	0	0	13	16	3.42
Nonresidential Other	Process Systems	74,001,151	1,555	15,303	1,389,108,971	20	2.50
California Energy Star Homes Program - IRP							
Whole House - Single Family	SF Home 15% Inland	1,283	124	481	21,301,906	18	5.52
Whole House - Single Family	SF Home 20% Inland	1,819	228	1,201	39,133,238	18	7.09
Whole House - Single Family	SF Tier I	-	-	-	-	18	#DIV/0!
Whole House - Single Family	SF Tier II	-	-	-	-	18	#DIV/0!
Whole House - Multi-Family	MF Home 15%	812	132	146	3,636,461	18	14.86
Whole House - Multi-Family	MF Tier I	-	-	-	-	18	#DIV/0!
Savings By Design - IRP							
Nonresidential Cooling	HVAC: Energy Reduction	-	#DIV/0!	-	-	15	#DIV/0!
Nonresidential Lighting	Daylighting Controls	-	#DIV/0!	-	-	16	#DIV/0!
Nonresidential Lighting	LPD Reductions	-	#DIV/0!	-	-	16	#DIV/0!
Nonresidential Refrigeration	Supermarket Systems	-	#DIV/0!	-	-	14	#DIV/0!
Nonresidential Other	Whole Building - Owner Incentive	-	#DIV/0!	-	-	16	#DIV/0!
Nonresidential Other	Whole Building - Design Team Incentive	-	#DIV/0!	-	-	16	#DIV/0!
Nonresidential Other	Process Systems	-	#DIV/0!	-	-	20	#DIV/0!

Section V - Crosscutting Program Area

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

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

This table documents those costs used in determining the cost-effectiveness of crosscutting energy efficiency programs. These tables provide all program costs, including costs expended in 2004 and those costs associated with commitments from 2004 programs.

Program Incentives (Recorded)
Incentive costs represent incentives paid to customers during 2004 (Actual) as well as incentives associated with commitments from the 2004 crosscutting programs (Committed).

Program Administrative Costs (Recorded)
These costs include all expenditures directly charged to the program with the exception of incentive costs. The administrative costs consist of labor, non-labor, contract labor, and allocated material costs (See Also Table TA 5.2). These costs represent administrative costs expended during 2004 (Actual) as well as administrative costs associated with the handling of commitments from the 2004 crosscutting programs (Committed).

Shareholder Incentives
Costs represented in the Shareholder Incentives column would represent an allocated amount of the total performance awards earned during a particular program year. There were no shareholder incentives authorized for 2004.

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

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

Incremental Measure Costs (Net)
These costs generally represent the incremental costs of energy efficiency measures over the standard replacement measures. SCE's incremental measure costs are typically derived from the latest cost source available for the particular measure(s), including recent measure cost studies. The gross amounts of these costs are reduced by appropriate net-to-gross ratios for the particular measure or end-use. The net-to-gross ratios are consistent with the ratios utilized in SCE's September 23, 2003 Application for 2004-2005 energy efficiency program funding.

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

This table documents the breakdown of the actual administrative costs used in determining the cost-effectiveness of crosscutting energy efficiency programs. These tables provide detail of all actual program administrative costs expended in 2004. These costs include the costs of Market Assessment & Evaluation for the Crosscutting Local and Procurement-funded Energy Efficiency Programs, regulatory support, and other energy efficiency support costs.

Labor Costs (Actual)
Labor costs consist of SCE labor charges that are directly charged to the program. These costs include salaries and expenses of SCE employees engaged in developing energy efficiency marketing strategies, plans, and programs; developing program implementation procedures; reporting, monitoring, and evaluating systems. The reported costs reflect only the actual costs incurred in 2004 in support of 2004 crosscutting programs.

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

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

Allocated Administrative Costs (Actual)
Allocated administrative costs represent those for building lease and maintenance costs and management oversight expenditures. In addition, the 2004 Allocated Administrative Costs (Actual) category includes costs related to systems support, regulatory support, internal audits, and other costs which are allocated to the programs.

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

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

The projected annual program energy reductions for the crosscutting program area, presented in TA 5.3, are derived from ex ante estimates of energy savings. These estimates are based upon the measure level savings data submitted in SCE's September 23, 2003 Application for 2004-2005 Energy Efficiency Program Funding and adopted in Decisions D.03-12-060 and D.04-02-059. These estimates have been updated, as applicable, to correspond with the actual program implementation during 2004 and to reflect actual program results as of December 31, 2004. Recorded savings amounts reflect all 2004 program impacts, including impacts from measures installed in 2004 and those impacts associated with commitments from 2004 programs.

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

Program Energy Reduction Assumptions
Annual program energy reduction estimates for crosscutting programs supplied in the September 23, 2003 Application for 2004-2005 Energy Efficiency Program Funding and submitted herein as the 2004 program results are the result of a summation of measure-level savings from the measures installed or committed to be installed as a result of the 2004 crosscutting programs. The measure-level savings information used to calculate the 2004 program results are based upon the latest energy savings data available for the particular measure(s), including measurement studies, historical program results, and engineering estimates. The gross amounts of these costs are reduced by appropriate net-to-gross ratios for the particular measure or end-use.

The Effective Useful Life is the length of time (years) for which the load impacts of an energy efficiency measure are expected to last. The useful life estimates are also based upon the Energy Efficiency Policy Manual, adopted in Decision 03-08-067.

Table TA 5.4 Measure Detail – Crosscutting Program Area

Table TA 5.4 provides measure-level detail for all of SCE's crosscutting energy efficiency programs with 2004 energy saving goals.

End Use & Measure Description
Detail the actual measures installed or committed to be installed as a result of the 2004 crosscutting programs.

Quantity (Recorded)
Derived from SCE's program tracking databases, the number of units installed or committed to be installed as a result of the 2004 crosscutting programs.

Total Resource Costs – Administrative Costs (Recorded)
These costs include all expenditures directly charged to the program with the exception of incentive costs. These costs represent administrative costs expended during 2004 as well as administrative costs associated with the handling of commitments from the 2004 crosscutting programs. The Summation of the "Total Resource Costs – Admin" and "Total Resource Costs – IMC" column values comprise the Total Resource Costs for Levelizing ("LCRC") as specified in the California Standard Practice Manual: Economic Analysis of Demand-Side Programs and Projects, October 2001.

Total Resource Costs – Incremental Measure Costs (Recorded)
These costs generally represent the incremental costs of energy efficiency measures over the standard replacement measures. SCE's incremental measure costs are typically derived from the latest cost source available for the particular measure(s), including recent measure cost studies. The gross amounts of these costs are reduced by appropriate net-to-gross ratios for the particular measure or end-use. The net-to-gross ratios are consistent with the ratios utilized in SCE's September 23, 2003 Application for 2004-2005 energy efficiency program funding. The Summation of the "Total Resource Costs – Admin" and "Total Resource Costs – IMC" column values comprise the Total Resource Costs for Levelizing ("LCRC") as specified in the California Standard Practice Manual: Economic Analysis of Demand-Side Programs and Projects, October 2001.

Total Resource Benefits – Lifecycle kWh
Annual net kWh savings multiplied by the measure Useful Life.

Useful Life
Assumption of the useful life of the measure, used to determine the lifecycle energy savings. The useful life estimates are consistent with the ratios utilized in SCE's September 23, 2003 Application for 2004-2005 energy efficiency program funding.

Levelized Costs
The TRC Levelized Cost, calculated pursuant to the California Standard Practice Manual: Economic Analysis of Demand-Side Programs and Projects, October 2001. These costs, represented as a cents / kWh, are calculated by the summation of the "Total Resource Costs – Admin" and "Total Resource Costs – IMC" column values which comprise the Total Resource Costs for Levelizing ("LCRC") divided by the Total Discounted Load Impacts of the Program ("IMP"). The discount rate utilized is 8.15 %, as specified in the Energy Efficiency Policy Manual, Decision 03-08-067.

Table TA 5.1
2005 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
PROGRAM COST ESTIMATES USED FOR COST-EFFECTIVENESS - CROSSCUTTING PROGRAM AREA
2004

	Program Incentives (Recorded) [1]		Program Administrative Costs (Recorded) [1]		Shareholder	Other	Total Utility	Incremental Measure
	Actual	Committed	Actual	Committed	Incentives [1,2]	Costs [1,2,3]	Costs [1]	Costs [1]
Information	$ -	$ -	$ 14,269,660	$ 11,169	$ -	$ 106,104	$ 14,386,932	$ -
EMS	-	-	-	-	-	-	-	-
EEI								
SPCs	-	-	-	-	-	-	-	-
Rebates	-	-	-	-	-	-	-	-
Loans	-	-	-	-	-	-	-	-
Other	-	-	121,529	6,142,816	-	-	6,264,345	-
Upstream Programs								
Information	-	-	1,349,169	2,054,846	-	94,132	3,498,148	-
Financial Assistance	-	-	-	-	-	-	-	-
Crosscutting Total	$ -	$ -	$ 15,740,359	$ 8,208,830	$ -	$ 200,236	$ 24,149,425	$ -

[1] Includes both PGC and Procurement funded programs.
[2] The Commission authorized no Shareholder Performance Awards in 2004.
[3] Statewide Market Assessment and Evaluation costs.

Table TA 5.2
2005 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
DIRECT AND ALLOCATED ADMINISTRATIVE COSTS - CROSSCUTTING PROGRAM AREA
2004

	Actual Labor	[1]	Actual Non-Labor	[1]	Actual Contract	[1]	Actual Allocated	[1]	Actual Admin Total	[1]
Information	$ 2,650,965		$ 1,694,148		$ 136,591		$ 9,787,956		$ 14,269,660	
EMS	-		-		-		-		-	
EEI										
SPCs	-		-		-		-		-	
Rebates	-		-		-		-		-	
Loans	-		-		-		-		-	
Other	64,211		12,019		-		45,299		121,529	
Upstream Programs										
Information	276,590		825,368		36,415		210,797		1,349,169	
Financial Assistance	-		-		-		-		-	
Crosscutting Total	$ 2,991,766		$ 2,531,535		$ 173,006		$ 10,044,052		$ 15,740,359	

[1] Includes both PGC and Procurement funded programs.

Table TA 5.3
2005 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY PROGRAM EFFECTS: ELECTRIC
MARKET EFFECTS: PROJECTED ANNUAL PROGRAM ENERGY AND DEMAND REDUCTIONS - CROSSCUTTING PROGRAM AREA
2004

Information

Year	(MW)	(MWH)
2004	0.000	0
2005	0.000	0
2006	0.000	0
2007	0.000	0
2008	0.000	0
2009	0.000	0
2010	0.000	0
2011	0.000	0
2012	0.000	0
2013	0.000	0
2014	0.000	0
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
2022	0.000	0
2023	0.000	0
Total	0.000	0

EMS

Year	(MW)	(MWH)
2004	0.000	0
2005	0.000	0
2006	0.000	0
2007	0.000	0
2008	0.000	0
2009	0.000	0
2010	0.000	0
2011	0.000	0
2012	0.000	0
2013	0.000	0
2014	0.000	0
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
2022	0.000	0
2023	0.000	0
Total	0.000	0

EEI
SPCs

Year	(MW)	(MWH)
2004	0.000	0
2005	0.000	0
2006	0.000	0
2007	0.000	0
2008	0.000	0
2009	0.000	0
2010	0.000	0
2011	0.000	0
2012	0.000	0
2013	0.000	0
2014	0.000	0
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
2022	0.000	0
2023	0.000	0
Total	0.000	0

EEI
Rebates

Year	(MW)	(MWH)
2004	0.000	0
2005	0.000	0
2006	0.000	0
2007	0.000	0
2008	0.000	0
2009	0.000	0
2010	0.000	0
2011	0.000	0
2012	0.000	0
2013	0.000	0
2014	0.000	0
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
2022	0.000	0
2023	0.000	0
Total	0.000	0

EEI
Loans

Year	(MW)	(MWH)
2004	0.000	0
2005	0.000	0
2006	0.000	0
2007	0.000	0
2008	0.000	0
2009	0.000	0
2010	0.000	0
2011	0.000	0
2012	0.000	0
2013	0.000	0
2014	0.000	0
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
2022	0.000	0
2023	0.000	0
Total	0.000	0

EEI
Other

Year	(MW)	(MWH)
2004	0.000	0
2005	0.000	0
2006	0.000	0
2007	0.000	0
2008	0.000	0
2009	0.000	0
2010	0.000	0
2011	0.000	0
2012	0.000	0
2013	0.000	0
2014	0.000	0
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
2022	0.000	0
2023	0.000	0
Total	0.000	0

Table TA 5.3
2005 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY PROGRAM EFFECTS: ELECTRIC
MARKET EFFECTS: PROJECTED ANNUAL PROGRAM ENERGY AND DEMAND REDUCTIONS - CROSSCUTTING PROGRAM AREA
2004

Upstream Programs Information		
Year	(MW)	(MWH)
2004	0.000	0
2005	0.000	0
2006	0.000	0
2007	0.000	0
2008	0.000	0
2009	0.000	0
2010	0.000	0
2011	0.000	0
2012	0.000	0
2013	0.000	0
2014	0.000	0
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
2022	0.000	0
2023	0.000	0
Total	0.000	0

Upstream Programs Financial Assistance		
Year	(MW)	(MWH)
2004	0.000	0
2005	0.000	0
2006	0.000	0
2007	0.000	0
2008	0.000	0
2009	0.000	0
2010	0.000	0
2011	0.000	0
2012	0.000	0
2013	0.000	0
2014	0.000	0
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
2022	0.000	0
2023	0.000	0
Total	0.000	0

Table TA 5.4
2005 Energy Efficiency Annual Report
MEASURE DETAIL: ELECTRIC
CROSSCUTTING PROGRAM AREA
2004

End Use	Measure Description	Quantity (Recorded)	Total Resource Costs (Recorded, $000) Admin	Total Resource Costs (Recorded, $000) IMC	Total Resource Benefits (Lifecycle kWh)	Useful Life	Levelized Costs (cents/kWh)

No measure detail to report in this program area.

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

This bibliography includes all studies completed during 2004 under the management of SCE. Statewide studies managed by the other three utilities are summarized in Section 6 of this Annual Report but are not listed here. All of the reports described below are available on the website of the California Measurement Advisory Council (CALMAC), in the Searchable Database at www.calmac.org.

CALIFORNIA RESIDENTIAL EFFICIENCY MARKET SHARE TRACKING: APPLIANCES 2002

ITRON, INC.
JANUARY 2004

This report examines the efficiency shares and average efficiencies of clothes washers, dishwashers, refrigerators, and room air conditioners purchased in California's residential sector. Included are a review of data sources used for analysis of appliance efficiencies, a description of model availability with respect to energy efficiency ratings, a summary of applicable energy efficiency standards, the estimated percentage of units sold that qualify for the ENERGY STAR® label, and results of an analysis of market shares by market channel (national chains and independently owned retailers). The data used in this analysis cover the 1998 through 2002 period.

MEASUREMENT AND EVALUATION STUDY OF 2002 STATEWIDE RESIDENTIAL APPLIANCE RECYCLING PROGRAM

KEMA-XENERGY
FEBRUARY 2004

This report provides an evaluation of the 2002 Statewide Residential Appliance Recycling Program (RARP), sponsored by Southern California Edison, Pacific Gas and Electric Company, and San Diego Gas and Electric Company. New estimates of gross and net savings of the program have been estimated. The study also provides process evaluation for RARP. Results were quite different from evaluation results of past programs due to the new nature of the program. The kinds of units that participate in the program are different, as the program now allows the pickup of primary units as well as spares. Prior to this, the program only allowed spare units to be picked up. Program participants have overall high satisfaction with all aspects of the program. The new annualized estimates of UECs were developed from an analysis of laboratory-metered data that were used in a regression model to estimate UECs for refrigerators and freezers recycled in the program during 2002. The net-to-gross (NTG) analysis used data from Participant and Nonparticipant Surveys to estimate the credit attributable to the program for picked up units that would otherwise have been discarded. The calculated NTG factor for refrigerators in this evaluation, 0.35, was substantially lower than the value in previous evaluations.

2002 DEMONSTRATION AND INFORMATION TRANSFER PROGRAM EVALUATION

ENERGY MARKET INNOVATIONS
FEBRUARY 2004

This report summarizes the evaluation results for Southern California Edison Company's (SCE) 2002 local crosscutting Demonstration and Information Transfer (DIT) program. The report provides an overview of the program design and objectives, a review of program activities and progress toward goals, and an overall assessment of the program. The DIT program seeks to identify new technologies that are in the research or early commercialization phase of development and fund and test these ideas in a way that 'pushes' them further in the development cycle. The program focuses on energy efficient (EE) applications with significant market potential and commercial EE applications with low market penetration. Demonstration projects, conducted at either customer sites or in controlled environments, provide design, performance, and verification of novel EE systems, helping to reduce the market barriers to their wider acceptance. The intent of the program is to accelerate the introduction of viable EE technologies, applications, and analytical tools that are not widely adopted in SCE's service territory. Program efforts are therefore directed toward new technologies and design practices targeting both residential and nonresidential customer segments, including new construction. The DIT program is closely related to the statewide Emerging Technologies program, but is local in scope.

2002 STATEWIDE NONRESIDENTIAL STANDARD PERFORMANCE CONTRACT PROGRAM MEASUREMENT AND EVALUATION STUDY: PROCESS EVALUATION AND MARKET ASSESSMENT REPORT

QUANTUM CONSULTING
MARCH 2004

This report presents results from a set of evaluation activities focused on California's Nonresidential Standard Performance Contract Program for program year 2002 (PY2002). Although the PY2002 evaluation scope includes process, market, and impact evaluation components, this report covers only the process and market evaluation. (The impact evaluation report is in a separate volume.) The primary goal of this research is to provide feedback to program planners and policy makers to help improve the program, as necessary. This process evaluation and market assessment includes: (a) characterizing how the program actually worked; (b) reviewing and integrating the results of utility tracking, monitoring, and measurement activities; and (c) assessing energy-efficiency related market conditions.

FINAL REPORT FOR THE MEASUREMENT AND EVALUATION STUDY OF SOUTHERN CALIFORNIA EDISON COMPANY'S PY2002 LOCAL IN-HOME AUDIT PROGRAM

KVD RESEARCH CONSULTING
APRIL 2004

This report presents the evaluation results of Southern California Edison Company's PY2002 Local In-Home Program. The evaluation entailed: 1) verifying the number of local energy audits completed; 2) assessing the impact of the Program on customer awareness and knowledge of energy efficiency opportunities, with particular emphasis on the hard-to-reach (HTR) customer segment; 3) providing ongoing feedback and corrective guidance regarding program design and implementation; and, 4) evaluating program success by estimating the savings that can be attributed to the program based on a verification of audit-recommended adoption rates for both measures and practices. The study found that 5,172 energy surveys were completed and 71 percent of those customers qualified as hard-to-reach. Satisfaction with the program among participants was high, and 33 percent of the recommendations offered in the in-home energy survey (including both measures and practices) were adopted following the audit with 86 percent of all participants adopting at least one recommendation. While not a requirement for information-only programs, the study estimated savings for the In-Home program to fully document the impacts of the program and found that the adjusted gross savings (after applying the standard net-to-gross ratio of 0.72) are 2,398,807 kWh, and 521 kW.

FINAL REPORT FOR THE EVALUATION OF THE CALIFORNIA 2002 HOME ENERGY EFFICIENCY SURVEY PROGRAM

RIDGE & ASSOCIATES, KVD RESEARCH CONSULTING,
QUANTUM CONSULTING
JUNE 2004

This report presents the EM&V results of the Home Energy Efficiency Survey (HEES) Program conducted in 2002 by Pacific Gas & Electric, Southern California Edison, Southern California Gas Company, and San Diego Gas & Electric. The HEES Program is available statewide through both direct mail and the Internet and provides residential customers with valuable information to assist them with understanding, controlling and reducing energy use in their homes. The goals of the evaluation were to: 1) verify the number of residential energy audits completed under the PY2002 statewide program; 2) evaluate program success by estimating the savings that can be attributed to the program based on a verification of audit-recommended measure implementation rates for both measures and practices; 3) assess the impact of the HEES Program on customer awareness and knowledge of energy efficiency opportunities, and; 4) provide ongoing feedback and corrective guidance regarding program design and implementation.

CALIFORNIA RESIDENTIAL EFFICIENCY MARKET SHARE TRACKING - HVAC 2003

ITRON, INC.
JUNE 2004

This report summarizes the analysis and results of the heating, ventilation, and air conditioning (HVAC) equipment component of the California Residential Market Share Tracking (RMST) project. This project tracks the average efficiencies and shares of highly energy efficient HVAC equipment, appliances, and lamps sold for use in California's residential gas and electric consumers sector.

THE CALIFORNIA EVALUATION FRAMEWORK

TECMARKET WORKS, MEGDAL & ASSOCIATES
JUNE 2004

The Evaluation Framework provides program evaluators, administrators and others with a comprehensive set of guidelines for conducting evaluations of California's energy efficiency programs. The Framework includes recommendations for conducting impact evaluations, including measurement and verification (M&V) efforts, as well as process, market effects, information/education/training program and non-energy benefits evaluations. It includes evaluation methodology descriptions and numerous references. Guidelines are also presented for evaluation sample design and statistical analysis and for assessing and reducing the level of uncertainty of evaluation results. The Framework includes a set of decision protocols for deciding what to evaluate and when to conduct the evaluations. It provides examples of how the evaluation structure can fit into a cycle of program portfolio planning, implementation and evaluation. The Framework is recommended reading for a wide range of professionals who plan, conduct or use evaluation results.

EVALUATION OF 2002 STATEWIDE CODES AND STANDARDS PROGRAM

ADM ASSOCIATES, INC.
JUNE 2004

This report provides the results of the evaluation of the 2002 Statewide Codes and Standards Program. The objectives of the study were threefold: 1) To evaluate the codes and standards program processes and program interactions with regulators, stakeholders, and the buildings-related communities; 2) To evaluate program impacts and estimate attribution of impacts to C&S program activities; and 3) To recommend ways to improve program effectiveness. Information was obtained through interviews conducted with individuals representing interests that have a stake in the revision of the buildings and appliance energy efficiency standards and codes. The results of those interviews were used to examine (1) stakeholders' involvement in code revision process, (2) stakeholders' perceptions of CEC's code revision process and (3) stakeholders' perceptions of the impacts of the C&S Program on that process. To address the second objective, savings estimates from other studies as well as estimates developed in this study were used to examine impacts of revisions to California's buildings and appliance efficiency standards that are attributable to the Statewide Codes and Standards Program.

CALIFORNIA LAMP REPORT 2003

ITRON, INC.
JULY 2004

This report discusses the analysis of residential lighting equipment, which is one aspect of the larger California Residential Market Share effort. This element of the study collects data to support California's investor-owned utilities in their efforts to measure program milestones for promoting compact fluorescent lamps (CFLs) in their respective service territories.

FINAL REPORT 2002 BUILDING EFFICIENCY ASSESSMENT (BEA) STUDY - AN EVALUATION OF THE SAVINGS BY DESIGN PROGRAM

RLW ANALYTICS
JULY 2004

This report contains summary results for both program participants of Savings By Design (SBD) and non-participants. Savings By Design is the statewide NRNC energy efficiency program administered by the California investor-owned utilities (IOUs). The 2002 BEA Study is an evaluation of SBD projects that were paid incentives in program year (PY) 2002. The key objectives of the study are to provide: 1) impact estimates for the gross whole-building energy and demand savings resulting from the program; 2) impact estimates of incented and non-incented measure categories; 3) estimates of free-ridership and spillover at the measure and end-use level; and 4) a process evaluation of the SBD program. Detailed on-site surveys and end-use metered data were used to inform DOE-2 engineering models. The output of the engineering models is statistically projected to the program population to show program impacts at the 90% confidence level. The study is further informed by in-depth decision-maker telephone surveys. The decision-maker survey results not only produce process findings, but are also used to adjust the engineering models for estimating the program's net impacts.

NRNC MARKET CHARACTERIZATION REPORT QTR 1-2, 2004

QUANTUM CONSULTING
SEPTEMBER 2004

The main objective of the statewide Market Characterization and Program Activity Tracking (MCPAT) Study is to collect, summarize and report nonresidential new construction (NRNC) market characteristics, as well as program information, in support of the statewide Savings By Design (SBD) energy efficiency program offered by Southern California Edison, Pacific Gas and Electric Company, San Diego Gas and Electric Company, and Southern California Gas Company. This Half Yearly Market Characterization Report summarizes the NRNC market characteristics in Quarters 1-2, 2004. Its main goal is to provide an ongoing summary of the market in support of Savings By Design program planning and implementation activities in the second half of 2004.

NON RESIDENTIAL NEW CONSTRUCTION (NRNC) MARKET CHARACTERIZATION AND PROGRAM ACTIVITIES TRACKING STUDY: TRENDS REPORT, 1999-2003

QUANTUM CONSULTING
OCTOBER 2004

This report examines the NRNC market trends and Savings By Design program trends from SBD program inception (July 1999) until the end of PY2003. Its main goal is to provide a summary of market and program activities in support of Savings By Design program planning and implementation activities in the second half of 2004 and beyond. The main objective of the statewide Market Characterization and Program Activity Tracking (MCPAT) Study is to collect, summarize and report nonresidential new construction (NRNC) market characteristics, as well as program information, in support of the statewide Savings By Design (SBD) energy efficiency program offered by the four (4) investor owned utilities (IOUs). The publication of results on an ongoing basis allows program designers, implementers, evaluators, and market participants to determine the extent to which the NRNC market changes over a given period of time, understand how energy efficiency practices are implemented in the NRNC market, and if necessary, modify the SBD Program to most effectively enhance energy efficiency practices

in the new construction market.

MEASUREMENT AND EVALUATION OF THE 2003 SMALL NONRESIDENTIAL HARD-TO-REACH PROGRAMS

QUANTEC LLC
OCTOBER 2004

This report provides the evaluation, measurement and verification results, both process and impact analysis, for SCE's Small Nonresidential Hard-to-Reach Program for program year 2003. The Program provides low- and no-cost energy saving opportunities to very small (under 20kW) hard-to-reach nonresidential customers, specifically economically disadvantaged businesses, through energy assessments and installation of no-cost energy-saving measures, primarily lighting.

EVALUATION OF SOUTHERN CALIFORNIA EDISON'S PY2003 LOCAL GOVERNMENT INITIATIVE PROGRAM

WIRTSHAFTER ASSOCIATES
NOVEMBER 2004

The Southern California Edison Local Government Initiative (LGI) is a marketing program that enrolls local jurisdictions. LGI provides builders in these jurisdictions with marketing materials to channel participants into the Community Energy Efficiency Program (CEEP), Express Efficiency, and Checkpoint, which target residential new construction, existing non-residential structures, and non-residential new construction, respectively. Builders who participate in these programs may also receive incentives from their jurisdictions such as expedited permit processing, permit fee reduction, or recognition. The evaluation method consisted of structured interviews with builders, program staff, building experts, and jurisdiction staff. Problems noted in prior evaluations persist, including a need for more staffing and a disinterest from the building community due to California's hot housing market. Increased marketing efforts are needed, particularly for Express Efficiency and Checkpoint.

MONITORING & EVALUATION OF THE 2003 RESIDENTIAL APPLIANCE RECYCLING PROGRAM

KEMA-XENERGY
DECEMBER 2004

The Residential Appliance Recycling Program (RARP) is designed to achieve energy savings by removing older, inefficient refrigerators and freezers from households and keeping them from entering the secondary market. This document presents the final results of the monitoring and evaluation study of the 2003 Program sponsored by Southern California Edison, Pacific Gas and Electric Company, and San Diego Gas and Electric Company. The monitoring and evaluation activities covered three areas: verifying information provided to the California Public Utilities Commission for the 2003 program year, estimating the degradation in refrigerator performance over time, and estimating the market potential of refrigerators eligible for the program.

Section VII - Shareholder Performance Incentives

This section is not applicable for the 2004 Energy Efficiency Program Year.

There were no shareholder performance incentives authorized by the California Public Utilities Commission for 2004 Energy Efficiency Programs.

Section VIII - IOU Partnership Programs

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

Table TA 8.1 Program Cost Estimates Used for Cost-Effectiveness – IOU Partnerships Program Area

This table documents those costs used in determining the cost-effectiveness of IOU partnership energy efficiency programs. These tables provide all program costs, including costs expended in 2004 and those costs associated with commitments from 2004 programs.

Program Incentives (Recorded)
Incentive costs represent incentives paid to customers during 2004 (Actual) as well as incentives associated with commitments from the 2004 IOU partnership programs (Committed).

Program Administrative Costs (Recorded)
These costs include all expenditures directly charged to the program with the exception of incentive costs. The administrative costs consist of labor, non-labor, contract labor, and allocated material costs (See Also Table TA 5.2). These costs represent administrative costs expended during 2004 (Actual) as well as administrative costs associated with the handling of commitments from the 2004 IOU partnership programs (Committed).

Shareholder Incentives
Costs represented in the Shareholder Incentives column would represent an allocated amount of the total performance awards earned during a particular program year. There were no shareholder incentives authorized for 2004.

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

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

Incremental Measure Costs (Net)
These costs generally represent the incremental costs of energy efficiency measures over the standard replacement measures. SCE's incremental measure costs are typically derived from the latest cost source available for the particular measure(s), including recent measure cost studies. The gross amounts of these costs are reduced by appropriate net-to-gross ratios for the particular measure or end-use. The net-to-gross ratios are consistent with the ratios utilized in SCE's September 23, 2003 Application for 2004-2005 energy efficiency program funding.

Table TA 8.2 Direct and Allocated Administrative Costs – IOU Partnerships Program Area

This table documents the breakdown of the actual administrative costs used in determining the cost-effectiveness of IOU partnership energy efficiency programs. These tables provide detail of all actual program administrative costs expended in 2004. These costs include the costs of Market Assessment & Evaluation for the Partnership Energy Efficiency Programs, regulatory support, and other energy efficiency support costs.

Labor Costs (Actual)
Labor costs consist of SCE labor charges that are directly charged to the program. These costs include salaries and expenses of SCE employees engaged in developing energy efficiency marketing strategies, plans, and programs; developing program implementation procedures; reporting, monitoring, and evaluating systems. The reported costs reflect only the actual costs incurred in 2004 in support of 2004 IOU partnership programs.

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

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

Allocated Administrative Costs (Actual)
Allocated administrative costs represent those for building lease and maintenance costs and management oversight expenditures. In addition, the 2004 Allocated Administrative Costs (Actual) category includes costs related to systems support, regulatory support, internal audits, and other costs which are allocated to the programs.

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

Table TA 8.3 Market Effects: Projected Annual Program Energy Reductions – IOU Partnerships Program Area

The projected annual program energy reductions for the IOU partnership program area, presented in TA 8.3, are derived from ex ante estimates of energy savings. These estimates are based upon the measure level savings data submitted in SCE's September 23, 2003 Application for 2004-2005 Energy Efficiency Program Funding and adopted in Decisions D.03-12-060 and D.04-02-059. These estimates have been updated, as applicable, to correspond with the actual program implementation during 2004 and to reflect actual program results as of December 31, 2004. Recorded savings amounts reflect all 2004 program impacts, including impacts from measures installed in 2004 and those impacts associated with commitments from 2004 programs.

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

Program Energy Reduction Assumptions
Annual program energy reduction estimates for IOU partnership programs supplied in the September 23, 2003 Application for 2004-2005 Energy Efficiency Program Funding and submitted herein as the 2004 program results are the result of a summation of measure-level savings from the measures installed or committed to be installed as a result of the 2004 IOU partnership programs. The measure-level savings information used to calculate the 2004 program results are based upon the latest energy savings data available for the particular measure(s), including measurement studies, historical program results, and engineering estimates. The gross amounts of these costs are reduced by appropriate net-to-gross ratios for the particular measure or end-use.

The Effective Useful Life is the length of time (years) for which the load impacts of an energy efficiency measure are expected to last. The useful life estimates are also based upon the Energy Efficiency Policy Manual, adopted in Decision 03-08-067.

Table TA 8.4 Measure Detail – IOU Partnerships Program Area

Table TA 8.4 provides measure-level detail for all of SCE's IOU partnership energy efficiency programs with 2004 energy saving goals.

End Use & Measure Description
Detail the actual measures installed or committed to be installed as a result of the 2004 IOU partnership programs.

Quantity (Recorded)
Derived from SCE's program tracking databases, the number of units installed or committed to be installed as a result of the 2004 IOU partnership programs.

Total Resource Costs – Administrative Costs (Recorded)
These costs include all expenditures directly charged to the program with the exception of incentive costs. These costs represent administrative costs expended during 2004 as well as administrative costs associated with the handling of commitments from the 2004 IOU partnership programs. The Summation of the "Total Resource Costs – Admin" and "Total Resource Costs – IMC" column values comprise the Total Resource Costs for Levelizing ("LCRC") as specified in the California Standard Practice Manual: Economic Analysis of Demand-Side Programs and Projects, October 2001.

Total Resource Costs – Incremental Measure Costs (Recorded)
These costs generally represent the incremental costs of energy efficiency measures over the standard replacement measures. SCE's incremental measure costs are typically derived from the latest cost source available for the particular measure(s), including recent measure cost studies. The gross amounts of these costs are reduced by appropriate net-to-gross ratios for the particular measure or end-use. The net-to-gross ratios are consistent with the ratios utilized in SCE's September 23, 2003 Application for 2004-2005 energy efficiency program funding. The Summation of the "Total Resource Costs – Admin" and "Total Resource Costs – IMC" column values comprise the Total Resource Costs for Levelizing ("LCRC") as specified in the California

Standard Practice Manual: Economic Analysis of Demand-Side Programs and Projects, October 2001.

Total Resource Benefits – Lifecycle kWh
Annual net kWh savings multiplied by the measure Useful Life.

Useful Life
Assumption of the useful life of the measure, used to determine the lifecycle energy savings. The useful life estimates are consistent with the ratios utilized in SCE's September 23, 2003 Application for 2004-2005 energy efficiency program funding.

Levelized Costs
The TRC Levelized Cost, calculated pursuant to the California Standard Practice Manual: Economic Analysis of Demand-Side Programs and Projects, October 2001. These costs, represented as a cents / kWh, are calculated by the summation of the "Total Resource Costs – Admin" and "Total Resource Costs – IMC" column values which comprise the Total Resource Costs for Levelizing ("LCRC") divided by the Total Discounted Load Impacts of the Program ("IMP"). The discount rate utilized is 8.15 %, as specified in the Energy Efficiency Policy Manual, Decision 03-08-067.

Table TA 8.1
2005 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
PROGRAM COST ESTIMATES USED FOR COST-EFFECTIVENESS - IOU PARTNERSHIP PROGRAMS AREA
2004

	Program Incentives (Recorded)		Program Administrative Costs (Recorded)		Shareholder Incentives [1]	Other Costs [2]	Total Utility Costs	Incremental Measure Costs
	Actual	Committed	Actual	Committed				
Bakersfield/Kern Energy Watch - PGC	$ -	$ 62,258	$ 57,567	$ 380,175	$ -	$ -	$ 500,000	$ 35,915
The Energy Coalition - PGC	-	-	1,853,687	146,313	-	-	2,000,000	496,000
LA County/SCE/SCG Partnerhsip - PGC	-	777,008	111,689	611,303	-	-	1,500,000	777,008
City of Pomona - PGC	-	-	248,919	76,593	-	-	325,512	-
South Bay Cities Energy Efficiency Center - PGC	-	-	416,054	38	-	-	416,092	-
IOU/UC/CSU Partnership - PGC	413,511	731,161	1,171,376	2,998	-	-	2,319,046	1,517,333
Ventura REA - PGC	-	-	238,789	397,786	-	-	636,575	-
IOU Partnership Programs Total	$ 413,511	$ 1,570,427	$ 4,098,081	$ 1,615,205	$ -	$ -	$ 7,697,224	$ 2,826,255

[1] The Commission authorized no Shareholder Performance Awards in 2004.
[2] Statewide Market Assessment and Evaluation costs.

Table TA 8.2
2005 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
DIRECT AND ALLOCATED ADMINISTRATIVE COSTS - IOU PARTNERSHIP PROGRAMS AREA
2004

	Actual Labor	Actual Non-Labor	Actual Contract	Actual Allocated	Actual Admin Total
Bakersfield/Kern Energy Watch - PGC	$ 10,641	$ 1,402	$ 1,942	$ 43,582	$ 57,567
The Energy Coalition - PGC	-	1,853,687	-	-	1,853,687
LA County/SCE/SCG Partnerhsip - PGC	33,553	4,186	826	73,124	111,689
City of Pomona - PGC	7,028	210,508	7,877	23,506	248,919
South Bay Cities Energy Efficiency Center - PGC	-	414,385	-	1,669	416,054
IOU/UC/CSU Partnership - PGC	101,211	908,349	78,778	83,038	1,171,376
Ventura REA - PGC	-	227,632	7,784	3,373	238,789
IOU Partnership Programs Total	$ 152,433	$ 3,620,149	$ 97,206	$ 228,293	$ 4,098,081

Table TA 8.3
2005 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY PROGRAM EFFECTS: ELECTRIC
MARKET EFFECTS: PROJECTED ANNUAL PROGRAM ENERGY AND DEMAND REDUCTIONS - IOU PARTNERSHIP PROGRAMS AREA
2004

IOU Partnership Programs

Year	(MW)	(MWH)
2004	0.003	10,365
2005	0.003	10,365
2006	0.003	10,365
2007	0.003	10,365
2008	0.003	10,365
2009	0.003	10,365
2010	0.003	10,365
2011	0.003	10,365
2012	0.003	10,365
2013	0.000	0
2014	0.000	0
2015	0.000	0
2016	0.000	0
2017	0.000	0
2018	0.000	0
2019	0.000	0
2020	0.000	0
2021	0.000	0
2022	0.000	0
2023	0.000	0
Total	0.003	93,285

Table TA 8.4
2005 Energy Efficiency Annual Report
MEASURE DETAIL: ELECTRIC
IOU PARTNERSHIP PROGRAMS AREA
2004

End Use	Measure Description	Quantity (Recorded)	Total Resource Costs (Recorded, $000) Admin	IMC	Total Resource Benefits (Lifecycle kWh)	Useful Life	Levelized Costs (cents/kWh)
Bakersfield Kern Energy Watch - PGC							
Single Family Direct Install	ES Screw-in CFL (21 to 30 watts) for calc. use 25 W	236	$ 34	$ 1	160,996	8	$ 30.33
Single Family Direct Install	ES Interior Hardwired CFL Fixtures (30 Watts)	214	45	11	272,525	16	37.91
Single Family Direct Install	ES Programmable Thermostats	12	5	1	29,085	11	32.07
Multi-family Direct Install	ES Screw-in CFL (21 to 30 watts) for calc. use 25 W	166	24	1	113,243	8	30.33
Multi-family Direct Install	ES Interior Hardwired CFL Fixtures (30 Watts)	166	35	7	211,398	16	36.63
Multi-family Direct Install	ES Exterior Hardwired CFL Fixtures (27 Watts)	121	62	3	376,467	16	31.82
Multi-family Direct Install	ES Programmable Thermostats	-	-	-	-	11	#DIV/0!
Multi-family Direct Install	T-5 or T-8 Int. lamps with electronic ballasts - (4 ft. 1	-	-	-	-	16	#DIV/0!
Multi-family Direct Install	T-5 or T-8 Int. lamps with electronic ballasts - (4 ft. 2	-	-	-	-	16	#DIV/0!
Multi-family Direct Install	T-5 or T-8 Int. lamps with electronic ballasts - (8 ft. 1	-	-	-	-	16	#DIV/0!
Multi-family Direct Install	T-5 or T-8 Int. lamps with electronic ballasts - (8 ft. 2	-	-	-	-	16	#DIV/0!
SPC PLUS	Lighting	53,247	99	2	596,366	16	31.00
SPC PLUS	HVAC/Refrigeration	62,590	134	9	876,260	20	33.44
SPC PLUS	Motors/Other	-	-	-	-	15	#DIV/0!
The Energy Coalition - PGC							
Residential All	PEAK Students	5,000	146	-	2,144,000	5	8.53
Residential All	PEAK Households	5,000	815	400	12,000,000	5	12.72
Residential All	PEAK School Districts	3	255	48	3,750,000	5	10.14
Residential All	Municipal Energy Actions	3	305	48	4,500,000	5	9.88
Residential All	Community Promotions	12,181	355	-	5,223,213	5	8.53
Residential All	Community Promotions	1,078	97	-	1,428,350	5	8.53
Residential All	Mobile Home Activities	-	-	-	-	5	#DIV/0!
Residential All	Mobile Home Activities	-	-	-	-	5	#DIV/0!
Residential All	Mobile Home Activities	-	-	-	-	5	#DIV/0!
Residential All	Rental Apartment Activities	57	8	-	114,000	5	8.53
Residential All	Rental Apartment Activities	57	4	-	57,000	5	8.53
Residential All	Rental Apartment Activities	19	2	-	26,600	5	8.53
Residential All	Owner-Occupied Apt Activities	11	1	-	22,000	5	8.53
Residential All	Owner-Occupied Apt Activities	11	1	-	11,000	5	8.53
Residential All	Owner-Occupied Apt Activities	5	0	-	7,000	5	8.53
Residential All	Small Business Tune-Ups	17	8	-	121,125	5	8.53
Residential All	Small Business Tune-Ups	17	3	-	40,375	5	8.53
Residential All	Small Business Tune-Ups	4	1	-	19,000	5	8.53
LA County/SCE/SCG Partnership - PGC							
Nonresidential All	HID Retrofit	-	-	-	-	16	#DIV/0!
Nonresidential All	Exit Light Retrofit	-	-	-	-	16	#DIV/0!
Nonresidential All	T-12 to T8	-	-	-	-	16	#DIV/0!
Nonresidential All	Incandescent to Compact Flourescent	-	-	-	-	16	#DIV/0!
Nonresidential All	Lighting Controls	-	-	-	-	16	#DIV/0!
Nonresidential All	Chiller Replacement	-	-	-	-	20	#DIV/0!
Nonresidential All	Retrocommissiong - Electric	1,494,246	723	777	27,344,702	15	9.70
IOU/UC/CSU Partnership - PGC							
Nonresidential All	T-12 to T8 Floures. Fixture/Ballasts	7,136	364	480	12,599,376	16	12.22
Nonresidential All	LED Exit Sign Retrofits	235	22	38	777,212	16	14.24
Nonresidential All	Incandescent to Compact Flourescent	450	176	20	6,072,351	16	5.87
Nonresidential All	Building Wide Lighting Control Units	-	-	-	-	16	#DIV/0!
Nonresidential All	HID Retrofits	-	-	-	-	16	#DIV/0!
Nonresidential All	HID to T-5 Retrofits	183	52	70	1,793,324	16	12.44
Nonresidential All	Time Clocks	-	-	-	-	10	#DIV/0!
Nonresidential All	Chiller Replacement	5	298	897	11,206,468	20	21.98
Nonresidential All	Motors/VFD's	1	262	12	8,842,825	15	5.47
Nonresidential All	Retro/Cont.-Commissioning	-	-	-	-	15	#DIV/0!

Section IX – DSM Balancing Accounts

This section contains narrative that documents and explains the data shown for Table TA 9.1 through TA 9.2.

Table TA 9.1 Demand-Side Balancing Accounts

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

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

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

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

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

In Decision 03-12-062, Ordering Paragraph 21, the Commission stated the following::

> Respondent utilities shall establish a one-way Procurement Energy Efficiency and Balancing Account to track the costs and revenues associated with authorized programs in this proceeding. Costs associated with these accounts shall be submitted simultaneously with utility monthly Energy Resource Recovery Account filings to the Energy Division for review on a monthly basis. Within 20 days of the effective date of this decision, utilities shall file advice letters establishing the methodology and surcharge rate for incremental procurement energy efficiency programs for Program Year 2004 and 2005.

Table TA 9.2 Direct and Allocated Administrative Costs – Utility Administration of Non-IOU Programs

This table documents the breakdown of the actual administrative costs used in the non-utility energy efficiency programs. These tables provide detail of all actual program administrative costs expended in 2004. These costs are representative of the utility administrative costs only. No administrative costs on the part of other parties are included in these administrative costs.

Labor Costs (Actual)
Labor costs consist of SCE labor charges that are directly charged to the program. These costs include salaries and expenses of SCE employees engaged in developing energy efficient marketing strategies, plans, and programs; developing program implementation procedures; reporting, monitoring, and evaluating systems. The reported costs reflect only the actual costs incurred in 2004 in support of 2004 non-utility programs.

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

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

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

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

Table TA 9.1
2005 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
PUBLIC PURPOSE PROGRAMS DSM BALANCING ACCOUNTS
2004

Account Name	Description	Authorized by
Public Purpose Programs Adjustment Mechanism (PPPAM)	Records Public Goods Charge Expenses authorized in P.U. Code 399.8.	Decision D.97-12-103; Resolution E-3792
Procurement Energy Efficiency Balancing Account (PEEBA)	Tracks the difference between recorded incremental energy efficiency costs and incremental energy efficiency revenues authorized in D.03-12-062.	Decision D.03-12-062

Table TA 9.2
2005 Energy Efficiency Annual Report
SUMMARY OF ENERGY EFFICIENCY EXPENDITURES: ELECTRIC
DIRECT AND ALLOCATED ADMINISTRATIVE COSTS - UTILITY ADMINISTRATION OF NON-IOU PROGRAMS
2004

Program	Actual Labor	Actual Non-Labor	Actual Contract	Actual Allocated	Actual Admin Total
Non-IOU Program Administration	$ 152,636	$ 4,802	$ 79,161	$ 893	$ 237,493
Total	$ 152,636	$ 4,802	$ 79,161	$ 893	$ 237,493

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