

May 1, 2008

#### VIA ELECTRONIC MAIL & OVERNIGHT DELIVERY

Mr. Sean Gallagher Director - Energy Division California Public Utilities Commission 505 Van Ness Avenue San Francisco, CA 94102-3298

Re: Southern California Edison Company's (U 338-E) Annual Progress

Report for the Low Income Energy Efficiency (LIEE) Program for

the Period January – December 2007

Dear Mr. Gallagher:

Southern California Edison Company (SCE) hereby submits is Annual Progress Report for the Low Income Energy Efficiency (LIEE) Program for the period January through December 2007.

If you have any questions regarding this Report, please contact SCE's Low-Income Programs Manager, Jack Parkhill at (626) 633-3056.

Very truly yours,

#### /s/ STACIE SCHAFFER

Stacie Schaffer

cc: Administrative Law Judge Sarah Thomas Sarita Sarvate, CPUC Sarvijit Randhawa, CPUC Natalie Walsh, CPUC Melicia Charles, CPUC Johanna Sevier, CPUC Michael Black, CPUC Matthew Tisdale, DRA Karen Watts-Zagha, DRA Rashid Rashid, DRA Alik Lee, DRA Robert Lehman, DRA

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# 2008 Low Income Energy Efficiency Annual Report

- Summary Report 2007 Results
- Technical Appendix 2007 Results

May 2008



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#### **Executive Summary**

In 2007, SCE continued to provide comprehensive services to eligible low income customers by installing all feasible measures for each qualified home.

As a result, SCE's Low Income Energy Efficiency (LIEE) program continued to provide its participating customers with utility bill savings and additional benefits that provided improvements to their comfort, health and safety.

SCE's 2007 LIEE program included refrigerator replacement, relamping, evaporative cooler installation, air conditioner replacement and other measures that were approved by the Commission in Decision 06-12-038 and other prior decisions. SCE, in 2007, continued to ensure that treated households were assessed upfront to establish eligibility for all available measures under the LIEE program.

Among program highlights in 2007, SCE's LIEE program:

- treated 44,323 homes;
- weatherized 654 homes;
- installed 6,286 evaporative coolers;
- relamped homes with 177,531 compact fluorescent lamps (CFLs);
- installed 15,876 refrigerators to replace older inefficient models;
- installed 847 room air conditioners, 1,761 central air conditioners, and 120 heat pumps to replace older inefficient models.

#### **Program Description**

SCE's LIEE program provided energy efficiency assistance at no cost to qualified low income customers whose household income met guidelines established by the Commission. Effective with D.05-10-044 the income-eligibility requirements for SCE's LIEE program match those for the California Alternative Rates for Energy (CARE) program, which is 200% of federal poverty guidelines.

SCE strived in 2007 to deliver the LIEE program as efficiently as possible, achieve the Commission's mandate that customers receive all measures for which they are eligible, and take advantage of opportunities to leverage program resources to maximize the number of customers receiving program services.

In 2007, SCE contained costs and maximized program funding by entering into competitively bid purchase orders to buy energy-efficient refrigerators, CFLs, room air-conditioners, evaporative coolers and central air conditioners in bulk. These appliances were shipped directly from the vendor to SCE's contractors for installation in low income customer homes.

SCE implemented a new database and tracking system in 2007 that enhances quality control and customer service by automating work flow functions. The new system helps SCE and its contractors track customer work status, participation, inventory costs, and work performed. The system is similar to the systems used by other utilities and will facilitate data sharing to ensure customers can receive all feasible electric measures from SCE's contractors and gas measures from their gas utility.

To ensure customers received a comprehensive series of measures in 2007, SCE continued to assess each home for all eligible electric measures in one visit. SCE continued to train all service providers on the procedures for assessing homes.

Throughout 2007, SCE maintained a commitment to participate in and seek out joint leveraging opportunities with community-based organizations (CBOs), faith-based organizations, public housing authorities, Low Income Home Energy Assistance Programs (LIHEAP) providers, ethnic and cultural groups and others. For example, SCE entered into contracts with LIHEAP providers for the installation of refrigerators in SCE's service territory. These contracts enabled SCE to deliver energy-efficient refrigerators to LIHEAP providers, with installation costs paid from LIHEAP funds.

#### EVAPORATIVE COOLER INSTALLATION

To alleviate the effects of high temperatures on low income customers, SCE helps these customers control their summer space cooling costs by offering an evaporative cooler to use in place of their air conditioners. The program targets customers in hot, dry climates where coolers are most effective.

#### RELAMPING

SCE helps low income customers conserve energy and control their lighting costs by offering free CFLs to replace incandescent bulbs. Each CFL provides the same amount of light as an incandescent, but at a lower wattage. A household may receive up to five CFLs to replace 60-to 100-watt incandescent equivalents. When feasible, customers also receive a free hardwired CFL porch light fixture to replace an existing incandescent light based porch light fixture.

#### WEATHERIZATION

SCE provides weatherization services to customers with electric-space heating. Services include, but are not limited to: attic insulation, weather-stripping/caulking, low-flow shower heads, electric water heater blankets and building envelope repair.

#### **ENERGY EDUCATION**

Low income customers that receive energy saving LIEE measures receive an Energy Education Resource Guide (English/ Spanish) that contains information about SCE's programs, energy saving tips, appliance safety tips, and information on community, state, utility and federal programs that service the low income community. Representatives from CBOs and private contractors provide energy education while at customers' homes.

#### REFRIGERATOR REPLACEMENT/RECYCLING

The greatest opportunity for energy savings and bill reductions in low income households is often to replace an older refrigerator with an energy-efficient model. SCE replaces inefficient refrigerators with energy-efficient models. The existing refrigerator must have been manufactured prior to 1993 and be at least ten cubic feet, and the customer must allow SCE to recycle the old refrigerator in accordance with federal and state standards.

#### ROOM AIR CONDITIONERS/CENTRAL AIR CONDITIONERS/HEAT PUMPS

SCE helps low income customers control summer energy costs by offering new, energy-efficient room air conditioners, central air conditioners, and heat pumps. Installations are targeted to customers with high summer cooling bills who reside in eligible extreme climate zones where temperatures regularly exceed 100 degrees. When central air conditioners are replaced, SCE's contractors test and reseal the existing ducts in order to save energy by minimizing leakage. The Commission in Decision 06-12-038 lifted a critical barrier to renter participation by allowing renters to be eligible for air conditioners and heat pumps in eligible climate zones.

#### 2007 Results and Achievements

#### **EVAPORATIVE COOLER INSTALLATION**

In 2007; 6,286 evaporative coolers were installed. These installations resulted in an annualized energy savings of 2,379 MWh.

#### RELAMPING/PORCH LIGHT REPLACEMENT

SCE installed 177,531 CFLs and 529 outdoor light fixtures in customers' homes during 2007. These installations resulted in a net annualized energy savings of 4,067 MWh.

#### WEATHERIZATION

In 2007, SCE weatherized 654 electrically-heated homes. Through a coordinated effort with SoCalGas, homes identified at the time of the assessment as being heated by natural gas received weatherization measures by SoCalGas' Direct Assistance Program.

#### **ENERGY EDUCATION**

Through SCE's Inter-Utility Cooperative with SoCalGas, SCE's contractors provided energy education to 30,041 customers through in-house counseling and Energy Education Resource Guide designed to help them lower energy use through simple conservation practices.

#### REFRIGERATOR REPLACEMENT/RECYCLING

During the year, 15,876 energy-efficient refrigerators were installed and 15,876 inefficient refrigerators were recycled in accordance with federal and state standards. These installations resulted in an annualized energy savings of 11,903 MWh.

#### ROOM AIR CONDITIONERS/CENTRAL AIR CONDITIONERS/HEAT PUMPS

In 2007, SCE replaced 847 room air conditioners; 1,761central air conditioners; and 120 heat pumps. These installations resulted in an annualized energy savings of 2,365 MWh.

# Measurement, Evaluation, & Regulatory Oversight

M&E funds and personnel are used to support the development and implementation of studies of the low income population and programs. Studies include: load impact evaluations that estimate the energy savings achieved by the utilities' low income energy efficiency programs, process evaluations that assess opportunities for improvement in program design and delivery, and similar studies as required by the Commission or determined by the utilities to be necessary to develop and implement effective programs.

#### **MEASUREMENT & EVALUATION - 2007 RESULTS AND ACHIEVEMENTS**

SCE requested and received permission from the CPUC's Executive Director on March 17, 2005, to shift the requirement from a 2004 evaluation to an evaluation of the 2005 program. This request was designed to allow more detailed program data collection throughout 2005 to feed into a more detailed energy savings analysis.

SCE, along with the Joint Utilities, the Commission, the evaluator and other stakeholders combined to complete the Impact Evaluation of the 2005 California Low Income Energy Efficiency Program in 2007. The report, which was based on on-site surveys, detailed bill analysis and regression modeling to both interpret and measure the impact of the 2005 program and suggest improvements based on the evaluation, has been a key source of data in planning for the 2009-2011 program period, within the context of the Low Income section of the California Energy Efficiency Strategic Plan and the Programmatic Initiative.

In addition to these efforts, SCE also worked closely with CPUC stakeholders and the other IOUs to integrate the lessons from the KEMA Needs Assessment which was released in September of 2007. The report was instrumental in guiding program delivery strategies for the 2009-2011 period and for examining demographic eligibility of the CARE and LIEE programs. SCE worked closely with key stakeholders on this important area and continues to examine and refine these estimates.

As noted above, SCE also participated in numerous workshops in support of the California Energy Efficiency Strategic Plan. The results of both the Impact Evaluation and the Needs Assessment were valuable in guiding this key initiative. SCE continued to work with the other IOUs, the impact evaluator and

CPUC stakeholders to plan for subsequent impact evaluations and to refine demographic eligibility estimates. SCE also continued to work with stakeholders in support of the Programmatic Initiative.

#### **REGULATORY OVERSIGHT**

Regulatory oversight consists of activities that are undertaken to meet regulatory requirements for reporting program activities. Areas of support included compliance filings; advice letters; comments on workshop proposals and draft decisions for the Low Income Rulemaking; Application for Approval of SCE's "Change a Light, Change the World" CFL program proposal; support for the Commission's audit of the 2006 Low Income programs; responses to data requests; monthly reporting of program results; and the Low Income Energy Efficiency Annual Report.

#### **Energy-Related Hardship**

The Reporting Requirements Manual Working Group (RRMWG) previously developed a working definition of the term "energy-related hardship" as it relates to comfort level, employment, safety and security. The definition agreed upon by the RRMWG states that "energy-related hardship" is "adverse impacts on the comfort, health, and safety of low income customers that can be mitigated by access to low income energy efficiency programs and services."

SCE's LIEE program assists in lessening the energy-related hardships experienced by some low income customers. Evaporative coolers, air conditioner replacements, and weatherization measures increase comfort and help customers ease energy-related stress from inadequate control over ambient climate and temperature due to insufficient energy efficiency measures. The program provides additional protection from outside elements. Without the program, customers would have less relief from energy-related stress resulting from ambient climate or temperature, especially in extreme temperature regions or from heat storms as were experienced in the summer of 2006.

SCE provides evaporative coolers in the desert regions of its service territory. Without evaporative coolers, these customers would be subject to extreme desert heat unless they operated their air conditioners at much higher cost. The Evaporative Cooler program enhances the physical health of customers by protecting them from excessive heat they might be subject to if they could not afford to run their air conditioners. Replacing inefficient air conditioners with energy-efficient models also helps to make necessary cooling more affordable.

In addition to increasing comfort, weatherization measures such as the repair of doors and windows enhance customers' physical and mental well-being by reducing exposure to outdoor elements and increasing their sense of home security and safety. Porch light fixtures also enhance home security by reducing the operating costs and frequency of burned out bulbs.

#### Access to Programs Provided By Community-Based Providers

SCE continued to work with the California Department of Community Services and Development (DCSD) on the coordination and integration of resources and benefits between SCE's CARE program and Energy Assistance Fund (EAF) with DCSD's Home Energy Assistance Program (HEAP) and the requirements for reporting the CARE discount on California's LIHEAP Leveraging application. An agreement signed by both parties details the responsibilities of both entities in establishing the coordination of services to SCE's customers.

This agreement places DCSD within compliance of the Department of Health and Human Services' LIHEAP Leveraging Incentive Program requirements and enables the State of California to claim the CARE discount as a leverage resource. As part of the agreement, both DCSD and SCE agree to the referral of their customers to the other's energy assistance program through written and/or verbal advertising of the programs. The agreement allows SCE to publish the telephone numbers of DCSD programs on SCE program applications and literature, and allows DCSD to include SCE program information on various DCSD literature pieces.

As part of the delivery of SCE's LIEE program, and other programs they offer, CBOs attempt to identify customer needs that might be met by other CBO programs. Qualifying customers are referred to these programs. Not all CBOs offer all services to customers. SCE currently contracts with CBOs for delivery of the LIEE program, not including additional CBOs that perform weatherization services for SCE customers through the Inter-Utility Agreement with SoCalGas in the overlapping service areas. SCE's CBOs offer a variety of low income services in addition to their LIEE service delivery. Examples of such services include senior nutrition and transportation, job training, and health care.

#### **Bill Savings**

Beginning in 2001 through 2006, SCE, PG&E, SDG&E, and SoCalGas had coordinated to produce the Joint Utility Low Income Energy Efficiency Program Costs and Bill Savings Standardization Report. The report had been filed as a stand-alone document with the Commission.

The Commission declined to authorize funding for a bill savings study of the 2006 LIEE program in Decision 06-12-038. SCE continues to prepare Tables TA 4 and TA 6, using impact estimates from the Impact Evaluation of the 2001 Statewide LIEE Program that was completed in April 2003.

#### **Shareholder Performance Incentives**

The Commission approved a shareholder incentive mechanism for non-low income energy efficiency programs in Decision 07-09-043. Pursuant to this Decision, the utilities begin to earn rewards when they meet a minimum performance standard for energy savings and demand reductions. Energy savings and demand reductions resulting from low income energy efficiency programs count towards the minimum performance standard calculation.

The calculation of earnings resulting from SCE's 2007 non-low income and low income energy efficiency performance will be performed later in 2008, pursuant to the timing of the mechanism adopted in Decision 07-09-043.

#### 2008 Low Income Energy Efficiency Annual Report Table 1 PROGRAM EXPENSES SOUTHERN CALIFORNIA EDISON

	2007 Au	thorized	l Budget	2007 Aı	nnual Ex	penses	% of 2	007 Bu	dget Spent
LIEE Program:	Electric	Gas	Elec & Gas	Electric	Gas	Elec & Gas	Electric	Gas	Elec & Gas
Energy Efficiency									
- Gas Appliances									
- Electric Appliances	\$ 26,080,869		\$ 26,080,869	\$ 25,765,825		\$ 25,765,825	99%	0%	99%
- Weatherization	\$ 585,011		\$ 585,011	\$ 66,258		\$ 66,258	11%	0%	11%
- Outreach and Assessment	\$ 1,856,227		\$ 1,856,227	\$ 2,668,310		\$ 2,668,310	144%	0%	144%
- In Home Energy Education	\$ 429,736		\$ 429,736	\$ 439,482		\$ 439,482	102%	0%	102%
- Education Workshops			\$ -			\$ -	0%	0%	0%
- Pilot			\$ -			\$ -	0%	0%	0%
Energy Efficiency TOTAL	\$ 28,951,843	\$ -	\$ 28,951,843	\$ 28,939,875	\$ -	\$ 28,939,875	100%	0%	100%
Training Center	\$ 150,000		\$ 150,000	\$ 54,569		\$ 54,569	36%	0%	36%
Inspections	\$ 232,675		\$ 232,675	\$ 186,987		\$ 186,987	80%	0%	80%
Marketing	\$ 303,188		\$ 303,188	\$ 443,597		\$ 443,597	146%	0%	146%
M&E Studies	\$ 260,000		\$ 260,000	\$ 176,252		\$ 176,252	68%	0%	68%
Regulatory Compliance	\$ 116,600		\$ 116,600	\$ 101,730		\$ 101,730	87%	0%	87%
General Administration	\$ 2,632,876		\$ 2,632,876	\$ 2,587,221		\$ 2,587,221	98%	0%	98%
CPUC Energy Division	\$ 45,000		\$ 45,000	\$ 35,577		\$ 35,577	79%	0%	79%
TOTAL PROGRAM COSTS	\$ 32,692,182	\$ -	\$ 32,692,182	\$ 32,525,808	\$ -	\$ 32,525,808	99%	0%	99%
		Fund	led Outside of	LIEE Program I	Budget				
Indirect Costs				\$ 524,773		\$ 524,773			
NGAT Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -			

# 2008 Low Income Energy Efficiency Annual Report Table 2 INSTALLATIONS & SAVINGS SOUTHERN CALIFORNIA EDISON

			2007 Complete	ed & Expense	ed Installat	ions	i
		Quantity	kWh	kW	Therms		
Measures	Units	Installed	(Annual) <sup>[1]</sup>	(Annual) [2]	(Annual)	Е	xpenses
Furnaces							
- Repair - Gas	Each						
- Replacement - Gas	Each	132				\$	163,007
- Repair - Electric	Each						
- Replacement - Electric	Each						
Infiltration & Space Conditioning							
- Gaskets for Cover Plates	Home	282	702	0		\$	4,151
- Duct Sealing	Home	1,744	210,792	46		\$	450,000
- Evaporative Coolers	Each	6,286	2,379,199	516		\$	5,443,412
- Evaporative Cooler/Air Cond. Covers	Each	15	316	0		\$	464
- Programmable Thermostat	Each	1,058	137,199	30		\$	116,380
- A/C Replacement - Room	Each	847	337,384	73		\$	639,604
- A/C Replacement - Room (landlord)	Each						
- A/C Replacement - Central	Each	1,761	1,992,666	432		\$	6,153,511
- A/C Replacement - Central (landlord)	Each						
- H/P Replacement - Central	Each	120	34,939	8		\$	457,456
Weatherization							
- Attic Insulation	Home						
- Attic Access Weatherization	Each						
- Weatherstripping - Door	Home	332	1.901	0		\$	26,645
- Caulking	Home	116	631	0		\$	1,645
- Minor Home Repairs	Home	72	917	0		\$	5,693
Water Heater Savings		05 1	0.005	0			0.040
- Water Heater Blanket	Home	65	8,365	2		\$	3,310
- Low Flow Showerhead	Home	481	37,886	8		\$	12,164
- Water Heater Replacement - Gas - Water Heater Replacement - Electric	Each Each						
- Water Heater Pipe Wrap	Home	27	1.274	0		\$	645
- Faucet Aerators	Each	914	28,632	6		\$	11,542
- 1 aucet Aerators	Lacii	317	20,032			Ψ	11,042
Lighting Measures							
- Compact Fluorescents (inc. porchlights)	Each	177,531	4,047,925	878		\$	1,375,807
- Porchlights fixture replacement	Each	529	18,810	4		\$	44,965
Refrigerators	Each	15,876	11,903,079	2,583		\$ 1	10,921,684
Refrigerators (landlord)	Each	13,070	11,900,079	2,505		Ψ	10,321,004
rterrigerators (laridiora)	Lacii						
Pilots							
- Pilot							
Factor Education							
Energy Education - Outreach & Assessment	Home	44,323				\$	2,668,310
- In-Home Education	Home	30,041				\$	439,482
- Education Workshops	Participants	-				Ψ	400,402
Eddodion Workshops	Tartioiparito	Į.					
Total Savings			21,142,614	4,588		\$ 2	28,939,875
Homes Weatherized [3]	Home	654					
Homes Treated							
- Single Family Homes Treated	Home	30,975					
- Multi-family Homes Treated	Home	10,040					
- Mobile Homes Treated	Home	3,308					
- Total Number of Homes Treated	Home	44,323					
- Total Master-Metered Homes Treated	Home	3,743					

<sup>&</sup>lt;sup>[1]</sup> Energy savings is based on 1) 2001 Low Income Impact Evaluation Study; 2) Decision 03-11-020 approved the LIEE Measure Cost Effectiveness Study conducted by Itron, Inc. filed on June 2, 2003 for new measure mix effective 1/1/04; 3) Decision 05-12-026 approved the Report on the Assessment of Proposed New Year 2006 LIEE Program Measures conducted by Itron, Inc. filed on May 2, 2005; and 4) the updated Database of Energy Efficient Resources (DEER).

<sup>&</sup>lt;sup>[2]</sup> kW Estimate = kWh \* 0.000217 which represents SCE's average of utility kWh to peak savings as filed in 2004/05 EE applications and included in Table 18 of Decision D04-09-060. This is an estimate of average peak savings, not coincident peak.

<sup>[3]</sup> Weatherization consists of attic insulation, attic access weatherization, door weatherstripping, caulking, & minor home repairs.

# 2008 Low Income Energy Efficiency Annual Report Table 3 SUMMARY OF COST-EFFECTIVENESS SOUTHERN CALIFORNIA EDISON

	2007 - Reco	orded		2007 - Reco	orded
Ratio	of Benefits (	Over Costs	Ne	et Benefits; \$	Millions
Utility Cost Test	Total Resource Cost Test	Modified Participant Test	Utility Cost Test	Total Resource Cost Test	Modified Participant Test
0.59	0.52	1.29	(13.25)	(15.59)	9.29

SCE has calculated the Total Resource Cost Test results without non-energy benefits. The Commission directed the utilities to measure LIEE program cost effectiveness using the Utility Cost Test and the Modified Participant Test with the appropriate non-energy benefits for each test in D.01-12-020

# 2008 Low Income Energy Efficiency Annual Report Table 4 PENETRATION SOUTHERN CALIFORNIA EDISON

Year <sup>1</sup>	Homes Treated	Estimated Eligible in Current Year	Current Year Penetration Rate for Homes Treated
1998	68,056		
1999	74,694		
2000	81,401		
2001	85,509		
2002	29,685		
2003	33,348		
2004	38,996		
2005	36,420		
2006	53,017		
2007	44,323		
Total Homes Treated in 10 Years	545,449	1,368,584	40%

<sup>&</sup>lt;sup>1</sup>10 Years of activity are reported.

#### 2008 Low Income Energy Efficiency Annual Report Table 5 DIRECT PURCHASES AND INSTALLATION CONTRACTORS SOUTHERN CALIFORNIA EDISON

				ractor Type			
		(Check	one o	r more if app	licable)	20	007 Annual
Contractor	County	Private	CBO	WMDVBE	LIHEAP	Ex	penditures
Assert	2, 4, 8		Χ			\$	527,426
CAP of Orange Co.	6		Χ			\$	170,887
CAP of San Bernardino	8		Х			\$	990,315
CAP of Ventura Co.	9, 11		Χ		Χ	\$	206,852
Inter City Energy Systems	4, 7	Χ				\$	469,216
INYOMONO Advocate for Comm. Action	1, 5		Χ			\$	2,863
John Harrison Contracting	7, 8	Х				\$	3,180,739
Long Beach Community Services	4, 8		Χ			\$	159,550
Maravilla Foundation	2, 4, 8		X		Χ	\$	2,171,329
Pacific Asian Cons. For Employment (installation)	4, 8		Х		Χ	\$	28,568
Proteus Training	2, 3, 10		Χ			\$	1,534,257
Reliable Energy Management Co.	2, 3, 4, 6, 8, 10	Х				\$	2,209,496
S. Cal Gas	12	Х				\$	79,301
Tri-State Home Improvements	4, 7, 8	X		X		\$	3,084,943
Veterans In Community Services	4, 8		Х		Χ	\$	381,759
VOVI Friendship Association	4, 6, 8					\$	302,391
Winegard Energy	2, 3, 4, 10	Х				\$	37,617
Air Conditioning Refrigeration (purchase)	12	Х				\$	13,402,367
Community Enhancement Services (inpsection)	4		X			\$	60,064
Pacific Asian Cons. For Employment (Inspection)	12					\$	110,230
Total Contractor Expenditures						\$	29,110,168

#### Legend/County 1 - Inyo 2 - Kern

- 3 Kings
- 4 Los Angeles
- 5 Mono
- 6 Orange
- 7 Riverside
- 8 San Bernardino
- 9 Santa Barbara
- 10 Tulare
- 11 Ventura
- 12 All County

#### **Technical Appendix**

This section contains narrative that documents and explains the data shown for Tables TA 1 through TA 6.

### Table TA 1 Installation Costs of LIEE Program Installation Contractors - Low-income Energy Efficiency

The table provides, by measure grouping, the units installed, dwelling served and costs by contractor type (either CBO or WMDVBE, or private, i.e., neither CBO nor WMDVBE).

#### Table TA 2 Program Cost Elements - Low-income Energy Efficiency

This table documents the breakdown of costs of the low-income energy efficiency program. The table provides detail of program costs expended in 2007.

#### **Labor Costs**

Any internal direct (administrative and/or implementation) costs (indirect costs are a separate line item), burdened by overhead, that represents person hours.

#### **Non-Labor Costs**

All direct internal (administrative and/or implementation) costs (indirect costs are given as a separate line item) not covered under labor, such as printing of materials.

#### **Contract Labor Costs**

All outsourced costs (administrative and/or implementation). Contract costs do not need to be further broken out by labor/non-labor. This category includes agency employees and outsourced inspection contractors.

#### **Total Costs**

The sum of the aforementioned utility costs - Labor, Non-labor, and Contract costs.

#### Table TA 3 Program Detail by Housing Type and Heating Source - Low-income Energy Efficiency

The table provides, by housing type and heating source, the MWh savings for program year 2007, direct program costs, and the number of dwellings served. Also, an estimate of the total dwellings that received program services in 2007 is provided.

#### Table TA 4 Lifecycle Bill Savings - Last Year - SCE - Lowincome Energy Efficiency

The table indicates by measure, the number of measures installed, per measure electric kWh savings, gas therm savings, effective useful life, and Total Measure Lifecycle Bill Savings in dollars. The last two rows indicate the number of homes served by the program in 2007 and the life cycle bill savings in dollars per home.

## Table TA 5 Energy Rates Used for Bill Savings Calculations - SCE - Low-income Energy Efficiency

The table lists the energy rates used for bill savings calculations stated as \$/kWh for years from 2007 through 2031. The 2007 costs are escalated by 3% annually in subsequent years.

#### Table TA 6 Bill Savings - SCE - Low-income Energy Efficiency

The table lists for the 2005, 2006, and 2007 program years the program costs, program life cycle bill savings in dollars, bill savings over cost ratio, and per home average life cycle bill savings

2008 Low Income Energy Efficiency Annual Report Table TA1 INSTALLATION COSTS OF PROGRAM INSTALLATION CONTRACTORS SOUTHERN CALIFORNIA EDISON

Particular   Par		Unit of		•		ı,						ļ							
Part		Measure		-	BO/WID	, RE		1		Non-C	BO/WMI	NBE-				707	/ Program I c	tal	
Column   C			≝□	+	Dwellings Inits	%	Costs	%	ations _		sbull 		Costs	%	Units	Dwellings	Costs	Cost/ Unit	Cost/ Dwelling
Figure   F	Dwellings	Each		H			,	2		H	H	Н	<b>.</b>	2		0			
Control Cont	L																		
Control Cont	Furnaces	L		-	-	-	-	-	-	-	-	-		-	-		•	•	•
Second Control Contr	- Repair - Gas	Each	c	òò	c		0	ò		ò	4		000	ò	, 60	- 400		<b>₽</b>	
Secondary   Seco	- Replacement - Gas	Each	9	0,7	2		2,400	7%	┸	0%,0	┸		103,200	98%	132	132		900 \$	
Continue	- Repair - Erectric - Replacement - Electric	Each									+	_					9 8	9 9	9 9
Sealon Conformation Conformatio	Infiltration & Space Conditioning																		
Sealone Colores	- Gaskets for Cover Plates	Home	H	41%	⊩		1.724	42%	L	%6	L		2.428	28%	282	282	ı	69	
State   Control Courted Cour	- Duct Sealing	Home	┖	28%	┺		145,700	32%	┖	_	╄		304,300	%89	1,744	1,819		\$	
Part	- Evaporative Coolers	Each		73%		s	,178,908	73%			┖		807,025	27%	6,286	6,286	2,	s	
Registement Removation         Each         3556         3094         3556         3048         3770         6694         6694         4750         6894         260         6894         5720         6794         770         670         6794         770	- Evaporative Cooler/Air Cond. Covers	Each		%00	-	s	⊢	%00				_			15	6		ક્ક	
Replecement Room (androd)         Each         656   69%   65	- Programmable Thermostat	Each		34%		34%	39,160	34%					77,220	%99	1,058	1,052		\$	
	- A/C Replacement - Room	Each	581	%69	Н		275,975	%69	Ш		Ц		126,350	31%	847	813		ક	
Replacement - Central and Code           Each           SSS           30%           SS           30%           1,197           30%           1,226           70%           1,761           1,761           1,761           3,947           1,231           2,232           1,781           30%           1,197           30%	- A/C Replacement - Room (landlord)	Each													-	-			8
Registerment Central Each   1 1%   1 1%   2 1224   1%   11   1 1%   2 1224   1%   11   1 1%   2 1224   1%   11   1 1%   2 1224   1%   11   1 1%   2 1224   1%   11   1 1%   2 1224   1%   11   1 1%   11   1 1%   2 1224   1 1%   1 1%   1 1%   1 1%   2 1224   1 1%   1 1%   1 1%   2 1224   1 1%   1 1%   1 1%   2 1224   1 1%	- A/C Replacement - Central	Each		30%	_	S	,197,869	30%			_	S	2,751,922	%02	1,761	1,761		_	\$ 2,242.9
Resultation         Home         11 1%         1 1%         1 1%         1 1%         2.234         1199 Will         1190 Will         <	- A/C Replacement - Central (landlord)	Each									_				1	-		_	\$
Face training   Home   169   51%   15   15   16   16   16   16   16   16	- H/P Replacement - Central	Each	-	1%	-	1%	2,224	1%	┙	ı	_	\$ %6	253,841	%66	120	120		_	\$ 2,133.8
Access Vincentification   Home   169   51%   169   51%   169   51%   169   51%   169   163   160%   163   46%   163   46%   163   46%   163   46%   163   46%   163   46%   163   46%   163   46%   163   46%   163   46%   163   46%   163   46%   163   46%   163   46%   163   46%   163   46%   163   164	Weatherization																		
Access Weatherteration         Each         169         51%         150.98         160         14%         332         1.26         44.8         2.6         2.6         3.0         8.0         1.24         1.0         1.0         1.0         8.0         1.	- Attic Insulation	Home		F	F	F		F		L	F	L		-	-	-	9	9	69
	- Attic Access Weatherization	Each															\$	9	9
king         Home         103         89%         103         89%         1 104         11%         11%         154         22%         154         9%         116         \$ 1645         \$ 1418         \$ 1449         13         11%         11%         \$ 154         22%         22%         22%         22%         22%         22%         22%         22%         22%         22%         22%         22%         22%         22%         22%	- Weatherstripping [1]	Home		51%			15,038	26%					11,606	44%	332	332		s	\$
National Repairs   Home   52   72%   5   4445   78%   20   28%   5   1,248   22%   77   77   5   10   15%   5   2445   78%   20   28%   5   1,248   22%   77   77   77   75   10   15%   5   20   28%   5   20   28%   5   2178	- Caulking	Home		%68	_		1,490	91%		1%	_		154	%6	116	116		છ	
Healer Savings         Home         10         15%         1         15%         16         16%         5         65%         8         2,728         65%         8         2,728         65%         8         3,101         23%         65         8         3,101         23%         65         8         3,101         23%         65         8         3,101         23%         65         8         3,101         23%         461         8         2,228         8         3,101         23%         65         8         3,101         23%         65         8         3,101         23%         461         8         2,228         8         3,101         23%         1,204         8         3,101         23%         1,204         8         3,101         23%         1,204         3         1,204         3         3,101         23%         3,101         23%         3,101         23%         3,101         23%         3,101         23%         3,101         23%         3,101         23%         3,101         3         3,101         3         3,101         3         3,101         3         3,101         3         3,101         3         3,101         3         3,101	- Minor Home Repairs	Home	25	72%	_		4,445	78%	4	%8	_		1,248	22%	72	72		es.	
Flower Beautified Home         10 15%         10 15%         5 62 18%         55 65%         5 2,728 82%         65 6 5 3 3,10 1 25%         481 2 3,10 1 25%         6 5 8 5,31 0 1 25%         6 5 8 5 8 5 1 1 1 2 1 2 1 4 1 1 1 1 1 1 1 1 1 1 1 1	Water Heater Savings																		
Flow Showerhead         Home         372         77% 5         9,033         75% 75% 75% 75% 75% 75% 75% 75% 75% 75%	- Water Heater Blanket	Home	ш	15%	Ш		582	18%	ш	2%	ш		2 7 28	82%	92	65	l	65	65
Education         Each         15.683         15.684         15.683         24.89         Each         15.683         15.684         15.683         15.684         15.683         15.684         15.683         15.484         15.683         15.684         15.683         15.684	- Low Flow Showerhead	Home		%22	╄		9 063	75%	┸	3%	┸		3 101	25%	481	481		θ.	Θ.
Each         Home         11%         11%         11%         11%         11%         24         89%         24         89%         274         89%         274         89%         274         89%         274         89%         274         89%         274         89%         274         89%         274         89%         274         89%         274         874         778         11%         778         11%         778         11%         778         11%         778         11%         778         11         278         1263         874         1263         874         17         378         178 <td>- Water Heater Replacement - Gas</td> <td>Each</td> <td></td> <td></td> <td>L</td> <td></td> <td></td> <td></td> <td>_</td> <td></td> <td>┖</td> <td></td> <td></td> <td></td> <td>1</td> <td></td> <td></td> <td>မ</td> <td>ક</td>	- Water Heater Replacement - Gas	Each			L				_		┖				1			မ	ક
Serification         Home         3         11%         8         70         11%         24         89%         24         89%         27         27         89%         27         17%         23%         1784         30         1784         30         1784         30         44         30         44         26         30         44         30         44         30         44         30         44         30         44         30         30         44         30         30         44	- Water Heater Replacement - Electric	Each															\$	9	9
Each         698         76%         397         77%         8 RA3         77%         216         24%         120         23%         8 SA9         120         23%         9 SA9         177.531         8 RA7 SA7         176         24%         120         23%         120         23%         177.531         8 RA7 SA7         1 RA3         17842         40%         8 SA2,035         13%         17.531         44.254         8 RA7 SA7         8 SA9         177.531         44.254         8 RA7 SA7         8 RA7 SA7         1 RA3	- Water Heater Pipe Wrap	Home		11%	Ш		20	11%		%6		\$ %6	574	%68	27	27		\$	
g Measures         Each         109,124         61%         26,412         61%         68,407         39%         17,845         39%         177,531         44,254         \$ 807,677         \$ 5.00	- Faucet Aerators	Each	_	%9/	4		8,843	%22	_	.4%	4		2,699	23%	914	212		s	- 1
pact Fluorescents (inc. porchlights)	Lighting Measures																		
Phights fixture replacement         Each         512         97%         421         96%         8 43,520         97%         17         3%         16         4%         1,445         3%         529         437         8 49,665         8 800         8           arators (landlord)         Each         13,539         86%         13,539         86%         2,723,657         86%         2,337         15%         479,085         15%         15,876         8,202,642         8,201,73         8           readors (landlord)         Each         13,539         86%         2,723,657         86%         2,337         15%         479,085         15%         15,876         8,202,642         8,201,73         8           readors & Research & Research & Research & Home         28,217         64%         1,426         48%         16,106         36%         840,011         31%         44,323         2,683,10         8         0,20         8           reador & Assessment         Home         15,583         52%         233,775         60%         14,458         48%         152,678         40%         30,41         30,41         30,41         30,41         30,41         30,41         30,41         30,41         30,41	- Compact Fluorescents (inc. porchlights)	Each	_		_	\$ %00	⊢	61%	╙		ᆫ	\$ %(	342,035	36%	177,531	44,254		s	ક્ક
arations         Each         13,539         85%         2,723,557         85%         2,337         15%         6         479,085         15,876         15,876         8         3,202,642         8 201.73         8 2           rations (landlord)         Each         13,539         85%         2,723,557         85%         2,337         15%         8         479,085         15         15         8         -	- Porchlights fixture replacement	Each	_	Н	ш	\$ %96	ш	%26	17	3%	Ш	\$ %1	1,445	3%	529	437	П	s	s
Factors (landlord)   Each	Refrigerators	Each	_	L	Щ		⊩	85%	ш			\$ %9	479.085	15%	15,876	15,876		ь	
Education         Home         28.217         64%         1.828.299         69%         16,106         36%         8 40,011         31%         44,323         44,323         8 2,686.310         8 60.20         8 2,600           and Robinston         Participants         Participants         Participants         18,583         523,775         60%         14,458         48%         15,678         40%         30,411         3,86,453         1,28,678         8	Refrigerators (landlord)	Each											,		-	-		s	
reducation         Peach & Assessment         Home         28,217         64%         1,828,299         69%         16,106         36%         8,40,011         31%         44,323         44,323         8,268,310         8,620         8           anim Monkshors         Participants         Participants         Participants         28,217         64%         2,533,775         60%         14,458         48%         16,106         36%         8,400,011         31%         44,323         8,268,310         8,620         8	- 7-11-0																		
esment Home 28,217 64% 28,217 64% 14,458 48% 16,106 36% 54,0011 31% 44,323 44,323 52,668,310 5,020 5,000 14,458 48% 16,106 36% 56,001 31% 44,323 52% 523,775 60% 14,458 48% 16,106 36% 56,001 31% 30,041 5,004 5,000 5,0	Pilots			-	-	-	-	-	-	-	-	-		-	-			1	
essment         Home         28.217         64%         28.217         64%         1,828.299         69%         16,106         36%         8 40,011         31%         44,323         44,323         2,668.310         60.201         8           floor         Hone         15,683         52%         15,583         52%         15,583         52%         14,458         48%         46%         15,678         40%         30,041         30,041         8,386.453         8,218         8           Participants         Participants         15,683         12,886	- Pilot			$\exists$	1	4		1		4	1	4		1	•		59	9	9
Home 28.217 64% 28.217 64% 1.828.299 69% 16.106 36% 18.0101 31% 44.323 44.323 52% 5.868.310 8 60.20 8 10.106 36% 18.0101 31% 44.323 44.323 52% 15.83 52% 15.	Eneray Education																		
Home 15,583 52% 15,583 52% 233,775 60% 14,458 48% 14,458 48% 5 152,678 40% 30,041 \$ 30,041 \$ 386,453 \$ 12.86 \$ Participants	- Outreach & Assessment	Home		L	ш	69	Н	%69	ш	L	H		840.011	31%	44.323	44.323		69	ш
Paricipants 1.000 02.0000 02.000 02.000 02.000 02.000 02.000 02.000 02.000 02.000 02.0	- In-Home Education	Home				υ.	4	%U9			┸		152 678	40%	30.041	30.041		€:	₩.
	Education Workshops	Darticipante			3						┸		1				1	• •	•

[1] Included Weatherization outreach fee

# 2008 Low Income Energy Efficiency Annual Report Table TA 2 COST ELEMENTS SOUTHERN CALIFORNIA EDISON (Electric only)

	2007 Ex	pei	nditures Re	со	rded by Cos	t E	lement
LIEE Program:	Labor		lon-Labor		Contract		Total
Energy Efficiency							
- Gas Appliances						\$	_
- Electric Appliances				\$	25,765,825	\$	25,765,825
- Weatherization				\$	66,258	\$	66,258
- Outreach and Assessment				\$	2,668,310	\$	2,668,310
- In Home Energy Education				\$	439,482	\$	439,482
- Education Workshops						\$	_
- Pilot						\$	_
Energy Efficiency TOTAL	\$ -	\$	_	\$	28,939,875	\$	28,939,875
Training Center	\$ 40,468	\$	14,101	\$	-	\$	54,569
Inspections	\$ 16,693	\$	-	\$	170,294	\$	186,987
Marketing	\$ -	\$	443,597	\$	-	\$	443,597
M&E Studies	\$ 6,753	\$	-	\$	169,499	\$	176,252
Regulatory Compliance	\$ 98,384	\$	3,346	\$	-	\$	101,730
General Administration	\$ 937,094	\$	928,011	\$	722,116	\$	2,587,221
CPUC Energy Division	\$ -	\$	35,577			\$	35,577
TOTAL PROGRAM COSTS	\$ 1,099,391	\$	1,424,632	\$	30,001,784	\$	32,525,807

# 2008 Low Income Energy Efficiency Annual Report Table TA3 DETAIL BY HOUSING TYPE AND HEATING SOURCE SOUTHERN CALIFORNIA EDISON

	2007 Energ	gy Savings		2007	2007 Dwellings
	(mWh)	(mTherm*)	Е	Expenses [1]	Treated
Gas Heat – Own					
Single Family	9,762		\$	16,574,645	18,511
Multi Family	176		\$	313,260	514
Mobile Homes	1,632		\$	2,832,345	2,848
Sub Total Dwellings Served	11,570		\$	19,720,251	21,873
Gas Heat – Rent					
Single Family	5,723		\$	7,255,803	12,229
Multi Family	3,292		\$	4,680,839	9,138
Mobile Homes	239		\$	366,446	429
Sub Total Dwellings Served	9,254		\$	12,303,088	21,796
Electric Heat – Own					
Single Family	84		\$	170,775	143
Multi Family	19		\$	32,178	34
Mobile Homes	15		\$	26,579	26
Sub Total Dwellings Served	118		\$	229,532	203
Electric Heat – Rent					
Single Family	61		\$	99,782	92
Multi Family	138		\$	169,901	354
Mobile Homes	2		\$	3,254	5
Sub Total Dwellings Served	201		\$	272,937	451
TOTAL DWELLINGS	21,143		\$	32,525,809	44,323
SERVED	21,170	* Millions of	Ψ		44,020

<sup>\*</sup> Millions of Therms

<sup>[1] -</sup> excluding indirect program costs

# 2008 Low Income Energy Efficiency Annual Report Table TA4 LIFE CYCLE BILL SAVINGS SOUTHERN CALIFORNIA EDISON

Measure Description	2007 Number Installed	Per Measure Electric Impact - Average (kWh)	Per Measure Gas Impact (Therms)	Effective Useful Life (EUL)	2007 Total Measure Life Cycle Bill Savings
Furnaces					
- Repair - Gas					
- Replacement - Gas	132	-		15	\$ -
- Repair - Electric					
- Replacement - Electric					
Infiltration & Space Conditioning.					
- Gaskets for Cover Plates	282	2.49	0	15	\$ 1,450
- Duct Sealing	1,744	120.87	0	25	\$ 853,376
- Evaporative Coolers	6,286	378.49	0	15	\$ 4,913,577
- Evaporative Cooler/Air Cond. Covers	15	21.05	0	3	\$ 108
- Programmable Thermostat	1,058	129.68	0	12	\$ 216,209
- A/C Replacement - Room	847	398.33	0	15	\$ 696,773
- A/C Replacement - Room (landlord)					\$ -
- A/C Replacement - Central	1,761	1,131.55		18	\$ 5,180,811
- A/C Replacement - Central (landlord)					\$ -
- H/P Replacement - Central	120	291.16		18	\$ 90,840
Weatherization					\$ -
- Attic Insulation					\$ -
- Attic Access Weatherization					\$ -
- Weatherstripping - Door	332	5.72	0	5	\$ 1,120
- Caulking	116	5.44	0	5	\$ 372
- Minor Home Repairs	72	12.73	0	10	\$ 1,167
•					\$ -
Water Heater Savings - Water Heater Blanket	C.F.	128.70	0	5	•
- Low Flow Showerhead	65 481	78.76	0	10	
	481	78.76	U	10	\$ 48,226 \$ -
- Water Heater Replacement - Gas - Water Heater Replacement - Electric	-				\$ -
- Water Heater Pipe Wrap	27	47.17	0	15	\$ 2,630
- Faucet Aerators	914	31.33	0		\$ 16,879
- Paucei Aeraiors	914	31.33	U	J	φ 10,6 <i>19</i>
Lighting Measures					\$ -
- Compact Fluorescents (inc.	177,531	22.80	0	8	\$ 3,996,941
- Porchlights fixture replacement	529	35.56	0	5	\$ 11,089
Refrigerators	15,876	749.75	0	15	\$ 24,582,517
Refrigerators (landlord)					
Total Homes Served By the Program	44,323				\$ 40,619,019
Life Cycle Bill Savings Per Home	\$ 916				

# 2008 Low Income Energy Efficiency Annual Report Table TA5 ENERGY RATES USED FOR BILL SAVINGS CALCULATIONS SOUTHERN CALIFORNIA EDISON

Year	\$/kWh [1]	\$/Therm
2007	0.1110	N/A
2008	0.1144	N/A
2009	0.1178	N/A
2010	0.1213	N/A
2011	0.1250	N/A
2012	0.1287	N/A
2013	0.1326	N/A
2014	0.1366	N/A
2015	0.1407	N/A
2016	0.1449	N/A
2017	0.1492	N/A
2018	0.1537	N/A
2019	0.1583	N/A
2020	0.1631	N/A
2021	0.1680	N/A
2022	0.1730	N/A
2023	0.1782	N/A
2024	0.1835	N/A
2025	0.1890	N/A
2026	0.1947	N/A
2027	0.2006	N/A
2028	0.2066	N/A
2029	0.2128	N/A
2030	0.2191	N/A
2031	0.2257	N/A

 $<sup>^{[1]}</sup>$  2007 average cost per kWh paid by participants is \$.11104. Cost is escalated 3% annually in subsequent years

# 2008 Low Income Energy Efficiency Annual Report Table TA 6 BILL SAVINGS SOUTHERN CALIFORNIA EDISON

Program Year	Pr	ogram Costs	L	Program ifecycle Bill Savings	Program Bill Savings/ Cost Ratio	Per Home Average fecycle Bill Savings
2005	\$	22,620,436	\$	21,525,766	0.95	\$ 591
2006	\$	31,371,759	\$	41,359,654	1.32	\$ 780
2007 [1]	\$	32,525,807	\$	40,619,019	1.25	\$ 916

<sup>&</sup>lt;sup>[1]</sup> - average \$/KWh for 2007 program participant is \$.11104