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# 2009 Low Income Energy Efficiency Annual Report

- ◆ Summary Report  
2008 Results
- ◆ Technical Appendix  
2008 Results

May 2009



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# Executive Summary

In 2008, SCE continued to provide comprehensive services to eligible low income customers by installing all feasible measures for each qualified home as authorized in the second year of funding under Decision 06-12-038.

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 2008 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 2008, continued to ensure that treated households were assessed upfront to establish eligibility for all available measures under the LIEE program.

Among program highlights in 2008, SCE's LIEE program:

- treated 54,635 homes;
- weatherized 664 homes;
- installed 6,438 evaporative coolers;
- relamped homes with 224,302 compact fluorescent lamps (CFLs);
- installed 17,069 refrigerators to replace older inefficient models;
- installed 1,368 room air conditioners; 2,458 central air conditioners; and 106 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 2008 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 2008, 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.

To ensure customers received a comprehensive series of measures in 2008, 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 2008, 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

SCE helps qualified low income customers control their summer space cooling costs by offering an evaporative cooler to use in place of their refrigerated air conditioners. SCE's contractors target 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 environmental 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.

# 2008 Results and Achievements

## EVAPORATIVE COOLER INSTALLATION

In 2008; 6,438 evaporative coolers were installed. These installations resulted in an annualized energy savings of 2,657 MWh.

## RELAMPING/PORCH LIGHT REPLACEMENT

SCE installed 223,702 CFLs and 600 outdoor light fixtures in customers' homes during 2008. These installations resulted in a net annualized energy savings of 5,241 MWh.

## WEATHERIZATION

In 2008, SCE weatherized 664 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 29,846 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, 17,069 energy-efficient refrigerators were installed and 17,069 inefficient refrigerators were recycled in accordance with federal and state standards. These installations resulted in an annualized energy savings of 12,731 MWh.

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

In 2008, SCE replaced 1,368 room air conditioners; 2,458 central air conditioners; and 106 heat pumps. These installations resulted in an annualized energy savings of 3,535 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 - 2008 RESULTS AND ACHIEVEMENTS**

Measurement and Evaluation 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.

Aside from completing co-funding agreements and setting up the payment for the final retention payment, the Impact Evaluation of the 2005 California Low Income Energy Efficiency Program gave way to planning for the next impact study for PY 2009 as part of the Application for PY 2009-2011, A.08-05-026.

As an application year, the majority of Low Income M&E activity centered on conceptualizing, preparing, and budgeting for research tools to both measure the substantial changes in program direction as codified in D.08-11-031 as well as help achieve the Commission's ME&O outcomes. These tools include both process and impact evaluations as well as customer segmentation.

In addition, M&E supported fundamental EE research with studies designed to update refrigerator savings parameters as well as reexamine non-energy benefits of low income efficiency programs.

Finally, SCE also participated in numerous workshops and conferences in support of the California Energy Efficiency Strategic Plan and the Programmatic Initiative adopted in D.07-12-051, "to provide all eligible customers the opportunity to participate in the LIEE programs and to offer those who wish to participate all cost-effective energy efficiency measures in their residences by 2020."



## **REGULATORY OVERSIGHT**

Regulatory oversight consists of activities that are undertaken to meet regulatory requirements for reporting program activities. Areas of support included compliance filings; development of the California Energy Efficiency Strategic Plan, preparation of the Application and Testimony for Approval of 2009-2011 Program Plans and Budgets, and associated filings, advice letters, , responses to data requests, monthly reporting of program results, and the 2008 Low Income Energy Efficiency Annual Report of 2007 program results.

# 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, as modified by Decisions 08-01-042 and 08-12-059. Pursuant to these Decisions, 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 2008 non-low income and low income energy efficiency performance will be performed later in 2009, pursuant to the timing of the mechanism adopted in Decision 07-09-043.

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Table 1

**PROGRAM EXPENSES**  
**SOUTHERN CALIFORNIA EDISON**

	2008 Authorized Budget [1]			2008 Annual Expenses			% of 2008 Budget Spent		
LIEE Program:	Electric	Gas	Elec & Gas	Electric	Gas	Elec & Gas	Electric	Gas	Elec & Gas
Energy Efficiency									
- Gas Appliances									
- Electric Appliances	\$ 31,142,414		\$ 31,142,414	\$ 30,778,468		\$ 30,778,468	99%	0%	99%
- Weatherization	\$ 585,011		\$ 585,011	\$ 81,036		\$ 81,036	14%	0%	14%
- Outreach and Assessment	\$ 1,856,227		\$ 1,856,227	\$ 3,571,176		\$ 3,571,176	192%	0%	192%
- In Home Energy Education	\$ 429,736		\$ 429,736	\$ 447,675		\$ 447,675	104%	0%	104%
- Education Workshops			\$ -			\$ -	0%	0%	0%
- Pilot			\$ -			\$ -	0%	0%	0%
<b>Energy Efficiency TOTAL</b>	<b>\$ 34,013,388</b>	<b>\$ -</b>	<b>\$ 34,013,388</b>	<b>\$ 34,878,355</b>	<b>\$ -</b>	<b>\$ 34,878,355</b>	<b>103%</b>	<b>0%</b>	<b>100%</b>
Training Center	\$ 150,000		\$ 150,000	\$ 48,168		\$ 48,168	32%	-100%	32%
Inspections	\$ 232,675		\$ 232,675	\$ 266,857		\$ 266,857	115%	0%	115%
Marketing	\$ 350,000		\$ 350,000	\$ 381,932		\$ 381,932	109%	0%	109%
M&E Studies	\$ 260,000		\$ 260,000	\$ 122,080		\$ 122,080	47%	0%	47%
Regulatory Compliance	\$ 226,700		\$ 226,700	\$ 216,704		\$ 216,704	96%	0%	96%
General Administration	\$ 2,699,617		\$ 2,699,617	\$ 2,179,177		\$ 2,179,177	81%	0%	81%
CPUC Energy Division	\$ 45,000		\$ 45,000	\$ 44,426		\$ 44,426	99%	0%	100%
<b>TOTAL PROGRAM COSTS</b>	<b>\$ 37,977,380</b>	<b>\$ -</b>	<b>\$ 37,977,380</b>	<b>\$ 38,137,700</b>	<b>\$ -</b>	<b>\$ 38,137,700</b>	<b>100%</b>	<b>0%</b>	<b>100%</b>
<b>Funded Outside of LIEE Program Budget</b>									
Indirect Costs				\$ 588,997		\$ 588,997			
NGAT Costs									

[1] Per D.08-11-031, Ordering Paragraph 85, SCE reports a fund shift of \$4.5 million in November 2008 from the "Electric Appliances" subcategory in the 2009 - 2011 program cycle in order to "carry back" funds into the 2008 program to allow the program to continue seamless operation and meet demand through year-end 2008. The \$4.5 million is less than 15% of the currently authorized program cycle budget. The entire \$4.5 million has been added to the "Electric Appliances" budget subcategory. The prior amount in this category, reflecting prior authorized and carryover funding, was \$26,642,414.

Since preparation of the January 23, 2009 Monthly LIAP Report, additional charges attributable to 2008 have been recorded resulting in a slight overexpenditure for 2008. SCE continues to review these charges - if they are appropriate, SCE will report an additional fund shift that increases "carry back" funds from 2009 - 2011 into 2008. This increase would be within the overall 15% limit set in D.08-11-031.

\$53,270 of expenditures in the "Electric Appliances" sub-category are for inventory that has been carried into the 2009 program year for installation.

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Table 2  
INSTALLATIONS & SAVINGS  
SOUTHERN CALIFORNIA EDISON

Measures	Units	2008 Completed & Expensed Installations				
		Quantity Installed	kWh (Annual)	kW (Annual)	Therms (Annual)	Expenses
<b>Furnaces</b>						
- Repair - Gas	Each					
- Replacement - Gas	Each					
- Repair - Electric	Each	37	0	-		\$ 44,884
- Replacement - Electric	Each					
<b>Infiltration &amp; Space Conditioning</b>						
- Gaskets for Cover Plates	Home	287	715	0		\$ 2,317
- Duct Test and Seal	Home	2,321	287,083	62		\$ 545,300
- Evaporative Cooler Installation	Each	6,438	2,657,084	577		\$ 5,711,801
- Evaporative Cooler Maintenance	Each	3,655	179,066	-		\$ 292,400
- Evaporative Cooler/Air Cond. Covers	Each	7	117	0		\$ 224
- Programmable Thermostat	Each	1,399	174,548	38		\$ 141,074
- A/C Replacement - Room	Each	1,368	489,489	106		\$ 1,023,010
- A/C Replacement - Room (landlord)	Each					
- A/C Replacement - Central	Each	2,458	2,959,949	642		\$ 8,734,751
- A/C Replacement - Central (landlord)	Each					
- A/C Maintenance - Central	Each	1,211	994,455	216		\$ 162,305
- H/P Replacement - Central	Each	106	86,102	40		\$ 361,628
<b>Weatherization</b>						
- Attic Insulation	Home			-		
- Attic Access Weatherization	Each			-		
- Weatherstripping - Door	Home	446	1,981	0		\$ 50,057
- Caulking	Home	141	617	0		\$ 572
- Minor Home Repairs	Home	165	1,582	0		\$ 9,599
<b>Water Heater Savings</b>						
- Water Heater Blanket	Home	84	10,615	2		\$ 3,956
- Low Flow Showerhead	Home	377	31,592	7		\$ 8,431
- Water Heater Replacement - Gas	Each					
- Water Heater Replacement - Electric	Each					
- Water Heater Pipe Wrap	Home	99	4,685	1		\$ 1,708
- Faucet Aerators	Home	388	12,918	3		\$ 4,175
<b>Lighting Measures</b>						
- Compact Fluorescents (inc. porchlights)	Each	222,692	5,013,694	1,088		\$ 1,519,726
- Torchiere	Each	1,010	205,929	45		\$ 39,253
- Porchlights fixture replacement	Each	600	21,360	5		\$ 51,000
<b>Refrigerators</b>	Each	17,069	12,731,433	2,763		\$ 12,062,161
Refrigerators (landlord)	Each			-		
- Pool Pump Replacement	Each	36	50,400	19		\$ 35,908
<b>Pilots</b>						
- Pilot						
<b>Energy Education</b>						
- Outreach & Assessment	Home	54,635				\$ 3,571,176
- In-Home Education	Home	29,846	-	-		\$ 447,675
- Education Workshops	Participants	-				
<b>Total Savings</b>			25,915,413	5,615		\$ 34,825,087
<b>Homes Weatherized</b>	Home	664				
<b>Homes Treated</b>						
- Single Family Homes Treated	Home	37,054				
- Multi-family Homes Treated	Home	12,472				
- Mobile Homes Treated	Home	5,109				
- Total Number of Homes Treated	Home	54,635				
- Total Master-Metered Homes Treated	Home	3,142				

<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>[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.

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Table 3

SUMMARY OF COST-EFFECTIVENESS  
SOUTHERN CALIFORNIA EDISON

2008 - Recorded			2008 - Recorded		
Ratio of Benefits Over Costs			Net Benefits; \$ Millions		
Utility Cost Test	Total Resource Cost Test	Modified Participant Test	Utility Cost Test	Total Resource Cost Test	Modified Participant Test
0.72	0.61	0.75	(10.81)	(14.83)	(9.45)

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 in D.01-12-020.



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Table 4  
PENETRATION  
SOUTHERN CALIFORNIA EDISON

Year <sup>1</sup>	Homes Treated	Estimated Eligible in Current Year	Current Year Penetration Rate for Homes Treated
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		
2008	54,635		
Total Homes Treated in 10 Years	532,028	1,348,301	39%

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

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Table 5  
DIRECT PURCHASES AND INSTALLATION CONTRACTORS  
SOUTHERN CALIFORNIA EDISON

Contractor	County [1]	Contractor Type (Check one or more if applicable)				2008 Annual Expenditures
		Private	CBO	WMDVBE	LIHEAP	
Assert	2, 4, 8		X			\$ 574,152
CAP of Orange Co.	6		X			\$ 157,917
CAP of San Bernardino	8		X			\$ 1,477,544
CAP of Ventura Co.	9, 11		X		X	\$ 278,035
Inter City Energy Systems	4, 7	X				\$ 459,410
INYOMONO Advocate for Comm. Action	1, 5		X			\$ 1,016
John Harrison Contracting	7, 8	X				\$ 3,886,670
Long Beach Community Services	4, 8		X			\$ 246,920
Maravilla Foundation	2, 4, 8		X		X	\$ 2,599,288
Pacific Asian Cons. For Employment (installation)	4, 8		X		X	\$ 37,608
Proteus Training	2, 3, 10		X			\$ 2,290,332
Reliable Energy Management Co.	2, 3, 4, 6, 8, 10	X				\$ 3,074,721
Tri-State Home Improvements	4, 7, 8	X		X		\$ 3,540,513
Veterans In Community Services	4, 8		X		X	\$ 394,460
VOVI Friendship Association	4, 6, 8					\$ 470,673
Winegard Energy	2, 3, 4, 10	X				\$ 12,758
Air Conditioning Refrigeration (purchase)	12	X				\$ 15,072,160
Auto Cell (Purchase)	12	X				\$ 304,180
Community Enhancement Services (inpsection)	4		X			\$ 36,300
Pacific Asian Cons. For Employment (Inspection)	12					\$ 218,220
Total Contractor Expenditures						\$ 35,132,877

[1] 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**

This table provides, by measure grouping, the units installed, dwelling served and cost 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 2008.

### **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 2008, direct program costs, and the number of dwellings served. Also, an estimate of the total dwellings that received program services in 2008 is provided.

**Table TA 4      Lifecycle Bill Savings - Last Year - SCE - Low-income 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 2008 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 2008 through 2032. The 2008 costs are escalated by 3% annually in subsequent years.

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

The table lists for the 2006, 2007, and 2008 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

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Table TA1  
INSTALLATION COSTS OF PROGRAM INSTALLATION CONTRACTORS  
SOUTHERN CALIFORNIA EDISON

Unit of Measure	CBOIWMIDVBE				Non-CBOIWMIDVBE				2008 Program Total			
	2008 Installations		2008 Costs		2008 Installations		2008 Costs		Units Installed	Dwellings	Costs	Cost/ Dwelling
	Units	%	Units	%	Units	%	\$	%				
Dwellings												
Furnaces												
- Repair - Gas									-	-	\$	\$
- Replacement - Gas									-	-	\$	\$
- Repair - Electric									-	-	\$	\$
- Replacement - Electric									-	-	\$	\$
	3	8%	3	8%	34	92%	\$ 2,400	92%	37	37	\$ 29,600	\$ -
Infiltration & Space Conditioning												
- Gaskets for Cover Plates	355	38%	172	60%	623	64%	\$ 1,388	40%	978	287	\$ 2,317	\$ 8.07
- Duct Test and Seal	674	29%	670	29%	1,647	71%	\$ 196,200	71%	2,321	2,317	\$ 545,300	\$ 235.35
- Evaporative Cooler Installation	4,965	77%	4,965	77%	1,473	23%	\$ 2,411,125	23%	6,438	6,438	\$ 3,125,040	\$ 485.41
- Evaporative Cooler Maintenance	2,091	57%	2,091	57%	1,562	43%	\$ 167,280	43%	3,653	3,653	\$ 292,400	\$ 80.04
- Evaporative Cooler/Air Cond. Covers	7	100%	7	100%			\$ 224	100%	7	7	\$ 224	\$ 32.00
- Programmable Thermostat	456	33%	456	33%	943	67%	\$ 39,505	67%	1,399	1,391	\$ 124,855	\$ 89.25
- A/C Replacement - Room	1,166	85%	1,081	86%	202	15%	\$ 580,971	85%	1,368	1,263	\$ 657,921	\$ 520.92
- A/C Replacement - Room (landlord)									-	-	\$	\$
- A/C Replacement - Central	730	30%	727	30%	1,728	70%	\$ 1,641,547	70%	2,458	2,450	\$ 5,542,979	\$ 2,262.44
- A/C Replacement - Central (landlord)									-	-	\$	\$
- A/C Maintenance - Central	374	31%	370	31%	837	69%	\$ 49,483	69%	1,211	1,203	\$ 162,305	\$ 134.92
- H/P Replacement - Central	10	9%	10	9%	96	91%	\$ 20,580	91%	106	106	\$ 218,185	\$ 2,055.35
Weatherization												
- Attic Insulation									-	-	\$	\$
- Attic Access Weatherization									-	-	\$	\$
- Weatherstripping <sup>(1)</sup>	843	80%	341	76%	213	20%	\$ 39,257	24%	1,096	446	\$ 50,057	\$ 47.40
- Caulking	1,651	100%	140	99%	1	0%	\$ 572	1%	1,652	141	\$ 572	\$ 0.35
- Minor Home Repairs	388	93%	147	89%	28	7%	\$ 8,523	11%	416	165	\$ 9,599	\$ 23.07
Water Heater Savings												
- Water Heater Blanket	25	28%	23	27%	65	72%	\$ 1,078	73%	90	84	\$ 3,956	\$ 43.95
- Low Flow Showerhead	362	79%	296	79%	94	21%	\$ 6,595	22%	456	377	\$ 8,431	\$ 18.49
- Water Heater Replacement - Gas									-	-	\$	\$
- Water Heater Replacement - Electric									-	-	\$	\$
- Water Heater Pipe Wrap	38	37%	35	35%	64	63%	\$ 604	65%	102	99	\$ 1,708	\$ 16.74
- Faucet Aerators	533	74%	263	73%	183	26%	\$ 3,100	27%	716	388	\$ 4,175	\$ 5.83
Lighting Measures												
- Compact Fluorescents (inc. porchlights)	159,864	72%	56,671	72%	62,828	28%	\$ 799,293	28%	222,692	79,127	\$ 1,113,453	\$ 5.00
- Torchiere	765	76%	752	75%	255	25%	\$ 11,326	25%	1,010	1,007	\$ 15,150	\$ 15.00
- Porchlights fixture replacement	509	89%	392	85%	91	15%	\$ 43,265	15%	600	461	\$ 51,000	\$ 85.00
Refrigerators												
- Refrigerators (landlord)	14,299	84%	14,299	84%	2,770	16%	\$ 2,932,444	16%	17,069	17,069	\$ 3,514,206	\$ 205.88
- Pool Pump Replacement									-	-	\$	\$
Pilots												
- Pilot									-	-	\$	\$
Energy Education												
- Outreach & Assessment, include WX	40,720	75%	40,720	75%	13,915	25%	\$ 2,762,550	25%	54,635	54,635	\$ 3,571,176	\$ 65.36
- In-Home Education	24,612	82%	24,612	82%	5,234	18%	\$ 369,165	18%	29,846	29,846	\$ 447,675	\$ 15.00
Education Workshops												

<sup>(1)</sup> - Include Weatherization Outreach fee

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Table TA 2  
COST ELEMENTS  
SOUTHERN CALIFORNIA EDISON  
(Electric only)

	2008 Expenditures Recorded by Cost Element			
<b>LIEE Program:</b>	<b>Labor</b>	<b>Non-Labor</b>	<b>Contract</b>	<b>Total</b>
Energy Efficiency				
- Gas Appliances				\$ -
- Electric Appliances			\$ 30,778,468	\$ 30,778,468
- Weatherization			\$ 81,036	\$ 81,036
- Outreach and Assessment			\$ 3,571,176	\$ 3,571,176
- In Home Energy Education			\$ 447,675	\$ 447,675
- Education Workshops				\$ -
- Pilot				\$ -
<b>Energy Efficiency TOTAL</b>	\$ -	\$ -	\$ 34,878,355	\$ 34,878,355
Training Center	\$ 37,012	\$ 11,155		\$ 48,168
Inspections	\$ 12,337	\$ 254,520		\$ 266,857
Marketing		\$ 381,932		\$ 381,932
M&E Studies	\$ 34,360	\$ 517	\$ 87,204	\$ 122,080
Regulatory Compliance	\$ 140,568	\$ 4,598	\$ 71,538	\$ 216,704
General Administration	\$ 1,006,489	\$ 207,873	\$ 964,815	\$ 2,179,177
CPUC Energy Division		\$ 44,426		\$ 44,426
<b>TOTAL PROGRAM COSTS</b>	\$ 1,230,767	\$ 905,022	\$ 36,001,912	\$ 38,137,700

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Table TA3  
DETAIL BY HOUSING TYPE AND HEATING SOURCE  
SOUTHERN CALIFORNIA EDISON

	2008 Energy Savings		2008 Expenses [1]	2008 Dwellings Treated
	(mWh)	(mTherm*)		
Gas Heat – Own				
Single Family	10,740		\$ 17,303,246	21,473
Multi Family	185		\$ 258,147	525
Mobile Homes	2,665		\$ 4,106,421	4,159
Sub Total Dwellings Served	13,590		\$ 21,667,814	26,157
Gas Heat – Rent				
Single Family	7,252		\$ 9,267,019	15,324
Multi Family	4,282		\$ 5,916,157	11,582
Mobile Homes	453		\$ 675,710	908
Sub Total Dwellings Served	11,987		\$ 15,858,887	27,814
Electric Heat – Own				
Single Family	108		\$ 205,766	171
Multi Family	19		\$ 35,403	53
Mobile Homes	31		\$ 72,632	35
Sub Total Dwellings Served	158		\$ 313,801	259
Electric Heat – Rent				
Single Family	51		\$ 84,741	86
Multi Family	123		\$ 202,103	312
Mobile Homes	7		\$ 10,354	7
Sub Total Dwellings Served	180		\$ 297,198	405
<b>TOTAL DWELLINGS SERVED</b>	25,915	-	\$ 38,137,700	54,635

\* Millions of Therms

[1] - excluding indirect program costs

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Table TA4  
LIFE CYCLE BILL SAVINGS  
SOUTHERN CALIFORNIA EDISON

Measure Description	2008 Number Installed	Per Measure Electric Impact - Average (kWh)	Per Measure Gas Impact (Therms)	Effective Useful Life (EUL)	Total 2008 Measure Life Cycle Bill Savings \$
Furnaces					
- Repair - Gas					
- Replacement - Gas		-		15	\$ -
- Repair - Electric					
- Replacement - Electric					
Infiltration & Space Conditioning.					
- Gaskets for Cover Plates	287	2.49	0	15	\$ 1,494
- Duct Test and Seal	2,321	123.69	0	18	\$ 755,541
- Evaporative Cooler Installation	6,438	412.72	0	15	\$ 5,554,682
- Evaporative Cooler Maintenance	3,655	48.99	0	4	\$ 84,204
- Evaporative Cooler/Air Cond. Covers	7	16.76	0	3	\$ 41
- Programmable Thermostat	1,399	124.77	0	12	\$ 278,436
- A/C Replacement - Room	1,368	357.81	0	15	\$ 1,023,285
- A/C Replacement - Room (landlord)					\$ -
- A/C Replacement - Central	2,458	1,204.21		18	\$ 7,789,940
- A/C Replacement - Central (landlord)					\$ -
- A/C Maintenance - Central	1,211	821.19		7	\$ 856,485
- H/P Replacement - Central	106	840.58		15	\$ 186,269
Weatherization					\$ -
- Attic Insulation					\$ -
- Attic Access Weatherization					\$ -
- Weatherstripping - Door	446	4.44	0	5	\$ 1,182
- Caulking	141	4.37	0	5	\$ 368
- Minor Home Repairs	165	9.59	0	10	\$ 2,039
Water Heater Savings					\$ -
- Water Heater Blanket	84	126.37	0	5	\$ 6,334
- Low Flow Showerhead	377	36.02	0	10	\$ 17,499
- Water Heater Replacement - Gas					\$ -
- Water Heater Replacement - Electric					\$ -
- Water Heater Pipe Wrap	99	47.32	0	15	\$ 9,794
- Faucet Aerators	388	33.29	0	5	\$ 7,709
Lighting Measures					\$ -
- Compact Fluorescents (inc. porchlights)	222,692	22.55	0	9	\$ 5,734,558
- Torchiere	1,010	203.89	0	9	\$ 235,147
- Porchlights fixture replacement	600	35.56	0	16	\$ 48,335
Refrigerators	17,069	745.88	0	18	\$ 33,506,490
Refrigerators (landlord)					
Pool Pump Replacement	36	1,400.00	0	10	\$ 64,942
<b>Total Homes Served By the Program</b>	<b>54,635</b>				<b>\$ 56,164,774</b>
<b>Life Cycle Bill Savings Per Home</b>	<b>\$ 1,028.00</b>				



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Table TA5  
ENERGY RATES USED FOR BILL SAVINGS CALCULATIONS  
SOUTHERN CALIFORNIA EDISON

Year	\$/kWh [1]	\$/Therm
2008	0.1124	N/A
2009	0.1158	N/A
2010	0.1192	N/A
2011	0.1228	N/A
2012	0.1265	N/A
2013	0.1303	N/A
2014	0.1342	N/A
2015	0.1382	N/A
2016	0.1424	N/A
2017	0.1467	N/A
2018	0.1511	N/A
2019	0.1556	N/A
2020	0.1603	N/A
2021	0.1651	N/A
2022	0.1700	N/A
2023	0.1751	N/A
2024	0.1804	N/A
2025	0.1858	N/A
2026	0.1914	N/A
2027	0.1971	N/A
2028	0.2030	N/A
2029	0.2091	N/A
2030	0.2154	N/A
2031	0.2218	N/A
2032	0.2285	N/A

<sup>[1]</sup> - 2008 average cost per kWh paid by participants is \$.1124. Cost is escalated 3% annually in subsequent years

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## Table TA 6

### BILL SAVINGS

### SOUTHERN CALIFORNIA EDISON

Program Year	Program Costs	Program Lifecycle Bill Savings	Program Bill Savings/ Cost Ratio	Per Home Average Lifecycle Bill Savings
2006	\$ 31,371,759	\$ 41,359,654	1.32	\$ 780
2007	\$ 32,525,807	\$ 40,619,019	1.25	\$ 916
2008 <sup>[1]</sup>	\$ 38,137,700	\$ 56,164,774	1.47	\$ 1,028

<sup>[1]</sup> - average \$/KWh for 2008 program participant is \$.1124