

**LOW INCOME
ENERGY EFFICIENCY PROGRAMS
ANNUAL SUMMARY AND
TECHNICAL APPENDIX**

2006 Results
May 2007



A  Sempra Energy utility®

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Executive Summary

Overview

This report on San Diego Gas & Electric Company's (SDG&E) portfolio of Low Income Energy Efficiency (LIEE) Programs provides information on program accomplishments and expenditures for program year (PY) 2006. SDG&E's LIEE program¹ offers its low income customers weatherization services, energy efficient lighting, energy efficient appliances, and energy education at no cost to qualified gas and electric customers.

Program Results

The PY2006 LIEE program portfolio design and funding was approved by the California Public Utilities Commission (Commission) in Decision (D.) 05-12-026, issued on December 15, 2005. D.05-12-026 directed the large investor-owned utilities (IOUs)² to file an augmentation of their 2006 LIEE program plans and budgets by April 14, 2006. Additionally, D.05-10-044, issued on October 27, 2005 adopted the IOU's LIEE program proposals, known as the Winter Initiatives, to help low-income customers mitigate the expected increase in natural gas winter bills. LIEE Winter Initiatives were offered from November 1, 2005 through April 30, 2006.

During PY2006, the LIEE program treated a total of 13,771 homes and weatherized 12,270 homes. As part of its comprehensive services to eligible LIEE participants, SDG&E provided in-home energy education to 13,549 customers, installed 5,128 energy efficient refrigerators, 60,871 compact florescent lamps, 11,470 low flow showerheads, and 127 room air conditioners, replaced 19 water heaters, repaired or replaced 1,190 natural gas furnaces, conducted duct testing on 272 homes, and sealed ducts in 47 homes. In addition, energy education was provided to 16,761 SDG&E customers in a workshop setting. As a result of expanded outreach efforts, which included the implementation of the targeted self certification enrollment process conducted as part of the Winter Initiatives efforts, SDG&E increased its LIEE program enrollments by approximately 21% from January 2006 through April 2006 compared to the same timeframe in 2005.

Weatherization and appliance installations resulted in first-year energy savings of 5,312 mWh and 284 mTherms. The average per home lifecycle bill savings for the program was \$669. To calculate the energy savings of the LIEE program measures for 2006, SDG&E used the methodology adopted by the Commission in D.05-12-026.

SDG&E's total LIEE authorized budget for PY2006 was \$15,939,221, which includes \$13,368,093 in its 2006 authorized budget, plus \$2,571,128 in unspent funds from 2005. LIEE program expenditures during 2006 totaled \$14,435,838. Unspent funds from 2006, totaling \$1,503,383 will be carried over and used in SDG&E's PY2007 LIEE program.

¹ The LIEE program is also known as the Direct Assistance Program (DAP).

² The Investor-Owned Utilities are SDG&E, Southern California Gas Company (SoCalGas), Southern California Edison Company (SCE), and Pacific Gas and Electric Company (PG&E).

Low Income Energy Efficiency Program

Program Summary

The LIEE program is designed to help low-income residential customers control energy costs by providing no-cost weatherization, energy efficient lighting, appliance services, and energy conservation education. Communities targeted for LIEE participation by SDG&E are those where a majority of the households are at or below the income guidelines established by the Commission for the utilities' low-income programs. Customers must meet the program's income eligibility guidelines adopted by the Commission and the customer residence structural feasibility criteria in order to receive no-cost home weatherization, lighting and appliance services.

SDG&E contracts with an outside contractor, Richard Heath and Associates (RHA), the prime contractor to manage the field activities of its LIEE program. Under the LIEE program, the prime contractor performs outreach to customers, determines customer eligibility and enrollment, and provides in-home energy education and assessment of the home. The prime contractor subcontracts the LIEE weatherization activity and Heating, Ventilation and Air Conditioning (HVAC) work to licensed community based organizations (CBOs) and private contractors.

In addition, SDG&E's LIEE program conducted energy education workshops to teach low-income residential customers how to alter and/or change their energy usage by modifying certain household energy consumption patterns and habits. This aspect of the program offers education in various languages including English, Spanish, African, Arabic, Asian, Laotian, Russian, Vietnamese, as well as Middle Eastern and Eastern European languages. Outreach for the program is achieved through a continued presence in the low-income community and through education services that are delivered through a network of local agencies that provide services to SDG&E's culturally diverse low-income population.

As reported in Table 1, SDG&E spent a total of \$14,435,838 on its LIEE programs. Annual energy savings realized from these expenditures are 5,312 mWh and 284 mTherms.

PY2006 Low Income Program

Low Income Energy Efficiency Program

During PY2006, SDG&E treated 13,771 homes and weatherized 12,270 homes. Throughout PY2006, SDG&E combined its LIEE program outreach with its Medical Baseline program, Lighting Turn-In program, Family Electric Rate Assistance (FERA) program, and California Alternate Rates for Energy (CARE) program outreach activities, in order to provide customers with knowledge of and access to all customer assistance programs. Other outreach efforts and media activities conducted during the year included the following:

- Updated the LIEE enrollment forms to include the updated income eligibility levels established by the Commission to qualify participants for the CARE, FERA, and LIEE programs.
- Identified, qualified, and enrolled customers for LIEE services by SDG&E's prime contractor. Used available marketing research and census track data to conduct direct mail campaigns specifically targeted to potential LIEE customers in targeted zip codes.
- Provided the CARE participant database information to the implementation contractor for use in conducting LIEE program outreach.
- Referred LIEE customers to the Department of Community Services and Development in order to leverage funds to provide additional energy efficient measures and services to low-income customers.
- Coordinated with the Community Referral Service 211 to educate SDG&E customers about program offerings including LIEE, CARE, FERA, Neighbor to Neighbor, etc.

SDG&E continued to run LIEE program print advertising in multiple languages. Below is a table showing the print media and circulation associated with these publications.

<u>Language</u>	<u>Circulation</u>	<u>Area Served</u>
<u>Chinese</u>		
American Chinese Times	14,000	San Diego County
We Chinese in America	5,000	San Diego County
Chinese News	10,000	San Diego County
San Diego Chinese Tribune	Not available	San Diego County
<u>Vietnamese</u>		
Nguio Viet	6,000	San Diego County
Thuong Mai	6,000	San Diego County

English print ads were placed in the following publications:

- North County Times
- San Diego Voice and Viewpoint
- Senior Life
- Penny Saver

An in-language Spanish print ad was developed and placed in the following publications:

- Penny Saver
- Diario Latino
- El Latino

In language radio, live mention, was run on the following stations:

- TNT San Diego (Vietnamese)
- KLVN-FM (Spanish)
- KLVV-FM (Spanish)

Additionally, SDG&E provided energy education to 16,761 low-income customers through its Energy Education workshops. Low-income customers were educated on how to alter and/or change their energy usage by modifying certain household energy consumption patterns and habits. In 2006, SDG&E spent \$92,186 on educating customers through the energy education workshops. This energy education was provided to program participants through two components:

- The Energy Practices Survey consists of a simple energy-use checklist that, when completed by the customer, provides immediate feedback on the costs of various energy-use practices. The survey is provided in English, Spanish, and Vietnamese.
- The Energy Conservation Video and DVD reviews energy and money saving information and provides cost information on many day-to-day energy uses. The video and DVD are in English, Spanish, Russian, Somali, and Vietnamese.

Group education was provided through a network of local CBOs that serve low-income clientele, including agencies serving the "underserved" and "hard-to-reach" population in SDG&E's service territory. The workshops were also held at senior centers, in conjunction with school financial workshops, and adult education facilities in an effort to reach seniors and other special interest customers outside of the provider network. Other SDG&E assistance programs are also discussed with participants including LIEE, CARE, FERA, Medical Baseline, and Level Pay Plan.

2005/2006 Winter Initiative

On October 6, 2005, the Commission held a Full-Panel Hearing to receive information and to solicit input from interested parties on proposals that would be used to help mitigate the anticipated high costs of natural gas on low-income customers' bills during the winter of 2005/2006. On October 18 and 19, 2005, the California IOUs and interested parties provided proposals to the Commission for consideration and approval. On October 20, 2005, the Commission held a workshop on those proposals, which were discussed in detail.

In D.05-10-044, the Commission approved the IOUs proposals for LIEE program revisions that would be offered during the winter period beginning on November 1, 2005 through April 30, 2006. D.05-10-044 adopted certain provisions for the 2005/2006 winter season for qualifying

low-income customers under the LIEE program. Specifically, the provisions authorized by the Commission and applicable to SDG&E's LIEE program include the following:

- Income eligibility was increased from 175% to 200% of the Federal Poverty Guidelines (FPG) for all program participants.³
- Simplification of the enrollment process by utilizing targeted census data to identify potential LIEE participants that would be able to self-certify their eligibility for the LIEE program.
- Replacement of natural gas furnaces with an Annual Fuel Utilization Efficiency (AFUE) rating of 65 or lower with models that have an AFUE rating of 80 or 92, depending on the climate zone. During the winter months, replacement of the forced air furnaces was also applicable to renters, where feasible.
- Replacement of leaking or broken water heaters as a measure during the winter months.
- Expansion of Outreach efforts during the winter months to encourage participation in the LIEE program.

The 2005/2006 Winter Initiative created greater opportunities for low-income customers to receive weatherization services, energy efficient lighting, energy efficient appliances, and energy conservation education. To simplify the LIEE program enrollment process, SDG&E utilized the updated 2000 census tract data to identifying low-income customers in specific areas of its service territory and to allow those customers to enroll in the LIEE program by self certifying their income. Through this new targeted self certification process, SDG&E successfully increased customer enrollment by approximately 21% from January through April 2006 compared to the same timeframe in 2005. The LIEE program activities authorized in D.05-10-044 expired on April 30, 2006. However, the income eligibility criterion of 200% of the FPG continues to remain in effect until further Commission order.

2006 Budget Augmentation

In an effort to avoid a sudden decrease in LIEE program activity after the 2005/2006 winter season, the Commission, in D.05-12-026, directed the utilities to treat at least 5% to 10% more homes than originally anticipated when their applications were filed in June 2005. D.05-12-026 also directed the utilities to file a 2006 budget augmentation through an application no later than April 14, 2006.

On April 14, 2006, SDG&E made a compliance filing, in lieu of an application, proposing to use the authorized budget of \$13.368 million, as adopted in D.05-12-026 and \$2.6 million in carryover funds from previous years, along with the continuation of targeted self certification enrollment process to enable SDG&E to exceed its original 2006 LIEE program goal to treat more homes. Essentially, SDG&E did not need to augment its budget in order to meet the Commission's directive to increase program activity by 5-10%. On August 24, 2006, the

³ Per D.05-10-044, the income eligibility levels are set at 200% of FPG for the CARE and LIEE programs.

Commission issued D.06-08-025, which approved SDG&E's April 14, 2006 program request and authorized SDG&E to resume the use of targeted self certification enrollment for the remainder of PY2006.

By utilizing the targeted self certification enrollment process, SDG&E significantly exceeded its goal by treating 13,771 homes in 2006 which is approximately 26% more homes than it originally planned to treat as filed in Application (A.) 05-06-013 on June 1, 2005.

Regulatory Compliance and Oversight, Measurement and Evaluation (M&E) Activities

Regulatory Compliance and Oversight

SDG&E complied with Public Utilities Code (PU Code) Sections 327 and 381.5. Section 327(1) directs that utility program funds are to be leveraged with state and federal funds while Section 381.5 states that the intent of the Legislature is to strengthen the network of local community service providers. The local CBOs participating in SDG&E's program leveraged their LIEE program funding with funding they received under the State of California Department of Community Services and Development (CSD) Low Income Home Energy Assistance Program (LIHEAP) weatherization program. Local CBOs and other community organizations also provided LIEE program energy education to customers in conjunction with their other community services offerings.

Section 2790 of the PU Code mandates that the LIEE program provide as many program energy efficiency measures as feasible to eligible customers served in the program. Consistent with Section 2790 of the PU Code, SDG&E's LIEE program installed all feasible program measures in all the homes served during PY2006. Additionally, SDG&E continued to revisit customers who received LIEE weatherization services prior to 2001, to provide the new program measures authorized by the Commission in D.01-05-033.

During PY2006, SDG&E also worked regularly with the other California IOUs and the Energy Division on several Commission-directed activities. In the low income proceeding R.04-01-006, the Commission directed the utilities to develop standardized statewide measure installation, policy and procedures standardization manuals, update program reporting requirements, develop updated cost-effectiveness tests for LIEE programs, provide comparable bill savings documentation, and recommend methods of comparing programs (including program costs and benefits) across the utilities. In response to the Commission's direction, several inter-utility teams, with guidance from the Energy Division and input from the Division of Ratepayer Advocates and the interested public, achieved the following results during PY2006:

- On June 7, 2005, the Assigned Commissioner issued a Ruling which adopted the amendments to the Phase 5 work plan, schedule, and budget to include the provisions set forth in the Ruling issued on March 25, 2005. During 2005, the LIEE Standardization Team⁴ (Standardization Team) developed recommendations for changes to the LIEE Policy and Procedures (P&P) Manual and the Weatherization Installation Standards

⁴ The LIEE Standardization Team consists of PG&E, SCE, SoCalGas, SDG&E, and the joint utilities technical consultants, with coordination assistance from the Commission's Energy Division and participation by the Division of Ratepayer Advocates.

(WIS) Manual through an open process to solicit public input. On November 1, 2005, the proposed changes to the P&P and WIS Manuals were filed with the Commission for approval.

On February 17, 2006, the Commission convened a workshop to discuss, among other things, the proposed revisions to the LIEE P&P and WIS Manuals, filed on November 1, 2005.

As an outcome of the discussion from the February 17, 2006 Commission workshop, additional revisions were made to the Manuals and were subsequently presented and circulated at the February 28, 2006 Low Income Oversight Board (LIOB) meeting. On March 9, 2006, the proposed revisions to the Manuals were filed with the Commission. By Assigned Commissioners Ruling on March 29, 2006, the Commission adopted the November 1, 2005 Manuals as modified by the March 9, 2006 revisions to the Manuals.

In D.05-12-026, the Commission directed the Standardization Team to not undertake any new activities until authorized. In 2006, there was no activity by the Standardization Team.

Measurement and Evaluation (M&E) Activities

- In D.03-11-020, the Commission adopted the “LIEE Measure Cost Effectiveness Study” conducted by Itron, Inc. filed on June 2, 2003 for the new LIEE program standard measure mix effective January 1, 2004 which continued to be the measure mix during PY2006. In addition, D.05-12-026 adopted the “Report on the Assessment of Proposed New Year 2006 LIEE Program Measures” conducted by Itron, Inc. filed on May 2, 2005 which recommended high efficiency central air conditioners and duct testing and sealing as measures for inclusion in LIEE program standard measure mix effective January 1, 2006.
- In accordance with D.01-06-082, the utilities filed a Notice of Availability of the Process Evaluation and First Year Impact Evaluation of the 2001 Statewide Low Income Energy Efficiency Program.⁵ In D.05-12-026, the Commission stated that “we will not formally adopt or approve the results of the 2001 load impact report as the utilities request in this proceeding. Instead, we permit the utilities to rely on the study results on a case-by-case basis, as we do today, until we can address and resolve Low Income Energy Efficiency-related issues in the 2006 Annual Earnings Assessment Proceeding.” To determine the energy savings for PY2006, SDG&E has utilized the 2001 LIEE program load impact study to calculate measure savings.
- The LIEE program load impact evaluation was scheduled to occur in 2006 for the PY2004 program, which would have been consistent with the bi-annual schedule authorized by D.02-12-019. The Commission, however, granted the utilities’ request to conduct the impact evaluation on the 2005 LIEE program, rather than on the 2004 program.⁶ In an effort to enhance the quality of subsequent impact evaluations, PY2005

⁵ On April 18, 2003, the Notice of Availability was filed with the Commission by SCE on behalf of itself, PG&E, SoCalGas, and SDG&E.

⁶ On February 7, 2005, SCE on behalf of itself, PG&E, SoCalGas, and SDG&E filed a letter to request Commission authorization. On March 17, 2005, the Executive Director of the Commission granted the utilities’ request.

was the first year in which the collection of additional measure data and improved sampling techniques became available. During PY2006, the utilities responded to various data requests from the consultant, West Hills Energy and Computing, in an effort to complete the 2005 load impact evaluation report. The report is expected to be completed in the Fall of 2007.

Bill Savings

Table TA 4 reports lifecycle bill savings by measure, by fuel type, and combined for PY2006; Table TA 5 reports the energy rates used for calculating the bill savings; and, Table TA 6 reports the bill savings and the cost ratio for SDG&E's LIEE programs over the last three years.

Other Program-Related Survey

In 2006, SDG&E surveyed approximately 1,200 customers to evaluate their satisfaction with all aspects of the LIEE program, from enrollment to inspection. Additionally, the survey was designed to provide program management with insight into the effectiveness of the program and to identify potential areas for improvement. Portions of the survey were designed to ascertain how the contractors performed in delivering program services, customer satisfaction with the service, and whether participants experienced an increase in comfort and safety as a result of participating in the program.

The LIEE program continues to receive high ratings from participants of the LIEE program services and measures installed with the following results:

- Survey findings showed that 90% of LIEE customers were very satisfied overall, with 64% giving LIEE the highest rating of “Completely Satisfied”.
- 94% were very satisfied with the measures installed in their homes, with 83% giving the highest rating of “Completely Satisfied”.
- Customers continue to rate the sign-up process high with a 97% satisfaction.

Community Based Organizations (CBO), Leveraging and Access to Community Services

CBO Participation

SDG&E contracted LIEE program field services coordination with an outside prime contractor, to market and manage field services under its PY2006 program. This prime contractor, RHA subcontracted for weatherization services with two CBOs: (1) Campesinos Unidos, Inc. (CUI) and, (2) Metropolitan Area Advisory Committee (MAAC); and four private companies: (1) Capital State Construction, (2) Rancho Energy Services Co. (RESCO), (3) Western Insulation, and (4) Empire Insulation. RHA also subcontracted with six licensed HVAC companies to provide the gas furnace repair and replacement services offered through the LIEE program. The furnace subcontractors participating in PY2006 included: (1) Ameri-Mex, (2) DM Mechanical, (3) Jerry's Heating and Air Conditioning, (4) Lloyd's Plumbing, (5) South Bay Mechanical, and (6) Tierrasanta Heating and Air Conditioning. Tables Table 5 reflects the level of participation by contractor type.

Leveraging

California LIHEAP Block Grant weatherization and bill assistance efforts are funded by the Federal Department of Health and Human Services (DHHS) and provides two basic types of service through CSD:

- Financial assistance to offset the costs of heating and/or cooling dwellings
- Weatherization work to make the dwelling more energy efficient

CBOs are eligible to apply for federal funding to install weatherization measures under the LIHEAP Block Grant program. In SDG&E's service territory, CUI, MAAC and Community Action Partnership of Orange County (CAP) participated in the LIHEAP and leveraged work with SDG&E's LIEE program as appropriate.

Access to Other Low-Income Services

In accordance with D.00-07-020, SDG&E continued to use its existing LIEE referral systems to identify the needs of participating low-income customers participating in the LIEE program and refer them to the appropriate CBOs and other community agencies. The contractor and all of its subcontractors continued to identify both the energy needs and non-energy needs of the low-income customer during the structural assessment, application process, energy education, and installation of weatherization measures and appliances, and make appropriate referrals to utility programs, state energy programs, and community agencies. The types of non-energy services provided by the community agencies in SDG&E's LIEE program included:

- Emergency food and clothing
- Shelter and housing
- High school equivalency instruction, English as a second language instruction, and math instruction
- Employment counseling
- Job Training
- Cultural Activities
- Translation Services
- Individual and Family Counseling
- Health Services
- Anger Management
- Substance Abuse Counseling
- Parenting and Money Management Classes
- Assistance Programs Tailored to Children
- Assistance Programs Tailored to Seniors
- Bill payment assistance

	A	B	C	D	E	F	G	H	I	J
1	Table 1 LIEE Program Expenses - San Diego Gas & Electric Company - PY2006									
2		Authorized Budget			Annual Expenditures			% of Budget Spent		
3	LIEE Program:	Electric	Gas	Elec & Gas	Electric	Gas	Elec & Gas	Electric	Gas	Elec & Gas
4	Energy Efficiency									
5	- Gas Appliances		\$2,440,496	\$2,440,496		\$1,375,953	\$1,375,953		56%	56%
6	- Electric Appliances	\$5,418,864		\$5,418,864	\$5,035,700		\$5,035,700	93%		93%
7	- Weatherization		\$4,277,825	\$4,277,825		\$4,489,086	\$4,489,086		105%	105%
8	- Outreach and Assessment			\$0			\$0			
9	- In Home Energy Education	\$845,648	\$845,648	\$1,691,296	\$897,953	\$897,953	\$1,795,906	106%	106%	106%
10	- Education Workshops	\$66,000	\$66,000	\$132,000	\$46,038	\$46,148	\$92,186	70%	70%	70%
11	- Pilot			\$0			\$0			
12	- Cool Centers			\$0			\$0			
13	Energy Efficiency TOTAL	\$6,330,512	\$7,629,969	\$13,960,481	\$5,979,691	\$6,809,139	\$12,788,830	94%	89%	92%
14										
15	Training Center			\$0			\$0			
16	Inspections	\$80,590	\$80,590	\$161,180	\$36,200	\$36,199	\$72,399	45%	45%	45%
17	Marketing	\$288,166	\$288,166	\$576,332	\$171,028	\$171,027	\$342,055	59%	59%	59%
18	M&E Studies	\$31,125	\$31,125	\$62,250			\$0	0%	0%	0%
19	Regulatory Compliance	\$143,419	\$143,419	\$286,838	\$104,062	\$104,134	\$208,197	73%	73%	73%
20	General Administration	\$435,570	\$435,570	\$871,140	\$503,607	\$505,393	\$1,009,000	116%	116%	116%
21	CPUC Energy Division	\$10,500	\$10,500	\$21,000	\$7,909	\$7,448	\$15,357	75%	71%	73%
22										
23	TOTAL PROGRAM COSTS	\$7,319,882	\$8,619,339	\$15,939,221	\$6,802,497	\$7,633,341	\$14,435,838	93%	89%	91%
24	Funded Outside of LIEE Program Budget									
25	Indirect Costs				\$201,685	\$207,232	\$408,918			
26										
27	NGAT Costs					\$235,409	\$235,409			
28	The 2006 Budget in the amount of \$15,939,221 reflects the funding level authorized by the Commission in D.05-12-026 and D.06-08-025 of \$13,368,093, plus carryover funds from PY2005 of \$2,571,128.									
29										
30										
31										

	A	B	C	D	E	F	G
1	Table 2						
2	LIEE Installations & Savings - San Diego Gas & Electric Company - PY2006						
3	Measures	Units	Completed & Expensed Installations YTD				
4			Quantity	kWh (Annual)	kW (Annual)	Therms (Annual)	Expenses
5	Furnaces						
6	- Repair - Gas	Each	869	-	-	22,053	\$ 435,393
7	- Replacement - Gas	Each	321	-	-	12,291	\$ 739,972
8	- Repair - Electric	Each	-	-	-	-	\$ -
9	- Replacement - Electric	Each	-	-	-	-	\$ -
10	Infiltration & Space Conditioning.						
11	- Outlet cover plate gaskets	Home	10,180	-	-	-	\$ 61,911
12	- Duct Testing	Home	272	-	-	-	\$ 36,232
13	- Duct Sealing	Home	47	427	0	398	\$ 12,145
14	- Evaporative Coolers	Each	1	124	0	-	\$ 999
15	- Evaporative Cooler/Air Cond. Covers	Each	7	4	0	32	\$ 265
16	- A/C Replacement - Room	Each	127	15,830	14	-	\$ 119,376
17	- A/C Replacement - Room (landlord)	Each	-	-	-	-	\$ -
18	- A/C Replacement - Central	Each	1	164	0	-	\$ 2,862
19	- A/C Replacement - Central (landlord)	Each	-	-	-	-	\$ -
20							
21	Weatherization						
22	- Attic Insulation	Home	451	2,892	3	11,082	\$ 474,548
23	- Attic Access Weatherization	Home	-	-	-	-	\$ -
24	- Weatherstripping - Door	Home	11,146	38,377	35	33,768	\$ 1,355,100
25	- Caulking	Home	10,539	23,750	22	31,997	\$ 576,550
26	- Minor Home Repairs	Home	7,699	22,204	20	34,250	\$ 1,130,568
27							
28	Water Heater Savings						
29	- Water Heater Blanket	Home	1,553	4,018	1	16,899	\$ 87,495
30	- Low Flow Showerhead	Home	11,470	54,133	16	84,116	\$ 751,359
31	- Water Heater Replacement - Gas	Each	19	-	-	361	\$ 22,818
32	- Water Heater Replacement - Electric	Each	-	-	-	-	\$ -
33	- Water Heater Pipe Wrap	Home	237	308	0	1,013	\$ 4,195
34	- Faucet Aerators	Home	11,895	24,080	7	35,506	\$ 176,916
35							
36	Lighting Measures						
37	- Compact Fluorescents (inc. porchlights)	Each	60,871	1,261,055	1,228	-	\$ 648,092
38	- Porchlights fixture replacement	Each	2,117	56,954	55	-	\$ 98,835
39							
40	Refrigerators	Each	5,128	3,806,064	581	-	\$ 4,164,550
41	Refrigerators (landlord)	Each	2	1,484	0	-	\$ 722
42							
43	Pilots						
44	- Pilot		-	-	-	-	\$ -
45							
46	Customer Enrollment						
47	- Outreach & Assessment	Home	13,771	-	-	-	\$ 1,514,140
48	- In-Home Education	Home	13,549	-	-	-	\$ 281,602
49	- Education Workshops	Participants	16,761	-	-	-	\$ 92,186
50							
51	Total Savings			5,311,868	1,983	283,766	\$ 12,788,830
52							
53	Homes Weatherized	Home	12,270				
54							
55	Homes Treated						
56	- Single Family Homes Treated	Home	8,017				
57	- Mobile Homes Treated	Home	452				
58	- Multi-family Homes Treated	Home	5,302				
59	- Total Number of Homes Treated	Home	13,771				
60	- Master-Metered Homes Treated	Home	539				
61							

	A	B	C	D	E	F	G
1	Table 3						
2	Summary of LIEE Cost-Effectiveness - San Diego Gas & Electric Company - PY2006						
3		Ratio of Benefits Over Costs			Net Benefits		
4							
5		Utility Cost Test	Total Resource Cost Test	Modified Participant Test	Utility Cost Test	Total Resource Cost Test	Modified Participant Test
6	Energy Efficiency	0.33	0.54	0.61	(\$9,883,548)	(\$6,602,546)	(\$5,837,643)
7	<p>The UC test and the MP test were calculated using the LIPPT workbook as modified for the PY2003 LIEE measure cost effectiveness testing. For both of these tests, the numerator includes the present value of life-cycle energy and non-energy benefits. The TRC test was calculated using the E3 calculator. For this test, the numerator includes the present value of life-cycle energy benefits; it does not include non-energy benefits.</p> <p>Note: LIPPT is also known as the Modified Participant Test.</p>						
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							

	A	B	C	D
1	Table 4 LIEE Penetration - San Diego Gas & Electric Company - PY2006			
2	Year ¹	Homes Treated	Estimated Eligible in Current Year	Current Year Penetration Rate for Homes Treated
3	1997	9,931		
4	1998	10,838		
5	1999	10,993		
6	2000	13,660		
7	2001	19,315		
8	2002	14,089		
9	2003	15,706		
10	2004	14,897		
11	2005	11,254		
12	2006	13,771	352,737	
13	Total Homes Treated in 10 Years	134,454	352,737	38.12%
14	¹ 10 Years of activity are reported.			
15				
16				
17				
18				
19				

	A	B	C	D	E	F	G
1	Table 5 LIEE Direct Purchase and Installation Contractors San Diego Gas & Electric Company - PY2006						
2	Contractor	County	Contractor Type (Check one or more if applicable)				Annual Expenditures
3			Private	CBO	WMDVBE	LIHEAP	
4	Contractor A	Orange, San Diego	X				\$ 992,653
5	Contractor B	San Diego	X				\$ 227,586
6	Contractor C	Orange, San Diego		X		X	\$ 355,323
7	Contractor D	San Diego		X		X	\$ 510,645
8	Contractor E	San Diego	X				\$ 1,044,519
9	Contractor F	San Diego	X				\$ 73,629
10	Contractor G	San Diego	X				\$ 82,438
11	Contractor H	San Diego			X		\$ 43,564
12	Contractor K	Orange, San Diego	X				\$ 167,941
13	Contractor L	San Diego	X				\$ 166,669
14	Contractor M	San Diego	X				\$ 98,991
15	Contractor O	San Diego	X				\$ 62,420
16	Contractor P	San Diego	X				\$ 839,075
17	Contractor Q	San Diego	X				\$ 650
18	Contractor J	Orange, San Diego			X		\$ 8,030,544
19	Total Contractor Expenditures						\$ 12,696,645

Technical Appendix

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1	Table TA1 Installation Costs of LIEE Program Installation Contractors - San Diego Gas & Electric Company - PY2006																		
2		Unit of Measure	CBO/WMDVBE						Non-CBO/WMDVBE						Total				
3			Installations		Dwellings		Costs		Installations		Dwellings		Costs		Units Installed	Dwellings	Costs	Cost/ Unit	Cost/ Dwelling
4			Units	%	Units	%	\$	%	Units	%	Units	%	\$	%					
5	Dwellings [1]	Each	13,771	100%	13,771	100%	\$ 8,539,507	67%		0%		0%	\$ 4,157,138	33%	13,771	13,771	\$ 12,696,645	\$ 921.98	\$ 921.98
6	Furnaces																		
8	- Repair - Gas	Each	815	88%	763	88%	\$ 365,721	84%	108	12%	106	12%	\$ 69,672	16%	923	869	\$ 435,393	\$ 472	\$ 501
9	- Replacement - Gas	Each	21	7%	21	7%	\$ 49,954	7%	300	93%	300	93%	\$ 690,018	93%	321	321	\$ 739,972	\$ 2,305	\$ 2,305
10	- Repair - Electric	Each	-	0%	-	0%	\$ -	0%	0	0%	-	0%	\$ -	0%	-	-	\$ -	\$ -	\$ -
11	- Replacement - Electric	Each	-	0%	-	0%	\$ -	0%	0	0%	-	0%	\$ -	0%	-	-	\$ -	\$ -	\$ -
12	Infiltration & Space Conditioning.																		
14	- Outlet cover plate gaskets	Home	3,482	34%	3,482	34%	\$ 20,937	34%	6,700	66%	6,700	66%	\$ 40,973	66%	10,182	10,182	\$ 61,911	\$ 6	\$ 6
15	- Duct Testing	Home	272	100%	272	100%	\$ 36,232	100%	-	0%	-	0%	\$ -	0%	272	272	\$ 36,232	\$ 133	\$ 133
16	- Duct Sealing	Home	8	17%	8	17%	\$ 1,898	16%	39	83%	39	83%	\$ 10,247	84%	47	47	\$ 12,145	\$ 258	\$ 258
17	- Evaporative Coolers	Each	1	100%	1	100%	\$ 999	100%	-	0%	-	0%	\$ -	0%	1	1	\$ 999	\$ 999	\$ 999
18	- Evaporative Cooler/Air Cond. Covers	Each	2	29%	2	29%	\$ 76	29%	5	71%	5	71%	\$ 189	71%	7	7	\$ 265	\$ 38	\$ 38
19	- A/C Replacement - Room	Each	127	100%	127	100%	\$ 119,376	100%	-	0%	-	0%	\$ -	0%	127	127	\$ 119,376	\$ 940	\$ 940
20	- A/C Replacement - Room (landlord)	Each	-	0%	-	0%	\$ -	0%	-	0%	-	0%	\$ -	0%	-	-	\$ -	\$ -	\$ -
21	- A/C Replacement - Central	Each	-	0%	-	0%	\$ -	0%	1	100%	1	100%	\$ 2,862	100%	1	1	\$ 2,862	\$ 2,862	\$ 2,862
22	- A/C Replacement - Central (landlord)	Each	-	0%	-	0%	\$ -	0%	-	0%	-	0%	\$ -	0%	-	-	\$ -	\$ -	\$ -
23	Weatherization																		
25	- Attic Insulation	Home	151	33.5%	151	33%	\$ 160,166	34%	300	67%	300	67%	\$ 314,382	66%	451	451	\$ 474,548	\$ 1,052	\$ 1,052
26	- Attic Access Weatherization	Home	-	0%	-	0%	\$ -	0%	-	0%	-	0%	\$ -	0%	-	-	\$ -	\$ -	\$ -
27	- Weatherstripping - Door	Home	3,432	31%	3,432	31%	\$ 389,241.88	0%	7,714	69%	7,714	69%	\$ 965,858.32	0%	11,146	11,146	\$ 1,355,100	\$ 121.58	\$ 121.58
28	- Caulking	Home	2,780	26%	2,780	26%	\$ 145,677	25%	7,759	74%	7,759	74%	\$ 430,873	75%	10,539	10,539	\$ 576,550	\$ 54.71	\$ 54.71
29	- Minor Home Repairs	Home	2,474	32%	2,474	32%	\$ 269,850	0%	5,225	68%	5,225	68%	\$ 860,718	0%	7,699	7,699	\$ 1,130,568	\$ 146.85	\$ 146.85
30	Water Heater Savings																		
31	- Water Heater Blanket	Home	489	31%	489	31%	\$ 27,668	32%	1,064	69%	1,064	69%	\$ 59,827	68%	1,553	1,553	\$ 87,495	\$ 56	\$ 56
33	- Low Flow Showerhead	Home	3,607	31%	3,607	31%	\$ 235,254	31%	7,864	69%	7,864	69%	\$ 516,105	69%	11,471	11,471	\$ 751,359	\$ 66	\$ 66
34	- Water Heater Replacement - Gas	Each	14	74%	14	74%	\$ 16,799	74%	5	26%	5	26%	\$ 6,019	26%	19	19	\$ 22,818	\$ 1,201	\$ 1,201
35	- Water Heater Replacement - Electric	Each	-	0%	0	0%	\$ -	0%	-	0%	-	0%	\$ -	0%	-	-	\$ -	\$ -	\$ -
36	- Water Heater Pipe Wrap	Home	145	61%	145	61%	\$ 2,514	60%	92	39%	92	39%	\$ 1,681	40%	237	237	\$ 4,195	\$ 18	\$ 18
37	- Faucet Aerators	Home	3,848	32%	3,848	32%	\$ 59,046	33%	8,047	68%	8,047	68%	\$ 117,870	67%	11,895	11,895	\$ 176,916	\$ 15	\$ 15
38	Lighting Measures																		
40	- Compact Fluorescents (inc. porchlights)	Each	60,871	100%	60,781	100%	\$ 648,092	100%	-	0%	-	0%	\$ -	0	60,871	60,781	\$ 648,092	\$ 11	\$ 11
41	- Porchlights fixture replacement	Each	621	29%	461	28%	\$ 28,992	29%	1,496	71%	1,159	72%	\$ 69,843	71%	2,117	1,620	\$ 98,835	\$ 47	\$ 61
42	Refrigerators	Each	5,128	100%	5,128	100%	\$ 4,164,550	100%	-	0%	-	0%	\$ -	0%	5,128	5,128	\$ 4,164,550	\$ 812	\$ 812
44	Refrigerators (landlord)	Each	2	100%	2	100%	\$ 722	100%	-	0%	-	0%	\$ -	0	2	2	\$ 722	\$ 361	\$ 361
45	Pilots																		
46	- Pilot		-	0%	-	0%	-	0%	-	0%	-	0%	\$ -	0	-	-	\$ -	\$ -	\$ -
48	Customer Enrollment																		
50	- Outreach & Assessment	Home	13,771	100%	13,771	100%	\$ 1,514,140	100%	-	0%	-	0%	\$ -	0	13,771	13,771	\$ 1,514,140	\$ 110	\$ 110
51	- In-Home Education	Home	13,549	100%	13,549	100%	\$ 281,602	100%	-	0%	-	0%	\$ -	0%	13,549	13,549	\$ 281,602	\$ 21	\$ 21
52	- Education Workshops	Participants	12,308	73%	12,308	73%	\$ 67,694	73%	4,453	27%	4,453	27%	\$ 24,492	27%	16,761	16,761	\$ 92,186	\$ 6	\$ 6
53																			
54																			
55	[1] SDG&E's homes treated are income qualified by its prime contractor which is WMDVBE. Therefore all homes treated are captured in the CBO/WMDVBE category. The prime contractor subcontracts with private non-CBO/WMDVBE contractors and SDG&E has reflected those expend																		
56																			

	A	B	C	D	E
1	Table TA 2 Combined (Electric & Gas) LIEE Cost Elements - San Diego Gas & Electric Company - PY2006				
2		Expenditures Recorded by Cost Element			
3	LIEE Program:	Labor	Non-Labor	Contract	Elec & Gas
4	Energy Efficiency				
5	- Gas Appliances	-	-	\$ 1,375,953	\$ 1,375,953
6	- Electric Appliances	-	-	\$ 5,035,700	\$ 5,035,700
7	- Weatherization	-	-	\$ 4,489,086	\$ 4,489,086
8	- Outreach and Assessment	-	-	\$ -	\$ -
9	- In Home Energy Education	-	-	\$ 1,795,906	\$ 1,795,906
10	- Education Workshops	-	-	\$ 94,527	\$ 94,527
11	- Pilot	-	-	\$ (2,342)	\$ (2,342)
12	- Cool Centers	-	-	\$ -	\$ -
13	Energy Efficiency TOTAL	-	-	\$ 12,788,830	\$ 12,788,830
14					
15	Training Center	-	-	-	-
16	Inspections	\$ 72,048	\$ 351	-	\$ 72,399
17	Marketing	\$ (146)	\$ 342,201	-	\$ 342,055
18	M&E Studies	\$ -	\$ -	-	\$ -
19	Regulatory Compliance	\$ 161,107	\$ 47,090	-	\$ 208,197
20	General Administration	\$ 810,299	\$ 198,701	-	\$ 1,009,000
21	CPUC Energy Division	\$ -	\$ 15,357	-	\$ 15,357
22					
23	TOTAL PROGRAM COSTS	\$ 1,043,308	\$ 603,700	\$ 12,788,830	\$ 14,435,838

	A	B	C	D	E
1	Table TA 2 Combined (Electric) LIEE Cost Elements - San Diego Gas & Electric Company - PY2006				
2		Expenditures Recorded by Cost Element			
3	LIEE Program:	Labor	Non-Labor	Contract	Electric
4	Energy Efficiency				
5	- Gas Appliances	\$ -	\$ -	-	-
6	- Electric Appliances	\$ -	\$ -	\$ 5,035,700	\$ 5,035,700
7	- Weatherization	\$ -	\$ -	\$ -	\$ -
8	- Outreach and Assessment	\$ -	\$ -	\$ -	\$ -
9	- In Home Energy Education	\$ -	\$ -	\$ 897,953	\$ 897,953
10	- Education Workshops	\$ -	\$ -	\$ 48,380	\$ 48,380
11	- Pilot	\$ -	\$ -	\$ (2,342)	\$ (2,342)
12	- Cool Centers	\$ -	\$ -	\$ -	\$ -
13	Energy Efficiency TOTAL	\$ -	\$ -	\$ 5,979,691	\$ 5,979,691
14					
15	Training Center	\$ -	\$ -	\$ -	\$ -
16	Inspections	\$ 36,024	\$ 176	\$ -	\$ 36,200
17	Marketing	\$ (73)	\$ 171,101	\$ -	\$ 171,028
18	M&E Studies	\$ -	\$ -	\$ -	\$ -
19	Regulatory Compliance	\$ 80,554	\$ 23,508	\$ -	\$ 104,062
20	General Administration	\$ 405,151	\$ 98,456	\$ -	\$ 503,607
21	CPUC Energy Division	\$ -	\$ 7,909	\$ -	\$ 7,909
22					
23	TOTAL PROGRAM COSTS	\$ 521,656	\$ 301,150	\$ 5,979,691	\$ 6,802,497

	A	B	C	D	E
1	Table TA 2 Combined (Gas) LIEE Cost Elements - San Diego Gas & Electric Company - PY2006				
2		Expenditures Recorded by Cost Element			
3	LIEE Program:	Labor	Non-Labor	Contract	Gas
4	Energy Efficiency				
5	- Gas Appliances	\$ -	\$ -	\$ 1,375,953	\$ 1,375,953
6	- Electric Appliances	\$ -	\$ -	\$ -	\$ -
7	- Weatherization	\$ -	\$ -	\$ 4,489,086	\$ 4,489,086
8	- Outreach and Assessment	\$ -	\$ -	\$ -	\$ -
9	- In Home Energy Education	\$ -	\$ -	\$ 897,953	\$ 897,953
10	- Education Workshops	\$ -	\$ -	\$ 46,148	\$ 46,148
11	- Pilot	\$ -	\$ -	\$ -	\$ -
12	- Cool Centers	\$ -	\$ -	\$ -	\$ -
13	Energy Efficiency TOTAL	\$ -	\$ -	\$ 6,809,139	\$ 6,809,139
14					
15	Training Center	\$ -	\$ -	\$ -	\$ -
16	Inspections	\$ 36,024	\$ 176	\$ -	\$ 36,199
17	Marketing	\$ (73)	\$ 171,100	\$ -	\$ 171,027
18	M&E Studies	\$ -	\$ -	\$ -	\$ -
19	Regulatory Compliance	\$ 80,553	\$ 23,581	\$ -	\$ 104,134
20	General Administration	\$ 405,148	\$ 100,245	\$ -	\$ 505,393
21	CPUC Energy Division	\$ -	\$ 7,448	\$ -	\$ 7,448
22					
23	TOTAL PROGRAM COSTS	\$ 521,652	\$ 302,550	\$ 6,809,139	\$ 7,633,341

	A	B	C	D	E
1	Table TA3 Program Detail by Housing Type and Heating Source San Diego Gas & Electric Company - PY2006				
2		Energy Savings		Expenses [1]	Dwellings Treated
3		(mWh)	(mTherm)		
4	Gas Heat – Own				
5	Single Family	1,250	107	\$ 2,779,068	3,011
6	Multi Family	14	1	\$ 31,920	35
7	Mobile Home	149	7	\$ 340,942	335
8	Sub Total Dwellings Served	1,413	114	\$ 3,151,931	3,381
9					
10	Gas Heat – Rent				
11	Single Family	1,671	103	\$ 3,697,425	4,006
12	Multi Family	477	31	\$ 1,573,213	1,725
13	Mobile Home	21	1	\$ 34,603	34
14	Sub Total Dwellings Served	2,169	134	\$ 5,305,242	5,765
15					
16	Electric Heat – Own				
17	Single Family	99	1	\$ 190,132	206
18	Multi Family	17	0	\$ 51,984	57
19	Mobile Home	8	0	\$ 13,231	13
20	Sub Total Dwellings Served	124	2	\$ 255,347	276
21					
22	Electric Heat – Rent				
23	Single Family	200	3	\$ 355,344	385
24	Multi Family	1,136	23	\$ 2,986,825	3,275
25	Mobile Home	2	0	\$ 7,124	7
26	Sub Total Dwellings Served	1,338	26	\$ 3,349,293	3,667
27					
28	TOTAL DWELLINGS SERVED [2]	5,044	276	\$ 12,061,813	13,089
29					
30					
31	[1] - Excluding indirect program costs and NGAT costs.				
32	[2] - It only represents the homes that have space heating.				
33					

	A	B	C	D	E	F
1	Table TA4 Life Cycle Bill Savings - San Diego Gas & Electric Company - PY2006					
2	Measure Description	Number Installed	Per Measure Electric Impact (kWh)	Per Measure Gas Impact (Therms)	Effective Useful Life (EUL)	Total Measure Life Cycle Bill Savings
3						
4	Energy Efficiency Measures					
5						
6	Air Conditioner Replacement - Central	1	164.3	0	18	\$278
7	Air Conditioner Replacement - Room	127	124.65	0	15	\$23,263
8	Attic Insulation	453	6.38	24.58	25	\$208,253
9	Caulking	10,540	2.25	3.04	5	\$168,139
10	Compact Fluorescents	60,871	20.72	0	8	\$1,094,605
11	Duct Sealing and Repair	47	9.09	8.47	5	\$2,166
12	Evaporative Coolers / Air Cond. Covers	7	0.61	4.51	3	\$96
13	Exterior Hardwired Fixture	1,620	35.16	0	20	\$103,991
14	Faucet Aerator	11,895	2.02	2.98	5	\$185,274
15	Furnace	321	0	38.29	22	\$204,534
16	Furnace Repair	871	0	25.32	10	\$197,865
17	Low Flow Showerhead	11,472	4.72	7.33	10	\$811,741
18	Minor Home Repair	6,400	3.47	5.35	10	\$330,688
19	Refrigerators	5,130	742.21	0	15	\$5,595,300
20	Water Heater Blanket	1,553	2.59	10.88	5	\$83,958
21	Water Heater Pipe Wrap	237	1.3	4.28	15	\$13,137
22	Water Heater Replacement - Gas	19	0	19	13	\$4,030
23	Weatherstripping	11,148	3.44	3.03	5	\$185,024
24						
25	Total Bill Savings for All Measures in Program Year					\$9,212,340
26	Total Number of Homes Served By the Program					13,771
27						
28	Life Cycle Bill Savings Per Home					\$669
29						

	A	B	C
1	Table TA5 Energy Rates Used For Bill Savings Calculations San Diego Gas & Electric Company - PY2006		
2	Year	\$/kWh	\$/Therm
3	2006	0.1244	1.0599
4	2007	0.1282	1.0917
5	2008	0.1320	1.1244
6	2009	0.1360	1.1582
7	2010	0.1401	1.1929
8	2011	0.1443	1.2287
9	2012	0.1486	1.2656
10	2013	0.1530	1.3035
11	2014	0.1576	1.3426
12	2015	0.1624	1.3829
13	2016	0.1672	1.4244
14	2017	0.1722	1.4671
15	2018	0.1774	1.5112
16	2019	0.1827	1.5565
17	2020	0.1882	1.6032
18	2021	0.1939	1.6513
19	2022	0.1997	1.7008
20	2023	0.2057	1.7518
21	2024	0.2118	1.8044
22	2025	0.2182	1.8585
23	2026	0.2247	1.9143
24	2027	0.2315	1.9717
25	2028	0.2384	2.0309
26	2029	0.2456	2.0918
27	2030	0.2530	2.1545
28	Note: Energy rates used is based on the average rate paid by LIEE participants during 2006. The escalation factor is applied at 3 percent.		
29			
30			
31			
32			
33			

	A	B	C	D	E
1	Table TA 6 Bill Savings - San Diego Gas & Electric Company - PY2006				
2	Program Year	Program Costs	Program Lifecycle Bill Savings	Program Bill Savings/Cost Ratio	Per Home Average Lifecycle Bill Savings
3	2004	\$ 14,405,365	\$ 9,607,052	0.67	\$ 645
4	2005	\$ 12,970,508	\$ 8,864,286	0.68	\$ 788
5	2006	\$ 14,435,838	\$ 9,212,340	0.64	\$ 669