

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

**2007 Results  
May 2008**



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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) Program provides information on program accomplishments and expenditures for program year (PY) 2007. SDG&E's LIEE program<sup>1</sup> offers its low income customers weatherization services, energy efficient lighting, energy efficient appliances, and energy education at no cost to qualified natural gas and electric customers.

## **Program Results**

The PY2007 LIEE program portfolio design and funding was approved by the California Public Utilities Commission (Commission) in Decision (D.) 06-12-038, issued on December 14, 2006, and as modified by D.07-06-004 on June 7, 2007.

During PY2007, the LIEE program treated<sup>2</sup> a total of 13,074 homes and weatherized<sup>3</sup> 11,247 homes. As part of its comprehensive services to eligible LIEE participants, SDG&E provided in-home energy education to 12,894 customers; installed 2,540 energy efficient refrigerators, 65,773 compact fluorescent lamps (CFLs), 6,593 interior hard-wired CFL fixtures, 2,292 torchieres, 10,194 low flow showerheads, 292 room air conditioners; weatherstripped 10,231 doors; installed caulking to 9,740 homes; repaired or replaced 936 natural gas furnaces; and installed attic insulation in 281 homes.

Weatherization and appliance installations resulted in first-year energy savings of 4,428 mWh and 220 mTherms. The energy savings from the 2007 LIEE program year will contribute to the Commission's energy savings goals adopted for program year 2006 and beyond as set forth in D.04-09-060.<sup>4</sup> The average per home lifecycle bill savings for the program was \$507.

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

<sup>2</sup> Per D.02-12-019, the Commission defines a "treated" home as an income-qualified home that has received any measure or service under the LIEE program, including energy education, compact fluorescent lamps, weatherization and appliances. Under the LIEE program, a treated home must receive all feasible measures for which it qualifies.

<sup>3</sup> Per D.02-12-019, the Commission defines a "weatherized" home as a subset of treated homes, and are defined as income-qualified homes that have received any weatherization measures (e.g., weatherstripping and caulking) under the LIEE program.

<sup>4</sup> Findings of Fact 13.

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## Executive Summary

SDG&E's total LIEE authorized budget for PY2007 was \$13,424,894. LIEE program expenditures during 2007 totaled \$11,983,364. Unspent funds from prior years, totaling \$3,107,854 will be carried over and used in SDG&E's PY2008 LIEE program.

## Low Income Energy Efficiency Program

### **Program Summary**

The LIEE program helps 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. In order to receive no-cost home weatherization, lighting and appliance services, customers must meet the program's income eligibility guidelines adopted by the Commission and the customer residence structural feasibility criteria.

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 provides information regarding its assistance programs through its outreach presentations to customers and community groups.

As reported in Table 1, SDG&E spent a total of \$11,983,364 on its LIEE program. The annual energy savings realized were 4,428 mWh and 220 mTherms.

### **PY2007 Low Income Program**

During PY2007, SDG&E treated 13,074 homes and weatherized 11,247 homes. Throughout PY2007, SDG&E continued to offer qualified customers access to all customer assistance programs such as the California Alternative Rates for Energy (CARE) program, Family Electric Rate Assistance (FERA) program, Medical Baseline, and Lighting Turn-In. By providing customers information on these programs, SDG&E is able to leverage marketing and outreach budgets. Other outreach efforts and media campaigns conducted by SDG&E during PY2007 include the following:

- Implementation of an online interest form to allow customers additional flexibility and convenience to respond to various outreach efforts. This allowed SDG&E to reduce paper consumption, postage costs, and reached more internet-savvy customers who may not respond to traditional outreach efforts.
- Developed and promoted a live LIEE web link on SDG&E's website to direct customers to program information available online.
- Provided LIEE presentations to company field personnel such as field collectors, and gas service technicians so they can promote LIEE to customers they contact in the field.
- Used existing SDG&E "My Account"<sup>5</sup> information to identify customers likely to qualify for LIEE and who may prefer receiving program information electronically.
- Used CARE system enrollment information for analysis and identification of households that have a high potential for meeting the LIEE program eligibility criteria.
- Partnered with local city officials and worked with local media channels to conduct in-home interviews with participating LIEE customers in an effort to help promote and increase LIEE awareness and participation.
- Updated LIEE enrollment forms, collateral material and web content to include categorical eligibility and the 2007 income guidelines provided by the Commission and effective June 1<sup>st</sup> of each year.
- Used available customer research and census track data to conduct direct mail campaigns and other marketing efforts specifically targeted to potential LIEE customers in targeted zip codes and/or segments.
- Provided prime contractor with CARE participant database information for use in conducting outreach.

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<sup>5</sup> SDG&E's "My Account" is an on-line service for billing, payment, and other personalized on-line account information and services offered to all customers within SDG&E's service territory.

- Coordinated and provided the Community Referral Service 2-1-1<sup>6</sup> with CARE and LIEE database information and collateral material to promote and educate clients about available assistance programs (LIEE, CARE, FERA, Medical Baseline, Neighbor-to-Neighbor, etc.).
- Revised program direct mail letters and developed collateral material to promote company-wide “go-green” efforts and statewide efforts in reducing greenhouse gases.
- Partnered with the City of Chula Vista to develop a brochure emphasizing conservation tips, energy efficiency, and other utility assistance programs offered to customers within the Chula Vista area.

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<sup>6</sup> 2-1-1 is the dialing code for 24/7 access to information on community, health, and disaster resources. This community service is provided without charge by 2-1-1 San Diego, a non-profit organization. 2-1-1 has been set aside by the Federal Communications Commission as the phone number for confidential community information ranging from substance abuse treatment, care for a child, or volunteer opportunities.

Additionally in 2007, the LIEE program targeted Spanish and English speakers through print and radio campaigns. Below is a table showing the print media circulation associated with these publications.

<b><u>PRINT</u></b>		
<b><u>Language/Publication</u></b>	<b><u>Circulation</u></b>	<b><u>Area Served</u></b>
<b><u>English</u></b>		
North County Times	182,590	San Diego North County
Voice & Viewpoint	25,000	San Diego County
Life After 50	65,000	San Diego County
Boomer Advisor	20,000	San Diego County
<b><u>Spanish</u></b>		
Enlace	85,000	San Diego County
El Latino	80,000	San Diego County
<b><u>English + Spanish</u></b>		
Union Tribune - MicroZone Inserts	100,562	San Diego County
Pennysaver	260,500	San Diego County

The LIEE program radio campaigns were advertised by a well known radio personality in San Diego. These radio campaigns were leveraged with the CARE program to reduce media cost, gain more interest, and encourage customers to enroll. SDG&E advertised with the following radio stations:

<b><u>RADIO</u></b>		
<b><u>Language/Station</u></b>	<b><u>Est. Audience</u></b>	<b><u>Area Served</u></b>
<b><u>English</u></b>		
KSON-FM	265,000	San Diego County
XHRM-FM	205,000	San Diego County
<b><u>Spanish</u></b>		
XHTY-FM	105,000	San Diego County
XLTN-FM	80,000	San Diego County
KLQV-FM	100,000	San Diego County

**Regulatory Compliance and Oversight, Measurement and Evaluation Activities**

**Regulatory Compliance and Oversight**

During 2007, SDG&E's LIEE program complied with Public Utilities Code (PU Code) Sections 327 and 381.5. 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 (DCSD) Low Income Home Energy Assistance Program (LIHEAP) weatherization program.

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. In addition, Section 2790 provides that the Commission will determine whether the measures are feasible, taking into consideration both cost-effectiveness of the measures as a whole and the policy of reducing energy-related hardships facing low income households. SDG&E's LIEE program installed all feasible program measures in all the homes served during PY2007. 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.

In D.06-12-038, the Commission directed the utilities to collaborate with the Energy Division to revise low income program reporting requirements, conduct public meetings every 90 days to facilitate program improvements, and to include a discussion of the benefits of energy efficiency programs in energy education materials for reducing greenhouse gases and promoting water conservation. In addition, D.06-12-038 directed SDG&E to competitively bid its LIEE program administration. In response to the Commission's direction, the following results were achieved during PY2007:

**LIEE Reporting Requirements**

The Energy Division convened a workshop on February 21, 2007 with Pacific Gas and Electric Company (PG&E), SDG&E, Southern California Edison Company (SCE), and Southern California Gas Company (SoCalGas) (collectively referred to as the Joint Utilities) and other interested parties to discuss the reporting requirements for the CARE and the LIEE programs monthly, quarterly, and annual reporting. Subsequent to the workshop, the Energy Division

convened numerous meetings with the utilities to finalize the reporting to ensure that meaningful information could be provided to the Commission and interested parties.

**Quarterly Public Meetings**

In D.06-12-038, the Commission directed the utilities to sponsor quarterly public meetings to allow interested parties to share ideas and information that could facilitate improvements to the program elements, processes, and practices. During PY2007, the utilities jointly sponsored a meeting in each utilities respective service territory. The meeting notes were distributed to the members of the Low Income Oversight Board, attendees at the meeting, Energy Division staff, and any other parties requesting the meeting notes. The meetings were held on the following dates:

SDG&E Service Territory:	Discuss CARE Program – 3/13/07
SDG&E Service Territory:	Discuss LIEE Program – 3/27/07
PG&E Service Territory:	Discuss CARE Program – 6/11/07
PG&E Service Territory:	Discuss LIEE Program – 6/12/07
SoCalGas Service Territory:	Discuss LIEE and CARE Programs – 9/10/07
SCE Service Territory:	Discuss LIEE and CARE Programs – 12/4/07

**LIEE Program Manual Updates**

Additionally in PY2007, the Joint Utilities distributed for review and comment recommended changes to the Low-Income Energy Efficiency (LIEE) Statewide Policies and Procedures (P&P) Manual. The recommended changes were developed by the Joint Utilities through an open process. The recommendations were categorized as follows: 1) establish and revise existing policies and procedures to comply with LIEE program measures adopted for program year 2007 and 2008 consistent with D.06-12-038; 2) make minor revisions to refine current policies and procedures; and, 3) make minor language revisions. The proposed changes were distributed for discussion at the Joint Utilities' March 27, 2007 public meeting and distributed for review and comment on August 20, 2007 to the service list in R.07-01-042 and the utilities' contractors and agency contacts. SDG&E plans to file the revised P&P manual with the Commission within the third quarter of 2008 to seek approval for the program changes authorized in 2006, 2007, and 2008 LIEE program cycle.

Energy Education

SDG&E revised its LIEE program direct mail letters and developed energy education collateral that discusses the benefits of energy efficiency programs in an effort to reduce greenhouse gases and promote water conservation. The title of SDG&E's energy education collateral is "Helping the Environment through Energy Efficiency". It provides helpful, simple tips that customers can use to save money through reduced energy and water usage, and discusses the benefits of reduced carbon dioxide emissions.

Competitive Bid

D.06-12-038 directed SDG&E to present a plan to the Energy Division no later than March 30, 2007 for conducting a competitive bidding process for SDG&E's LIEE administrator. The decision also held that unless RHA won a contract through a competitive process, SDG&E could not extend its existing contract with RHA past December 1, 2007.

On March 30, 2007, SDG&E submitted to the Energy Division its plan for conducting a competitive bid process. Jointly SDG&E and PG&E filed a Petition for Modification (PFM) of D.06-12-038 requesting to suspend the competitive bid and allow SDG&E to retain RHA through the end of 2008. SDG&E and PG&E sought the PFM because of concerns that the bid process could result in the disruption of the LIEE program over the 2007 and 2008 program cycle. In D.07-06-004, the Commission granted the joint utilities request to defer for one year the competitive bid process. D.07-06-004 directed SDG&E to present a plan to Energy Division no later than March 30, 2008 for conducting a competitive bidding process. Additionally the decision held that unless RHA won a contract through a competitive bid, SDG&E could not extend the existing contract with RHA past December 31, 2008.

### Measurement and Evaluation (M&E) Activities

#### Statewide Needs Assessment

Phase II of the Low Income Needs Assessment Report (Report) conducted by KEMA, Inc., the Commission-hired consultant, was issued on October 12, 2007. The needs assessment was conducted in two phases: Phase I - the scoping study and Phase II – the execution of the assessment. During 2007, SDG&E attended meetings and responded to data requests from KEMA in an effort to finalize the Report. Administrative Law Judge (ALJ) Malcolm issued a Ruling on September 27, 2007 seeking comments on the issues raised in the KEMA report entitled “Final Report on Phase 2 Low Income Needs Assessment”. However at the time of this filing, the utilities were awaiting Commission action on whether the Report would be adopted.

#### Energy Savings Methods Used for PY2007

In Ordering Paragraph 9 of D.05-012-026, the Commission, without adopting or approving the results, authorized the use of the Impact Evaluation of the 2001 Statewide Low Income Energy Efficiency Program for calculating the energy savings for the LIEE program activities on a case by case basis until the Commission can address and resolve Low Income Energy Efficiency-related issues in the 2006 Annual Earnings Assessment Proceeding. To determine the energy savings for PY2007, SDG&E has utilized several measurement and evaluation methods adopted by the Commission to calculate the measure savings. SDG&E has used the 2001 LIEE Load Impact study measure evaluation data, the LIEE measure cost effectiveness study, the database for energy efficiency resources (DEER), and the measure assessment conducted by the LIEE Statewide Standardization Project Team.<sup>7</sup>

#### LIEE Impact Evaluation

The LIEE program load impact evaluation was scheduled to occur in 2006 for the 2004 program, which would have been consistent with the bi-annual schedule authorized by D.02-12-

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<sup>7</sup>. The 2007 LIEE energy savings are based on the following: 1) 2001 Low Income Impact Evaluation Study; 2) D.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) D.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 DEER.

019. The Commission, however, granted the utilities' request to conduct the impact evaluation of the 2005 LIEE program, rather than on the 2004 program.<sup>8</sup> In an effort to enhance the quality of subsequent impact evaluations, PY2005 was the first year in which the collection of additional measure data and improved sampling techniques became available. In PY2007, the utilities attended meetings and responded to various data requests from the consultant, West Hill Energy and Computing, in an effort to complete the 2005 load impact evaluation report. The Impact Evaluation of the 2005 Low Income Energy Efficiency Program – Final Report was issued by West Hill Energy and Computing on December 19, 2007. The energy savings results of this report will be used in computing the projected benefits for the mix of measures offered in the 2009 through 2011 LIEE program cycle as well as other measurement and evaluation methods adopted by the Commission for measures offered in the program post PY2005.

#### Other Program-Related Survey and Research

In 2007, 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 insights to program management into the effectiveness of the program and to identify potential areas for improvement. The survey tool is designed to ascertain how well each component of the LIEE delivery mechanism is viewed and rated by customers. In addition to measuring customer satisfaction, the survey measures whether participants experienced an increase in comfort and safety as a result of participating in the program. In 2007, SDG&E began sharing verbatim comments from customers with its prime contractor - RHA. The customer comments allowed RHA to identify contractors and crews specifically who needed additional coaching to improve their customer satisfaction ratings.

In 2007, the LIEE program continued to receive high ratings from program participants.

- Survey findings showed that 90.4% of LIEE customers were very satisfied overall with 69% giving LIEE the highest rating of "Completely Satisfied";
- 94% were very satisfied with measures installed in their homes with 83% giving the highest rating of "Completely Satisfied"; and

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<sup>8</sup> 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.

- Customers continue to rate the sign-up process high with a 96% satisfaction rating.

In addition to on-going surveys mentioned above, LIEE also conducted market research using several customer focus groups to better understand and measure customer's perception of SDG&E's LIEE program name, "Energy Team". The objectives of the focus groups included: 1) understanding current perceptions of the program; 2) measuring awareness and impressions of the program; 3) identifying factors that motivate participation; 4) identifying reasons for why qualified participants are not participating; 5) measuring affinity towards the Energy Team name; and 6) testing alternative program names and program descriptions for Energy Team. Results from the focus groups will be used to increase program awareness and enrollment by considering best suited alternative program names and descriptions to be used for marketing or communicating the LIEE program.

### **CBO, Leveraging and Access to Community Services**

In D.01-05-033, the Commission directed utility program administrators to use the funding authorized for LIEE and appliance replacements to leverage the programs provided through DCSD's network of community-based organizations to customers within their service territories. Per D.01-05-033, the utilities could conduct leveraging with the following three approaches:

- "The utility can purchase equipment and appliances in bulk and have a LIHEAP provider install them in eligible low-income homes within the utility service territory, along with additional weatherization measures provided by LIHEAP."
- "The utility can contract directly with a LIHEAP provider to deliver the LIEE program, so that LIHEAP provider can use funds from both LIEE and LIHEAP to provide a comprehensive set of services."
- "The utility can enter into a memorandum of understanding with LIHEAP providers to complete units in a coordinated manner, using LIEE contractors to install measures not provided under LIHEAP."

In an effort to ensure that the network of community-based providers are fully and effectively utilized, D.01-05-033 also directed the utilities to also use LIEE funds to leverage low-income

weatherization services provided by non-LIHEAP community service providers, under certain circumstances.

D.01-05-033 states:

“[I]f there are no LIHEAP providers or non-LIHEAP community-based organizations that can, or are willing to, provide weatherization services in a particular geographic area, then utilities also have the option to implement today’s rapid deployment strategy with other types of service providers, including private contractors. We provide the utilities considerable flexibility in deciding of the three approaches, and in what combination, to employ. In this way, a utility can develop the leveraging strategy that is most compatible with its existing delivery system.

The leveraging approach we adopt today will require a shift in thinking within the utility program infrastructure. Instead of considering the LIEE program as a stand-alone activity that provides referrals to DCSD programs, utility administrators and their contractors also need to view the LIEE program as a leveraging vehicle to rapidly expand and enhance the delivery system in place through DCSD’s network of LIHEAP providers. We believe that this shift in thinking is warranted by the dire situation facing low-income customers during the energy crisis, and needed to ensure the efficient and effective deployment of all of the State’s resources appropriated for this purpose.”<sup>9</sup>

In accordance with the above provisions set forth in D.01-05-033 to deploy a leveraging vehicle to expand and enhance the delivery system of the LIEE program, SDG&E has utilized the variety of the leveraging scenarios described by the Commission.

In 2007, SDG&E used the following leveraging efforts to service low income customers:

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<sup>9</sup> D.01-05-033 at page 5 and see Conclusions of Law 4 through 7.

CBO Participation

SDG&E contracts with RHA, its prime contractor, to market and manage field services under its LIEE program. In PY2007, RHA subcontracted for weatherization services with two CBO's: (1) Campesinos Unidos, Inc. (CUI) and (2) Metropolitan Area Advisory Committee (MAAC) and three private companies: (1) Capital State Construction, (2) Rancho Energy Services Co. (RESCO), and (3) Empire Insulation.

RHA also subcontracted with seven licensed HVAC contractors to provide natural gas furnace repair and replacement services offered through the program. The HVAC subcontractors participating in PY2007 included: (1) Ameri-Mex, (2) DM Mechanical, (3) Jerry's Heating & Air Conditioning, (4) Lloyd's Plumbing, (5) South Bay Mechanical (6) Tierrasanta Heating & Air Conditioning (7) and My Plumber. 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 & Human Services (DHHS) and provides the following types of services through the DCSD:

- Financial Assistance to offset the costs of heating and/or cooling dwellings;
- Weatherization measures to improve the energy efficiency of the dwelling;
- Education to assist the customer in identifying conservation opportunities; and
- Appliance replacement primary range/oven and installation of microwaves and ceiling fans.

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 Partnership of Orange County (CAP) participated in the LIHEAP program and leveraged work with SDG&E's LIEE program as appropriate.

Access to Other Low-Income Services

SDG&E continued to utilize its existing LIEE referral systems to assess the needs of low-income customers participating in the LIEE program, and refer them to the appropriate CBO and other community agencies. The prime contractor RHA and their subcontractors continue to identify both the energy and non-energy needs of the low income customer. The field personnel throughout the initial assessment, application process, energy education and installation of weatherization measures and appliances are trained to look for opportunities to make 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 include:

- Emergency Food & clothing
- Shelter & Housing
- Employment counseling
- Job Training
- Cultural Activities
- High School equivalency, English as a second language and math instruction.
- Disaster Relief Information
- Translation Services
- Health Services
- Bill payment assistance

	A	B	C	D	E	F	G	H	I	J
1	Table 1 LIEE Program Expenses - San Diego Gas & Electric Company - PY 2007									
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		1,597,843	1,597,843		1,165,778	1,165,778		73%	73%
6	- Electric Appliances	4,775,778		4,775,778	3,815,641		3,815,641		80%	80%
7	- Weatherization		3,904,358	3,904,358		3,599,765	3,599,765		92%	92%
8	- Outreach and Assessment	600,059	600,058	1,200,117	784,497	784,497	1,568,993	131%	131%	131%
9	- In Home Energy Education	77,951	77,951	155,902	99,523	99,523	199,046	128%	128%	128%
10	- Education Workshops	-	-	-	-	-	-	0%	-	0%
11	- Pilot			-			-			
12	- Cool Centers			-			-			
13	<b>Energy Efficiency TOTAL</b>	<b>5,453,788</b>	<b>6,180,210</b>	<b>11,633,998</b>	<b>4,699,661</b>	<b>5,649,563</b>	<b>10,349,224</b>	<b>86%</b>	<b>91%</b>	<b>89%</b>
14										
15	Training Center			-			-			
16	Inspections	21,458	21,457	42,915	17,329	17,329	34,658	81%	81%	81%
17	Marketing	160,496	160,496	320,992	165,427	165,427	330,853	103%	103%	103%
18	M&E Studies	61,072	61,072	122,144	1,283	1,283	2,566	2%	2%	2%
19	Regulatory Compliance	150,763	150,763	301,526	149,477	149,455	298,931	99%	99%	99%
20	General Administration	491,160	491,160	982,320	476,124	476,183	952,307	97%	97%	97%
21	CPUC Energy Division	10,500	10,500	21,000	7,535	7,289	14,823	72%	69%	71%
22										
23	<b>TOTAL PROGRAM COSTS</b>	<b>6,349,236</b>	<b>7,075,658</b>	<b>13,424,894</b>	<b>5,516,836</b>	<b>6,466,528</b>	<b>11,983,364</b>	<b>87%</b>	<b>91%</b>	<b>89%</b>
24	Funded Outside of LIEE Program Budget									
25	Indirect Costs				285,806	307,766	593,572			
26										
27	NGAT Costs				196,514	196,514				
28										

	A	B	C	D	E	F	G
1	Table 2 LIEE Installations & Savings - San Diego Gas & Electric Company - PY2007						
2	Measures	Units	Completed & Expensed Installations Year-To-Date				
3			Quantity Installed	kWh (Annual) <sup>1</sup>	kW (Annual)	Therms (Annual)	Expenses
4	<b>Furnaces</b>						
5	- Repair - Gas	Each	711	0	0	18,150	\$ 375,467
6	- Replacement - Gas	Each	225	0	0	8,730	\$ 575,779
7	- Repair - Electric	Each	0	0	0	0	\$ -
8	- Replacement - Electric	Each	0	0	0	0	\$ -
10	<b>Infiltration &amp; Space Conditioning.</b>						
11	- Outlet cover plate gaskets	Home	9,735	0	0	0	\$ 58,371
12	- Duct Testing	Home	386	0	0	0	\$ 55,407
13	- Duct Sealing	Home	89	823	1	627	\$ 33,687
14	- Evaporative Coolers	Each	0	0	0	0	\$ -
15	- Evaporative Cooler Maintenance	Each	0	0	0	0	\$ -
16	- Evaporative Cooler/Air Cond. Covers	Each	0	0	0	0	\$ -
17	- A/C Replacement - Room	Each	292	29,344	27	0	\$ 292,396
18	- A/C Replacement - Room (landlord)	Each	0	0	0	0	\$ -
19	- A/C Replacement - Central	Each	0	0	0	0	\$ -
20	- A/C Replacement - Central (landlord)	Each	0	0	0	0	\$ -
21	- A/C Tune-up - Central	Each	5	475	0	0	\$ 550
22	- A/C Services - Central	Each	0	0	0	0	\$ -
23	- Heat Pump	Each	0	0	0	0	\$ -
25	<b>Weatherization</b>						
26	- Attic Insulation	Home	281	2,379	2	6,761	\$ 326,660
27	- Attic Access Weatherization	Home	2	0	0	0	\$ 357
28	- Weatherstripping - Door	Home	10,231	42,816	39	25,566	\$ 1,128,149
29	- Caulking	Home	9,740	27,144	25	23,177	\$ 486,500
30	- Minor Home Repairs <sup>2</sup>	Home	6,452	28,734	26	24,092	\$ 789,695
32	<b>Water Heater Savings</b>						
33	- Water Heater Blanket	Home	763	2,944	1	8,029	\$ 44,834
34	- Low Flow Showerhead	Home	10,194	43,876	13	73,721	\$ 674,060
35	- Water Heater Replacement - Gas	Each	21	0	0	399	\$ 30,893
36	- Water Heater Replacement - Electric	Each	0	0	0	0	\$ -
37	- Tankless Water Heater - Gas	Each	1	0	0	28	\$ 4,211
38	- Tankless Water Heater - Electric	Each	0	0	0	0	\$ -
39	- Water Heater Pipe Wrap	Home	104	432	0	414	\$ 1,805
40	- Faucet Aerators	Home	10,771	18,754	5	30,785	\$ 164,394
42	<b>Lighting Measures</b>						
43	- CFL	Each	65,773	1,446,247	141	0	\$ 606,050
44	- Interior Hard wired CFL fixtures	Each	6,593	421,952	41	0	\$ 425,967
45	- Exterior Hard wired CFL fixtures	Each	1,513	38,832	0	0	\$ 71,662
46	- Torchiere	Each	2,292	437,772	43	0	\$ 190,603
48	<b>Refrigerators</b>						
49	- Refrigerators (landlord)	Each	2,540	1,885,590	288	0	\$ 2,243,688
51	<b>Pool Pumps</b>						
53	<b>Pilots</b>						
54	- A/C Tune-up - Central	Each	0	0	0	0	\$ -
55	- Interior Hard wired Compact Fluorescent	Each	0	0	0	0	\$ -
56	- Ceiling Fans	Each	0	0	0	0	\$ -
58	<b>Customer Enrollment</b>						
59	- Outreach & Assessment	Home	12,925	0	0	0	\$ 1,568,993
60	- In-Home Education	Home	12,894	0	0	0	\$ 199,046
61	- Education Workshops	Participants	0	0	0	0	\$ -
63	<b>Total Savings</b>			4,428,113	651	220,478	\$ 10,349,224
65	<b>Homes Weatherized<sup>3</sup></b>	Home	11,247				
67	<b>Homes Treated</b>						
68	- Single Family Homes Treated	Home	5,445				
69	- Multi-family Homes Treated	Home	7,297				
70	- Mobile Homes Treated	Home	332				
71	- Total Number of Homes Treated	Home	13,074				
73	- Master-Metered Homes Treated	Home	223				
76							
78	1. 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 05-12-028 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 for energy efficiency resources (DEER).						
79	2. Minor Home Repairs predominately include Door Repair/Replacement, Window Repair/Replacement and Wall Repair.						
80	3. Weatherization consists of Attic Insulation, Attic Access Weatherization, Weatherstripping - Door, Caulking and Minor Home Repairs.						
81							

	A	B	C	D	E	F
1	<b>Table 3</b> <b>Summary of LIEE Cost-Effectiveness</b> <b>San Diego Gas &amp; Electric Company</b> <b>PY2007</b>					
2	2007 - Recorded			2007 - Recorded		
3	Ratio of Benefits Over Costs			Net Benefits; \$ Millions		
4	Utility Cost Test	Total Resource Cost Test	Modified Participant Test	Utility Cost Test	Total Resource Cost Test	Modified Participant Test
5	0.41	0.32	0.62	(\$7,781,493)	(\$8,954,377)	(\$4,866,416)
6						
7	The Modified Participant Test (MPT) and the Utility Cost Test (UCT) include non-energy benefits (NEBs) along with energy savings in the numerator.					
8						
9	The MPT was calculated using the Low Income Public Purpose Test (LIPPT) workbook as modified for the PY2003 LIEE measure cost effectiveness testing (the NEBs model).					
10						
11	The UCT was calculated in two stages: first, the NEBs for this ratio were calculated using the NEBs model; second, the avoided cost benefits were calculated using the E3 model for energy efficiency cost effectiveness testing. The Total Resource Test (TRC) was calculated using the E3 calculator. The TRC does not include NEBs.					
12						
13	The MPT is also known as the LIPPT.					
14						
15						
16						
17						
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19						
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24						
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28						
29						

	A	B	C	D
1	<b>Table 4</b> <b>LIEE Penetration - San Diego Gas &amp; Electric Company - PY2007</b>			
2		Homes Treated	Estimated Eligible in Current Year	Current Year Penetration Rate for Homes Treated
3	1998	10,838		
4	1999	10,993		
5	2000	13,660		
6	2001	19,315		
7	2002	14,089		
8	2003	15,706		
9	2004	14,897		
10	2005	11,254		
11	2006	13,771		
12	2007	13,074	354,489	
13	Total Homes Treated in 10 Years	137,597	354,489	39%
14				
15				
16	10 Years of activity are reported.			

	A	B	C	D	E	F	G
1	Table 5 LIEE Direct Purchase and Installation Contractors San Diego Gas & Electric Company - PY2007						
2	Contractor	County [1]	Contractor Type (Check one or more if applicable)				2007 Annual Expenditures
3			Private	CBO	WMDVBE	LIHEAP	
4	Contractor A	San Diego	x		x		\$ 884,264
5	Contractor B	San Diego	x		x		\$ -
6	Contractor C	San Diego		x		x	\$ 430,968
7	Contractor D	San Diego		x		x	\$ 595,800
8	Contractor E	Orange	x				\$ 879,435
9	Contractor F	San Diego	x				\$ 29,986
10	Contractor G	San Diego	x				\$ 37,939
11	Contractor H	San Diego	x		x		\$ 37,828
12	Contractor K	San Diego / Orange	x				\$ 74,971
13	Contractor L	San Diego	x				\$ 144,571
14	Contractor M	San Diego	x				\$ 107,715
15	Contractor O	San Diego	x				\$ 35,214
16	Contractor P	San Diego / Orange	x				\$ 958,925
17	Contractor Q	San Diego	x				\$ -
18	Contractor R	San Diego	x		x		\$ 5,055
19	Contractor Z	San Diego	x		x		\$ 21,005
20	Prime Contractor J	San Diego / Orange	x		x		\$ 6,105,549
21							
22	Total Contractor Expenditures						\$ 10,349,224
23							

## **Technical Appendix**



	A	B	C	D	E
1	<b>Table TA 2 Combined (Electric &amp; Gas) LIEE Cost Elements - San Diego Gas &amp; Electric Company - PY 2007</b>				
2	Expenditures Recorded by Cost Element				
3	LIEE Program:	Labor	Non-Labor	Contract	Elec & Gas
4	Energy Efficiency				
5	- Gas Appliances	\$ -	\$ -	\$ 1,165,778	\$ 1,165,778
6	- Electric Appliances	\$ -	\$ -	\$ 3,815,641	\$ 3,815,641
7	- Weatherization	\$ -	\$ -	\$ 3,599,765	\$ 3,599,765
8	- Outreach and Assessment	\$ -	\$ -	\$ 1,568,993	\$ 1,568,993
9	- In Home Energy Education	\$ -	\$ -	\$ 199,046	\$ 199,046
10	- Education Workshops	\$ -	\$ -	\$ -	\$ -
11	- Pilot	\$ -	\$ -	\$ -	\$ -
12	- Cool Centers	\$ -	\$ -	\$ -	\$ -
13	Energy Efficiency TOTAL	\$ -	\$ -	\$ 10,349,224	\$ 10,349,224
14					
15	Training Center	\$ -	\$ -	\$ -	\$ -
16	Inspections	\$ 34,065	\$ 593	\$ -	\$ 34,658
17	Marketing	\$ -	\$ 330,853	\$ -	\$ 330,853
18	M&E Studies	\$ -	\$ 2,566	\$ -	\$ 2,566
19	Regulatory Compliance	\$ 204,768	\$ 94,163	\$ -	\$ 298,931
20	General Administration	\$ 809,937	\$ 142,370	\$ -	\$ 952,307
21	CPUC Energy Division	\$ -	\$ 14,823	\$ -	\$ 14,823
22					
23	TOTAL PROGRAM COSTS	\$ 1,048,770	\$ 585,370	\$ 10,349,224	\$ 11,983,364

	A	B	C	D	E
1	<b>Table TA 2 (Electric)</b> <b>LIEE Cost Elements - San Diego Gas &amp; Electric Company - PY 2007</b>				
2	Expenditures Recorded by Cost Element				
3	LIEE Program:	Labor	Non-Labor	Contract	Electric Total
4	Energy Efficiency				
5	- Gas Appliances	\$ -	\$ -	\$ -	\$ -
6	- Electric Appliances	\$ -	\$ -	\$ 3,815,641	\$ 3,815,641
7	- Weatherization	\$ -	\$ -	\$ -	\$ -
8	- Outreach and Assessment	\$ -	\$ -	\$ 784,497	\$ 784,497
9	- In Home Energy Education	\$ -	\$ -	\$ 99,523	\$ 99,523
10	- Education Workshops	\$ -	\$ -	\$ -	\$ -
11	- Pilot	\$ -	\$ -	\$ -	\$ -
12	- Cool Centers	\$ -	\$ -	\$ -	\$ -
13	Energy Efficiency TOTAL	\$ -	\$ -	\$ 4,699,661	\$ 4,699,661
14					
15	Training Center	\$ -	\$ -	\$ -	\$ -
16	Inspections	\$ 17,033	\$ 297	\$ -	\$ 17,329
17	Marketing	\$ -	\$ 165,427	\$ -	\$ 165,427
18	M&E Studies	\$ -	\$ 1,283	\$ -	\$ 1,283
19	Regulatory Compliance	\$ 102,395	\$ 47,082	\$ -	\$ 149,477
20	General Administration	\$ 404,969	\$ 71,156	\$ -	\$ 476,124
21	CPUC Energy Division	\$ -	\$ 7,535	\$ -	\$ 7,535
22					
23	TOTAL PROGRAM COSTS	\$ 524,396	\$ 292,779	\$ 4,699,661	\$ 5,516,836

	A	B	C	D	E
1	Table TA 2 Gas LIEE Cost Elements - San Diego Gas & Electric Company - PY 2007				
2	Expenditures Recorded by Cost Element				
3	LIEE Program:	Labor	Non-Labor	Contract	Gas Total
4	Energy Efficiency				
5	- Gas Appliances	\$ -	\$ -	\$ 1,165,778	\$ 1,165,778
6	- Electric Appliances	\$ -	\$ -	\$ -	\$ -
7	- Weatherization	\$ -	\$ -	\$ 3,599,765	\$ 3,599,765
8	- Outreach and Assessment	\$ -	\$ -	\$ 784,497	\$ 784,497
9	- In Home Energy Education	\$ -	\$ -	\$ 99,523	\$ 99,523
10	- Education Workshops	\$ -	\$ -	\$ -	\$ -
11	- Pilot	\$ -	\$ -	\$ -	\$ -
12	- Cool Centers	\$ -	\$ -	\$ -	\$ -
13	Energy Efficiency TOTAL	\$ -	\$ -	\$ 5,649,563	\$ 5,649,563
14					
15	Training Center	\$ -	\$ -	\$ -	\$ -
16	Inspections	\$ 17,032	\$ 297	\$ -	\$ 17,329
17	Marketing	\$ -	\$ 165,427	\$ -	\$ 165,427
18	M&E Studies	\$ -	\$ 1,283	\$ -	\$ 1,283
19	Regulatory Compliance	\$ 102,373	\$ 47,081	\$ -	\$ 149,455
20	General Administration	\$ 404,968	\$ 71,215	\$ -	\$ 476,183
21	CPUC Energy Division	\$ -	\$ 7,289	\$ -	\$ 7,289
22					
23	TOTAL PROGRAM COSTS	\$ 524,374	\$ 292,591	\$ 5,649,563	\$ 6,466,528

	A	B	C	D	E
1	Table TA 3 Program Detail by Housing Type and Heating Source San Diego Gas & Electric Company - PY2007				
2		2007 Energy Savings (mWh)	2007 Expenses (mTherm)	2007 Dwellings Treated	
3					
4	Gas Heat – Own				
5	Single Family	754	0	\$ 2,165,348	1,602
6	Multi Family	23	0	\$ 48,658	72
7	Mobile Homes	98	0	\$ 329,362	265
8	Sub Total Dwellings Served	875	0	\$ 2,543,367	1,939
9					
10	Gas Heat – Rent				
11	Single Family	1,278	0	\$ 3,002,819	2,996
12	Multi Family	739	44	\$ 1,765,479	3,041
13	Mobile Homes	14	0	\$ 36,215	32
14	Sub Total Dwellings Served	2,031	44	\$ 4,804,513	6,069
15					
16	Electric Heat – Own				
17	Single Family	98	0	\$ 175,809	188
18	Multi Family	38	0	\$ 67,320	109
19	Mobile Homes	7	0	\$ 14,195	14
20	Sub Total Dwellings Served	143	0	\$ 257,324	311
21					
22	Electric Heat – Rent				
23	Single Family	221	0	\$ 380,596	444
24	Multi Family	1,065	30	\$ 2,192,232	4,055
25	Mobile Homes	1	0	\$ 2,580	5
26	Sub Total Dwellings Served	1,287	30	\$ 2,575,407	4,504
27					
28	<b>TOTAL DWELLINGS SERVED</b>	<b>4,336</b>	<b>74</b>	<b>\$ 10,180,611</b>	<b>12,823</b>
29					
30					
31	Represents homes that have space heating.				
32	Gas Heat includes Propane.				
33	Vacant homes are included in the "Rent" category.				
34					

	A	B	C	D	E	F
1	Table TA 4 LIFECYCLE BILL SAVINGS - San Diego Gas & Electric Company - PY2007					
2	Measure Description	2007 Number Installed	Per Measure Electric Impact - Average (kWh)	Per Measure Gas Impact (Therms)	Effective Useful Life (EUL)	2007 Total Measure Lifecycle Bill Savings
3	Furnaces					
4	- Repair - Gas	711	-	26	10	159,822
5	- Replacement - Gas	225	-	39	22	142,563
6	- Repair - Electric	-	-	0	-	-
7	- Replacement - Electric	-	-	0	-	-
8						
9	Infiltration & Space Conditioning.					
10	- Gaskets for Cover Plates	9,735	-	0	-	-
11	- Duct Testing	386	-	0	-	-
12	- Duct Sealing	89	9	7	5	3,432
13	- Evaporative Coolers	-	-	0	-	-
14	- Evaporative Cooler/Air Cond. Covers	-	-	0	-	-
15	- Evaporative Cooler Maintenance	-	-	0	-	-
16	- A/C Replacement - Room	292	100	0	15	42,242
17	- A/C Replacement - Room (landlord)	-	-	0	-	-
18	- A/C Replacement - Central	-	-	0	-	-
19	- A/C Replacement - Central (landlord)	-	-	0	-	-
20	- A/C Tune-up - Central	5	95	0	10	490
21	- A/C Services - Central	-	-	0	-	-
22	- Heat Pump	-	-	0	-	-
23						
24	Weatherization					
25	- Attic Insulation	281	8	24	25	125,403
26	- Attic Access Weatherization	2	-	0	-	-
27	- Weatherstripping - Door	10,231	4	2	5	145,071
28	- Caulking	9,740	3	2	5	125,028
29	- Minor Home Repairs	6,452	5	4	10	241,798
30						
31	Water Heater Savings					
32	- Water Heater Blanket	763	4	11	5	39,722
33	- Low Flow Showerhead	10,194	4	7	10	694,435
34	- Water Heater Replacement - Gas	21	-	19	13	4,370
35	- Water Heater Replacement - Electric	-	-	-	-	-
36	- Tankless Water Heater - Gas	1	-	28	20	433
37	- Tankless Water Heater - Electric	-	-	-	-	-
38	- Water Heater Pipe Wrap	104	4	4	15	5,708
39	- Faucet Aerators	10,771	2	3	5	156,451
40						
41	Lighting Measures					
42	- CFL	65,773	22	0	8	1,229,761
43	- Interior Hard wired CFL fixtures	6,593	64	0	8	358,791
44	- Exterior Hard wired CFL fixtures	1,513	35	0	20	69,458
45	- Torchiere	2,292	191	0	8	372,243
46						
47	Refrigerators	2,540	742	0	15	2,714,440
48	Refrigerators (landlord)	-	-	-	-	-
49						
50	Total Lifecycle Bill Savings for All Measures in Program Year				\$ 6,631,660	
51	Total Homes Served By the Program				13,074	
52	Lifecycle Bill Savings Per Home				\$ 507	

	A	B	C
<b>Table TA 5</b> <b>Energy Rates Used For Bill Savings Calculations</b> <b>San Diego Gas &amp; Electric Company - PY2007</b>			
1			
2	Year	\$/kWh	\$/Therm
3	2007	0.1219	1.0402
4	2008	0.1255	1.0714
5	2009	0.1293	1.1036
6	2010	0.1332	1.1367
7	2011	0.1372	1.1708
8	2012	0.1413	1.2059
9	2013	0.1455	1.2421
10	2014	0.1499	1.2793
11	2015	0.1544	1.3177
12	2016	0.1590	1.3573
13	2017	0.1638	1.3980
14	2018	0.1687	1.4399
15	2019	0.1737	1.4831
16	2020	0.1790	1.5276
17	2021	0.1843	1.5734
18	2022	0.1899	1.6206
19	2023	0.1956	1.6693
20	2024	0.2014	1.7193
21	2025	0.2075	1.7709
22	2026	0.2137	1.8240
23	2027	0.2201	1.8788
24	2028	0.2267	1.9351
25	2029	0.2335	1.9932
26	2030	0.2405	2.0530
27	2031	0.2477	2.1146
28			
29			
30	Energy rates used is based on the average rate paid by LIEE participants during 2007.		
31	The escalation factor is applied at 3 percent annually for the subsequent 24 years.		
32			

	A	B	C	D	E
1	Table TA 6 Bill Savings - San Diego Gas & Electric Company - PY2007				
2	Program Year	Program Costs	Program Lifecycle Bill Savings	Program Bill Savings/ Cost Ratio	Per Home Average Lifecycle Bill Savings
3	2005	\$ 12,970,508	\$ 8,864,286	0.68	\$ 788
4	2006	\$ 14,435,838	\$ 9,212,340	0.64	\$ 669
5	2007	\$ 11,983,364	\$ 6,631,660	0.55	\$ 507
6					
7					