Joint Utility Low Income Energy Efficiency Program, 2003 Costs and Bill Savings Standardization Report

Final Report

Report Date:

April 9, 2004

Table of Contents

			<u>Page</u>
1	Exec	utive Summary	1
2	Intro	duction	3
	2.1	Background to the Bill Savings Method	3
	2.2	Costs	4
	2.3	Bill Savings	4
	2.3.	1 Energy Savings Sources	4
	2.3.	2 Life Cycle Bill Savings – General Formula	6
	2.3.	3 Specifics of Calculations and Variables	7
	2.4	Consistency with AEAP	11
3	Anal	ysis of Program Cost and Bill Saving Results	13
	3.1	Data Presented in this Report	13
	3.2	Overall Results by Program Year and Utility	14
	3.2.	1 Year-to-Year Differences by Utility	16
	3.2.	2 Year-to-Year Differences Across Service Area	19
	3.2.	Analysis of Variables Controlling Service Area Differences	22
	3.3	Overall Comment on Bill Savings Comparisons	23
4	Deta	iled Tables	24
	4.1	Program Costs	24
	4.2	Detailed Life Cycle Bill Savings	37
A	ppendi	x A – Implementation Rates	67
A	ppendi	x B – Program Cost Percents	71

Table of Exhibits

	<u>Page</u>
Exhibit 1.1 Summary of Bill Savings to Cost Ratios by Service Area	1
Exhibit 1.2 Summary of Average Per Home Life Cycle Bill Savings by Service Area	1
Exhibit 2.1 Measures Using LIEE CE Report Impacts	6
Exhibit 2.2 Estimation of Bill Savings	7
Exhibit 2.3 Energy Rates Used for Bill Savings Calculations	8
Exhibit 2.4 EULs Used in Bill Savings Calculations	10
Exhibit 3.1 Summary of Reported Cost Elements by Utility in PY2003	13
Exhibit 3.2 Results Summary by Utility	15
Exhibit 3.3 Results Summary Across Utility	16
Exhibit 3.4 Number of Homes Treated by Year by Utility	17
Exhibit 3.5 Average Number of Installed Refrigerators per Treated Home	17
Exhibit 3.6 Analysis by Service Area, Combined SCE and SoCalGas	20
Exhibit 3.7 Graph of Bill Savings to Cost Ratio by Service Area	21
Exhibit 3.8 Graph of Bill Savings per Home by Service Area	21
Exhibit 3.9 Bill Savings to Cost Ratio with Modified Energy Rates	22
Exhibit 3.10 Critical Refrigerator Values for PY2003	23
Exhibit 3.11 Modified PY2003 Bill Savings per Home Savings Estimates using PG&E Refrigerator Install Rate	23
Exhibit 4.1 PG&E Table TA 7.2 – Program Year 2001	25
Exhibit 4.2 PG&E Table TA 7.2 – Program Year 2002	26
Exhibit 4.3 PG&E Table TA 7.2 – Program Year 2003	27
Exhibit 4.4 SCE Table TA 7.2 – Program Year 2001	28
Exhibit 4.5 SCE Table TA 7.2 – Program Year 2002	29
Exhibit 4.6 SCE Table TA 7.2 – Program Year 2003	30
Exhibit 4.7 SDG&E Table TA 7.2 – Program Year 2001	31
Exhibit 4.8 SDG&E Table TA 7.2 – Program Year 2002	32
Exhibit 4.9 SDG&E Table TA 7.2 – Program Year 2003	33
Exhibit 4.10 SoCalGas Table TA 7.2 – Program Year 2001	34
Exhibit 4.11 SoCalGas Table TA 7.2 – Program Year 2002	35
Exhibit 4.12 SoCalGas Table TA 7.2 – Program Year 2003	36
Exhibit 4.13 PG&E Life Cycle Bill Savings- Program Year 2001	38

Exhibit 4.14 PG&E Life Cycle Bill Savings– Program Year 2002	41
Exhibit 4.15 PG&E Life Cycle Bill Savings- Program Year 2003	44
Exhibit 4.16 SCE Life Cycle Bill Savings- Program Year 2001	48
Exhibit 4.17 SCE Life Cycle Bill Savings– Program Year 2002	50
Exhibit 4.18 SCE Life Cycle Bill Savings– Program Year 2003	52
Exhibit 4.19 SDG&E Life Cycle Bill Savings- Program Year 2001	54
Exhibit 4.20 SDG&E Life Cycle Bill Savings- Program Year 2002	56
Exhibit 4.21 SDG&E Life Cycle Bill Savings- Program Year 2003	59
Exhibit 4.22 SoCalGas Life Cycle Bill Savings- Program Year 2001	62
Exhibit 4.23 SoCalGas Life Cycle Bill Savings- Program Year 2002	63
Exhibit 4.24 SoCalGas Life Cycle Bill Savings– Program Year 2003	65

1 EXECUTIVE SUMMARY

This report presents the results of applying the accepted methodology for determining costs and bill savings estimates of the Low Income Energy Efficiency (LIEE) program in compliance with Decision (D) 01-12-020, Ordering Paragraph 4. The method used is consistent with cost-effectiveness methods and calculations used in the Annual Earnings Assessment Proceedings (AEAP) and have been used and accepted in three prior cost and bill savings reports. This report presents bill savings and costs for the utilities' Program Year (PY) 2001, PY2002, and PY2003 LIEE programs.

The results of this study are summarized in Exhibits 1.1 and 1.2. In order to compare average customer bill savings across the state, it is useful to compare the total service by service area. For the final analysis purposes of this document, the SoCalGas and SCE programs were assessed as a single entity since they serve roughly the same customers.

Exhibit 1.1 Summary of Bill Savings to Cost Ratios by Service Area

			Combined		
			SCE and		
Program Year	PG&E	SDG&E	SoCalGas	SCE	SoCalGas
2001	0.50	0.65	0.53	0.96	0.16
2002	0.52	0.72	0.45	0.87	0.25
2003	0.47	0.62	0.53	1.00	0.27

Exhibit 1.2 Summary of Average Per Home Life Cycle Bill Savings by Service Area

			C	ombined			
			5	SCE and			
Program Year	PG&E	SDG&E	S	oCalGas	SCE	S	oCalGas
2001	\$ 393	\$ 387	\$	322	\$ 215	\$	107
2002	\$ 484	\$ 629	\$	576	\$ 411	\$	164
2003	\$ 526	\$ 506	\$	713	\$ 551	\$	162

The following general comments can be made concerning these summary values:

- **PY2001** dissimilarities were mainly due to differences in installation rates of CFLs and refrigerators.
- **PY2002** variations are due to installation rates of refrigerators, the impacts for those refrigerators, and variation in energy rates.
- **PY2003** reasons for variations are similar to those for PY2002 refrigerator installation rate, refrigerator impact values and energy rates.

2 Introduction

In compliance with Decision (D.) 01-12-020, Ordering Paragraph 4, this report presents an analysis of the estimated costs and bill savings for the Low Income Energy Efficiency (LIEE) program using the methodology developed pursuant to an order from the California Public Utilities Commission (Commission) under D. 00-07-020, Ordering Paragraph 7. Those methods were reported in a report titled "Joint Utility Low Income Energy Efficiency Program Costs and Bill Savings Standardization Report" dated February 1, 2001, and filed with the Commission February 1, 2001, then re-filed on March 12, 2001 as a revised report dated March 5, 2001 (hereafter in this report referred to as the 2001 Bill Savings Report). The 2001 Bill Savings Report also provided utility LIEE program bill savings and cost results for Program Year (PY) 1997, PY1998, PY1999, and part of PY2000.

The proposed methodology and the results of the analysis provided in the 2001 Bill Savings Report were adopted for future use under D.01-12-020 dated December 11, 2001. Annual reports have occurred since that time. This report is the third annual such report on the LIEE Bill Savings. The first report after the initial proposed method (i.e., the 2001 Bill Savings Report) was completed May 31, 2002 and covered PY1999, PY2000, and PY2001 (hereafter in this report referred to as the 2002 Bill Savings Report). The second report was completed April 23, 2003 and covered PY2000, PY2001, and PY2002 (herein referenced as the 2003 Bill Savings Report). This third annual report covers PY2001, PY2002, and PY2003.

In order to maintain consistency between program years and to faithfully follow the methodology created in the 2001 Bill Savings Report, the results presented here do not incorporate any of the non-energy benefits of low income programs.

2.1 Background to the Bill Savings Method

In mid-2000, the Administrative Law Judge (ALJ) handed down a final opinion on the Program Year 2000 Low Income Assistance Programs (D.00-07-020, dated July 6, 2000). The opinion stated "...our inquiry is limited by the lack of consistent data on program bill savings, expenditures and cost-effectiveness calculations, with which to evaluate the relevant performance of the utilities' LIEE programs." The utilities were directed as follows:

"7. With input from interested parties and the LIAB, the utilities shall jointly develop standardized methods for producing bill savings and expenditures for LIEE programs on an overall program and per unit basis, by utility. The methods used to produce this information shall be consistent with the methodologies used to evaluate energy efficiency costs and savings in the Annual Earnings and Assessment Proceedings (AEAP). The utilities shall coordinate with Energy Division on all aspects of methodology design and implementation.

The utilities shall file a joint report no later than February 1, 2001, presenting the proposed standardized methods and explain how the methods are consistent with cost-effectiveness methods and calculations utilized in the AEAP. In this report, the utilities shall apply the proposed methods to calculate bill savings and expenditures

-

¹ Page 70, Decision 00-07-020 July 6, 2000.

for their PY1997, PY1998, and PY1999 LIEE programs, or explain why a study of a particular program year would be duplicative of what has already been done in the AEAP. In that event, the results of the AEAP study shall be presented. All assumptions and work papers shall be presented. To the extent that data has been compiled for PY2000 programs, the report shall provide bill savings and expenditure calculations for that PY (or portion thereof) as well."²

The report ordered by D.00-07-020 was filed on time with errata filed on March 12, 2001 (2001 Bill Savings Report). Full details of the methodology used for the ordered report and this subsequent report are provided in the 2001 Bill Savings Report. However, highlights are presented next for clarity.

2.2 Costs

Throughout this document, the term "cost" is used in lieu of the term "expenditure". This is done because cost is deemed to be the net amount actually paid for goods or services. Expenditure, on the other hand, represents the amount spent, which can be different than the amount paid for the product or service if any portion is reimbursed or recompensed in any way. Costs can be synonymous with expenditure if there is no reimbursement. To reduce confusion, the term cost is used throughout. In addition, costs only refer to LIEE costs unless otherwise specifically stated. This distinction has been stated and used consistently in all of the LIEE bill savings reports to date.

The 2001 Bill Savings Report made a concerted effort to refine, for LIEE purposes, the cost definitions established in Table TA7.2 of the Reporting Requirements Manual (RRM).

Costs for the LIEE programs are parsed in several ways in Table TA 7.2. There are 18 cost variables along the left side of the table, and each variable is divided into columns for labor, non-labor, and contract costs. These are summed into a fourth column, total cost, for each variable.

Each utility used these common definitions to fill in the costs in Table TA 7.2 for each year being studied. Since the implementation costs cannot be readily allocated by fuel type, the Cost and Bill Savings Standardization Group (consisting of representatives from PG&E, Southern California Edison Company, San Diego Gas and Electric Company, Southern California Gas Company, Energy Division and the Office of Ratepayer Advocates) decided that each utility would prepare a single Table TA 7.2 for each year, covering all costs independent of fuel type.

It is necessary to acknowledge that utility accounting systems are complex and unique. Attempts were made to match costs across utilities, as allowed by the existing accounting systems, and to provide information on where and how reported costs differ.

2.3 Bill Savings

2.3.1 Energy Savings Sources

The bill savings in this report are the estimated lifecycle net present value saved by the average dwelling due to the measures installed under the LIEE programs. Historically, the first year

² Page 147, Decision 00-07-020 July 6, 2000.

impacts, which go into the life cycle savings estimates, have been determined from measurement and evaluation impact studies performed after the program was fielded. These studies have followed the *Protocols and Procedures for the Verification of Costs, Benefits, and Shareholder Earnings from Demand-Side Management Programs* (Protocols)³ and are filed in the AEAP. The LIEE programs were evaluated as per Protocol Tables 8A and 8B (Residential Direct Assistance Program) in 1995-6⁴. There was a statewide low-income study conducted on the PY1998 program (with a final report out in April, 2000) that collected measure level information for the top six measures.

In early 2003, the Cost and Bill Savings Standardization Group made the decision to use the most recent impact values to calculate the bill savings for PY2002. The Impact Evaluation of the 2000 Statewide LIEE Program report⁵ (LIEE PY2000 Impact Report) documented the impact evaluation of the LIEE program for PY2000. Since this impact evaluation did not cover all the rapid deployment measures fielded in PY2002, a different source of impacts was required. In order to provide as much consistency as possible, the impact estimates from the LIEE Measure Cost Effectiveness Report⁶ (LIEE CE Report) were used for all measures not covered in the LIEE PY2000 Impact report. All measures using the impacts from the LIEE CE Report are shown in Exhibit 2.1. For PY2003, the utilities used the same per-unit impact as in PY2002.

³ D.93-05-063 and revised by subsequent CPUC decisions.

⁴ For PG&E, SCE, and SDG&E, this evaluation was required only in 1995 (per Protocol Table 8A) and for SoCalGas it was required in 1996 (Per Protocol Table 8B).

⁵ Impact Evaluation of the 2000 Statewide Low Income Energy Efficiency (LIEE) Program: Final Report. XENERGY Inc. and Business Economic Analysis & Research, April 2, 2002.

⁶ LIEE Measure Cost Effectiveness Preliminary Report. LIEE Standardization Team. September 23, 2002.

Exhibit 2.1 Measures Using LIEE CE Report Impacts

Measures	PG&E	SCE	SDG&E	SoCalGas	Comment
All Rapid Deployment Measures	X	X	X	X	These measures had no assessment in the LIEE PY2000 Impact Report.
Attic Access Weatherstripping and Door Weatherstripping	X				Other utilities tracked these two measures as "weatherstripping" and used the impact from the LIEE PY2000 Report. The impacts for these two measures were derived from the LIEE PY2000 Report, as are considered comparable.
CFL & CLF Hard Wire Porch light	X	X	X		The LIEE PY2000 Impact Report included both CFL and Porch lights in the same impact value. That impact was disentangled to obtain CFL and CFL Porch light impacts for the LEE CE Study.
Evaporative Cooler Covers	X	X	X	X	No values in the LIEE PY2000 Impact Report for SCE for this measure, so used LIEE CE Report for all utilities that installed this measure.
Evaporative Cooler Replacement	X	X	X		No values in the LIEE PY2000 Impact Report for SDG&E for this measure, so used LIEE CE Report for all utilities that installed this measure.
Furnace Filters	X				These measures had no assessment in the LIEE PY2000 Impact Report.
Outlet Gaskets	X	X	X	X	These measures had no assessment in the LIEE PY2000 Impact Report.

It should be noted that SoCalGas estimates include the electric savings accrued by SCE that are attributable to the weatherization measures installed under the SoCalGas LIEE program. SoCalGas used SCE's ex-post per unit air conditioning kWh savings for caulking, minor home repairs, and weatherstripping to represent the electric savings from air conditioning measures in gas heated homes.

While the SCE LIEE program also weatherizes homes, they do so only in homes that are all electric (i.e., electric space and water heat). Therefore, there is no potential for therm savings.

2.3.2 Life Cycle Bill Savings – General Formula

Three of the variables that go into any lifecycle bill savings are:

- Residential electrical rate
- Residential therm rate
- Discount rate

The general algorithm used for estimating bill savings is presented in Exhibit 2.2.

Exhibit 2.2 Estimation of Bill Savings

$$Life Cycle Bill Savings = \sum_{m=1}^{M} \left[\sum_{r=1}^{2} \sum_{Y=1}^{EUL_{m}} \sum_{CP=1}^{n} Impact_{m} * Number_{m} * energy rate_{Y,r,CP} * \frac{1}{(1+DiscountRate)^{Y-1}} \right]$$

where:

r = fuel type (gas or electric)

Y = Year, starting with implementation program year

m = measure type

energy rate_{Y,r} = energy rate (\$ per kWh⁷ or therm) for fuel r in year Y

 $Impact_m = measure m gross^8 impact per year (kWh or therm)$

 $Number_m = number of measure type m installed$

 $EUL_m = effective useful life⁹ (years) of measure type m$

CP = Costing period, n = number of costing periods

2.3.3 Specifics of Calculations and Variables

Inflation and Discount Rates

The discount rate was chosen to be consistent with the ALJ Bytof ruling, dated October 25, 2000, in Application (A.) 99-09-049, et. al. The inflation rate of 3% was used to develop the discount rate. The following specific values were identified as appropriate for these calculations:

- The inflation rate used was 3%.
- The discount rate was 8.15%.

Development of Energy Rate Escalation

Exhibit 2.2 above is the general model for estimating the lifecycle bill savings. Originally, the Cost and Bill Savings Standardization Group thought that one of the best ways to estimate the energy rate escalation was to use values that had already been filed. As a result, the group investigated modeling energy rate escalation after the avoided cost escalation in A.99-09-049 for the Energy Efficiency Programs. However, this model was discarded after much discussion in 2001 about the validity of a model that dramatically decreased rates at a time when rates were increasing. Since the aim of this method was to create bill savings that were comparable between utilities, a constant 3% escalation rate was adopted. The 3% value was chosen because it is equal to the annual inflation rate.

⁷ Energy rate escalated by 3% each year.

⁸ These are defined as gross savings because they are bill savings.

⁹ EUL values are consistent with the October 25, 2000 ALJ ruling and the September 25, 2000 CALMAC Workshop Report.

¹⁰ Conversations with Mike Wan of PG&E.

Estimation of the Average Annual Energy Rates

The average annual energy rates used by each utility are highly dependent upon the information available in the accounting systems of the individual utility. The 2001 Bill Savings Report documented the specific calculation approach used by PG&E and SDG&E. SoCalGas computed average prices (total revenue minus customer charge divided by total therms) for all participants with a complete year of use regardless if they were on or not on the CARE rate. This same approach was used by SDG&E for all years and was actually used by SoCalGas in the previous Bill Savings report, although mistakenly had not been mentioned. SCE used a method that was very similar to the 2001 Bill Savings Report write-up. It is included here for clarity.

These are the steps that SCE followed to calculate the average \$/kWh for LIEE participants:

- 1. Extract data from the SCE customer database to obtain
 - Customer rate schedule: CARE, Domestic, others
 - kWh usage for the program year for each LIEE participant
- 2. Exclude customers who are on master meter accounts from the average \$/kWh calculation
- 3. Use the discount CARE rates for kWh usage for customers who are on the CARE rate
- 4. For non-CARE LIEE participants:
 - Calculate the average baseline allocation by weather zone for each customer
 - Compare the actual energy use versus annual baseline allocation to determine customer usage by Tier level (Tier 1, 2, 3,4 or 5)
 - Apply the billing rate for each Tier level to calculate the total dollar amount
- 5. Sum the cost for CARE and non-CARE LIEE customers, then divide this by the sum of the CARE and non-CARE LIEE participants in the program year to get the average \$/kWh.

Energy rates used by each utility are shown in Exhibit 2.3.

Exhibit 2.3 Energy Rates Used for Bill Savings Calculations

	PG&E		SCE	SDG&E		SoCalGas	
Year	kWh	Therm	kWh	kWh	Therm	kWh	Therm
2001	0.1159	0.9546	0.1238	0.1174	0.7945	0.1238	0.6294
2002	0.1124	0.6235	0.1174	0.1365	0.6957	0.1174	0.5311
2003	0.0992	0.7721	0.1118	0.1380	0.8560	0.1118	0.6970
All years afterwards	Previous Year * (1+Escalation Rate)						

As shown in Exhibit 2.3, the methodology used in this report escalates the most current energy rate to forecast rates for all years beyond the most current year. The effect of this is that when temporary swings occur, the method can potentially estimate falsely high life cycle bill savings for future years. However, while there may be dramatic differences between two years, the subsequent year can provide a self-correction to this swing.

Effective Useful Life Agreements

In order to compute life cycle savings, it is necessary to know the average life of the measures installed. In September of 2000, all utilities compared the historic Effective Useful Lives (EULs) being used for LIEE measures, compared these measure lives to the values developed by CALMAC, and, where possible, agreed on common EULs for common measures. EULs being used in this analysis are listed in Exhibit 2.4. These EULs are the same as used for the 2003 Bill Savings Report.

Exhibit 2.4 EULs Used in Bill Savings Calculations

	EUL	Used
Measure	year	source
Air Conditioner - Central	18	2
Air Conditioner - Room	15	2
Attic Access Weatherstripping	5	3
Attic Insulation (Ceiling Insulation)	25	2
Attic Venting	25	4
Building Envelope Repair	10	6
Caulking	5	6
Compact Fluorescent Hard Wired Porch Lights ⁹	20;5.3	2;7
Compact Fluorescent Lights	8	7
Door Threshold	5	6
Door Weatherstripping	5	6
Duct Sealing and Testing	25	2
Energy Education	1	2
Evaporative Cooler (Permanent)	15	5
Evaporative Cooler (Portable)	7	2
Evaporative Cooler Covers (for Permanent)	3	5
Evaporative Cooler Maintenance	4	6
Faucet Aerators	5	5
Furnace Filters	5	3
Furnace Repair (Gas)	10	6
Furnace Replacement (Gas)	22	5
Low Flow Showerhead	10	2
Outlet Gaskets	15	5
Refrigerator Replacement	15	2
Set-back Thermostats	12	2
Water Heater Blanket	5	5
Water Heater Pipe Wrap	15	2
Water Heater Replacement	13	2
Weatherstripping	5	6
Whole House Fans	20	8

¹ PG&E's Residential Program: 2000/2001 Energy Efficiency Programs Application Attachment 12 Workpapers p. 12-13

² CALMAC Workshop Report on PY 2001 Energy Efficiency Programs

³ Assumed to have the same EUL as Caulking or Weatherstripping.

⁴ Assumed to have the same EUL as attic insulation

⁵ DSM Measure Life Project, September 23, 1993 (adjusted and non-adjusted)

⁶ Engineering Estimate

⁷ LIEE Measure Cost Effectiveness Preliminary Report. September, 2002.

⁸ Low Income Energy Efficiency Program Standardization Project Phase 3 Report - Appendix G. July 2001.

⁹ The measure tracked here for SCE is one where CFLs in porch lights are installed. The EUL has been appropriately lowered in this case.

2.4 Consistency with AEAP

Throughout the process of creating a program costs and bill savings standardization methodology, every effort was made to keep that methodology consistent with the protocols and practices adopted for the AEAP. The methodology is consistent because:

- The report uses the same project cost tables as proposed by the RRM, with slight modifications and refined definitions for each of the variables in the table.
- The modeling methodology is mathematically the same for the AEAP and this report.
 However, instead of estimating avoided costs, this methodology estimates life cycle bill savings.
- The discount rate and escalation factors are consistent with those used in the AEAP.
- The lifecycle bill savings used Effective Useful Life values consistent with those used in the AEAP.
- Most of the impacts used are from Protocol compliant M&E studies that are part of the AEAP.

This completes the summary of the methodology used for computing cost and bill savings. Readers wishing a more complete description of the methodology are referred to the 2001 Bill Savings Report. The next section discusses the analysis of program cost and bill savings data for PY2001 through PY2003.

3 ANALYSIS OF PROGRAM COST AND BILL SAVING RESULTS

This section discusses the program variables that affect the reported bill savings and costs.

3.1 Data Presented in this Report

As discussed in Section 2.2, costs were broken down into the 18 subcategories, and the labor, non-labor and contract elements defined in Table TA 7.2 of the RRM (this table has subsequently been renamed TA 2, but is referred to as TA 7.2 throughout this document). Because each utility's accounting system is different, it was not possible for all utilities to break out the costs in identical fashion. Exhibit 3.1 presents a summary of where each utility reported costs. It should be noted that the current cost breakouts are more uniform than those recorded in the previous Bill Savings report. This is attributed to the ongoing standardization efforts for this program. Exhibit 3.1, in combination with the detailed cost tables and their footnotes presented in Exhibit 4.1 to Exhibit 4.12, creates a comprehensive picture of the cost breakdown supplied by each utility.

Exhibit 3.1 Summary of Reported Cost Elements by Utility in PY2003

	Costs Recorded by Cost Element					
	PG&E	SCE	SDG&E	SoCalGas		
Energy Efficiency						
Gas Appliances	X		X	X		
Electric Appliances	X	X	X			
Weatherization Measures	X	X	X	X		
Outreach & Assessment	X	X		X		
In Home Energy Education	X	X	X	X		
Education Workshops	X		X	X		
Pilots	X	X		X		
Training Center	X			X		
Inspections	X	X	X	X		
Advertising						
M&E Studies	X	X		X		
Regulatory Compliance	X	X	X	X		
Other Administration	X					
Indirect Costs	X	X				
Oversight Costs						
LIOB Expense						
LIAB PY Past Year	X	X				
LIAB PY Present Year	X	X				
CPUC Energy Division	X	X	X	X		

Based on the bill savings methodology, the following values were calculated for each utility for each of the three years being assessed:

- program costs,
- life cycle bill savings,
- bill savings to cost ratio, and
- per home average life cycle bill savings.

PY2001 and PY2002 were completely analyzed and reported in the 2003 Bill Savings Report.

One might expect that the PY2001 and PY2002 bill savings values in this report should be identical to the values presented in the 2003 Bill Savings Report. However, the methodology for the life cycle bill savings uses actual energy rate data as they become available. Therefore, while the PY2003 energy rates were projected rates for the analysis performed for the 2003 Bill Savings Report, the actual rates were known and used for the analysis in this report. This caused the PY2001 and PY2002 results to change between reports. These changes are reflected in the detailed tables in Section 4.2

3.2 Overall Results by Program Year and Utility

Decision 01-12-020, Ordering Paragraph 4, requires the utilities to present a standardized set of tables summarizing the results both by utility and across utilities. The overall analysis results are summarized below by utility in Exhibit 3.2 and across utilities in Exhibit 3.3. These results, and discussion of the factors that explain variations, are addressed in the sections that follow these exhibits. Also, as was done in previous reports, the results are then summarized by "utility service area".

Exhibit 3.2 Results Summary by Utility

PG&E Summary

Program Year	Program Costs	Life Cycle Bill Savings		Per Home Average Life Cycle Bill Savings	
2001	\$ 29,634,528	\$ 14,901,227	0.50	\$ 393	
2002	\$ 65,599,305	\$ 34,242,073	0.52	\$ 484	
2003	\$ 52,520,409	\$ 24,872,511	0.47	\$ 526	

SCE Summary

Program Year	Pr	ogram Costs	Li	fe Cycle Bill Savings	Bill Savings / Cost Ratio	· Home Average Life Cycle Bill Savings
2001	\$	19,402,429	\$	18,647,619	0.96	\$ 215
2002	\$	13,971,543	\$	12,207,178	0.87	\$ 411
2003	\$	18,664,182	\$	18,581,176	1.00	\$ 551

SDG&E Summary

Program		Life Cycle Bill	Bill Savings /	Per Home Average Life Cycle Bill
Year	Program Costs	Savings	Cost Ratio	Savings
2001	\$ 11,515,307	\$ 7,470,049	0.65	\$ 387
2002	\$ 12,358,189	\$ 8,860,750	0.72	\$ 629
2003	\$ 12,865,219	\$ 7,954,325	0.62	\$ 506

SoCalGas Summary

Program	D C 1	Life Cycle Bill	Bill Savings /	Per Home Average Life Cycle Bill
Year	Program Costs	Savings	Cost Ratio	Savings
2001	\$ 22,596,860	\$ 3,548,552	0.16	\$ 107
2002	\$ 30,666,410	\$ 7,783,934	0.25	\$ 164
2003	\$ 33,998,942	\$ 9,289,239	0.27	\$ 162

Exhibit 3.3 Results Summary Across Utility

Program Costs

Program Year	PG&E	SCE	SDG&E	SoCalGas
2001	\$ 29,634,528	\$ 19,402,429	\$ 11,515,307	\$ 22,596,860
2002	\$ 65,599,305	\$ 13,971,543	\$ 12,358,189	\$ 30,666,410
2003	\$ 52,520,409	\$ 18,664,182	\$ 12,865,219	\$ 33,998,942

Life Cycle Bill Savings

Program Year	PG&E	SCE	SDG&E	SoCalGas		
2001	\$ 14,901,227	\$ 18,647,619	\$ 7,470,049	\$ 3,548,552		
2002	\$ 34,242,073	\$ 12,207,178	\$ 8,860,750	\$ 7,783,934		
2003	\$ 24,872,511	\$ 18,581,176	\$ 7,954,325	\$ 9,289,239		

Bill Savings to Cost Ratio

Program Year	PG&E	SCE	SDG&E	SoCalGas
2001	0.50	0.96	0.65	0.16
2002	0.52	0.87	0.72	0.25
2003	0.47	1.00	0.62	0.27

Per Home Life Cycle Bill Savings

Program Year	PG&E		SCE		SDG&E		SoCalGas	
2001	\$	393	\$	215	\$	387	\$	107
2002	\$	484	\$	411	\$	629	\$	164
2003	\$	526	\$	551	\$	506	\$	162

While the values by and across utilities allow for some insight into the results of the program, a more detailed analysis and discussion of the various values identifies some of the reasons for apparent variations. A discussion of the year-to-year differences for each utility will be presented first, followed by an analysis and discussion of the differences seen across utilities.

3.2.1 Year-to-Year Differences by Utility

It is noteworthy that, from 1997 to 2003, the LIEE program has treated just over one million homes in California (based on the homes treated in the Bill Savings Reports).

The number of homes treated each year (Exhibit 3.4) helps explain some of the values in Exhibit 3.2 and Exhibit 3.3.

Exhibit 3.4 Number of Homes Treated by Year by Utility

Homes Treated

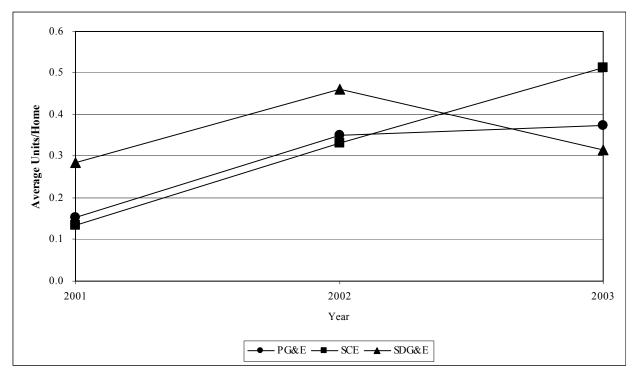
Program Year	PG&E	PG&E SCE		SoCalGas
2001	37,935	86,903	19,315	33,046
2002	70,683	29,685	14,089	49,464
2003	47,271	33,732	15,706	57,179

Exhibit 3.4 illustrates that SCE and SDG&E treated their highest number of homes in 2001 (for the three year period), SoCalGas showed steady and substantial increases over the three year time frame, and PG&E saw a dramatic increase in the number of homes treated in 2002, with that number subsiding in 2003.

Exhibit 3.2 summarizes the analysis results, by utility, from 2001 through 2003. There were increased program costs starting in PY2001 across all utilities due to the influx of SBX 5 money starting in the second quarter of 2001. Detailed explanations are based on line-by-line examination of the data. Readers wishing to review the accuracy of the conclusions presented here may wish to refer to the detailed cost or bill savings exhibits for the appropriate year, which are presented in Section 4.

One of the biggest reasons for differences across the three years for the three electric utilities is variation the number of installed refrigerators, as shown in Exhibit 3.5. These yearly variations by utility are discussed further below.

Exhibit 3.5 Average Number of Installed Refrigerators per Treated Home



PG&E − PG&E had similar refrigerator installation rates in PY2002 and PY2003. As this is a large cost item, but one that also supplies large bill savings, the fact that the refrigerator installation rate was similar in PY 2002 −2003 helped to maintain the bill savings to cost ratio, even though some of the other per-unit impacts were reduced in PY2003.

Aside from the refrigerators, PG&E found that more homes that required weatherization in PY2003, as illustrated by the fact that many of the weatherization measures increased by 5% to 10%. (For example, 15% of the homes received water heater blankets in PY2003 where 10% received them in PY2002 and 52% received minor home repairs in PY2003 while 41% received them in PY2002.) As these measures can be more costly to install and provide less bill savings than other measures, the PY2003 bill savings to cost ratio was slightly lower than PY2002.

There was a slight increase in the number of PG&E homes receiving rapid deployment measures in PY2003. No homes received window air conditioners in PY2002 and 1% received them in PY2003. A similar rate (1%) received central air conditioner measures across the two years. However, these two measures had an increased per-unit impact in PY2003 over PY2002 based on the climate-zone specific weighting in PY2003. Additionally, there were 13% of the homes in PY2003 that received duct sealing and repair while less than 1% received this measure in PY2002. These increases in installation rate and per-unit impact helped to ameliorate the reduced impacts from weatherization measures discussed above.

SCE – As shown in Exhibit 3.5, SCE has steadily increased the number of homes receiving program sponsored refrigerator installations. In PY2003, slightly over half of the homes treated received a refrigerator. Because this measure has high bill savings, the per home life cycle bill savings increased each year. The cost per home has also increased over the three years due to the increased refrigerator installation rate (from \$223/home in PY2001 to \$553/home in PY2003).

The bill savings to cost ratio has varied over the three years, with PY2001 and PY2003 higher than PY2002. Because weatherization measures provide less bill savings, this should have decreased the bill savings to cost ratio between the two years, but the increase in refrigerators installations in PY2003 overrode this effect. The rate of installation for weatherization measures were similar in PY2001 and PY2003, but the percent of costs attributable to these measures was higher in PY2003 (5.5% of program costs) than in PY2001 (2.3% of program costs). Weatherization received 7.7% of program costs in PY2002. As indicated, weatherization provides less savings than electrical appliances, causing the bill savings to cost ratio to decrease in PY2002. The program costs for weatherization varied because of the cost of standardization required by the CPUC.

As a whole, the SCE program spent very similar percentages on electrical appliances in PY2001 and PY2003 (about 84% of program costs) while less was spent on these measures in PY2002 (about 76%).

SDG&E – In PY2003, SDG&E substantially increased the installation rate of weatherization measures. For example, low flow showerheads and door weatherstripping were installed in about half of the home in PY2001 and PY2002, while 71% of the homes received these measures in PY2003. Minor home repairs were performed in 41% of the homes in PY2003, where previously, less than 25% of the homes received this attention. The program costs reflected this as well, with 40% of program costs going towards weatherization in PY2003 while closer to 30% of program costs went toward weatherization in each of the previous two years. Also, there was a slight decrease in the installation rate of rapid deployment measures, which tend to have higher

bill savings. These changes caused the decrease in the bill savings to cost ratio in PY2003 compared to PY2002.

The per home life cycle savings varied in line with the refrigerator installation rate and rapid deployment measures, which are high-impact measures.

SoCalGas – The SoCalGas program has changed little in the three years under consideration.. The installation rate of weatherization measures decreased very slightly in PY2003 (from 1% to 4% lower, depending on the measure), but there were increases of similar magnitude in the two rapid deployment measures installed by SoCalGas. While the therm impacts remained the same, the electric impact for the weatherization measures increased (due to the SCE values changing), which played a part in the increased bill savings to cost ratio. Also, the rapid deployment measures provide higher therm savings per unit than many of the weatherization measures. The slight increase in bill savings to cost ratio in PY2003 compared to PY2002 was due to the increase in rapid deployment rates seen in PY2003, as well as to the SCE electric impact increase.

As stated in the previous report, the jump in the SoCalGas life cycle bill savings per home in PY2002 is due to the inclusion of an impact for furnace replacement and repair, which were not claimed in prior years. While the rate of these two measures did not change substantially over the three years, the latest impact evaluation indicated that there was an impact seen by the homeowner for these measures. Subsequently, while PY2001 has no impacts for these measures, the PY2002 and PY2003 estimates include a large therm impact for these measures that doubles the total bill savings for the program and increases the savings per home, even though the number of homes served has increased.

3.2.2 Year-to-Year Differences Across Service Area

This section analyzes trends between the utility service areas, by year. In order to compare average customer bill savings across the state, it is useful to compare the total service by service area. For the purposes of this document, the SCE and SoCalGas programs were assessed as a single entity since they serve roughly the same customers. Exhibit 3.6 presents the overall bill savings to cost ratios and per home life cycle bill savings values for each of the three "service areas", along with the individual values for SCE and SoCalGas, for 2001 through 2003.

¹¹ This is the same assessment protocol as was followed in the previous Bill Savings Reports.

Exhibit 3.6 Analysis by Service Area, Combined SCE and SoCalGas

Bill Savings to Cost Ratio

			Combined		
			SCE and		
Program Year	PG&E	SDG&E	SoCalGas	SCE	SoCalGas
2001	0.50	0.65	0.53	0.96	0.16
2002	0.52	0.72	0.45	0.87	0.25
2003	0.47	0.62	0.53	1.00	0.27

Per Home Life Cycle Bill Savings

				Combined SCE and							
Program Year	PG&E	SDG&E		SoCalGas		SDG&E SoCalGas		SCE		SoCalGas	
2001	\$ 393	\$	387	\$	322	\$	215	\$	107		
2002	\$ 484	\$	629	\$	576	\$	411	\$	164		
2003	\$ 526	\$	506	\$	713	\$	551	\$	162		

Exhibit 3.7 and Exhibit 3.8 present plots of the values shown in Exhibit 3.6.

Exhibit 3.7
Graph of Bill Savings to Cost Ratio by Service Area

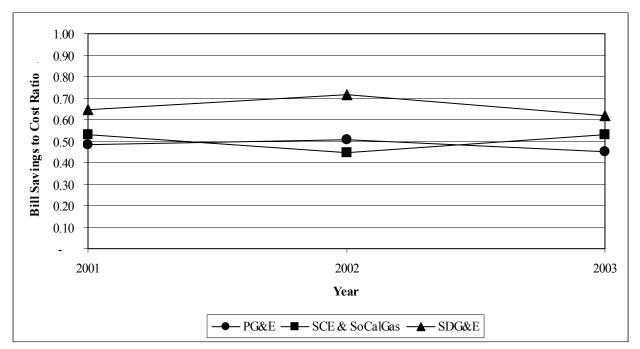
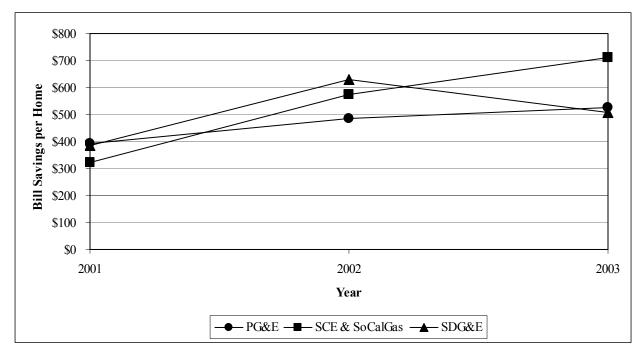


Exhibit 3.8 Graph of Bill Savings per Home by Service Area



3.2.3 Analysis of Variables Controlling Service Area Differences

In an attempt to identify the reasons for the differences between the service areas in 2003 as shown above, the costs and benefits were examined in detail. Because PY2001 and PY 2002 were fully analyzed in the 2003 Bill Savings Report, no other comment on the differences between the utilities is presented here for those years.

Utility Rates

Exhibit 3.7 and Exhibit 3.8 indicate that the variation in bill savings to cost ratio among the utilities was slightly less in PY2003 than in other years. A comparison of the effect of the different energy rates was performed to determine how much of the variation was due to rates.

The energy rates were modified by averaging them and using this modified rate to calculate a modified bill savings to cost ratio for PY2003. As shown in Exhibit 3.9, virtually all of the differences are accounted for with this simple change.

Exhibit 3.9 Bill Savings to Cost Ratio with Modified Energy Rates

	PG&E	SCE/SoCalGas	SDG&E
Bill Savings to Cost Ratio	0.47	0.53	0.62
Actual PY2003 Energy Rate	0.0992 kWh 0.7721 Therm	0.1118 kWh 0.6970 Therm	0.1380 kWh 0.8560 Therm
Assumed Modified Energy Rate		0.1163 kWh 0.7751 Therm	
Modified Bill Savings to Cost Ratio	0.53	0.56	0.53

Because Exhibit 3.9 shows so little variation of bill savings to cost ratio, no further explanatory variables were examined for the differences in the bill savings to cost ratio. Reasons for the differenced in bill savings per home are explored next.

Refrigerator Effect

Because refrigerators accounted for a large part of the differences in previous years, the refrigerator measure was examined more closely to see if this helped to account for the variation seen in PY2003 average bill savings per home across the utility service territories. Exhibit 3.10 shows that a higher percentage of the homes received refrigerators in the SCE service territory and that the per-unit impact for this measure is larger than for the other two utilities.

Exhibit 3.10 Critical Refrigerator Values for PY2003

Measure	PG&E	SCE	SDG&E
Refrigerator Replacement Rate (Units per Home)	0.37	0.51	0.32
PY2003 Impact (kWh per Refrigerator Installed)	645	695 (MF) 711 (SF)	645

To determine how much each of these differences played in the values indicated in Exhibit 3.8, the installation rate for SCE and SDG&E were first changed to the PG&E installation rate. After the installation rate was changed, the SCE per unit impact was also changed to equal the PG&E and SDG&E impact. The modified Bill Savings per Home ratios are as shown in Exhibit 3.11. These changes dampened the high SCE Bill Savings per Home value, and brought all three utility service areas to around 10% of each other.

Exhibit 3.11 Modified PY2003 Bill Savings per Home Savings Estimates using PG&E Refrigerator Install Rate

	PG&E	SCE/SoCalGas	SDG&E
Actual Bill Savings per Home	\$ 526	\$ 731	\$ 506
Bill Savings per Home - Install rates equal to PG&E	\$ 526	\$ 609*	\$ 554
Bill Savings per Home - Install rates equal to PG&E, and per unit impact changed	\$ 526	\$ 581	\$ 554

^{*} Modified savings estimate are in **Bold**, unmodified are not bold

Overall, a comparison of Exhibit 3.11 with Exhibit 3.6 through Exhibit 3.8 illustrates that when measure installation rate and per-unit impact variations are accounted for, the bill savings to cost ratios and bill savings per home are in the same range across utilities in PY2003.

3.3 Overall Comment on Bill Savings Comparisons

The primary controlling factors in per home bill savings are the per unit cost of energy and the installation rates of the measures. Because of its large per unit saving, variation refrigerator installations play a major role in utility to utility estimates of both per home bill savings and program bill savings to cost ratios. If one simply accounts for variations in the measure implementation rate for refrigerators and energy rate across utilities, then it is possible to demonstrate the LIEE programs are continuing to supply comparable savings to program participants statewide.

4 DETAILED TABLES

This section present the program costs as broken down in RRM Table TA 7.2 and the life cycle bill savings by measure type, by utility.

4.1 Program Costs

This section contains the detailed program costs for each utility and each program year.

Exhibit 4.1 PG&E Table TA 7.2 – Program Year 2001 Last Updated 4/18/02

	Co	sts F	Recorded by (Cost	Element - 20	01	
	Labor	N	Non-Labor		Contract		Total
Energy Efficiency							
Gas Appliances	\$ -	\$	18,148	\$	713,718	\$	731,866
Electric Appliances	\$ -	\$	52,836	\$	5,650,304	\$	5,703,140
Weatherization Measures	\$ -	\$	92,482	\$	9,900,486	\$	9,992,968
Outreach & Assessment	\$ 1,488	\$	46,470	\$	1,219,258	\$	1,267,216
In Home Energy Education	\$ 292,012	\$	475,822	\$	1,343,285	\$	2,111,119
Education Workshops	\$ 23,974	\$	35,863	\$	14,055	\$	73,892
Energy Efficiency TOTAL	\$ 317,474	\$	721,621	\$	18,841,107	\$	19,880,202
Pilots							
Attic Venting	\$ 4,147	\$	5,187	\$	388	\$	9,722
Landlord Rebates	\$ 5,690	\$	7,892	\$	194	\$	13,775
Total Pilots	\$ 9,837	\$	13,079	\$	582	\$	23,497
Training Center	\$ 66,953	\$	108,651	\$	62,020	\$	237,624
Inspections	\$ 460,954	\$	647,330	\$	2,144,039	\$	3,252,323
Advertising	\$ -	\$	-	\$	-	\$	-
M&E Studies ¹	\$ 16,709	\$	29,918	\$	186,105	\$	232,732
Regulatory Compliance ²	\$ 171,600	\$	150,116	\$	238,837	\$	560,553
Other Administration ³	\$ 615,866	\$	809,547	\$	2,530,390	\$	3,955,803
Indirect Costs ⁴	\$ 82,566	\$	1,024,683	\$	339,324	\$	1,446,573
Oversight Costs				\$	-		
LIAB Start-up	\$ -	\$	-	\$	-	\$	-
LIAB PY Past Year	\$ -	\$	-	\$	-	\$	-
LIAB PY Present Year	\$ -	\$	-	\$		\$	-
CPUC Energy Division	\$ -	\$	-	\$	45,221	\$	45,221
Total Oversight Costs	\$ -	\$	-	\$	45,221	\$	45,221
Total Costs 5	\$ 1,741,959	\$	3,504,945	\$	24,387,624	\$	29,634,528

Notes

- 1 M&E studies include: Customer Bill of Right, Pay for Measures, Bill Savings, and Cost Effectiveness Testing.
- 2 Regulatory Compliance inscludes LIEE Standardization, RRM Working Group Report, CBO Access and Leveraging Report, and Monthly CPUC Reports.
- 3 Includes PG&E's program management only. Prime contractor's management is included in the weatherization costs.
- 4 Indirect costs include Combustable Appliances Safety Testing, which is not part of the LIEE budget.
- 5 Total costs include CAS Testing, which is not part of the LIEE budget.

Exhibit 4.2 PG&E Table TA 7.2 – Program Year 2002 Last Updated 3/13/03

	Co	osts]	Recorded by C	Cost	Element - 20	02	
	Labor]	Non-Labor		Contract		Total
Energy Efficiency							
Gas Appliances	\$ 10,427	\$	23,933	\$	1,378,135	\$	1,412,495
Electric Appliances ⁶	\$ -	\$	166,002	\$	22,042,062	\$	22,208,064
Weatherization Measures	\$ -	\$	280,709	\$	20,778,321	\$	21,059,030
Outreach & Assessment	\$ 4,307	\$	219,787	\$	3,594,013	\$	3,818,107
In Home Energy Education	\$ 273,488	\$	274,532	\$	2,671,246	\$	3,219,266
Education Workshops	\$ 3,910	\$	3,579	\$	609	\$	8,098
Energy Efficiency TOTAL	\$ 292,133	\$	968,541	\$	50,464,386	\$	51,725,060
Pilots							
Attic Venting	\$ 1,847	\$	1,163	\$	41,615	\$	44,624
Landlord Rebates	\$ 4,467	\$	13,251	\$	390,630	\$	408,347
Phase 4 Pilot	\$ 38,875	\$	20,221	\$	30,955	\$	90,052
Total Pilots	\$ 45,189	\$	34,635	\$	463,200	\$	543,024
Training Center	\$ 50,142	\$	71,289	\$	69,630	\$	191,061
Inspections	\$ 1,230,511	\$	1,208,585	\$	809,515	\$	3,248,611
Advertising	\$ -	\$	-	\$	-	\$	-
M&E Studies ¹	\$ 443	\$	(360)	\$	108,172	\$	108,255
Regulatory Compliance ²	\$ 189,015	\$	174,328	\$	311,184	\$	674,528
Other Administration ³	\$ 697,666	\$	721,895	\$	4,320,397	\$	5,739,957
Indirect Costs 4	\$ -	\$	-	\$	3,329,716	\$	3,329,716
Oversight Costs							
LIOB Expense	\$ -	\$	_	\$	-	\$	-
CPUC Energy Division	\$ -	\$	-	\$	39,094	\$	39,094
Total Oversight Costs	\$ -	\$	-	\$	39,094	\$	39,094
Total Costs ⁵	\$ 2,505,098	\$	3,178,913	\$	59,915,293	\$	65,599,305

Notes:

¹ M&E studies include: LIEE Program Evaluations, Bill Savings, and Cost Effectiveness Testing.

² Regulatory Compliance inscludes LIEE Standardization, RRM Working Group Report, CBO Access and Leveraging Report, and Monthly CPUC Reports.

³ Includes PG&E's program management and prime contractor's management.

⁴ Indirect costs include Combustable Appliances Safety (CAS) Testing, which is not part of the LIEE budget.

⁵ Total costs include CAS Testing, which is not part of the LIEE budget.

⁶ Excludes \$732,876 which was already reported in the 2002 AEAP filing as committed refrigerators and evaporative coolers.

Exhibit 4.3 PG&E Table TA 7.2 – Program Year 2003 Last Updated 3/16/04

	Co	sts I	Recorded by (Cost	Element - 20	03		
	Labor	N	Non-Labor		Contract	Total		
Energy Efficiency								
Gas Appliances	\$ -	\$	45,865	\$	3,509,010	\$	3,554,875	
Electric Appliances ⁶	\$ -	\$	220,863	\$	15,464,689	\$	15,685,552	
Weatherization Measures	\$ -	\$	198,233	\$	13,970,482	\$	14,168,715	
Outreach & Assessment	\$ -	\$	35,988	\$	2,078,668	\$	2,114,656	
In Home Energy Education	\$ -	\$	21,982	\$	1,935,435	\$	1,957,417	
Education Workshops	\$ 522	\$	601	\$	-	\$	1,124	
Energy Efficiency TOTAL	\$ 522	\$	523,531	\$	36,958,285	\$	37,482,338	
Pilots								
Leveraging Pilot	\$ -	\$	920	\$	68,709	\$	69,629	
Phase 4 Pilot	\$ 1,818	\$	3,411	\$	31,171	\$	36,401	
Total Pilots	\$ 1,818	\$	4,332	\$	99,880	\$	106,030	
Training Center	\$ 59,653	\$	93,157	\$	47,059	\$	199,869	
Inspections	\$ 1,646,212	\$	1,771,858	\$	100,107	\$	3,518,177	
Advertising	\$ -	\$	-	\$	0	\$	-	
M&E Studies ¹	\$ 12,167	\$	2,204	\$	405,859	\$	420,230	
Regulatory Compliance ²	\$ 203,619	\$	206,469	\$	8,511	\$	418,600	
Other Administration ³	\$ 810,199	\$	1,167,366	\$	4,844,188	\$	6,821,753	
Indirect Costs 4	\$ 3,507,391	\$	-	\$	-	\$	3,507,391	
Oversight Costs								
LIOB Expense	\$ -	\$	-	\$	-	\$	-	
CPUC Energy Division	\$ -	\$	-	\$	46,021	\$	46,021	
Total Oversight Costs	\$ -	\$	-	\$	46,021	\$	46,021	
Total Costs ⁵	\$ 6,241,583	\$	3,768,917	\$	42,509,909	\$	52,520,409	

Notes:

¹ M&E studies include: Bill Savings, and Cost Effectiveness Testing, Phase 4 Study.

² Regulatory Compliance inscludes LIEE Standardization, RRM Working Group Report, EPO, Leveraging Report, and Monthly CPUC Reports.

 $^{{\}bf 3} \quad \text{Includes PG\&E's program management and prime contractor's management.}$

⁴ Indirect costs include Combustable Appliances Safety Testing, which is not part of the LIEE budget.

⁵ Total costs include CAS Testing, which is not part of the LIEE budget.

Exhibit 4.4 SCE Table TA 7.2 – Program Year 2001 Last Updated 4/24/02

		C	osts	Recorded by	Cos	st Element - 2	001	
		Labor	N	Non-Labor		Contract		Total
Energy Efficiency								
- Gas Appliances	\$	-	\$	-	\$	-	\$	-
- Electric Appliances ¹	\$	319,849	\$	417,652	\$	15,440,280	\$	16,177,781
- Weatherization	\$	80,695	\$	39,307	\$	323,130	\$	443,132
- Outreach & Assessment	\$	-	\$	-	\$	166,494	\$	166,494
- In Home Energy Education	\$	4,880	\$	429,074	\$	1,302,022	\$	1,735,976
- Education Workshop	\$	-	\$	14,206	\$	-	\$	14,206
Energy Efficiency TOTAL	\$	405,424	\$	900,239	\$	17,231,926	\$	18,537,589
Pilots								
- Pilot (A)	\$	-	\$	-	\$	-	\$	-
- Pilot (B)	\$	11,338	\$	734	\$	398,457	\$	410,529
Total Pilots	\$	11,338	\$	734	\$	398,457	\$	410,529
Training Center	\$	-	\$	-	\$	-	\$	-
Inspections	\$	-	\$	-	\$	103,523	\$	103,523
Advertising	\$	-	\$	-	\$	-	\$	-
M&E Studies	\$	25,000	\$	-	\$	-	\$	25,000
Regulatory Compliance	\$	65,000	\$	-	\$	-	\$	65,000
Other Administration	\$	-	\$	-	\$	-	\$	-
Indirect Costs ²	\$	-	\$	222,645	\$	-	\$	222,645
Oversight Costs	•							
- LIAB Start-up	\$	-	\$	-	\$	-	\$	_
- LIAB PY Past Year	\$	-	\$	-			\$	-
- LIAB PY Present Year	\$	-	\$	-	\$	-	\$	-
CPUC Energy Division	\$	-	\$	38,143	\$	-	\$	38,143
Total Oversight Costs	\$	-	\$	38,143	\$	-	\$	38,143
Total Costs	\$	506,762	\$	1,161,761	\$	17,733,906	\$	19,402,429

¹ Devices cost associated with 2001 installations are included (AEAP filing)

 $^{2\} Program \ costs$ that are not part of the LIEE budget

Exhibit 4.5 SCE Table TA 7.2 – Program Year 2002 Last Updated 3/17/03

	Т	C	osts I	Recorded by	Cos	st Element - 2	002						
		Labor	N	on-Labor		Contract		Total					
Energy Efficiency													
- Gas Appliances	\$	-	\$	-	\$	-	\$	-					
- Electric Appliances		801,645		139,150		9,710,842	\$	10,651,637					
- Weatherization		152,719		140,116		780,141	\$	1,072,976					
- Outreach & Assessment		-		-		219,046	\$	219,046					
- In Home Energy Education		9,070		8,156		1,066,711	\$	1,083,937					
- Education Workshop	\$	-	\$	-	\$	-	\$	-					
Energy Efficiency TOTAL	\$	963,435	\$	287,422	\$	11,776,739	\$	13,027,596					
Pilots													
- Pilot (Cool Center)		34,312		2,770		398,537	\$	435,619					
- Pilot (B)							\$	-					
Total Pilots							\$	435,619					
Training Center							\$	-					
Inspections						132,953	\$	132,953					
Advertising							\$	-					
M&E Studies		25,044					\$	25,044					
Regulatory Compliance		65,004					\$	65,004					
Other Administration							\$	-					
Indirect Costs		252,088					\$	252,088					
Oversight Costs													
- LIAB Start-up	\$	-	\$	-	\$	-	\$	-					
- LIAB PY Past Year	\$	-	\$	-			\$	-					
- LIAB PY 2002	\$	-		14,460	\$	-	\$	14,460					
CPUC Energy Division	\$	-		18,779	\$		\$	18,779					
Total Oversight Costs	\$	-	\$	33,239	\$		\$	33,239					
Total Costs	\$	1,339,883	\$	323,431	\$	12,308,229	\$	13,971,543					

Exhibit 4.6 SCE Table TA 7.2 – Program Year 2003 Last Updated 3/16/04

	Со	sts R	Recorded by (Cost	Element - 20	03 [1]	
	Labor		Von-Labor		Contract		Total
Energy Efficiency							
- Gas Appliances	\$ -	\$	-	\$	-	\$	-
- Electric Appliances	\$ 845,025	\$	325,055	\$	14,446,027	\$	15,616,106
- Weatherization	\$ 73,772	\$	713,139	\$	232,593	\$	1,019,505
- Outreach & Assessment [2]	\$ -	\$	-	\$	925,689	\$	925,689
- In Home Energy Education	\$ 20	\$	-	\$	244,765	\$	244,785
- Education Workshop	\$ -	\$	-	\$	-	\$	-
Energy Efficiency TOTAL	\$ 918,817	\$	1,038,194	\$	15,849,075	\$	17,806,086
Pilots							
- Pilot (A)						\$	-
- Pilot (Cool Center)		\$	226	\$	150,314	\$	150,541
Total Pilots						\$	150,541
Training Center	\$ -	\$	-	\$	-	\$	-
Inspections	\$ -	\$	-	\$	105,160	\$	105,160
Advertising	\$ -	\$	-	\$	-	\$	=
M&E Studies	\$ 165,453	\$	-	\$	-	\$	165,453
Regulatory Compliance	\$ 63,126	\$	-	\$	-	\$	63,126
Other Administration	\$ -	\$	-	\$	-	\$	=
Indirect Costs	\$ 260,305	\$	-	\$	-	\$	260,305
Oversight Costs							
- LIAB Start-up	\$ -	\$	-	\$	-	\$	=
- LIAB PY 2001	\$ =	\$	=	\$	-	\$	-
- LIAB PY 2002	\$ -	\$	20,839	\$	-	\$	20,839
CPUC Energy Division	\$ -	\$	92,673	\$	-	\$	92,673
Total Oversight Costs	\$ -	\$	113,512	\$	-	\$	113,512
Total Costs	\$ 1,407,700	\$	1,151,932	\$	16,104,549	\$	18,664,182

^{[1] -} PGC & SBX expenses

^{[2] -} Part of Electric Appliance and WX expenses in Rapid Deployment report

Exhibit 4.7 SDG&E Table TA 7.2 – Program Year 2001 Last Updated 4/10/02

			Cos	ts Recorded	by (Cost Element -	200	1			
		Labor	Non-Labor		Contract			TOTAL			
Energy Efficiency											
- Gas Appliances	\$	9,998	\$	12,859	\$	1,017,848	\$	1,040,704			
- Electric Appliances	\$	2,199	\$	27,783	\$	4,563,897	\$	4,593,879			
- Weatherization Measures	\$	114,837	\$	207,635	\$	3,478,746	\$	3,801,217			
- Outreach Assessment	\$	-	\$	4,251	\$	212,716	\$	216,967			
- In Home Energy Education	\$	18,398	\$	41,019	\$	749,329	\$	808,746			
- Education Workshops	\$	12,524	\$	9,465	\$	260,547	\$	282,536			
Energy Efficiency TOTAL	\$	157,956	\$	303,012	\$	10,283,083	\$	10,744,050			
Pilots											
- Pilot (A)	\$	-	\$	-	\$	-	\$	-			
- Pilot (B)	\$	-	\$	-	\$	-	\$	-			
Total Pilots	\$	-	\$	-	\$	-	\$	-			
Training Center	\$	-	\$	-	\$	-	\$	-			
Inspections	\$	71,625	\$	75,738	\$	257,412	\$	404,775			
Advertising	\$	-	\$	-	\$	-	\$	-			
M&E Studies	\$	-	\$	-	\$	-	\$	-			
Regulatory Compliance	\$	126,456	\$	107,387	\$	116,092	\$	349,936			
Other Administration	\$	-	\$	-	\$	-	\$	-			
Indirect Costs	\$	-	\$	-	\$	-	\$	-			
Oversight Costs											
- LIAB Start-Up	\$	-	\$	-	\$	-	\$	-			
- LIAB PY Past Year	\$	-	\$	-	\$	-	\$	-			
- LIAB PY Present Year	\$	-	\$	162	\$	-	\$	162			
- CPUC Energy Division	\$	-	\$	16,385	\$	-	\$	16,385			
Total Oversight Costs	\$	-	\$	16,547	\$	-	\$	16,547			
Total Costs	\$	356,038	\$	502,684	\$	10,656,586	\$	11,515,307			

Exhibit 4.8 SDG&E Table TA 7.2 – Program Year 2002 Last Updated 4/9/03

	Co	sts l	Recorded by	Co	st Element - 1	2002	2	
	Labor	N	on-Labor		Contract	TOTAL		
Energy Efficiency								
- Gas Appliances	\$ 10,854	\$	12,337	\$	1,109,761	\$	1,132,953	
- Electric Appliances	\$ -	\$	26,684	\$	5,444,907	\$	5,471,590	
- Weatherization Measures	\$ 151,121	\$	257,368	\$	2,829,412	\$	3,237,900	
- Outreach Assessment	\$ 5,648	\$	13,765	\$	172,707	\$	192,120	
- In Home Energy Education	\$ 65,699	\$	84,787	\$	538,339	\$	688,825	
- Education Workshops	\$ 6,212	\$	4,802	\$	192,940	\$	203,954	
Energy Efficiency TOTAL	\$ 239,533	\$	399,743	\$	10,288,066	\$	10,927,342	
Pilots								
- Pilot (Cool Zones)	\$ =	\$	212	\$	58,031	\$	58,243	
- Pilot (B)	\$ -	\$	-	\$	-	\$	-	
Total Pilots	\$ -	\$	212	\$	58,031	\$	58,243	
Training Center	\$ -	\$	-	\$	-	\$	-	
Inspections	\$ 171,942	\$	159,722	\$	279,470	\$	611,134	
Advertising	\$ =	\$	3,286	\$	140,405	\$	143,691	
M&E Studies	\$ -	\$	-	\$	-	\$	-	
Regulatory Compliance	\$ 125,783	\$	111,319	\$	349,045	\$	586,148	
Other Administration	\$ -	\$	-	\$	-	\$	-	
Indirect Costs	\$ -	\$	-	\$	-	\$	-	
Oversight Costs								
- LIAB Start-Up	\$ -	\$	-	\$	-	\$	-	
- LIAB PY Past Year	\$ -	\$	-	\$	-	\$	_	
- LIAB PY Present Year	\$ -	\$	-	\$	-	\$	_	
- CPUC Energy Division	\$ -	\$	31,631.92	\$	-	\$	31,632	
Total Oversight Costs	\$ -	\$	31,632	\$	-	\$	31,632	
Total Costs	\$ 537,259	\$	705,914	\$	11,115,017	\$	12,358,189	

Exhibit 4.9 SDG&E Table TA 7.2 – Program Year 2003 Last Updated 3/16/04

	Cos	sts l	Recorded by	Co	st Element - 2	2003	3
	Labor	N	on-Labor		Contract		TOTAL
Energy Efficiency							
- Gas Appliances	\$ 853	\$	5,244	\$	703,253	\$	709,349
- Electric Appliances	\$ -	\$	26,844	\$	3,968,607	\$	3,995,452
- Weatherization Measures	\$ 202,149	\$	256,503	\$	4,751,340	\$	5,209,992
- Outreach and Marketing	\$ -	\$	-	\$	-	\$	-
- In Home Energy Education	\$ 88,087	\$	227,109	\$	951,102	\$	1,266,298
- Education Workshops	\$ 79,364	\$	63,656	\$	204,532	\$	347,552
Energy Efficiency TOTAL	\$ 370,452	\$	579,356	\$	10,578,835	\$	11,528,643
Pilots							
- Pilot (A)	\$ -	\$	-	\$	-	\$	-
- Pilot (B)	\$ -	\$	-	\$	-	\$	-
Total Pilots	\$ -	\$	-	\$	-	\$	-
Training Center	\$ =	\$	-	\$	-	\$	-
Inspections	\$ 138,327	\$	143,195	\$	354,548	\$	636,071
Advertising	\$ 961	\$	17,608	\$	388,997	\$	407,566
M&E Studies	\$ -	\$	-	\$	-	\$	-
Regulatory Compliance	\$ 108,779	\$	118,795	\$	44,993	\$	272,568
Other Administration	\$ -	\$	-	\$	-	\$	-
Indirect Costs	\$ -	\$	-	\$	-	\$	-
Oversight Costs							
- LIAB Start-Up	\$ -	\$	-	\$	-	\$	-
- LIAB PY Past Year	\$ -	\$	-	\$	-	\$	-
- LIAB PY Present Year	\$ -	\$	-	\$	-	\$	-
- CPUC Energy Division	\$ =	\$	20,372.10	\$	-	\$	20,372
Total Oversight Costs	\$ =	\$	20,372	\$	-	\$	20,372
Total Costs	\$ 618,520	\$	879,326	\$	11,367,373	\$	12,865,219

Exhibit 4.10 SoCalGas Table TA 7.2 – Program Year 2001 Last Updated 4/10/02

			(Costs Recorded	by C	ost Element	
		Labor		Non-Labor		Contract	Total
Energy Efficiency	-						
Gas Appliances	\$	248,952	\$	-	\$	5,311,819	\$ 5,560,771
Electric Appliances	\$	-	\$	-	\$	-	\$ -
Weatherization Measures	\$	-	\$	-	\$	11,508,939	\$ 11,508,939
Outreach & Assessment	\$	-	\$	-	\$	1,716,929	\$ 1,716,929
In Home Energy Education	\$	-	\$	-	\$	730,604	\$ 730,604
Education Workshops	\$	-	\$	-	\$	-	\$ -
Energy Efficiency TOTAL	\$	248,952	\$	-	\$	19,268,291	\$ 19,517,243
Pilots	-		•				
Attic Venting	\$	-	\$	-	\$	-	\$ -
Total Pilots	\$	-	\$	-	\$	-	\$ -
Administration	\$	-	\$	-	\$	-	\$ -
Training Center	\$	173,617	\$	-	\$	33,600	\$ 207,217
Inspections	\$	-	\$	-	\$	434,453	\$ 434,453
Advertising	\$	-	\$	-	\$	124,708	\$ 124,708
M&E Studies	\$	-	\$	-	\$	182,752	\$ 182,752
Regulatory Compliance	\$	246,785	\$	-	\$	117,416	\$ 364,201
Other Administration	\$	479,371	\$	-	\$	1,214,670	\$ 1,694,041
Indirect Costs	\$	-	\$	-	\$	44,185	\$ 44,185
Oversight Costs							
LIOB Expenses	\$	-	\$	-	\$	-	\$ -
CPUC Energy Division	\$	-	\$	-	\$	28,060	\$ 28,060
Total Oversight Costs	\$	-	\$	-	\$	28,060	\$ 28,060
Total Program Costs	\$	1,148,724	\$	-	\$	21,448,136	\$ 22,596,860

Exhibit 4.11 SoCalGas Table TA 7.2 – Program Year 2002 Last Updated 3/13/03

	Т		C	Costs Recorded	by (Cost Element	
		Labor		Non-Labor		Contract	Total
Energy Efficiency							
Gas Appliances	\$	203,973.67	\$	-	\$	7,357,564.33	\$ 7,561,538
Electric Appliances	\$	-	\$	-	\$	-	\$ -
Weatherization Measures	\$	-	\$	-	\$	15,771,168.00	\$ 15,771,168
Outreach & Assessment	\$	-	\$	-	\$	2,604,628.00	\$ 2,604,628
In Home Energy Education	\$	-	\$	-			\$ -
Education Workshops	\$	-			\$	803,703.00	\$ 803,703
Energy Efficiency TOTAL	\$	203,974	\$	-	\$	26,537,063	\$ 26,741,037
Pilots							
Total Pilots	\$	-	\$	-	\$	-	\$ -
Administration	\$	-	\$	-	\$	-	\$ -
Training Center	\$	233,184.88			\$	16,578.12	\$ 249,763
Inspections	\$	-			\$	524,047.00	\$ 524,047
Advertising	\$	-			\$	194,500.00	\$ 194,500
M&E Studies	\$	-			\$	310,049.00	\$ 310,049
Regulatory Compliance	\$	-			\$	352,628.00	\$ 352,628
Other Administration	\$	867,527.46			\$	1,404,695.54	\$ 2,272,223
Indirect Costs					\$	2,040.00	\$ 2,040
Oversight Costs							
LIOB Expenses							\$ -
CPUC Energy Division					\$	20,123.00	\$ 20,123
Total Oversight Costs							\$ 20,123
Total Program Costs	\$	1,304,686	\$	-	\$	29,361,724	\$ 30,666,410

Notes

SoCalGas SAP Accounting System records costs by Labor and Contract only.

In-Home Energy Education & EE Workshops shown as combined total.

Exhibit 4.12 SoCalGas Table TA 7.2 – Program Year 2003 Last Updated 3/16/04

			Costs Re	ecorded b	y Cos	t Element - 20	03	
		Labor	Non	-Labor		Contract		Total
Energy Efficiency								
Gas Appliances	\$	610,806	\$	-	\$	8,997,394	\$	9,608,199
Electric Appliances	\$	-	\$	-	\$	-	\$	-
Weatherization Measures	\$	1,155,380	\$	-	\$	17,019,174	\$	18,174,554
Outreach & Assessment	\$	201,426	\$	-	\$	2,967,080	\$	3,168,506
In Home Energy Education	\$	81,201	\$	-	\$	1,196,114	\$	1,277,314
Education Workshops	\$	-	\$	-	\$	-	\$	-
Energy Efficiency TOTAL	\$	2,048,813	\$	-	\$	30,179,762	\$	32,228,574
Pilots	•				•		•	
Pilot (NGAT Appliances)	\$	1,933	\$	-	\$	28,473	\$	30,406
Pilot (B)	\$	-	\$	-	\$	-	\$	-
Total Pilots	\$	1,933	\$	-	\$	28,473	\$	30,406
Administration	\$	_	\$	-	\$	-	\$	_
Training Center	\$	780	\$	-	\$	11,485	\$	12,265
Inspections	\$	79,316	\$	-	\$	1,168,358	\$	1,247,674
Advertising	\$	22,760	\$	-	\$	335,261	\$	358,021
M&E Studies	\$	4,465	\$	-	\$	65,765	\$	70,230
Regulatory Compliance	\$	1,897	\$	-	\$	27,941	\$	29,838
Other Administration	\$	-	\$	-	\$	-	\$	-
Indirect Costs					\$	-	\$	-
Oversight Costs								
LIOB Expenses							\$	-
CPUC Energy Division					\$	21,932.96	\$	21,933
Total Oversight Costs	1						\$	21,933
Total Program Costs	\$	2,159,963	\$	-	\$	31,838,979	\$	33,998,942

Notes:

SoCalGas SAP Accounting System records costs by Labor and Contract only.

In-Home Energy Education & EE Workshops shown as combined total.

4.2 Detailed Life Cycle Bill Savings

This section contains the detailed life cycle bill savings for each utility and each program year. The values are for a 3% escalation rate.

Exhibit 4.13 PG&E Life Cycle Bill Savings- Program Year 2001 Last Updated 3/16/04

Measure Description	Number		Measure	Per	EUL	Total	Total Measure		
Tyrousure Description	Installed	_	ic Impact	Measure	LCL		cycle Bill		
	Instance		(Wh)	Gas Impact			Savings (\$)		
		SH	AC	Therms	Years				
Energy Efficiency Measures									
Attic Access Weatherstripping - mobile (Gas)	10	0.00	2.41	1.44	5	\$	56		
Attic Access Weatherstripping - mult fam (Electric)	46	12.31	1.90	0.00	5	\$	302		
Attic Access Weatherstripping - mult fam (Gas)	528	0.00	1.90	0.13	5	\$	677		
Attic Access Weatherstripping - sing fam (Electric)	211	13.60	2.41	0.00	5	\$	1,562		
Attic Access Weatherstripping - sing fam (Gas)	5,569	0.00	2.41	1.44	5	\$	31,074		
Attic Insulation - mult fam (Electric)	2	266.10	37.90	0.00	25	\$	864		
Attic Insulation - mult fam (Gas)	61	0.00	37.90	2.90	25	\$	4,931		
Attic Insulation - sing fam (Electric)	41	271.70	48.30	0.00	25	\$	18,641		
Attic Insulation - sing fam (Gas)	1,922	0.00	48.30	29.00	25	\$	650,680		
Attic Venting - mult fam (Electric)	1	12.30	2.10	0.00	25	\$	20		
Attic Venting - mult fam (Gas)	13	0.00	2.10	0.07	25	\$	47		
Attic Venting - sing fam (Electric)	9	13.60	2.40	0.00	25	\$	205		
Attic Venting - sing fam (Gas)	573	0.00	2.40	0.72	25	\$	5,794		
Building Envelope Repair - mobile (Electric)	61	67.90	12.10	0.00	10	\$	3,881		
Building Envelope Repair - mobile (Gas)	1,639	0.00	12.10	7.20	10	\$	77,812		
Building Envelope Repair - mult fam (Electric)	513	66.50	9.50	0.00	10	\$	31,007		
Building Envelope Repair - mult fam (Gas)	2,696	0.00	9.50	0.70	10	\$	30,291		
Building Envelope Repair - sing fam (Electric)	507	67.90	12.10	0.00	10	\$	32,257		
Building Envelope Repair - sing fam (Gas)	9,638	0.00	12.10	7.20	10	\$	457,567		
Caulking - mobile (Electric)	83	10.20	1.80	0.00	5	\$	460		
Caulking - mobile (Gas)	2,021	0.00	1.80	1.08	5	\$	8,450		
Caulking - mult fam (Electric)	1,037	9.20	1.40	0.00	5	\$	5,082		
Caulking - mult fam (Gas)	3,174	0.00	1.40	0.10	5	\$	3,039		
Caulking - sing fam (Electric)	576	10.20	1.80	0.00	5	\$	3,195		
Caulking - sing fam (Gas)	10,066	0.00	1.80	1.08	5	\$	42,089		
Compact Fluorescent Hard Wire Porch Lights	356	70.00	0.00	0.00	20	\$	31,416		
Compact Fluorescent Lamp	169,269	57.80	0.00	0.00	8	\$	6,572,313		
Door Weatherstripping - mobile (Electric)	80	30.60	5.40	0.00	5	\$	1,331		

Measure Description	Number Installed	d Electric Impact Measure (kWh) Gas Impac		Per Measure Gas Impact	EUL	Life C	Measure Sycle Bill ngs (\$)
		SH	AC	Therms	Years		
Door Weatherstripping - mobile (Gas)	1,946	0.00	5.40	3.23	5	\$	24,350
Door Weatherstripping - mult fam (Electric)	578	27.70	4.30	0.00	5	\$	8,551
Door Weatherstripping - mult fam (Gas)	2,956	0.00	4.30	0.30	5	\$	8,626
Door Weatherstripping - sing fam (Electric)	559	30.60	5.40	0.00	5	\$	9,303
Door Weatherstripping - sing fam (Gas)	9,872	0.00	5.40	3.23	5	\$	123,528
Duct Sealing and Repair -mult (Gas)	8	0.00	57.80	33.20	25	\$	3,129
Duct Sealing and Repair - sing (Gas)	55	0.00	197.00	89.90	25	\$	61,416
Energy Education (Electric)	1,960	0.00	0.00	0.00	1	\$	
Energy Education (Gas)	19,446	0.00	0.00	0.00	1	\$	-
Evaporative Cooler Covers	2,187	1.02	0.00	2.60	3	\$	12,508
Evaporative Coolers (Portable)	3,425	353.60	0.00	0.00	7	\$	733,085
Faucet Aerators (Gas)	18,758	0.00	0.00	3.50	5	\$	203,597
Furnace Filters - mobile (Electric)	50	10.20	1.82	0.00	5	\$	278
Furnace Filters - mobile (Gas)	1,571	0.00	1.82	1.08	5	\$	6,583
Furnace Filters - mult fam (Electric)	104	9.20	1.41	0.00	5	\$	510
Furnace Filters - mult fam (Gas)	2,112	0.00	1.41	0.10	5	\$	2,032
Furnace Filters - sing fam (Electric)	183	10.20	1.82	0.00	5	\$	1,017
Furnace Filters - sing fam (Gas)	5,418	0.00	1.82	1.08	5	\$	22,705
Furnace Repair (Gas)	453	0.00	0.00	0.00	10	\$	-
Furnace Replacement (Gas)	555	0.00	0.00	0.00	22	\$	-
Low Flow Showerhead (Gas)	15,918	0.00	0.00	16.40	10	\$	1,372,432
Outlet/Switch Gaskets (Electric)	1,639	18.76	3.70	0.00	15	\$	38,882
Outlet/Switch Gaskets (Gas)	14,908	0.00	3.70	0.80	15	\$	141,109
Refrigerator Replacement	5,767	542.00	0.00	0.00	15	\$	3,301,446
Water Heater Blanket - mobile (Gas)	378	0.00	0.00	13.20	5	\$	15,473
Water Heater Blanket - mult fam (Gas)	376	0.00	0.00	13.20	5	\$	15,391
Water Heater Blanket - sing fam (Gas)	2,322	0.00	0.00	13.20	5	\$	95,050
Water Heater Pipe Wrap (Gas)	952	0.00	0.00	4.00	15	\$	26,453
Sub-total for Energy Efficiency Measures						\$	14,242,497
Rapid Deployment Measures							
Air Conditioning Replacement - Central	35	0.00	1393.35	0.00	18	\$	57,780
Set-back Thermostats	179	0.00	8.28	49.30	12	\$	54,142
Water heater Replacement	396	0.00	0.00	18.36	13	\$	45,955

Measure Description	Number Installed	Electr	Measure ic Impact xWh)	Per Measure Gas Impact	EUL	Life (Measure Cycle Bill Ings (\$)
		SH	AC	Therms	Years		
Sub-total for Rapid Deployment Measures						\$	157,877
Total Bill Savings for All Measures in Program Year						\$	14,400,373

Total Number of Homes Served by the Program during Program Year	37,935
Life Cycle Bill Savings Per Home	\$ 379.61

Exhibit 4.14 PG&E Life Cycle Bill Savings—Program Year 2002 Last Updated 3/16/04

Measure Description	Number Installed	Installed Electric I		Per Measure	EUL	Life C	Measure ycle Bill
		(kV	Wh)	Gas Impact		Sav	vings
		SH	AC	Therms	Years		\$
Energy Efficiency Measures							
Attic Access Weatherstripping - MH (Gas)	29	0.00	8.20	3.30	5	\$	317
Attic Access Weatherstripping - MF (Electric)	292	6.10	4.50	0.00	5	\$	1,062
Attic Access Weatherstripping - MF (Gas)	2,441	0.00	4.50	1.60	5	\$	13,177
Attic Access Weatherstripping - SF (Electric)	1,096	8.50	8.20	0.00	5	\$	5,955
Attic Access Weatherstripping - SF (Gas)	9,149	0.00	8.20	3.30	5	\$	99,976
Attic Insulation - MF (Electric)	63	59.00	70.20	0.00	25	\$	8,056
Attic Insulation - MF (Gas)	526	0.00	70.20	18.70	25	\$	113,263
Attic Insulation - SF (Electric)	393	81.60	110.70	0.00	25	\$	72,819
Attic Insulation - SF (Gas)	3,284	0.00	110.70	34.20	25	\$	1,257,754
Building Envelope Repair - MH (Electric)	297	29.30	25.10	0.00	10	\$	9,455
Building Envelope Repair - MH (Gas)	2,481	0.00	25.10	8.80	10	\$	131,347
Building Envelope Repair - MF (Electric)	1,097	20.80	14.10	0.00	10	\$	23,393
Building Envelope Repair - MF (Gas)	9,154	0.00	14.10	4.60	10	\$	256,378
Building Envelope Repair - SF (Electric)	1,695	29.30	25.10	0.00	10	\$	53,905
Building Envelope Repair - SF (Gas)	14,143	0.00	25.10	8.80	10	\$	748,840
Caulking - MH (Electric)	388	8.50	8.20	0.00	5	\$	2,108
Caulking - MH (Gas)	3,239	0.00	8.20	3.30	5	\$	35,394
Caulking - MF (Electric)	1,414	6.00	4.50	0.00	5	\$	5,071
Caulking - MF (Gas)	11,798	0.00	4.50	1.60	5	\$	63,699
Caulking - SF (Electric)	1,687	8.50	8.20	0.00	5	\$	9,165
Caulking - SF (Gas)	14,082	0.00	8.20	3.30	5	\$	153,882
Compact Fluorescent Hard Wire Porch Lights	6,665	37.10	0.00	0.00	20	\$	315,561
Compact Fluorescent Lamp - SF	344,394	22.30	0.00	0.00	8	\$	5,142,577
Door Weatherstripping - MH (Electric)	365	8.50	8.20	0.00	5	\$	1,985
Door Weatherstripping - MH (Gas)	3,050	0.00	8.20	3.30	5	\$	33,325
Door Weatherstripping - MF (Electric)	1,213	6.10	4.50	0.00	5	\$	4,406
Door Weatherstripping - MF (Gas)	10,122	0.00	4.50	1.60	5	\$	54,649
Door Weatherstripping - SF (Electric)	1,665	8.50	8.20	0.00	5	\$	9,043
Door Weatherstripping - SF (Gas)	13,893	0.00	8.20	3.30	5	\$	151,823
Energy Education	56,698	0.00	0.00	0.00	1	\$	

Measure Description	Number Installed	Electric	easure Impact Vh)	Per Measure Gas Impact	EUL	Life (Measure Cycle Bill avings
		SH	AC	Therms	Years		\$
Evaporative Cooler Covers SF (Electric)	408	24.00	0.00	0.00	3	\$	2,851
Evaporative Cooler Covers SF (Gas)	3,401	0.00	0.00	7.20	3	\$	43,662
Evaporative Coolers SF (Portable)	15,968	0.00	390.59	0.00	7	\$	3,749,471
Faucet Aerators SF (Gas)	36,939	0.00	0.00	1.40	5	\$	146,580
Furnace Filters - MH (Electric)	310	24.16	0.00	0.00	5	\$	3,398
Furnace Filters - MH (Gas)	2,586	0.00	0.00	4.92	5	\$	36,064
Furnace Filters - MF (Electric)	626	17.51	0.00	0.00	5	\$	4,975
Furnace Filters - MF (Gas)	5,224	0.00	0.00	2.33	5	\$	34,500
Furnace Filters - SF (Electric)	974	18.10	0.00	0.00	5	\$	8,005
Furnace Filters - SF (Gas)	8,133	0.00	0.00	4.26	5	\$	98,197
Furnace Repair (Gas)	632	0.00	0.00	42.90	10	\$	137,061
Furnace Replacement (Gas)	330	0.00	0.00	147.20	22	\$	418,603
Low Flow Showerhead SF (Gas)	30,603	0.00	0.00	9.10	10	\$	1,407,816
Outlet/Switch Gaskets SF (Electric)	3,421	7.99	0.12	0.00	15	\$	29,308
Outlet/Switch Gaskets SF (Gas)	28,547	0.00	0.12	0.34	15	\$	67,500
Refrigerator Replacement	24,719	644.70	0.00	0.00	15	\$	16,981,835
Water Heater Blanket - MH (Gas)	0	0.00	0.00	7.30	5	\$	-
Water Heater Blanket - MF (Gas)	0	0.00	0.00	4.90	5	\$	-
Water Heater Blanket - SF (Gas)	7,137	0.00	0.00	7.30	5	\$	147,673
Water Heater Pipe Wrap- SF (Gas)	1,352	0.00	0.00	2.70	15	\$	24,806
Sub-total for Energy Efficiency Measures						\$	32,120,690
Rapid Deployment Measures							
Air Conditioning Replacement - Central - SF	442	0.00	611.93	0.00	18	\$	324,041
Duct Sealing and Testing -MF (Gas)	45	0.00	41.94	17.81	25	\$	8,545
Duct Sealing and Testing - MH/SF (Gas)	244	0.00	43.80	17.74	25	\$	46,454
Set-back Thermostats MF (Electric)	108	58.88	37.31	0.00	12	\$	7,332
Set-back Thermostats MF (Gas)	898	0.00	39.32	8.79	12	\$	59,451
Set-back Thermostats MH (Electric)	109	87.57	35.88	0.00	12	\$	10,210
Set-back Thermostats MH (Gas)	909	0.00	52.02	18.94	12	\$	118,156
Set-back Thermostats SF (Electric)	242	77.46	62.19	0.00	12	\$	22,871
Set-back Thermostats SF (Gas)	2,016	0.00	43.18	18.35	12	\$	248,298
Whole House Fans SF	99	0.00	124.16	0.00	20	\$	15,687
Evaporative Cooler Maintenance SF	771	0.00	73.61	0.00	4	\$	21,262

Measure Description	Number Installed	Electric	easure Impact Vh)	Per Measure Gas Impact	EUL	Life C	Measure Cycle Bill vings
		SH	AC	Therms	Years		\$
Evaporative Cooler Maintenance MF	350	0.00	49.33	0.00	4	\$	6,468
Water heater Replacement SF (Gas)	765	0.00	0.00	21.60	13	\$	101,618
Sub-total for Rapid Deployment Measures						\$	990,395
Total Bill Savings for All Measures in Program Year						\$	33,111,085

Total Number of Homes Served by the Program during Program Year	70,683
Life Cycle Bill Savings Per Home	\$ 468.44

Exhibit 4.15 PG&E Life Cycle Bill Savings- Program Year 2003 Last Updated 3/16/04

Measure Description	Number	Per M		EUL	Total Measure Life
	Installed	Imp	oact		Cycle Bill Savings
		kWh	Therms	Years	\$
Energy Efficiency Measures					
Attic Access Weatherstripping - MF (Electric)	100	0.91	0.00	5	\$ 41
Attic Access Weatherstripping - MF (Gas)	1,984	0.27	0.40	5	\$ 2,558
Attic Access Weatherstripping - SF (Electric)	579	2.59	0.00	5	\$ 676
Attic Access Weatherstripping - SF (Gas)	9,578	0.67	0.67	5	\$ 21,628
Attic Insulation - MF (Electric)	48	78.35	0.00	25	\$ 5,520
Attic Insulation - MF (Gas)	487	20.85	18.82	25	\$ 102,009
Attic Insulation - SF (Electric)	159	118.54	0.00	25	\$ 27,665
Attic Insulation - SF (Gas)	2,979	25.75	35.11	25	\$ 1,106,619
Building Envelope Repair - MH (Electric)	173	38.75	0.00	10	\$ 5,391
Building Envelope Repair - MH (Gas)	1,792	9.52	8.55	10	\$ 93,497
Building Envelope Repair - MF (Electric)	1,076	22.80	0.00	10	\$ 19,729
Building Envelope Repair - MF (Gas)	6,489	6.38	4.48	10	\$ 184,661
Building Envelope Repair - SF (Electric)	917	38.05	0.00	10	\$ 28,059
Building Envelope Repair - SF (Gas)	14,060	8.05	8.33	10	\$ 700,848
Caulking - MH (Electric)	201	11.63	0.00	5	\$ 1,054
Caulking - MH (Gas)	2,294	3.27	2.87	5	\$ 22,603
Caulking - MF (Electric)	1,914	6.59	0.00	5	\$ 5,687
Caulking - MF (Gas)	7,200	1.71	1.48	5	\$ 36,661
Caulking - SF (Electric)	1,006	11.43	0.00	5	\$ 5,185
Caulking - SF (Gas)	14,045	2.75	2.81	5	\$ 132,635
Compact Fluorescent Hard Wire Porch Lights MF	1,783	41.70	0.00	20	\$ 96,498
Compact Fluorescent Hard Wire Porch Lights MH/SF	6,767	37.10	0.00	20	\$ 325,838
Compact Fluorescent Lamp - MF	78,250	27.80	0.00	8	\$ 1,464,248
Compact Fluorescent Lamp - MH/SF	114,686	24.80	0.00	8	\$ 1,914,466
Door Weatherstripping - MH (Electric)	190	8.56	0.00	5	\$ 733
Door Weatherstripping - MH (Gas)	2,180	4.75	2.18	5	\$ 18,543
Door Weatherstripping - MF (Electric)	996	5.99	0.00	5	\$ 2,690
Door Weatherstripping - MF (Gas)	6,710	1.61	1.08	5	\$ 26,028

Measure Description	Number	Per M	easure	EUL	Total Measure Life	
_	Installed	Imp	Impact		Cycle Bill Savings	
		kWh	Therms	Years	\$	
Door Weatherstripping - SF (Electric)	1,001	8.67	0.00	5	\$ 3,913	
Door Weatherstripping - SF (Gas)	14,333	4.25	2.14	5	\$ 117,013	
Evaporative Cooler Covers MF (Electric)	23	20.57	0.00	3	\$ 134	
Evaporative Cooler Covers MF (Gas)	594	0.00	3.32	3	\$ 3,621	
Evaporative Cooler Covers MH/SF (Electric)	228	28.00	0.00	3	\$ 1,811	
Evaporative Cooler Covers MH/SF (Gas)	3,690	0.00	5.98	3	\$ 40,521	
Evaporative Coolers MF (Portable)	1,526	379.97	0.00	7	\$ 349,420	
Evaporative Coolers MH/SF (Portable)	2,389	357.04	0.00	7	\$ 514,016	
Faucet Aerators MF (Electric)	1,822	41.20	0.00	5	\$ 33,847	
Faucet Aerators MF (Gas)	9,315	0.00	0.90	5	\$ 24,475	
Faucet Aerators MH/SF (Electric)	1,250	48.40	0.00	5	\$ 27,279	
Faucet Aerators MH/SF (Gas)	18,608	0.00	1.40	5	\$ 76,055	
Furnace Filters - MH (Electric)	135	14.61	0.00	5	\$ 889	
Furnace Filters - MH (Gas)	3,708	0.00	2.23	5	\$ 24,140	
Furnace Filters - MF (Electric)	125	23.72	0.00	5	\$ 1,337	
Furnace Filters - MF (Gas)	1,834	0.00	4.76	5	\$ 25,486	
Furnace Filters - SF (Electric)	303	19.32	0.00	5	\$ 2,640	
Furnace Filters - SF (Gas)	7,918	0.00	4.36	5	\$ 100,786	
Furnace Repair MF (Gas)	7	0.00	18.90	10	\$ 689	
Furnace Repair MH/SF (Gas)	688	0.00	38.30	10	\$ 137,203	
Furnace Replacement MF (Gas)	9	0.00	73.00	22	\$ 5,832	
Furnace Replacement MH/SF (Gas)	229	0.00	151.10	22	\$ 307,127	
Low Flow Showerhead MF (Electric)	1,345	203.30	0.00	10	\$ 219,893	
Low Flow Showerhead MF (Gas)	8,011	0.00	6.10	10	\$ 254,445	
Low Flow Showerhead MH/SF (Electric)	932	239.20	0.00	10	\$ 179,279	
Low Flow Showerhead MH/SF (Gas)	14,773	0.00	9.10	10	\$ 699,984	
Outlet/Switch Gaskets MF (Electric)	1,902	5.49	0.00	15	\$ 11,288	
Outlet/Switch Gaskets MF (Gas)	7,105	-0.07	0.24	15	\$ 11,397	
Outlet/Switch Gaskets MH/SF (Electric)	1,198	8.03	0.00	15	\$ 10,399	
Outlet/Switch Gaskets MH/SF (Gas)	16,153	0.05	0.34	15	\$ 39,313	
Refrigerator Replacement	17,695	644.70	0.00	15	\$ 12,331,853	
Water Heater Blanket - MF (Electric)	116	163.00	0.00	5	\$ 8,525	
Water Heater Blanket - MF (Gas)	1,712	0.00	4.90	5	\$ 24,491	

Measure Description	Number	Per Measure		EUL	Total Measure Life
•	Installed	Imp	oact		Cycle Bill Savings
		kWh	Therms	Years	\$
Water Heater Blanket - MH/SF (Electric)	303	191.80	0.00	5	\$ 26,204
Water Heater Blanket - MH/SF (Gas)	5,068	0.00	7.30	5	\$ 108,008
Water Heater Pipe Wrap- MF (Electric)	94	115.30	0.00	15	\$ 11,716
Water Heater Pipe Wrap- MF (Gas)	210	0.00	1.80	15	\$ 2,646
Water Heater Pipe Wrap- MH/SF (Electric)	463	135.60	0.00	15	\$ 67,867
Water Heater Pipe Wrap- MH/SF (Gas)	384	0.00	2.70	15	\$ 7,257
Sub-total for Energy Efficiency Measures					\$ 22,164,568
Rapid Deployment Measures					
Air Conditioning Replacement - Central - MF	6	563.50	0.00	18	\$ 4,116
Air Conditioning Replacement - Central - MH/SF	267	725.72	0.00	18	\$ 235,894
Air Conditioning Replacement - Room - MF	57	210.00	0.00	15	\$ 12,939
Air Conditioning Replacement - Room - MH/SF	249	300.96	0.00	15	\$ 81,008
Duct Sealing and Testing -MF (Electric)	9	60.60	0.00	25	\$ 801
Duct Sealing and Testing -MF (Gas)	680	21.52	4.23	25	\$ 48,816
Duct Sealing and Testing - MH/SF (Electric)	87	65.59	0.00	25	\$ 8,376
Duct Sealing and Testing - MH/SF (Gas)	5,287	25.76	8.68	25	\$ 636,044
Set-back Thermostats MF (Electric)	15	73.50	0.00	12	\$ 1,018
Set-back Thermostats MF (Gas)	823	11.37	8.70	12	\$ 51,431
Set-back Thermostats MH/SF (Electric)	51	103.95	0.00	12	\$ 4,894
Set-back Thermostats MH/SF (Gas)	2,988	18.10	18.18	12	\$ 374,583
Evaporative Cooler Maintenance MF	25	67.63	0.00	4	\$ 624
Evaporative Cooler Maintenance MH/SF	491	79.91	0.00	4	\$ 14,489
Whole House Fans SF	244	111.78	0.00	20	\$ 35,399
Water heater Replacement MF (Gas)	7	0.00	18.10	13	\$ 803
Water heater Replacement MH/SF (Gas)	313	0.00	21.60	13	\$ 42,824
Water heater Replacement MF (Electric)	2	117.80	0.00	13	\$ 230
Water heater Replacement MH/SF (Electric)	119	117.80	0.00	13	\$ 13,714
Sub-total for Rapid Deployment Measures					\$ 1,568,003
Total Bill Savings for All Measures in Program Year				-	\$ 23,732,571

Measure Description	Number Installed	Per Measure Impact		- .		<u>.</u>		EUL	Total Measure Life Cycle Bill Savings	
		kWh	Therms	Years	\$					
Life Cycle Bill Savings Per Home			-		\$	502.05				

Exhibit 4.16 SCE Life Cycle Bill Savings- Program Year 2001 Last Updated 3/16/04

Measure Description	Number Installed	Per Measure El (kW	EUL	Total Measure Life Cycle Bill Savings		
		SH	AC	(Yrs)		(\$)
Energy Efficiency Measures						
Attic Access Weatherstripping ¹	34	0	0	5	\$	-
Attic Insulation	13	310.10	213.30	25	\$	10,792
Attic Ventilation ²	277	0	0	25	\$	-
Caulking ¹	-	0	0	5	\$	-
Compact Fluorescents (indoor)	276,126	26.50	0	6	\$	4,304,212
Compact Fluorescents (outdoor)	59,991	204.10	0	2	\$	2,844,749
Cover Plate/Gaskets ²	1,441	0	0	15	\$	-
Duct Repair ²	50	0	0	25	\$	-
Evaporative Cooler Installation	3,962	0	319.20	15	\$	1,486,129
Evaporative Cooler/AC Covers ³	4	0	0	3	\$	-
Faucet Aerators ²	1,126	0	0	5	\$	-
Low Flow Showerhead	1,323	271.90	0	10	\$	316,920
Minor Home Repairs	1,586	56.10	53.00	10	\$	118,217
Miscellaneous ⁴	208	0	0	0	\$	-
Refrigerator Recycle	8,829	0	0	6	\$	-
Refrigerator Replacement	11,574	542.00	0	15	\$	7,371,604
Water Heater Blanket	134	212.70	0	5	\$	14,412
Water Heater Pipe Wrap ³	113	0	0	15	\$	
Weatherstripping	1,580	32.40	31.80	5	\$	39,650
Sub-total for Energy Efficiency Measures					\$	16,506,685
Rapid Deployment Measures						
Air Conditioner Replacement - Central	538	0	2785.88	18	\$	1,978,506
Air Conditioner Replacement - Room	254	0	436.8	11	\$	104,923
Evaporative Cooler Maintenance	4,556	0	20.1	4	\$	38,366
Set-back Thermostats	40	0	475	12	\$	19,139
Water Heater Replacement ³	114	0	0	13	\$	-

Measure Description	Number Installed	Per Measure El (kW	-	EUL	Total Measure Life Cycle Bill Savings		
		SH	AC	(Yrs)		(\$)	
Sub-total for Rapid Deployment Measure	b-total for Rapid Deployment Measures				\$	2,140,935	
Total Bill Savings for All Measures In Program Year					\$	18,647,619	

86,903

Life Cycle Bill Savings Per Home

214.58

\$

- 1. This measures have impacts included in the weatherstripping measure. No specific per-measure impact claimed.
- 2. These measures have impacts included in the minor home repair measure. No specific per-measure impact claimed.
- 3. Zero savings are claimed for this measure.
- 4. Zero savings are claimed for this measure, which includes sunscreens, shower arm, shower diverter, and other.

Exhibit 4.17 SCE Life Cycle Bill Savings- Program Year 2002 Last Updated 3/16/04

Measure Description	Number Installed	Per Measure I	EUL		Measure Life Bill Savings	
		SH	AC	(Yrs)	Cycle	(\$)
Energy Efficiency Measures						(*)
Attic Access Weatherstripping ¹	-	0	0	5	\$	-
Attic Insulation MF	-	34.40	-	25	\$	-
Attic Insulation MH/SF	-	50.10	-	25	\$	-
Attic Ventilation ²	-	0	0	25	\$	-
Caulking - MF	1,128	4.7	2.6	5	\$	3,620
Caulking - MH	4	6.9	0	5	\$	14
Compact Fluorescents (indoor) MF	25,968	21.60	0	8	\$	418,137
Compact Fluorescents (indoor) MH/SF	18,491	21.20	0	8	\$	292,229
Compact Fluorescents (outdoor) MF	5,655	32.40	0	5.3	\$	92,029
Compact Fluorescents (outdoor) MH/SF	5,894	31.90	0	5.3	\$	94,438
Cover Plate/Gaskets - MF	1,727	3.38	-0.05	15	\$	6,890
Cover Plate/Gaskets - MH/SF	234	5.62	0.18	15	\$	1,600
Duct Repair ²	1	0	0	25	\$	-
Evaporative Cooler Installation - MF	51	0	571.17	15	\$	34,717
Evaporative Cooler Installation - MH/SF	227	0	426.65	15	\$	115,428
Evaporative Cooler/AC Covers MF	82	14.4	0	3	\$	377
Evaporative Cooler/AC Covers MH/SF	91	19.34	0	3	\$	562
Faucet Aerators - MF	1,142	41.2	0	5	\$	23,632
Faucet Aerators - MH/SF	475	48.4	0	5	\$	11,547
Low Flow Showerhead - MF	1,703	203.30	0	10	\$	307,754
Low Flow Showerhead - MH/SF	242	239.20	0	10	\$	51,455
Minor Home Repairs - MF	1,624	14.80	5.10	10	\$	28,727
Minor Home Repairs - MH/SF	185	21.60	-	10	\$	3,552
Miscellaneous ⁴	267	0	0	0	\$	-
Refrigerator Replacement - MF	5,053	695.4	0	15	\$	4,187,901
Refrigerator Replacement - MH/SF	4,763	711.60	0	15	\$	4,039,512
Water Heater Blanket - MF	296	163.00	0	5	\$	24,234
Water Heater Blanket - SF	19	191.80	0	5	\$	1,830
Water Heater Pipe Wrap ³	-	0	0	15	\$	
Weatherstripping - MF	1,763	4.20	1.70	5	\$	4,698

Measure Description	Number Installed	Per Measure 1 (k'	EUL		Measure Life Bill Savings			
		SH	AC	(Yrs)		(\$)		
Weatherstripping - MH/SF	248	6.20	-	5	\$	772		
Sub-total for Energy Efficiency Measures					\$	9,745,657		
Rapid Deployment Measures								
Air Conditioner Replacement - Central -	158	0	1962.4	18	\$	415,826		
MF								
Air Conditioner Replacement - Central -	92	0	565.28	18	\$	69,746		
MH/SF								
Air Conditioner Replacement - Room - MF	2,602	0	521.02	15	\$	1,615,750		
Evaporative Cooler Maintenance - MH	538	0	69.55	4	\$	15,453		
Evaporative Cooler Maintenance - MF/SF	2,165	0	110.34	4	\$	98,655		
Dust Testing & Sealing - MF	636	23.19	183.45	25	\$	212,267		
Set-back Thermostats	0	0	177.76	12	\$	-		
Water Heater Replacement - MF	266	117.8	0	13	\$	33,824		
Sub-total for Rapid Deployment Measures					\$	2,461,521		
Total Bill Savings for All Measures In Prog	Total Bill Savings for All Measures In Program Year \$							

29,685

Life Cycle Bill Savings Per Home

411.22

\$

- 1. This measures have impacts included in the weatherstripping measure. No specific per-measure impact claimed.
- 2. These measures have impacts included in the minor home repair measure. No specific per-measure impact claimed.
- 3. Zero savings are claimed for this measure.
- 4. Zero savings are claimed for this measure, which includes sunscreens, shower arm, shower diverter, and other.

Exhibit 4.18 SCE Life Cycle Bill Savings- Program Year 2003 Last Updated 3/30/04

Measure Description	Number Installed	Per Measur Impact (EUL	sure Life Cycle Savings
		SH	AC	(Yrs)	(\$)
Energy Efficiency Measures					
Attic Access Weatherstripping ¹	-	0	0	5	\$ -
Attic Insulation MF	-	34.4	-	25	\$ -
Attic Insulation MH/SF	-	50.1	-	25	\$ -
Attic Ventilation ²	-	-	0	25	\$ -
Caulking - MF	180	4.3	5.12	5	\$ 526
Caulking - MH/SF	1	6.6	4.1	5	\$ 4
Compact Fluorescents (indoor) MF	15,033	21.6	0	8	\$ 246,365
Compact Fluorescents (indoor) MH/SF	34,936	21.2	0	8	\$ 561,938
Compact Fluorescents (outdoor) MF	3,829	32.4	0	5.3	\$ 63,052
Compact Fluorescents (outdoor) MH/SF	11,769	31.9	0	5.3	\$ 190,808
Cover Plate/Gaskets - MF	772	3.4	-0.05	15	\$ 3,166
Cover Plate/Gaskets - MH/SF	3	5.6	0.18	15	\$ 21
Duct Repair ²	1	0.0	0.0	25	\$ -
Evaporative Cooler Installation - MF	57	0.0	263.3	15	\$ 18,283
Evaporative Cooler Installation - MH/SF	768	0.0	398.5	15	\$ 372,863
Evaporative Cooler/AC Covers MF	1	14.1	0.0	3	\$ 5
Evaporative Cooler/AC Covers MH/SF	-	19.3	0.0	3	\$ -
Faucet Aerators - MF	1,442	41.2	0.0	5	\$ 30,195
Faucet Aerators - MH/SF	2	48.4	0.0	5	\$ 49
Low Flow Showerhead - MF	872	203.3	0.0	10	\$ 160,694
Low Flow Showerhead - MH/SF	2	239.2	0.0	10	\$ 434
Minor Home Repairs - MF	864	14.6	9.4	10	\$ 18,765
Minor Home Repairs - MH/SF	3	21.6	9.0	10	\$ 83
Refrigerator Replacement - MF	4,735	695.4	0.0	15	\$ 4,012,073
Refrigerator Replacement - MH/SF	12,591	711.6	0.0	15	\$ 10,917,176
Water Heater Blanket - MF	149	163.0	0.0	5	\$ 12,344
Water Heater Blanket - SF	<u> </u>	191.8	0.0	5	\$
Water Heater Pipe Wrap ³	4	0.0	0.0	15	\$
Weatherstripping - MF	878	3.8	2.9	5	\$ 2,047

Measure Description	Number Installed	Per Measure Impact (k	EUL	Total Measure Life Cycle Bill Savings		
		SH	AC	(Yrs)		(\$)
Weatherstripping - MH/SF	3	4.8	2.00	5	\$	8
Sub-total for Energy Efficiency Measures		1			\$	16,610,897
Rapid Deployment Measures						
Air Conditioner Replacement - Central - MF	450	0	1330.8	18	\$	821,787
Air Conditioner Replacement - Central - MH/SF	866	0	615.6	18	\$	731,555
Air Conditioner Replacement - Room - MF	2	0	217.0	15	\$	529
Air Conditioner Replacement - Room - MH/SF	18	0	278.7	15	\$	6,112
Evaporative Cooler Maintenance - MH	5	0	35.0	4	\$	73
Evaporative Cooler Maintenance - MF/SF	173	0	78.6	4	\$	5,659
Duct Testing & Sealing - MF	450	31.7	124.6	25	\$	116,346
Duct Testing & Sealing - MH/SF	500	56.7	76.7	25	\$	110,316
Set-back Thermostats - MF	449	31.8	124.9	12	\$	73,186
Set-back Thermostats - MH/SF	584	59.2	83.8	12	\$	86,921
Water Heater Replacement - MF	136	117.8	0	13	\$	17,666
Water Heater Replacement - SF	1	117.8	0	13	\$	130
Sub-total for Rapid Deployment Measure.	S				\$	1,970,280
Total Bill Savings for All Measures In I	Program Year				\$	18,581,176

Total Number of Homes Served by the Program during Program Year 33,732 Life Cycle Bill Savings Per Home \$ 550.85

^{1.} This measure have impacts included in the weatherstripping measure. No specific per-measure impact claimed.

^{2.} These measures have impacts included in the minor home repair measure. No specific per-measure impact claimed.

^{3.} Zero savings are claimed for this measure.

Exhibit 4.19 SDG&E Life Cycle Bill Savings—Program Year 2001 Last Updated 3/16/04

Measure Description	Number Installed	Per Measure Electric Impact	Per Measure Gas Impact	EUL	Total Measu Bill Sa	re Life Cycle avings
		(kWh)	(Therms)	(years)	(9	\$)
Energy Efficiency Measures						
Attic Ventilation*	135	0	0	25	\$	-
Auto Sweep*	195	0	0	5	\$	-
Caulking - MF	3625	0	1.4	5	\$	17,917
Caulking - SF	6316	0	3.2	5	\$	71,354
Ceiling Insulation R-11 (Electric)	12	34	0	25	\$	781
Ceiling Insulation R-11 (Gas)	68	0	21	25	\$	16,855
Ceiling Insulation R-19 (Electric)	29	34	0	25	\$	1,914
Ceiling Insulation R-19 (Gas)	167	0	21	25	\$	41,294
Compact Fluorescent Lights	36240	68.62	0	9	\$	2,388,443
Cover Plates/Gaskets*	7003	0	0	15	\$	-
Door Replacement*	1719	0	0	10	\$	-
Door Threshold*	1783	0	0	5	\$	-
Glass Replacement*	743	0	0	10	\$	-
Evaporative Cooler Cover	439	0	26	3	\$	24,764
Evaporative Cooler Replacement	2	130	0	15	\$	366
Exterior CFL Fixture	20	68.62	0	20	\$	2,322
Faucet Aerators	9280	0	8	5	\$	266,030
Furnace repairs	685	0	1	10	\$	5,615
Furnace Replacement	410	0	1	22	\$	5,780
Glass Replacement*	743	0	0	10	\$	-
In Home Energy Education	14839	47	0	1	\$	81,879
Jamb Replacement*	129	0	0	5	\$	-
Low Flow Showerheads (Electric)	1308	174	0	10	\$	237,620
Low Flow Showerheads (Gas)	7410	0	7	10	\$	341,700
Minor Home Repair Materials	3399	5	8	10	\$	191,895
Refrigerator Replacement	5484	402.15	0	15	\$	3,103,706
Water Heater Blankets (Electric)	143	138	0	5	\$	11,461
Water Heater Blankets (Gas)	810	0	6	5	\$	16,587
Water Heater Pipe Wrap	908	0	8	15	\$	62,878

Measure Description	Number Installed	Per Measure Electric Impact	Per Measure Gas Impact	EUL		re Life Cycle avings
		(kWh)	(Therms)	(years)	(9	5)
Weather stripping (Electric) - MF	601	5	0	5	\$	1,746
Weather stripping (Electric) - SF	702	5	0	5	\$	2,038
Weather stripping (Gas) - MF	3406	0	1	5	\$	16,834
Weather stripping (Gas) - SF	3976	0	3	5	\$	44,922
Sub-total for Energy Efficiency Measures					\$	6,956,703
Rapid Deployment Measures						
Air Conditioner Replacement - Central	195	781	0	18	\$	241,576
Air Conditioner Replacement - Room	184	339	0	11	\$	70,121
Duct Sealing & Repair (Electric Heat)	9	425	0	25	\$	7,568
Duct Sealing & Repair (Gas Heat)	53	237	27	25	\$	40,708
Set back Thermostat (Electric Heat)	50	88	0	15	\$	6,205
Set back Thermostat (Gas Heat)	284	9	30	15	\$	77,320
Water Heater Replacement - Gas	423	0	21	13	\$	69,472
Whole House Fans	1	223	0	20	\$	377
Sub-total for Rapid Deployment					\$	513,347
Measures						
Total Bill Savings for All Measures in Pr Year	ogram				\$	7,470,049

19,315

\$ 386.75

Life Cycle Bill Savings Per Home *SDG&E has no studies supporting savings for this measure. No impacts taken during this year.

Exhibit 4.20 SDG&E Life Cycle Bill Savings—Program Year 2002 Last Updated 3/16/04

Measure Description	Number Installed	Per Measure Electric Impact	Per Measure Gas Impact	EUL	Total Measur Bill Sa	
		(kWh)	(Therms)	(years)	(\$)
Energy Efficiency Measures						
Attic Ventilation*	124	0.00	0.00	25	\$	-
Auto Sweep*	177	0.00	0.00	5	\$	-
Caulking - MF (Electric)	523	6.00	0.00	5	\$	1,920
Caulking - MF (Gas)	2,965	2.30	2.00	5	\$	25,770
Caulking - MH/SF (Electric)	583	7.80	0.00	5	\$	2,781
Caulking - MH/SF (Gas)	3,303	2.70	2.50	5	\$	35,534
Ceiling Insulation MF (Electric)	2	34.40	0.00	25	\$	137
Ceiling Insulation MF (Gas)	5	0.00	11.00	25	\$	669
Ceiling Insulation MH/SF (Electric)	62	93.60	0.00	25	\$	11,521
Ceiling Insulation MH/SF (Gas)	354	43.50	16.90	25	\$	103,339
Compact Fluorescent Lights MF	8,579	27.80	0.00	8	\$	217,452
Compact Fluorescent Lights MH/SF	14,924	24.80	0.00	8	\$	337,457
Cover Place / Gaskets MF (Electric)	405	2.94	0.00	15	\$	1,742
Cover Place / Gaskets MF (Gas)	2,296	-0.10	0.13	15	\$	2,327
Cover Place / Gaskets MH/SF (Electric)	403	5.73	0.00	15	\$	3,379
Cover Place / Gaskets MH/SF (Gas)	2,285	0.40	0.23	15	\$	6,025
Door Replacement*	1535	0	0	10	\$	-
Door Threshold*	2410	0	0	5	\$	-
Duct Register Sealing*	688	0	0	5	\$	-
Evaporative Cooler Cover SF	135	15.17	3.65	3	\$	1,894
Evaporative Cooler Replacement SF	4	246.35	0.00	15	\$	1,441
Exterior CFL Fixture MF	115	41.70	0.00	20	\$	8,419
Exterior CFL Fixture MH/SF	226	37.10	0.00	20	\$	14,721
Faucet Aerators MH	3,237	41.20	0.90	5	\$	92,176
Faucet Aerators MH/SF	3,693	48.40	1.40	5	\$	128,149
Furnace repairs MF	153	0.00	16.00	10	\$	16,164
Furnace repairs MH/SF	406	0.00	23.00	10	\$	61,657

Measure Description	Number Installed	Per Measure Electric Impact	Per Measure Gas Impact	EUL	Total Measur Bill Sa	
		(kWh)	(Therms)	(years)	(\$))
Furnace Replacement SF	367	0.00	84.30	22	\$	351,177
Glass Replacement*	959	0.00	0.00	10	\$	-
Jamb Replacement*	113	0.00	0.00	5	\$	-
In Home Energy Education	10,506	0.00	0.00	1	\$	-
Low Flow Showerheads MF (Electric)	515	203.30	0.00	10	\$	113,998
Low Flow Showerheads MF (Gas)	2,921	0.00	6.10	10	\$	117,649
Low Flow Showerheads MH/SF (Electric)	618	239.20	0.00	10	\$	160,954
Low Flow Showerheads MH/SF (Gas)	3,504	0.00	9.10	10	\$	210,539
Minor Home Repair Materials MF (Electric)	163	19.90	0.00	10	\$	3,536
Minor Home Repair Materials MF (Gas)	925	7.00	3.80	10	\$	30,252
Minor Home Repair Materials MH/SF (Electric)	331	26.10	0.00	10	\$	9,408
Minor Home Repair Materials MH/SF (Gas)	1,876	8.10	5.50	10	\$	84,670
Refrigerator Replacement	6,488	644.70	0.00	15	\$	6,118,309
Water Heater Blankets MF (Electric)	7	163.00	0.00	5	\$	698
Water Heater Blankets MF (Gas)	39	0.00	4.90	5	\$	696
Water Heater Blankets MH/SF (Electric)	87	191.80	0.00	5	\$	10,205
Water Heater Blankets MH/SF (Gas)	494	0.00	7.30	5	\$	13,136
Water Heater Pipe Wrap MF (Electric)	2	115.30	0.00	15	\$	379
Water Heater Pipe Wrap MF (Gas)	13	0.00	1.80	15	\$	205
Water Heater Pipe Wrap MH/SF (Electric)	37	135.60	0.00	15	\$	7,408
Water Heater Pipe Wrap MH/SF (Gas)	212	0.00	2.70	15	\$	5,099
Weather stripping (Electric) - MF	548	6.10	0.00	5	\$	2,044
Weather stripping (Gas) - MF	3,104	2.40	2.00	5	\$	27,170
Weather stripping (Electric) - SF	550	8.00	0.00	5	\$	2,691
Weather stripping (Gas) - SF	3,114	2.80	2.70	5	\$	35,959
Sub-total for Energy Efficiency Measures					\$	8,380,857
Rapid Deployment Measures						
Air Conditioner Replacement - Central MF	1	828.28	0.00	18	\$	1,364
Air Conditioner Replacement - Central SF	293	292.85	0.00	18	\$	141,321
Air Conditioner Replacement - Room MF	310	130.16	0.00	15	\$	59,020
Air Conditioner Replacement - Room SF	14	426.40	0.00	15	\$	8,732

Measure Description	Number Installed	Per Measure Electric Impact	Per Measure Gas Impact	EUL	Total Measu Bill Sa	re Life Cycle avings	
		(kWh)	(Therms)	(years)	(9	5)	
Duct Sealing & Testing MF (Electric)	1	116.60	0.00	25	\$	231	
Duct Sealing & Testing MF (Gas)	4	47.98	6.24	25	\$	685	
Duct Sealing & Testing SF (Electric)	42	87.15	0.00	25	\$	7,267	
Duct Sealing & Testing SF (Gas)	238	27.39	11.54	25	\$	46,348	
Evap Cooler Maintenance & Repair MH/SF	14	76.43	0.00	4	\$	536	
Set back Thermostat MF (Electric)	1	116.60	0.00	12	\$	146	
Set back Thermostat MF (Gas)	8	77.55	6.78	12	\$	1,187	
Set back Thermostat SF (Electric)	73	149.88	0.00	12	\$	13,670	
Set back Thermostat SF (Gas)	414	95.48	15.00	12	\$	96,576	
Water Heater Replacement MF (Gas)	16	0.00	18.10	13	\$	2,335	
Water Heater Replacement SF (Gas)	577	0.00	21.60	13	\$	100,474	
Whole House Fans SF	0	63.00	0.00	20	\$	-	
Sub-total for Rapid Deployment Measures					\$	479,893	
Total Bill Savings for All Measures in Program Year \$						8,860,750	

14,089

Life Cycle Bill Savings Per Home

\$ 628.91

*SDG&E has no studies supporting savings for this measure. No impacts taken during this year.

Exhibit 4.21 SDG&E Life Cycle Bill Savings—Program Year 2003 Last Updated 3/26/04

Measure Description	Number Installed	Per Measure Electric Impact	Per Measure Gas Impact	EUL	leasure Life Cycle Bill Savings
		(kWh)	(Therms)	(years)	(\$)
Energy Efficiency Measures					
Attic Ventilation*	66	0.00	0.00	25	\$ -
Auto Sweep*	32	0.00	0.00	5	\$ -
Caulking - MF (Electric)	804	6.00	0.00	5	\$ 3,026
Caulking - MF (Gas)	4,557	2.30	2.00	5	\$ 42,041
Caulking - MH/SF (Electric)	828	7.80	0.00	5	\$ 4,050
Caulking - MH/SF (Gas)	4,694	2.70	2.50	5	\$ 53,616
Ceiling Insulation MF (Electric)	2	34.40	0.00	25	\$ 126
Ceiling Insulation MF (Gas)	10	0.00	11.00	25	\$ 1,421
Ceiling Insulation MH/SF (Electric)	51	93.60	0.00	25	\$ 9,777
Ceiling Insulation MH/SF (Gas)	290	43.50	16.90	25	\$ 87,801
Compact Fluorescents MF	16,559	27.80	0.00	8	\$ 431,118
Compact Fluorescents SF	15,827	24.80	0.00	8	\$ 367,593
Cover Plate/Gaskets MF (Electric)	697	2.94	0.00	15	\$ 3,081
Cover Plate/Gaskets MF (Gas)	3,948	-0.10	0.13	15	\$ 4,195
Cover Plate/Gaskets MH/SF (Electric)	669	5.73	0.00	15	\$ 5,762
Cover Plate/Gaskets MH/SF (Gas)	3,788	0.40	0.23	15	\$ 10,408
Door Replacement*	2,797	0	0	10	\$ -
Door Threshold*	4,065	0	0	5	\$ -
Duct Register Sealing*	500	0	0	5	\$ -
Evaporative Cooler Covers SF (Electric)	8	15.17	0.00	3	\$ 49
Evaporative Cooler Covers SF (Gas)	47	0.00	3.65	3	\$ 418
Evaporative Cooler Replacement SF	4	246.35	0.00	15	\$ 1,482
Porchlights MF	225	41.70	0.00	20	\$ 16,943
Porchlights SF	803	37.10	0.00	20	\$ 53,796
Faucet Aerators MF (Gas)	4,967	0.00	0.90	5	\$ 17,395
Faucet Aerators MF (Electric)	877	41.20	0.00	5	\$ 22,667
Faucet Aerators MH/SF (Gas)	4,682	0.00	1.40	5	\$ 25,507

Measure Description	Number Installed	Per Measure Electric Impact	Per Measure Gas Impact	EUL	Total 1	Measure Life Cycle Bill Savings
		(kWh)	(Therms)	(years)		(\$)
Faucet Aerators MH/SF (Electric)	826	48.40	0.00	5	\$	25,080
Furnace repair - Gas MF	398	0.00	16.00	10	\$	44,196
Furnace repair - Gas MH/SF	664	0.00	23.00	10	\$	105,992
Furnace Replacement - Gas MF	1	0.00	0.00	22	\$	-
Furnace Replacement - Gas SF	283	0.00	84.30	22	\$	282,249
Glass Replacement*	1,423	0.00	0.00	10	\$	-
Jamb Replacement*	160	0.00	0.00	5	\$	-
New Central Return*	87	0.00	0.00	18	\$	-
Low Flow Showerhead MF (Electric)	878	203.30	0.00	10	\$	199,637
Low Flow Showerhead MF (Gas)	4,973	0.00	6.10	10	\$	210,551
Low Flow Showerhead SF (Electric)	807	239.20	0.00	10	\$	215,862
Low Flow Showerhead SF (Gas)	4,571	0.00	9.10	10	\$	288,689
Minor Home Repairs MF (Electric)	359	19.90	0.00	10	\$	7,996
Minor Home Repairs MF (Gas)	2,035	7.00	3.80	10	\$	69,604
Minor Home Repairs SF (Electric)	600	26.10	0.00	10	\$	17,535
Minor Home Repairs SF (Gas)	3,403	8.10	5.50	10	\$	160,718
Refrigerators	4,948	644.70	0.00	15	\$	4,797,763
Refrigerators (Co Pay)	12	644.70	0.00	15	\$	11,636
Water Heater Blanket MF (Electric)	28	163.00	0.00	5	\$	2,822
Water Heater Blanket MF (Gas)	156	0.00	4.90	5	\$	2,982
Water Heater Blanket MH/SF (Electric)	147	191.80	0.00	5	\$	17,742
Water Heater Blanket MH/SF (Gas)	836	0.00	7.30	5	\$	23,735
Water Heater Pipe Wrap MF (Electric)	8	115.30	0.00	15	\$	1,301
Water Heater Pipe Wrap MF (Gas)	43	0.00	1.80	15	\$	714
Water Heater Pipe Wrap MH/SF (Electric)	47	135.60	0.00	15	\$	9,606
Water Heater Pipe Wrap MH/SF (Gas)	267	0.00	2.70	15	\$	6,723
Weatherstripping MF (Electric)	846	6.10	0.00	5	\$	3,239
Weatherstripping MF (Gas)	4,797	2.40	2.00	5	\$	44,552
Weatherstripping MH/SF (Electric)	823	8.00	0.00	5	\$	4,132
Weatherstripping MH/SF (Gas)	4,666	2.80	2.70	5	\$	57,216
Sub-total for Energy Efficiency Measures						\$ 7,774,543

Measure Description	Number Installed	Per Measure Electric Impact	Per Measure Gas Impact	EUL		re Life Cycle avings
		(kWh)	(Therms)	(years)	(\$)
Rapid Deployment Measures						
Air Conditioner Replacement - Central MF	0	828.28	0.00	18	\$	-
Air Conditioner Replacement - Central MH/SF	101	292.85	0.00	18	\$	50,100
Air Conditioner Replacement - Room MF	82	130.16	0.00	15	\$	16,053
Air Conditioner Replacement - Room MH/SF	8	426.40	0.00	15	\$	5,130
Duct Sealing & Testing MF (Electric)	0	116.60	0.00	25	\$	71
Duct Sealing & Testing MF (Gas)	2	47.98	6.24	25	\$	301
Duct Sealing & Testing MH/SF (Electric)	33	87.15	0.00	25	\$	5,793
Duct Sealing & Testing MH/SF (Gas)	184	27.39	11.54	25	\$	37,281
Evaporative Cooler Maintenance SF	86	76.43	0.00	4	\$	3,377
Set back Thermostat MF (Electric)	0	116.60	0.00	12	\$	-
Set back Thermostat MF (Gas)	0	77.55	6.78	12	\$	-
Set back Thermostat SF (Electric)	0	149.88	0.00	12	\$	-
Set back Thermostat SF (Gas)	0	95.48	15.00	12	\$	-
Water Heater Replacement MF (Gas)	5	0.00	18.10	13	\$	764
Water Heater Replacement MH/SF (Gas)	334	0.00	21.60	13	\$	60,911
Whole House Fans SF	0	63.00	0.00	20	\$	-
Sub-total for Rapid Deployment Measures					\$	179,781
Total Bill Savings for All Measures in Progra	am Year				\$	7,954,325
Total Number of Homes Served by the Progr Year	am during	Program				15,706
Life Cycle Bill Savings Per Home *SDG&E has no studies supporting savings for this measur					\$	506.45

Exhibit 4.22 SoCalGas Life Cycle Bill Savings—Program Year 2001 Last Updated 3/16/04

Measure Description	Number Installed	Per Measure Electric Impact (kWh)	Per Measure Gas Impact (Therms)	EUL (Yrs)	Life	l Measure Cycle Bill avings (\$)
Energy Efficiency Measures						
Attic Insulation - SF	172	0.0	24.6	25	\$	40,453
Attic Insulation - MF	53	0.0	20.0	25	\$	10,134
Caulking - SF/MH	2,415	0.0	0.9	5	\$	6,139
Caulking - MF	998	0.0	0.7	5	\$	1,973
Door Weatherstripping - SF/MH	16,395	0.0	2.7	5	\$	125,031
Door Weatherstripping - MF	16,335	0.0	2.3	5	\$	106,118
Evaporative Cooler Cover	1,197	0.0	2.6	3	\$	5,342
Faucet Aerator	31,544	0.0	3.5	5	\$	311,836
Furnace Repair	397	0.0	0.0	10	\$	-
Furnace Replacement	2,962	0.0	0.0	22	\$	-
Low Flow Showerhead	29,934	0.0	9.4	10	\$	1,453,244
Minor Home Repairs - SF/MH	14,129	0.0	6.1	10	\$	445,130
Minor Home Repairs - MF	15,162	0.0	5.0	10	\$	391,537
Miscellaneous Measures (Weatherization - Electric)	33,046	12.0	0.0	5	\$	204,226
Switch/Outlet Gasket	28,597	0.0	0.8	15	\$	160,105
Water Heater Blanket - SF/MH	2,609	0.0	7.6	5	\$	56,005
Water Heater Blanket - MF	1,687	0.0	7.4	5	\$	35,260
Water Heater Pipe Wrap	2,371	0.0	2.6	15	\$	43,142
Sub-total for Energy Efficiency Measures		\$	3,395,675			
Rapid Deployment Measures						
Water Heater Replacement - Gas	1,549	0.0	16.0	13	\$	156,587
Sub-total for Rapid Deployment Measures		\$	156,587			
Total Bill Savings for All Measures in Program Year					\$	3,552,261

Total Number of Homes Served by the Program during Program Year Life Cycle Bill Savings Per Home 33,046 \$ 107.49

Exhibit 4.23 SoCalGas Life Cycle Bill Savings—Program Year 2002 Last Updated 3/16/04

Measure Description	Number Installed	Per Measure Electric Impact (kWh)	Per Measure Gas Impact (Therms)	EUL (Yrs)	 Measure Life Bill Savings (\$)
Energy Efficiency Measures					
Attic Insulation - SF	1,362	0.0	18.7	25	\$ 251,359
Attic Insulation - MF	383	0.0	9.6	25	\$ 36,287
Caulking - SF/MH	1,571	0.0	1.5	5	\$ 6,906
Caulking - MF	257	0.0	0.7	5	\$ 527
Evaporative Cooler Cover - SF/MH	1,445	0.0	8.1	3	\$ 20,945
Evaporative Cooler Cover - MF	336	0.0	4.1	3	\$ 2,465
Faucet Aerator - SF/MH	21,113	0.0	1.4	5	\$ 86,629
Faucet Aerator - MF	18,852	0.0	0.9	5	\$ 49,726
Furnace Repair	710	0.0	24.4	10	\$ 92,531
Furnace Replacement	4,386	0.0	110.1	22	\$ 4,446,325
Low Flow Showerhead - SF/MH	20,454	0.0	9.1	10	\$ 994,166
Low Flow Showerhead - MF	18,708	0.0	6.1	10	\$ 609,532
Minor Home Repairs - SF/MH	20,165	0.0	4.4	10	\$ 473,904
Minor Home Repairs - MF	18,320	0.0	2.2	10	\$ 215,272
Miscellaneous Measures (Weatherization - Electric)	42,343	9.4	0.0	5	\$ 203,946
Switch/Outlet Gasket - SF/MH	20,088	0.0	0.2	15	\$ 33,404
Switch/Outlet Gasket - MF	15,937	0.0	0.2	15	\$ 17,283
Water Heater Blanket - SF/MH	2,838	0.0	7.3	5	\$ 60,718
Water Heater Blanket - MF	1,864	0.0	4.9	5	\$ 26,769
Water Heater Pipe Wrap - SF/MH	1,271	0.0	2.7	15	\$ 24,811
Water Heater Pipe Wrap - MF	219	0.0	1.8	15	\$ 2,850
Weatherstripping - SF/MH	22,252	0.0	1.4	5	\$ 91,302
Weatherstripping - MF	19,646	0.0	0.7	5	\$ 40,305
Sub-total for Energy Efficiency Measures					\$ 7,787,960
Rapid Deployment Measures					
Duct Sealing and Testing - MF	13	0.0	7.1	25	\$ 906

Measure Description	Number Installed	Per Measure Electric Impact (kWh)	Per Measure Gas Impact (Therms)	EUL (Yrs)	leasure Life Bill Savings (\$)
Duct Sealing and Testing - MH/SF	553	0.0	11.3	25	\$ 61,835
Water Heater Replacement - Gas SF	2,025	0.0	21.6	13	\$ 285,585
Sub-total for Rapid Deployment Measures					\$ 348,325
Total Bill Savings for All Measures in Program Year					\$ 8,136,285

Total Number of Homes Served by the Program during Program Year	49,464
Life Cycle Bill Savings Per Home	\$ 164.49

Exhibit 4.24 SoCalGas Life Cycle Bill Savings—Program Year 2003 Last Updated 3/16/04

Measure Description	Number Installed	Per Measure Electric Impact (kWh)	Per Measure Gas Impact (Therms)	EUL (Yrs)	Life	nl Measure Cycle Bill vings (\$)
Energy Efficiency Measures						
Attic Insulation - SF	1,619	0.0	18.7	25	\$	312,293
Attic Insulation - MF	573	0.0	9.6	25	\$	56,741
Caulking - SF	1,007	0.0	1.5	5	\$	4,786
Caulking - MF	637	0.0	0.7	5	\$	1,413
Evaporative Cooler/Air Cond. Covers - SF	1,735	0.0	8.1	3	\$	28,010
Evaporative Cooler/Air Cond. Covers - MF	590	0.0	4.1	3	\$	4,821
Faucet Aerators - SF	21,788	0.0	1.4	5	\$	96,654
Faucet Aerators - MF	23,046	0.0	0.9	5	\$	65,723
Furnace Repair - Gas	546	0.0	24.4	10	\$	75,290
Furnace Replacement - Gas	4,252	0.0	110.1	22	\$	4,509,998
Low Flow Showerhead - SF	20,961	0.0	9.1	10	\$	1,077,976
Low Flow Showerhead - MF	22,236	0.0	6.1	10	\$	766,553
Minor Home Repairs - SF	20,365	0.0	4.4	10	\$	506,399
Minor Home Repairs - MF	21,917	0.0	2.2	10	\$	272,496
Miscellaneous Measures (Weatherization - Electric)	47,673	17.4	0.0	5	\$	422,073
Switch/Outlet Gasket - SF	20,594	0.0	0.2	15	\$	35,983
Switch/Outlet Gasket - MF	20,771	0.0	0.2	15	\$	23,669
Water Heater Blanket - SF	3,390	0.0	7.3	5	\$	78,415
Water Heater Blanket - MF	1,602	0.0	4.9	5	\$	24,873
Water Heater Pipe Wrap - SF	414	0.0	2.7	15	\$	8,492
Water Heater Pipe Wrap - MF	74	0.0	1.8	15	\$	1,012
Door Weatherstripping - SF	22,461	0.0	1.4	5	\$	99,640
Door Weatherstripping - MF	23,721	0.0	0.7	5	\$	52,615
Sub-total for Energy Efficiency Measures	·		-	•	\$	8,525,922
Rapid Deployment Measures						
Duct Sealing and Repair - MF	562	0.0	7.1	25	\$	40,927
Duct Sealing and Repair - SF	431	0.0	11.3	25	\$	50,371
Water Heater Replacement - Gas - SF	3,581	0.0	21.6	13	\$	531,777

Measure Description	Number Installed	Per Measure Electric Impact (kWh)	Per Measure Gas Impact (Therms)	EUL (Yrs)	Life (Measure Cycle Bill ings (\$)
Water Heater Replacement - Gas - MF	1,127	0.0	18.1	13	\$	140,241
Sub-total for Rapid Deployment Measures					\$	763,316
Total Bill Savings for All Measures in Progra	m Year				\$	9,289,239

Total Number of Homes Served by the Program during Program Year	57,179
Life Cycle Bill Savings Per Home	\$ 162.46

APPENDIX A – IMPLEMENTATION RATES

PG&E

Measure	2001	2002	2003
Furnaces			
- Repair - Gas	1%	1%	1%
- Replacement - Gas	1%	0%	1%
- Repair - Electric	0%	0%	0%
- Replacement - Electric	0%	0%	0%
Infiltration & Space Conditioning.			
- Cover Plates/Gaskets	44%	45%	56%
- Evaporative Cooler/Air Cond. Covers			
	6%	5%	10%
- HVAC Air Filter Replacement	25%	25%	30%
- Duct Repair	0%	0%	0%
Weatherization			
- Attic Insulation	5%	6%	8%
- Water Heater Blanket	8%	10%	15%
- Low Flow Showerhead	42%	43%	53%
- Door Weatherstripping	42%	43%	54%
- Caulking	45%	46%	56%
- Minor Home Repairs	40%	41%	52%
- Attic Access Weatherstripping	17%	18%	26%
Water Heater Savings			
- Water Heater Pipe Wrap	3%	2%	2%
- Faucet Aerators	49%	52%	66%
Miscellaneous Measures	0%	0%	0%
Permanent Evaporative Coolers	0%	0%	0%
Portable Evaporative Coolers	9%	23%	8%
Compact Fluorescents (indoor)	446%	487%	408%
Compact Fluorescents (outdoor)	1%	9%	18%
Refrigerators	15%	35%	37%
Pilots - Rapid Deployment			
- Air Conditioner Replacement - Room	0%	0%	1%
- Air Conditioner Replacement - Central			
	0%	1%	1%
- Duct Sealing and Repair	0%	0%	13%
- Whole House Fans	0%	0%	1%
- Water Heater Replacement - Gas	1%	1%	1%
- Water Heater Replacement - Electric	0%	0%	0%
- Set-back Thermostats	0%	6%	8%
- Evaporative Cooler Maintenance	0%	2%	1%

SCE

Measure	2001	2002	2003
Furnaces			
- Repair - Gas	0%	0%	0%
- Replacement - Gas	0%	0%	0%
- Repair - Electric	0%	0%	0%
- Replacement - Electric	0%	0%	0%
Infiltration & Space Conditioning.			
- Cover Plates/Gaskets	2%	7%	2%
- Evaporative Cooler/Air Cond. Covers	0%	1%	0%
- HVAC Air Filter Replacement	0%	0%	0%
- Duct Repair	0%	0%	0%
Weatherization			
- Attic Insulation	0%	0%	0%
- Water Heater Blanket	0%	1%	0%
- Low Flow Showerhead	2%	7%	3%
- Door Weatherstripping	2%	7%	3%
- Caulking	0%	4%	1%
- Minor Home Repairs	2%	6%	3%
- Attic Access Weatherstripping	0%	0%	0%
Water Heater Savings			
- Water Heater Pipe Wrap	0%	0%	0%
- Faucet Aerators	1%	5%	4%
Miscellaneous Measures	0%	1%	0%
Permanent Evaporative Coolers	5%	1%	2%
Portable Evaporative Coolers	0%	0%	0%
Compact Fluorescents (indoor)	318%	150%	148%
Compact Fluorescents (outdoor)	69%	39%	46%
Refrigerators	13%	33%	51%
Pilots - Rapid Deployment			
- Air Conditioner Replacement - Room	0%	9%	0%
- Air Conditioner Replacement - Central	1%	1%	4%
- Duct Sealing and Repair	0%	2%	3%
- Whole House Fans	0%	0%	0%
- Water Heater Replacement - Gas	0%	0%	0%
- Water Heater Replacement - Electric	0%	1%	0%
- Set-back Thermostats	0%	0%	3%
- Evaporative Cooler Maintenance	5%	9%	1%

SDG&E

Measure	2001	2002	2003
Furnaces			
- Repair - Gas	4%	4%	7%
- Replacement - Gas	2%	3%	2%
- Repair - Electric	0%	0%	0%
- Replacement - Electric	0%	0%	0%
Infiltration & Space Conditioning.			
- Cover Plates/Gaskets	36%	38%	58%
- Evaporative Cooler/Air Cond. Covers	2%	1%	0%
- HVAC Air Filter Replacement	0%	0%	0%
- Duct Repair	0%	0%	0%
Weatherization			
- Attic Insulation	1%	3%	2%
- Water Heater Blanket	5%	4%	7%
- Low Flow Showerhead	45%	54%	71%
- Door Weatherstripping	45%	52%	71%
- Caulking	51%	52%	69%
- Minor Home Repairs	18%	23%	41%
- Attic Access Weatherstripping	0%	0%	0%
Water Heater Savings			
- Water Heater Pipe Wrap	5%	2%	2%
- Faucet Aerators	48%	49%	72%
Miscellaneous Measures	0%	0%	0%
Permanent Evaporative Coolers	0%	0%	0%
Portable Evaporative Coolers	0%	0%	0%
Compact Fluorescents (indoor)	188%	167%	213%
Compact Fluorescents (outdoor)	0%	2%	7%
Refrigerators	28%	46%	32%
Pilots - Rapid Deployment			
- Air Conditioner Replacement - Room	1%	2%	1%
- Air Conditioner Replacement - Central	1%	2%	1%
- Duct Sealing and Repair	0%	2%	1%
- Whole House Fans	0%	0%	0%
- Water Heater Replacement - Gas	0%	4%	2%
- Water Heater Replacement - Electric	0%	0%	0%
- Set-back Thermostats	0%	4%	0%
- Evaporative Cooler Maintenance	0%	0%	1%

SoCalGas

Socargas			
Measure	2001	2002	2003
Furnaces			
- Repair - Gas	1%	1%	1%
- Replacement - Gas	9%	9%	7%
- Repair - Electric	0%	0%	0%
- Replacement - Electric	0%	0%	0%
Infiltration & Space Conditioning.			
- Cover Plates/Gaskets	87%	73%	72%
- Evaporative Cooler/Air Cond. Covers	4%	4%	4%
- HVAC Air Filter Replacement	0%	0%	0%
- Duct Repair	0%	0%	0%
Weatherization			
- Attic Insulation	1%	4%	4%
- Water Heater Blanket	13%	10%	9%
- Low Flow Showerhead	91%	79%	76%
- Door Weatherstripping	99%	85%	81%
- Caulking	10%	4%	3%
- Minor Home Repairs	89%	78%	74%
- Attic Access Weatherstripping	0%	0%	0%
Water Heater Savings	0%	0%	0%
- Water Heater Pipe Wrap	7%	3%	1%
- Faucet Aerators	95%	81%	78%
Miscellaneous Measures	0%	0%	0%
Permanent Evaporative Coolers	0%	0%	0%
Portable Evaporative Coolers	0%	0%	0%
Compact Fluorescents (indoor)	0%	0%	0%
Compact Fluorescents (outdoor)	0%	0%	0%
Refrigerators	0%	0%	0%
Pilots - Rapid Deployment			
- Air Conditioner Replacement - Room	0%	0%	0%
- Air Conditioner Replacement - Central	0%	0%	0%
- Duct Sealing and Repair	0%	1%	2%
- Whole House Fans	0%	0%	0%
- Water Heater Replacement - Gas	5%	4%	8%
- Water Heater Replacement - Electric	0%	0%	0%
- Set-back Thermostats	0%	0%	0%
- Evaporative Cooler Maintenance	0%	0%	0%

APPENDIX B – PROGRAM COST PERCENTS

PG&E

Energy Efficiency	2001	2002	2003
Gas Appliances	2%	2%	7%
Electric Appliances	19%	34%	30%
Weatherization Measures	34%	32%	27%
Outreach & Assessment	4%	6%	4%
In Home Energy Education	7%	5%	4%
Education Workshops	0%	0%	0%
Energy Efficiency TOTAL	67%	79%	71%
Pilots	0%	0%	0%
Attic Venting	0%	0%	
Landlord Rebates	0%	1%	
Phase 4 Pilot		0%	0%
Leveraging Pilot		1%	0%
Total Pilots	0%	1%	0%
Training Center	1%	0%	0%
Inspections	11%	5%	7%
Advertising	0%	0%	0%
M&E Studies	1%	0%	1%
Regulatory Compliance	2%	1%	1%
Other Administration	13%	9%	13%
Indirect Costs	5%	5%	7%
Oversight Costs			
LIAB Start-up	0%		
LIAB PY Past Year	0%		
LIAB PY Present Year	0%		
LIOB Expense		0%	0%
CPUC Energy Division	0%	0%	0%
Total Oversight Costs	0%	0%	0%
Total Costs	100%	100%	100%

SCE

Energy Efficiency	2001	2002	2003
- Gas Appliances	0%	0%	0%
- Electric Appliances	83%	76%	84%
- Weatherization	2%	8%	5%
- Outreach & Assessment	1%	2%	5%
- In Home Energy Education	9%	8%	1%
- Education Workshop	0%	0%	0%
Energy Efficiency TOTAL	96%	93%	95%
Pilots	0%	0%	0%
- Pilot (A)	0%	3%	0%
- Pilot (B)	2%	0%	1%
Total Pilots	0%	0%	1%
Training Center	0%	0%	0%
Inspections	1%	1%	1%
Advertising	0%	0%	0%
M&E Studies	0%	0%	1%
Regulatory Compliance	0%	0%	0%
Other Administration ¹	0%	0%	0%
Indirect Costs	1%	2%	1%
Oversight Costs			
- LIAB Start-up	0%	0%	0%
- LIAB PY Past Year	0%	0%	0%
- LIAB PY Present Year	0%	0%	0%
CPUC Energy Division	0%	0%	0%
Total Oversight Costs	0%	0%	1%
Total Costs	100%	100%	100%

SDG&E

Energy Efficiency	2001	2002	2003
- Gas Appliances	9%	9%	6%
- Electric Appliances	40%	44%	31%
- Weatherization Measures	33%	26%	40%
- Outreach Assessment	2%	2%	0%
- In Home Energy Education	7%	0%	0%
- Education Workshops	2%	2%	3%
Energy Efficiency TOTAL	93%	88%	90%
Pilots	0%	0%	0%
- Pilot (A)	0%	0%	0%
- Pilot (B)	0%	0%	0%
Total Pilots	0%	0%	0%
Training Center	0%	0%	0%
Inspections	4%	5%	5%
Advertising	0%	1%	3%
M&E Studies	0%	0%	0%
Regulatory Compliance	3%	5%	2%
Other Administration	0%	0%	0%
Indirect Costs	0%	0%	0%
Oversight Costs			
- LIAB Start-Up	0%	0%	0%
- LIAB PY Past Year	0%	0%	0%
- LIAB PY Present Year	0%	0%	0%
- CPUC Energy Division	0%	0%	0%
Total Oversight Costs	0%	0%	0%
Total Costs	100%	100%	100%

SoCalGas

Energy Efficiency	2001	2002	2003
Gas Appliances	25%	25%	28%
Electric Appliances	0%	0%	0%
Weatherization Measures	51%	51%	53%
Outreach & Assessment	8%	8%	9%
In Home Energy Education	3%	0%	4%
Education Workshops	0%	3%	0%
Energy Efficiency TOTAL	86%	87%	95%
Total Pilots	0%	0%	0%
Training Center	1%	1%	0%
Inspections	2%	2%	4%
Advertising	1%	1%	1%
M&E Studies	1%	1%	0%
Regulatory Compliance	2%	1%	0%
Other Administration	7%	7%	0%
Indirect Costs	0%	0%	0%
Oversight Costs			0%
LIAB Start-up			
LIAB PY Past Year			
LIAB PY Present Year			
LIOB Costs	0%	0%	0%
CPUC Energy Division	0%	0%	0%
Total Oversight Costs	0%	0%	0%
Total Program Costs	100%	100%	100%