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

## Final Report

**Report Date:**

April 9, 2004

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# 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**

| Program Year | PG&E | SDG&E | Combined SCE and 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**

| Program Year | PG&E | SDG&E | Combined SCE and SoCalGas | SCE | SoCalGas |
|---|---|---|---|---|---|
| **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.

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# 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."[1] 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 1995-6[4]. 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 report[5] (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 Report[6] (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**

$$\text{Life Cycle Bill Savings} = \sum_{m=1}^{M}\left[\sum_{r=1}^{2}\sum_{Y=1}^{EUL_m}\sum_{CP=1}^{n}\text{Impact}_m * \text{Number}_m * \text{energy rate}_{Y,r,CP} * \frac{1}{(1+\text{DiscountRate})^{Y-1}}\right]$$

where:

r = fuel type (gas or electric)
Y = Year, starting with implementation program year
m = measure type
$\text{energy rate}_{Y,r}$ = energy rate ($ per kWh[7] or therm) for fuel r in year Y
$\text{Impact}_m$ = measure m gross[8] impact per year (kWh or therm)
$\text{Number}_m$ = number of measure type m installed
$EUL_m$ = effective useful life[9] (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.[10] 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.

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# 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 | Bill Savings / Cost Ratio | 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 | Program Costs | Life Cycle Bill Savings | Bill Savings / Cost Ratio | Per 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 Year | Program Costs | Life Cycle Bill Savings | Bill Savings / Cost Ratio | Per Home Average Life Cycle Bill 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 Year | Program Costs | Life Cycle Bill Savings | Bill Savings / Cost Ratio | Per Home Average Life Cycle Bill 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***

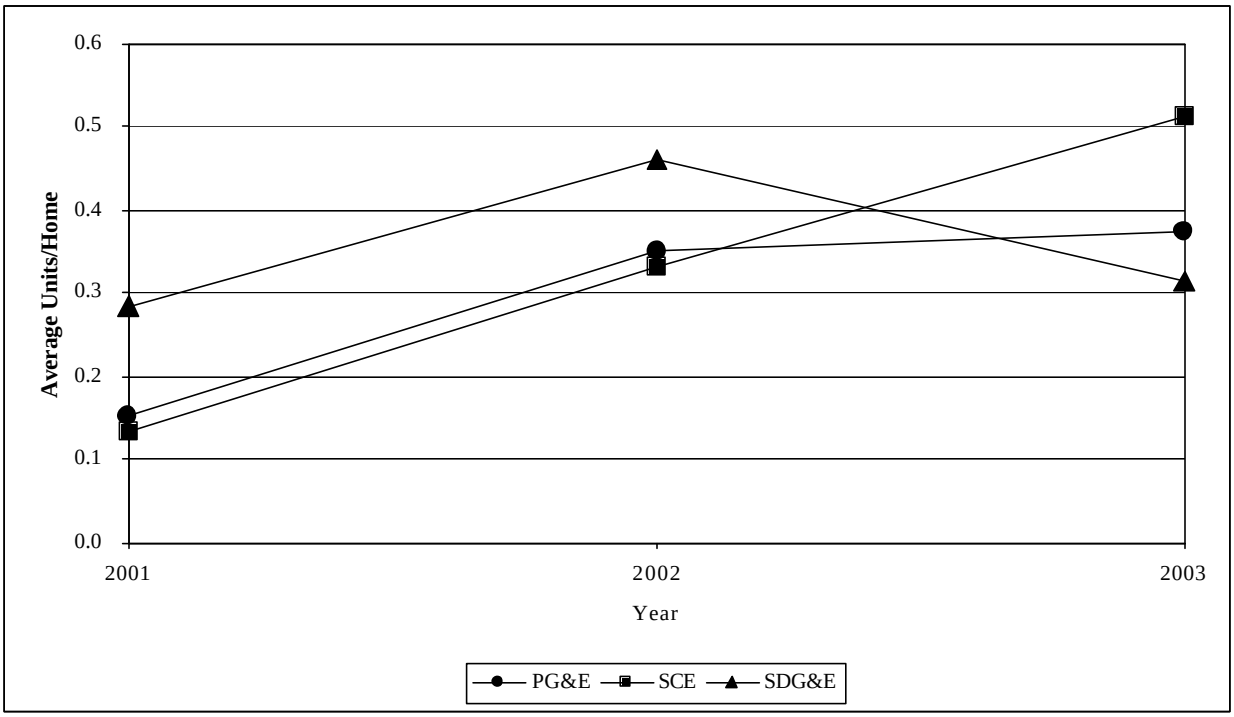
| Program Year | PG&E | SCE | SDG&E | SoCalGas |
|---|---|---|---|---|
| **2001** | 37,935 | 86,903 | 19,315 | 33,046 |
| **2002** | 70,683 | 29,685 | 14,089 | 49,464 |
| **2003** | 47,271 | 33,732 | 15,706 | 57,179 |

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.[11] 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***

| Program Year | PG&E | SDG&E | Combined SCE and 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***

| Program Year | PG&E | SDG&E | Combined SCE and 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**

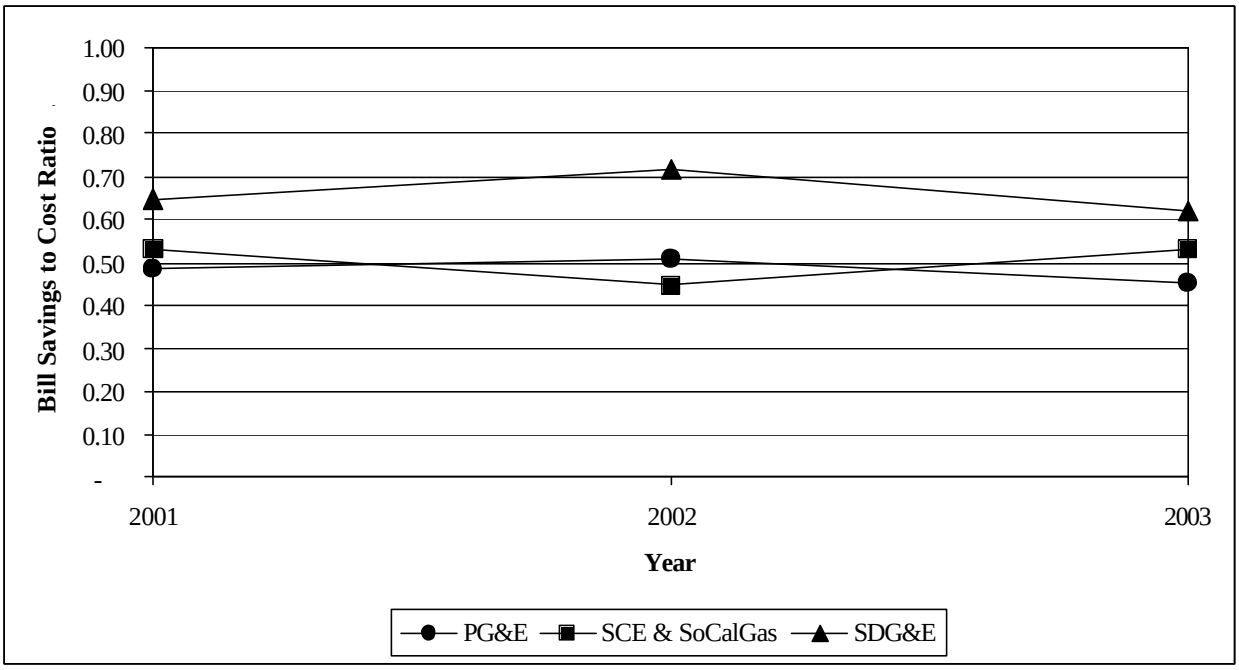
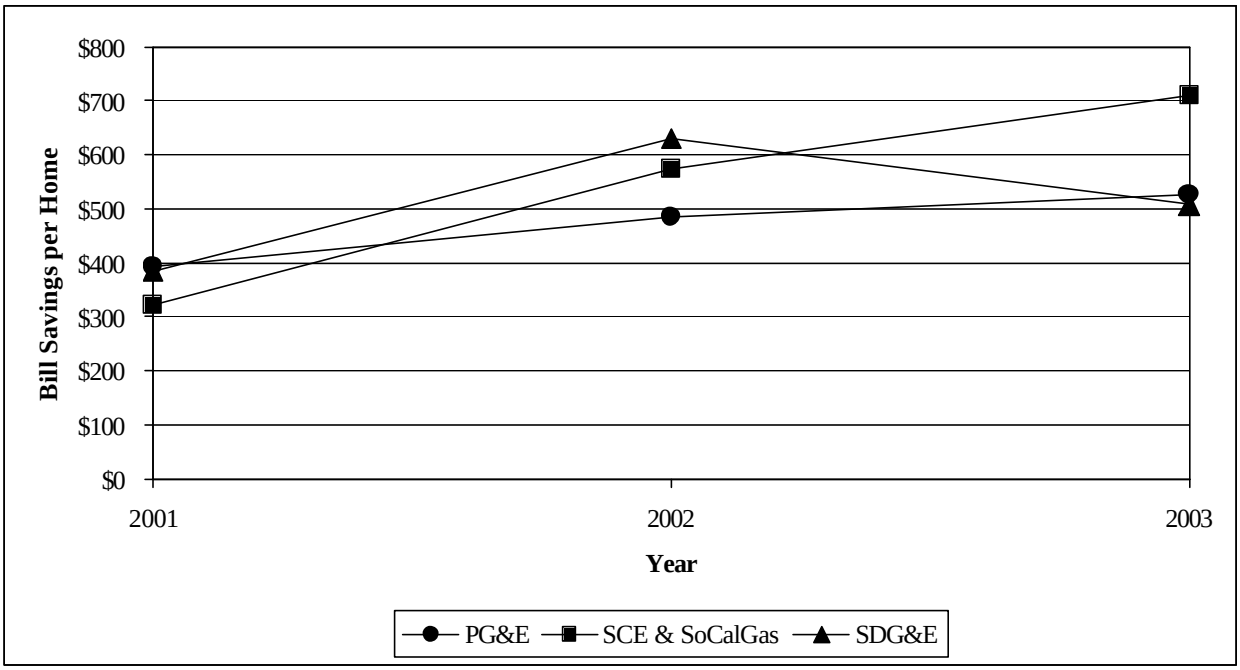



**Exhibit 3.8**
**Graph of Bill Savings per Home by Service Area**



### 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<br>0.7721 Therm | 0.1118 kWh<br>0.6970 Therm | 0.1380 kWh<br>0.8560 Therm |
| Assumed Modified Energy Rate | 0.1163 kWh<br>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)<br>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

| | Costs Recorded by Cost Element - 2001 | | | |
|---|---|---|---|---|
| | **Labor** | **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

| | Costs Recorded by Cost Element - 2002 | | | |
|---|---|---|---|---|
| | **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

| | Costs Recorded by Cost Element - 2003 | | | |
|---|---|---|---|---|
| | **Labor** | **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.

3 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

| | Costs Recorded by Cost Element - 2001 | | | |
|---|---|---|---|---|
| | **Labor** | **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

| | Costs Recorded by Cost Element - 2002 | | | |
|---|---|---|---|---|
| | **Labor** | **Non-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

| | Costs Recorded by Cost Element - 2003 [1] | | | |
|---|---|---|---|---|
| | **Labor** | **Non-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

| | Costs Recorded by Cost Element - 2001 | | | |
|---|---|---|---|---|
| | **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

| | Costs Recorded by Cost Element - 2002 | | | |
|---|---|---|---|---|
| | **Labor** | **Non-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

| | Costs Recorded by Cost Element - 2003 | | | |
|---|---|---|---|---|
| | **Labor** | **Non-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 Cost 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

| | 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 Recorded by Cost Element - 2003 | | | |
|---|---|---|---|---|
| | **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* | | | | $ 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 Installed | Per Measure Electric Impact (kWh) | | Per Measure Gas Impact | EUL | Total Measure Life Cycle Bill Savings ($) |
|---|---|---|---|---|---|---|
| | | SH | AC | Therms | Years | |
| **Energy Efficiency Measures** | | | | | | |
| Attic Access We atherstripping - 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 | Per Measure Electric Impact (kWh) | | Per Measure Gas Impact | EUL | Total Measure Life Cycle Bill Savings ($) |
|---|---|---|---|---|---|---|
| | | 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 | Per Measure Electric Impact (kWh) | | Per Measure Gas Impact | EUL | Total Measure Life Cycle Bill Savings ($) |
|---|---|---|---|---|---|---|
| | | SH | AC | Therms | Years | |
| *Sub-total for Rapid Deployment Measures* | | | | | | *$ 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 | Per Measure Electric Impact (kWh) | | Per Measure Gas Impact | EUL | Total Measure Life Cycle Bill Savings |
|---|---|---|---|---|---|---|
| | | 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 | Per Measure Electric Impact (kWh) | | Per Measure Gas Impact | EUL | Total Measure Life Cycle Bill Savings |
|---|---|---|---|---|---|---|
| | | 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 | Per Measure Electric Impact (kWh) | | Per Measure Gas Impact | EUL | Total Measure Life Cycle Bill Savings |
|---|---|---|---|---|---|---|
| | | 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 Installed | Per Measure Impact | | EUL | Total Measure Life 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 Installed | Per Measure Impact | | EUL | Total Measure Life 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 Installed | Per Measure Impact | | EUL | Total Measure Life 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 |

**Total Number of Homes Served by the Program during Program Year** 47,271

| Measure Description | Number Installed | Per Measure Impact | | 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 Electric Impact (kWh) | | 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 Electric Impact (kWh) | | EUL | Total Measure Life Cycle Bill Savings |
|---|---|---|---|---|---|
| | | SH | AC | (Yrs) | ($) |
| *Sub-total for Rapid Deployment Measures* | | | | | *$ 2,140,935* |
| **Total Bill Savings for All Measures In Program Year** | | | | | **$ 18,647,619** |

| | | |
|---|---|---|
| **Total Number of Homes Served by the Program during Program Year** | | 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 Electric Impact (kWh) | | EUL | Total Measure Life Cycle Bill Savings |
|---|---|---|---|---|---|
| | | SH | AC | (Yrs) | ($) |
| **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 Electric Impact (kWh) | | EUL | Total Measure Life Cycle 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 - MF | 158 | 0 | 1962.4 | 18 | $ 415,826 |
| Air Conditioner Replac ement - Central - MH/SF | 92 | 0 | 565.28 | 18 | $ 69,746 |
| 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 Program Year** | | | | | **$ 12,207,178** |

**Total Number of Homes Served by the Program during Program Year** 29,685

**Life Cycle Bill Savings Per Home** $ 411.22

1. This measures have imp acts 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 Measure Electric Impact (kWh) | | EUL | Total Measure Life Cycle Bill 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 | - | 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 Electric Impact (kWh) | | 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* | | | | | *$ 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 Measures* | | | | | *$ 1,970,280* |
| **Total Bill Savings for All Measures In 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 Measure Life Cycle Bill Savings |
|---|---|---|---|---|---|
| | | (kWh) | (Therms) | (years) | ($) |
| **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 | Total Measure Life Cycle Bill Savings |
|---|---|---|---|---|---|
| | | (kWh) | (Therms) | (years) | ($) |
| 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 Measures* | | | | | *$ 513,347* |
| **Total Bill Savings for All Measures in Program Year** | | | | | **$ 7,470,049** |

**Total Number of Homes Served by the Program during Program Year** 19,315

**Life Cycle Bill Savings Per Home** $ 386.75

*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 Measure Life Cycle Bill Savings |
|---|---|---|---|---|---|
| | | (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 Measure Life Cycle Bill Savings |
|---|---|---|---|---|---|
| | | (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 Measure Life Cycle Bill Savings |
|---|---|---|---|---|---|
| | | (kWh) | (Therms) | (years) | ($) |
| 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** |

**Total Number of Homes Served by the Program during Program Year** 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 | Total Measure 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 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 | Total Measure Life Cycle Bill Savings |
|---|---|---|---|---|---|
| | | (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 Program Year** | | | | | **$ 7,954,325** |
| | | | | | |
| **Total Number of Homes Served by the Program during Program Year** | | | | | 15,706 |
| | | | | | |
| **Life Cycle Bill Savings Per Home** | | | | | $ 506.45 |

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

**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) | Total Measure Life Cycle Bill Savings ($) |
|---|---|---|---|---|---|
| **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** | | 33,046 |
| **Life Cycle Bill Savings Per Home** | $ | 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) | Total Measure Life Cycle 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) | Total Measure Life Cycle 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) | Total Measure Life Cycle Bill Savings ($) |
|---|---|---|---|---|---|
| **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) | Total Measure Life Cycle Bill Savings ($) |
|---|---|---|---|---|---|
| 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 Program 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**

| 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% |