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

Final Report
February 1, 2001
(Revised as of March 5, 2001)

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Executive Summary

This report presents a proposed methodology to determine costs and bill savings estimates for the Low Income Energy Efficiency (LIEE) program as required pursuant to an order from the California Public Utilities Commission (Commission) under Decision (D.) 00-07-020, Ordering Paragraph 7. It provides the joint utilities' proposed standardized methods, explains how the methods are consistent with cost-effectiveness methods and calculations utilized in the AEAP, and calculates bill savings and expenditures for the utilities' PY1997, PY1998, PY1999, and first half of PY2000 LIEE programs.

It is based on utility, Energy Division, LIMEC, and public workshop input. The public workshop attendance included PG&E, SoCalGas, SDG&E, CPUC – Energy Division and Office of Ratepayers Advocates, SCE, Insulation Contractors Association, and the Community Action Agency of San Mateo County. Appendix A provides a listing of the utility and regulatory staff who either attended weekly meetings or provided support for those who attended. Much of the work required to complete this report took place in these meetings.

The reported results can be summarized as shown in Exhibits ES 1 and ES 2. In order to compare average customer bill savings across the state, it is useful to compare the total program services by service area. For the final analysis purposes of this document, the SoCalGas and SCE programs were considered a single entity since they serve roughly the same customers.

Exhibit ES 1
Summary of Bill Savings to Cost Ratios by Service Area

Program Year	PG&E	SDG&E	Combined SCE and SoCalGas	SCE	SoCalGas with Electrical Impacts
1997	0.95	0.49	0.59	1.39	0.19
1998	0.59	0.31	0.63	1.38	0.22
1999	0.60	0.27	0.51	1.25	0.19
First Half 2000	0.94	0.42	0.52	1.50	0.18

Exhibit ES 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 with Electrical Impacts
1997	$ 509	$ 261	$ 265	$ 142	$ 123
1998	$ 362	$ 141	$ 275	$ 146	$ 129
1999	$ 350	$ 147	$ 274	$ 163	$ 111
First Half 2000	$ 323	$ 254	$ 394	$ 283	$ 111

Variations in the values shown above are explained by the following:

- PG&E's PY1997 bill savings to cost ratio and per home life cycle bill savings are high due to high per measure impacts used in that year. These were subsequently reduced for later years based on updated M&E studies.

- PG&E's bill savings to cost ratio is high for the first half of PY2000 because all of the savings from the installed measures are accounted for while the program costs are only partially included.
- SCE and SDG&E's first half PY2000 bill savings and SDG&E's 1997 per home life cycle bill savings estimates are higher due to high levels of refrigerator measure installations during those periods, resulting in high bill savings. The high SCE PY2000 per home life cycle bill savings accounts for the high PY2000 "Combined SCE and SoCalGas" bill savings.
- Higher per home life cycle savings for PG&E are based on AEAP filed values. PY1997 through 1999 used bundled weatherization measures and an Effective Useful Life of 20 years for the bundle. The bundling approach has been changed for PY2000 and beyond.
- SDG&E bill savings to cost ratio is relatively low because a large part of their program costs are for weatherization measures, yet 87% of their LIEE participants are located in a temperate coastal or maritime climate. As a result, SDG&E does not claim cooling impacts and claims minimal heating impacts from the weatherization measures.

These results show that when reported variables have been accounted for, the LIEE programs appear to offer comparable savings to customers in PG&E and the overlapping SCE/SoCalGas service areas while customers in SDG&E receive lower per home savings due to milder weather.

1 Introduction

This report presents a proposed methodology to determine costs and bill savings estimates for the Low Income Energy Efficiency (LIEE) program as required pursuant to an order from the California Public Utilities Commission (Commission) under Decision (D.) 00-07-020, Ordering Paragraph 7. It provides the joint utilities' proposed standardized methods, explains how the methods are consistent with cost-effectiveness methods and calculations utilized in the AEAP, and calculates bill savings and expenditures for the utilities' PY1997, PY1998, and PY1999 LIEE programs.

Preliminary methods for estimating costs and bill savings were developed for, and discussed at, a public workshop held in San Francisco on November 16, 2000 at the Pacific Energy Center[1]. The input from the workshop was incorporated into the methodology, data was collected from each utility, the information was reviewed for consistency and modified where possible to obtain consistency across utilities, and reasons for differences were documented where consistency could not be achieved.

It should be clearly noted that the results presented in this report respond to a specific request for information and are not considered to be measures of program cost-effectiveness. Tests exist (e.g., Participant Cost Test, Public Purpose Test, Total Resource Cost Test, etc.) that have been developed specifically for that purpose. In addition, the Reporting Requirements Manual (RRM) Working Group is currently developing a modified participant test for the low income segment as requested by the Commission. The results presented here do not in any way incorporate elements such as hardship or income that are key components of low-income programs.

2 Background

On October 2, 2000, the RRM Working Group submitted a report titled "Reporting Requirements Manual (RRM) Working Group Report for Low Income Assistance Programs" to the Commission. The executive summary of this report states:

> "The California Public Utilities Commission (Commission) on April 28, 2000, issued an Assigned Commissioner's Ruling (ACR) that directed the RRM Working Group to propose further modifications to the low income assistance component of the RRM for use during the Program Year (PY) 2002 planning cycle. The Commission directed the Working Group to submit a report including revised sections of the RRM no later than October l, 2000[2]. This report includes recommendations for revisions to the current version of the RRM based on consensus recommendations and a discussion of remaining areas of disagreement for Low Income Energy Efficiency (LIEE) programs. For the first time, this report proposes a working definition for energy-related hardship for LIEE programs. The Working Group recommends that a separate RRM be created for reporting California Alternate Rates for Energy (CARE) program results. While technically a

[1] A separate workshop report issued in draft version on December 1, 2000. Public comment on the report was be due by December 15, 2000, and a final report issued December 29, 2000.

[2] While the Order required submission on October 1, 2000, this was a Sunday, so the actual report was submitted on Monday, October 2, 2000.

> separate issue from reporting requirements, the parties have developed definitions for administration and implementation, as well as internal and outsourced costs. The Working Group has developed technical recommendations for low income cost effectiveness that are presented in this report."

The RRM Workgroup report presented tables of cost elements that each utility would be required to fill in on LIEE programs (i.e., Table TA 7.2). However, while each cost element is presented, it is not further defined. With each utility using different accounting systems, there was the possibility of continued inability to compare costs between utilities. This report operationally defines each of the LIEE cost elements for clarity and application. The RRM Workgroup report also presented a method for determining per unit bill savings (with the unit being a dwelling) as shown in tables TA 7.3 and TA 7.4. These tables are relatively straight forward, but a few details required clarification to assure inter-utility comparison.

Parallel to the RRM Report, 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."[3] 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 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."[4]

This report attempts to clearly define, for the LIEE segment, the terminology and methodology for the reporting of cost and bill saving, and provide bill savings and costs by utility.

3 Methodology

The following methodology discussion is separated into two sections, costs and bill savings. The cost section relies on a table format presented in the RRM, while the bill savings estimation,

[3] Page 70, Decision 00-07-020 July 6, 2000.

[4] Page 147, Decision 00-07-020 July 6, 2000.

which is not covered in the RRM, trades heavily on traditional net present value calculation methods.

3.1 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 a good or service. 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.

The following discussion first presents definitions from the RRM, then goes on to develop operational definitions used to allocate costs to the applicable RRM cost table.

3.1.1 Pertinent Definitions

The RRM Workgroup report recommended that the Commission adopt definitions for administrative and implementation costs, internal and outsourced costs. These definitions are useful in allocating costs to the various categories discussed later. However, they were not reconciled to Table TA7.2 in the RRM, nor were costs broken out into these categories anywhere in this report.

The following definitions are from the RRM, with minor additions to make them more useful for application to the LIEE programs:

Administrative Costs - Cost to the utility of managing an identified energy efficiency program, including salaries, materials, advertising, computer support, overhead and regulatory cost. This does not include rebates, efficiency equipment purchases, or other financial incentives offered to customers. Administrative costs consist of direct costs and indirect costs:

- Direct administrative costs are tied directly to a project or program by invoice, timesheet, or factual analysis of recorded costs.
- Indirect administrative costs are allocated to programs based on preset formulas and should include any indirect cost not charged to the program which are incurred and recorded in other utility operations.

Implementation Costs - Costs associated with delivering program services, including labor and materials necessary to the installation of program measures. (For the purposes of the bill savings project, but not spelled out in the RRM, implementation costs include, but are not limited to, rebates, efficiency equipment purchases, other financial incentives offered to customers, training, and inspection.)

Internal Costs - Labor or non-labor costs that may include administrative or implementation costs.

Outsourced Costs - Contract costs for administration or implementation of the program.

3.1.2 Proposed Definitions of Table TA 7.2 Variables

Costs for the LIEE programs are separated out in several ways in Table TA 7.2. Each of the 16 cost variables along the left side of the table are divided into columns for labor, non-labor, and contract costs. These are then summed into a fourth column, total cost, for each variable.

Costs were allocated to labor, non-labor, and contract categories using the following definitions:[5]

Labor – any internal direct (administrative and/or implementation) costs (indirect costs are a separate line item), burdened by overhead, that represents person hours.

Non-Labor – all direct internal (administrative and/or implementation) costs (indirect costs are given as a separate line item) not covered under labor.

Contract – all outsourced costs (administrative and/or implementation). Contract costs do not need to be further broken out by labor/non-labor. This category includes agency employees.

With the column heading definitions complete, it is necessary to define the variables listed down the left-hand column of Table TA 7.2. The first five variables in the original Table TA 7.2 in the RRM deal with energy efficiency measures or services. The first variable listed in Table TA 7.2 is "Furnaces (Gas)" and the second is "Other Measures". There was much discussion within the Cost and Bill Savings Standardization Group about the history surrounding the separation of "Furnaces (Gas)" from "Other Measures". In the end, with input from members of the RRM[6] and the workshop participants[7], the Cost and Bill Savings Standardization Group decided to redefine the measure breakout into groups that better reflect the sector and fit with potential future measures. Thus the following description of measures diverges from those described in RRM Table TA 7.2 in that the "Furnaces (Gas)" and "Other Measures" groupings are replaced by "Gas Appliances", "Electric Appliances" and "Weatherization Measures".

Gas Appliances – costs related to all LIEE program gas appliance tune-up, repair or replacement. This category excludes inspections.

Electric Appliances – costs related to all LIEE program electric appliance tune-up, repair or replacement. This category excludes inspections.

Weatherization Measures – costs related to all LIEE program weatherization measures, exclusive of inspections.

Outreach & Assessment – costs associated with community outreach or promoting the program to attract participation in the LIEE program exclusive of In Home Energy Education and Education Workshop efforts. This includes all costs associated with door-to-door outreach, pre-participation audits, etc. This does not include inspections.

In Home Energy Education – costs for conducting in-home education efforts for the LIEE program.

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[5] The utilities made a joint filing to the PUC on May 17, 1999 addressing these definitions for the LIEE program. The definitions presented here do not conflict with those definitions, but rather add specificity for the purposes of accurately filling out Table TA 7.2.

[6] Discussion at meeting 11/9/00.

[7] See workshop report

Education Workshops - costs for organizing, recruiting customers for, and/or conducting education workshop efforts for the LIEE program.

The original Table TA 7.2 template provided lines for two pilot programs. The number of lines was contracted or expanded as necessary to appropriately document costs associated with all pilot program programs. The specific name of each pilot program is listed, along with associated programs.

There are seven variables covering aspects of LIEE program costs that are not directly attributable to measure installations. These are:

Training Center – Costs attributable to operation of the LIEE program for training activities. This can include either training center or other training activities applicable to the LIEE program.

Inspections – Costs for pre- and post-inspections associated with installation of measures for the LIEE program.

Advertising – Costs attributable to the LIEE program for advertising. This may include LIEE portions of advertising or promotion costs that promote a broader range of programs. This only includes mass media advertising (e.g., TV, newspaper, radio) and direct mail costs.

M&E Studies – Any measurement and evaluation costs that are attributable to the LIEE program efforts.

Regulatory Compliance – The LIEE programs incur costs related to compliance of regulatory issues. These could include, but are not limited to, the utility law department, program managers providing testimony or preparing for testimony, supervisory effort for regulatory issues[8].

Other Administration – Additional administration costs that should be allocated to the LIEE program but are not covered by other more specific categories. Allocations to Other Administration are accompanied by a description of the costs.

Indirect Costs – Indirect costs represent the overhead costs of operations that are attributed to the LIEE program based on allocation in proportion to program effort across program type. All recorded program costs are included whether budgeted to the program or not. The portion of the costs that are not part of the LIEE budget should be clearly footnoted.

Next in the left-hand column, there are four oversight costs funded by the utility budgets.

LIAB Start-up – Costs by the LIAB required to oversee the LIEE program efforts that have carried over from the LIAB start-up into present program year costs.

LIAB PY Past Year – Costs by the LIAB required to oversee the LIEE program efforts that have carried over from the LIAB previous year costs into present program year costs.

LIAB PY Present Year – Costs by the LIAB required to oversee the LIEE program efforts.

CPUC Energy Division – Costs by the CPUC Energy Division required to oversee the LIEE program efforts.

[8] These may or may not have been charged to the LIEE program.

The costs are reported for PY 1997, 1998, 1999, and January 1, 2000 through June 30, 2000.

Since the implementation costs cannot be readily allocated by fuel type, the Cost and Bill Savings Standardization Group 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 the utility's accounting systems are complex and unique. Attempts were made to match costs across utilities, to the best of the ability of the existing accounting systems, and to provide information on where and how reported costs differ.

3.2 Bill Savings

3.2.1 Energy Savings Sources

The bill savings in this report are the lifecycle net present value saved by the dwelling due to the measures installed under the LIEE programs. Historically, the first year 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 followed the *Protocols and Procedures for the Verification of Costs, Benefits, and Shareholder Earnings from Demand-Side Management Programs* (Protocols)[9] and are filed in the AEAP. The LIEE programs were evaluated as per Protocol Tables 8A and 8B (Residential Direct Assistance Program). For PG&E, SCE, and SDG&E, this evaluation was required only in 1995[10]. SoCalGas was required to do an impact study of the Residential Direct Assistance Program in 1996[11]. In addition there was a statewide low-income study conducted in 1999 that collected measure level information for the top six measures. These impact studies were performed, filed, and the results verified by the Office of Ratepayer Advocates (ORA).

The statewide study estimated savings at the utility wide level. However, SCE estimates measure savings for each year by weather zone. As a result SCE needed to use the results of the most recent utility evaluation, which assessed measure impact by weather zone, and not the statewide evaluation results. In order to assure consistency across utilities, the Cost and Bill Savings Standardization Group agreed that all utilities would use the results of the most recent utility specific study results to estimate bill savings.

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 measures. Since SoCalGas does not account for weatherization measures on electrically heated homes, the savings are due to air conditioning savings only. SoCalGas used SCE's ex-post per unit air conditioning kWh savings from the most recent study to represent the electric savings from the measures.

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.

[9] D.93-05-063 and revised by subsequent CPUC decisions

[10] Per Protocol Table 8A.

[11] Per Protocol Table 8B.

3.2.2 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 proposed for estimating bill savings is presented in Exhibit 3.1.

Exhibit 3.1
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[12] or therm) for fuel r in year Y
Impact_m = measure m gross[13] impact per year (kWh or therm)
Number_m = number of measure type m installed
EUL_m = effective useful life[14] (years) of measure type m
CP = Costing period, n = number of costing periods

3.2.3 Specifics of Calculations and Variables

Measure Level Impacts

In order to comply with the ALJ request, the bill savings estimate for each LIEE program year was based on the measures installed in that year. However, not all utility evaluations listed above determined the impact at the measure level.

PG&E did not estimate impacts at the measure level during the evaluations, while SoCalGas and SDG&E did. In order to deliver the best estimate of PY2000 per year savings, as required by the order, PG&E used the per measure findings of the SoCalGas and SDG&E studies as appropriate. These were then combined with their respective measure installation frequencies, to compute program annual savings estimates.

While all utilities attempted to break out impacts by measure, there are measures (e.g., weatherization) that were grouped together originally, evaluated as a group, and are reported as a unit in this report, rather than artificially breaking them out into individual measures.

[12] Energy rate escalated by either 0%, 3%, or 6%.

[13] These are defined as gross savings because they are bill savings.

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

SCE estimates its measure level impacts by weather zone. As a result, the average measure level impact across the service territory varies from year to year as the number of measures per weather zone changes or fluctuates.

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.[15] The following specific values were identified as appropriate for these calculations:

- The inflation rate that should be used is 3%
- The discount rate, if inflation is included, should be 8.15%
- The discount rate, if inflation is not included, should be 5%. This derived as follows: Real Discount rate = (1+nominal discount rate) / (1+nominal inflation rate) = (1+0.0815)/(1+0.03) = 1.05

Development of Energy Rate Escalation

Exhibit 3.1 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 about the validity of a model that dramatically decreases rates at a time when rates are 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. Bill savings comparisons were also developed for escalation rates of 0% (rates decreasing compared to inflation) and at 6% (rates double that of inflation). These escalation rates were applied to estimated average 2000 energy rates (the derivation of which is discussed in the next section) starting with 2001 and for each year, going forward for 25 years. For 1997, 1998, 1999, and through June 2000, each utility would simply use the historic average rate for that year (shown in Exhibit 3.2).

The model developed for this analysis is flexible. Should a better forecast of gas or electric costs become available, the model can be easily updated to reflect the new forecast.

Because the escalation includes inflation, the applicable discount rate for the lifecycle bill saving estimate is 8.15%.

Estimation of the Average Annual Rate

Average annual rates were calculated based on the customer information and accounting systems of the utilities. SCE and SoCalGas calculated the average annual rate for program years by the following steps: 1) Used records as of November 30, 2000 to establish the percent of LIEE participants that are on the CARE rate, 2) Established the percentage of energy (kWh or therms) that were used on Tier 1 and Tier 2 rates over the last 12 months from utility records. This 12-

[15] Conversations with Mike Wan of PG&E.

month value was used for projecting forward, and 3) Calculated an Average Low Income Energy Efficiency Participant Rate (ALIPR) by weighting the four annual rates (Tier 1, Tier 2, Tier 1 CARE, Tier 2 CARE) by the percent of customers on the CARE rate and the kWh or therms consumed in each Tier. PG&E used the Tier 1 residential rate. SDG&E determined an average rate for their LIEE participants by summing the total bills for all LIEE participants and dividing by the total consumption of all participants.

When the ALIPR for PY 2000 is multiplied by the escalation factors developed above, and combined with the values for 1997, 1998, and 1999, a 28 year stream of ALIPRs results. Energy rates used by each utility are shown in Exhibit 3.2. The energy rates for the escalation rates of 3% and 6% are shown out to the year 2025 in Section 6.4.

Exhibit 3.2
Energy Rates Used for Bill Savings Calculations

	PG&E		SCE	SDG&E		SoCalGas	
Year	kWh	Therm	kWh	kWh	Therm	kWh	Therm
1997	0.1159	0.5691	0.1155	0.1021	0.7296	0.1155	0.5801
1998	0.1159	0.5567	0.1040	0.0928	0.6434	0.1040	0.5715
1999	0.1159	0.5916	0.1040	0.0902	0.5523	0.1040	0.5209
2000	0.1159	0.6537	0.1040	0.1179	0.5926	0.1040	0.6110
All years afterwards	Previous Year * (1+Escalation Rate)						

It should be noted that there was considerable discussion about whether to use the PY2000 “capped” rates or the “uncapped” rates for projecting future rates (if “uncapped” rates could indeed be estimated). The Cost and Bill Savings Standardization Group decided that since they did not know how the Commission would decide to handle the distribution of accumulated debt in the future, the best value to use for now was the PY 2000 “capped” rates.

Effective Useful Life Agreements

All utilities compared the historic effective useful life (EULs) being used for LIEE measures, compared these measure lives to the values developed by CALMAC, and where possible agreed common EULs for common measures. Where utilities had good reason to use separate values for EUL, these cases are identified along with the reason for the differing values. EULs being used in this analysis are listed in Exhibit 3.3.

Exhibit 3.3
EULs Used in Bill Savings Calculations

				Historic EULs			
		EUL Used		SDG&E Data	SCE Data	SoCalGas Data	PG&E Data
ID	Measure	year	source	year	year	year	year
1	Attic Access Weatherstripping	5	4				5
2	Attic Insulation (Ceiling Insulation)	25	2			25	25
3	Building Envelope Repair	10	6			10	10
4	Caulking	5	6			5	5
5	Compact Fluorescent Hard Wired Porch Lights	20 ; 2	2 ; 7	2	2		20
6	Compact Fluorescent Lights	9; 6; 8	2; 2; 1	9	6		8
7	Door Shoe	5	6			5	
8	Door Threshold	5	6			5	
9	Door Weatherstripping	5	6			5	5
10	Energy Education	1	2	10			1
11	Evaporative Cooler (Permanent)	15	5	15	15		
12	Evaporative Cooler (Portable)	7	2				7
13	Evaporative Cooler Covers (for Permanent)	3	5	15		3	3
14	Evaporative Cooler Maintenance	4	6	4	3		
15	Exhaust Vent Damper (Exhaust Dampers)	3	6			3	
16	Faucet Aerators	5	5			5	5
17	Furnace Filters	5	3				5
18	Furnace Repair	10	6	15		10	
19	Furnace Repair/Replacement	-	-				25
20	Furnace Replacement	22	5	11		22	
21	Low Flow Showerhead	10	2			3	10
22	Outlet Gaskets	15	5			15	15
23	Refrigerator Replacment	15	2	9	20		15
24	Register Seal	5	6			5	
25	Water Heater Blanket	5	5			5	5
26	Water Heater Pipe Wrap	15	2			10	15

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 Furnace Filter is assumed to have the same energy savings as Caulking.
4 Same as caulking or weatherstripping
5 DSM Measure Life Project, September 23, 1993 (adjusted and non-adjusted)
6 Engineering Estimate
7 SCE installs only the lamp in this measure. Based on usage, the EUL is shorter than indoor lights and has been appropriately shortened.

3.3 Consistency with AEAP

Throughout the work done to comply with the creation of a program costs and bill savings standardization report, the group kept in mind that the methodology proposed should be consistent with the AEAP. The list below indicates the ways in which this report is consistent:

- This report used the same project cost tables as proposed by RRM, with slight modifications based on public input. The tables were further refined by stating concise 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.

- This report used the discount rate and an escalation factor that are consistent with AEAP.
- The lifecycle bill savings used Effective Useful Life values that are consistent with the AEAP.
- The impacts used are from Protocol compliant M&E studies that are part of the AEAP.

The methodological difference is in the use of rate projections rather than avoided costs to develop bill savings. However, as discussed in Section 3.2.2, the group did investigate the use of avoided costs as the template for an escalation rate and discarded the approach.

3.4 Changes in Methodology Based on Public Input

There were two public workshops held to obtain input for this report.[16] The first public workshop (attached as Appendix B) presented and discussed the methodology prior to implemention by the utilities. This workshop was only sparsely attended (two members of the public). There were few changes in the overall methodology based upon public input. However, noteworthy contributions were:

1) Participants encouraged putting more effort into future use of any methodology and system rather than spending effort on figuring out budgets from past years. There was acknowledgement that, while the utilities were required to provide three years of historical data, plus a portion of the current year, the process being developed could be used in the future, should the Commission request continued reporting of bill savings.
2) Low income energy efficiency (LIEE) costs should be broken out by budgeted and non-budgeted[17] categories in any tables created.
3) It was recommended that burdened labor costs be used rather than unburdened costs.
4) In Table TA 7.2 the recommendation was to drop the "furnaces (gas)" and "other measures" rows and instead separate them into "gas appliances", "electric appliances", and "weatherization measures". This would be more forward looking by allowing consideration of appliance programs separate from weatherization and would allow for program changes in the future.
5) The energy rates used in the determination of life cycle bill savings were recommended to be utility specific. The escalation rate for the energy rates was recommended to be determined from work being done by a different CALMAC group on avoided costs. It was felt that the Bill Savings Standardization group could benefit from the other group's expertise on escalation rates. (Note: The use of the escalation rate from avoided costs was later found to be untenable and was not implemented.)
6) There was broad agreement that the CARE rate should be used to help determine an average energy rate for low-income customers.

[16] November 16, 2000 in San Francisco and January 16, 2001 in San Francisco.

[17] Costs which are charged to LIEE program accounts are considered "budgeted" costs; costs not charged to LIEE program accounts are considered "non-budgeted".

The second workshop presented the results of the implementation of the methodology. While there were appreciably more members of the public at this workshop, this may have been due to the scheduling of another workshop directly after this one. There were no comments of note from this workshop. The full workshop report is included in Appendix C.

4 Analysis of Program Cost and Bill Saving Results

This section is separated into a discussion of the program variables that affect the reported bill savings and cost at an escalation rate of 3% and then an assessment of the effect of varying the escalation rate.

4.1 Program Variation

In an effort to clarify the overall reporting format, draft tables were developed and discussed at the Cost and Bill Savings Standardization Group meetings. The agreed table progression was presented and discussed at the November 16, 2000 public workshop. The utilities then used these table formats, with improvement and modifications, to report all results presented here.

Costs were broken out as discussed in Section 3.1. Because each utility's accounting system is different, it was not possible for all of them to break out the costs in identical fashions. Exhibit 4.1 presents a summary of where each utility reported costs. This table, in combination with the detailed cost tables and their footnotes presented in Exhibit 6.1 to Exhibit 6.16, creates a complete picture of the cost breakdown supplied by each utility. It should be noted that SDG&E does have costs for the CPUC Energy Division for PY2000. However, they do not show up in this report because the costs were incurred after the June cut off date for program costs.

Exhibit 4.1
Summary of Reported Cost Elements by Utility

	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		
Education Workshops				X
Pilots	X			X
Training Center	X			X
Inspections	X	X	X	X
Advertising			X	
M&E Studies				X
Regulatory Compliance	X		X	X
Other Administration	X			X
Indirect Costs**	X	X	X	X
Oversight Costs				
LIAB Start-up		X		
LIAB PY Past Year	X	X	X	
LIAB PY Present Year	X	X	X	X
CPUC Energy Division	X	X		X

Most of the difference in cost reporting are due to the programmatic and fuel type variations amongst the utilities. Some are due to the way each utility tracks its costs.

Based on the methodology presented in section 3, the program costs, life cycle bill savings, bill savings to cost ratio, and per home average life cycle bill savings were calculated by each utility. The summary results are shown below in Exhibit 4.2 and Exhibit 4.3. The bill savings shown here are based on a 3% escalation rate.

Exhibit 4.2
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
1997	$ 24,001,099	$ 22,904,008	0.95	$ 509
1998	$ 19,544,435	$ 11,505,718	0.59	$ 362
1999	$ 25,273,335	$ 15,203,179	0.60	$ 350
First Half 2000	$ 6,691,262	$ 6,257,730	0.94	$ 323

SCE Summary

Program Year	Program Costs	Life Cycle Bill Savings	Bill Savings / Cost Ratio	Per Home Average Life Cycle Bill Savings
1997	$ 7,343,574	$ 10,209,305	1.39	$ 142
1998	$ 7,479,083	$ 10,287,480	1.38	$ 146
1999	$ 7,419,670	$ 9,238,356	1.25	$ 163
First Half 2000	$ 2,501,078	$ 3,747,663	1.50	$ 283

SDG&E Summary

Program Year	Program Costs	Life Cycle Bill Savings	Bill Savings / Cost Ratio	Per Home Average Life Cycle Bill Savings
1997	$ 4,165,873	$ 2,052,965	0.49	$ 261
1998	$ 3,968,095	$ 1,226,496	0.31	$ 141
1999	$ 4,163,346	$ 1,142,032	0.27	$ 147
First Half 2000	$ 1,478,012	$ 620,160	0.42	$ 254

SoCalGas Summary

Program Year	Program Costs	Life Cycle Bill Savings	Bill Savings / Cost Ratio	Per Home Average Life Cycle Bill Savings
1997	$ 14,772,575	$ 2,489,852	0.17	$ 109
1998	$ 13,918,226	$ 2,757,587	0.20	$ 115
1999	$ 16,434,199	$ 2,640,618	0.16	$ 96
First Half 2000	$ 7,102,047	$ 1,107,095	0.16	$ 97

SoCalGas with Electrical Impacts Summary

Program Year	Program Costs	Life Cycle Bill Savings	Bill Savings / Cost Ratio	Per Home Average Life Cycle Bill Savings
1997	$ 14,772,575	$ 2,812,270	0.19	$ 123
1998	$ 13,918,226	$ 3,101,543	0.22	$ 129
1999	$ 16,434,199	$ 3,041,519	0.19	$ 111
First Half 2000	$ 7,102,047	$ 1,267,820	0.18	$ 111

Exhibit 4.3
Results Summary Across Utility

Program Costs

Program Year	PG&E	SCE	SDG&E	SoCalGas
1997	$ 24,001,099	$ 7,343,574	$ 4,165,873	$ 14,772,575
1998	$ 19,544,435	$ 7,479,083	$ 3,968,095	$ 13,918,226
1999	$ 25,273,335	$ 7,419,670	$ 4,163,346	$ 16,434,199
First Half 2000	$ 6,691,262	$ 2,501,078	$ 1,478,012	$ 7,102,047

Life Cycle Bill Savings

Program Year	PG&E	SCE	SDG&E	SoCalGas	SoCalGas with Electrical Impacts
1997	$ 22,904,008	$ 10,209,305	$ 2,052,965	$ 2,489,852	$ 2,812,270
1998	$ 11,505,718	$ 10,287,480	$ 1,226,496	$ 2,757,587	$ 3,101,543
1999	$ 15,203,179	$ 9,238,356	$ 1,142,032	$ 2,640,618	$ 3,041,519
First Half 2000	$ 6,257,730	$ 3,747,663	$ 620,160	$ 1,107,095	$ 1,267,820

Bill Savings to Cost Ratio

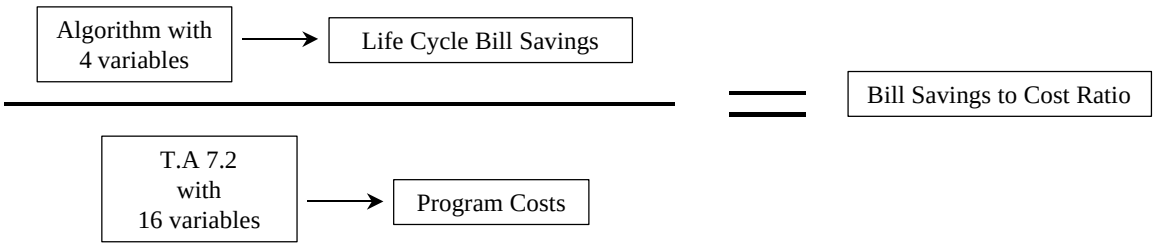
Program Year	PG&E	SCE	SDG&E	SoCalGas	SoCalGas with Electrical Impacts
1997	0.95	1.39	0.49	0.17	0.19
1998	0.59	1.38	0.31	0.20	0.22
1999	0.60	1.25	0.27	0.16	0.19
First Half 2000	0.94	1.50	0.42	0.16	0.18

Per Home Life Cycle Bill Savings

Program Year	PG&E	SCE	SDG&E	SoCalGas	SoCalGas with Electrical Impacts
1997	$ 509	$ 142	$ 261	$ 109	$ 123
1998	$ 362	$ 146	$ 141	$ 115	$ 129
1999	$ 350	$ 163	$ 147	$ 96	$ 111
First Half 2000	$ 323	$ 283	$ 254	$ 97	$ 111

It is often difficult to identify the reasons for individual differences in these results because of the large number of variables affecting each result. Exhibit 4.4 provides an illustration of how the bill savings to cost ratio is derived.

Exhibit 4.4
Variables in Bill Savings to Cost Ratio



Differences in bill savings to cost ratios could be due to any of the 4 variables in the numerator or 16 variables in the denominator. The following discussions assess the effects of the variables with the largest effect on the bill savings to cost ratio and per home life cycle bill savings.

Weather - Some measures can have large differences in impacts due to weather variations (e.g. ceiling insulation). For the weatherization measures in SDG&E service territory, weather appears to be the primary controlling factor in the estimated impacts. SDG&E has about 87% of the participants in their LIEE program in a temperate coastal or maritime weather zone. As a result, SDG&E does not claim cooling impacts and claims minimal heating impacts from the weatherization measures. Because weatherization measures represent a large portion of their program costs, and because these measures have minimal load impact, the bill savings to cost ratio is low for SDG&E.

Program Participation versus Measure Mix. An additional variable that helps explain some of the values in Exhibit 4.2 and Exhibit 4.3 is the number of homes treated each year (Exhibit 4.5).

Exhibit 4.5
Number of Homes Treated by Year by Utility

Program Year	PG&E	SCE	SDG&E	SoCalGas
1997	45,033	71,867	7,876	22,887
1998	31,744	70,391	8,717	24,011
1999	43,480	56,534	7,761	27,495
First Half 2000	19,376	13,251	2,437	11,424

Exhibit 4.5 illustrates that even though PG&E has the largest service territory, SCE delivers the program to more homes annually. Exhibit 4.3 shows that SCE also has a higher bill savings to cost ratio. This appears to be due to the fact that, while SCE encompasses a spectrum of measures, the majority of their LIEE program savings in 1997-99 has been due to relamping, a measure that is relatively less manpower intensive (and therefore less costly) than weatherization measures, which are a big part of PG&E's program. Thus, the program measure mix is driving the cost of the SCE program and the actual number of homes it can reach with that measure mix.

Gas versus Electric Bill Savings. SoCalGas has low bill savings to cost ratios. There appear to be two things that this can be attributed to: the amount of savings by fuel-type that the LIEE program engenders and the manpower needed for the program. The amount of savings by fuel-type is best shown in the measure-specific inputs of PG&E (since PG&E has both electric and natural gas measures for comparison purposes). Using the PG&E PY2000 values as an example, the annual impacts for electrical measures are larger than the therm savings for the same measure. In many cases the annual electrical savings are even greater. Additionally, the lighting

and refrigeration measures which combined account for a large percentage of the program bill savings (i.e., 45% of PG&E PY2000 life cycle bill savings estimates), have no counterpart in therm savings. Therefore, the differences in impacts outweigh the offsetting differences in billing rates in the life cycle bill savings, meaning that any measures that save natural gas tend to provide less bill savings than electrical measures. The second portion of the reasoning behind the low SoCalGas bill savings to cost ratio lies with the type of measures installed. SoCalGas has the majority of its program as weatherization measures – measures that are manpower intensive to install, and therefore more costly. These two factors combined lead to a continually low bill savings to cost ratio.

Reported Program Costs. Reported program costs were examined further to assess whether there were other reasons for SCE's apparently low program costs. SCE does not report regulatory compliance, other administration, or M&E studies in their program costs. However, these costs only represent about 1.5% of the total program costs of the other three utilities, and do not account for the high SCE bill savings to program cost ratios. Therefore, it appears that the primary reason that SCE has higher bill savings to cost ratios is the one provided earlier – that the mix of measures provided by the SCE program provide high bill savings with relatively less manpower.

Refrigerator Effect. One question arising from an analysis of Exhibit 4.3 is "Why do SDG&E and SCE show an increase in the bill savings to cost ratio and per home life cycle bill savings for the first half of 2000?" The answer is the same for both utilities, they have installed an unusually high number of refrigerators in the first half of 2000 compared to other years. This measure is the highest electric impact measure installed in the program. For the reasons stated earlier in the report, electrical measures bring about higher bill savings.

- SDG&E has replaced as many refrigerators in the first half of 2000 (237) as the entire year for 1999 (200). PY1997 also shows a higher per home life cycle bill savings because there were many refrigerators installed in that program year (1,002).
- SCE has the same reasoning as SDG&E. The refrigerator replacement part of their PY2000 program has installed more refrigerators (717) than either of the other two years that this measure was offered (455 and 284).

Measure Bundling, Effective Useful Life, and Impacts. In an attempt to explain why PG&E bill savings to cost ratios and per home life cycle bill savings are higher than the other two service areas, the bill savings estimates were examined in detail. This analysis identified that PG&E's estimates are higher from 1997 through 1999 because PG&E used the AEAP filed values and bundled all of their weatherization measures during that period as well as using a 20 year EUL for the combined measure. This resulted in a higher estimate of savings for the PG&E weatherization measures than for the other utilities, which applied them separately and used lower EULs for some of the individual measures. In PY2000 PG&E is accounting for these measures separately, and has applied the same EULs as the other utilities in their First Half 2000 estimates. While SCE also bundled the weatherization measures and used a 20 year EUL, weatherization was a very small component of their overall program.

The PG&E 1997 per home lifecycle bill savings is high compared to the other years due to higher per bundle electrical impacts in 1997 than in 1998 or 1999. The 1997 AEAP filing was based on the current M&E study which was updated for the 1998 and subsequent filings.

Lagging Program Costs. The bill savings to program costs ratio is high for PG&E for the first half of 2000 because, while the measures installed are accounted for, the program costs do not yet show up in the accounting system and are not included here.

Analysis of Results by Service Area. In order to compare average customer bill savings across the state, it is useful to compare the total program services by service area. For the purposes of this document, the SoCalGas and SCE programs were considered a single entity since they serve roughly the same customers. When the SCE and SoCalGas costs and bill savings are combined (using a 3% escalation rate in the bill savings), the overall bill savings to cost ratios and per home life cycle bill savings comparisons shown in Exhibit 4.6 result.

Exhibit 4.6
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 with Electrical Impacts
1997	0.95	0.49	0.59	1.39	0.19
1998	0.59	0.31	0.63	1.38	0.22
1999	0.60	0.27	0.51	1.25	0.19
First Half 2000	0.94	0.42	0.52	1.50	0.18

Per Home Life Cycle Bill Savings

Program Year	PG&E	SDG&E	Combined SCE and SoCalGas	SCE	SoCalGas with Electrical Impacts
1997	$ 509	$ 261	$ 265	$ 142	$ 123
1998	$ 362	$ 141	$ 275	$ 146	$ 129
1999	$ 350	$ 147	$ 274	$ 163	$ 111
First Half 2000	$ 323	$ 254	$ 394	$ 283	$ 111

These combined bill savings to cost ratios and per home life cycle bill savings values appear comparable to the PG&E values, taking into account the previous discussion about the reasons that the PG&E values are higher than the SCE values.

While other variables cause small changes in the bill savings to cost ratio and the per home life cycle bill savings, the variables discussed above account for the vast majority of the variation. Once they have been accounted for the LIEE programs appear to offer comparable savings to customers in PG&E and the overlapping SCE/SoCalGas service territories while customers in SDG&E service territory receive lower per home savings due to milder weather.

4.2 Escalation Rate Assessment

As stated in the methodology section, the bill savings were calculated with three escalation rates – 0%, 3%, and 6%. The variation in the escalation rate affects the results of the bill savings to program cost ratio and the per home lifecycle bill savings. The results for PY1999 (as the most

recent full year of data) for these two elements are shown below in Exhibit 4.7 and Exhibit 4.8. Graphs showing the escalation rates for each utility for each program years are included in Section 6.3.

Exhibit 4.7
PY1999 Bill Savings to Program Cost Ratio with Different Escalation Rates

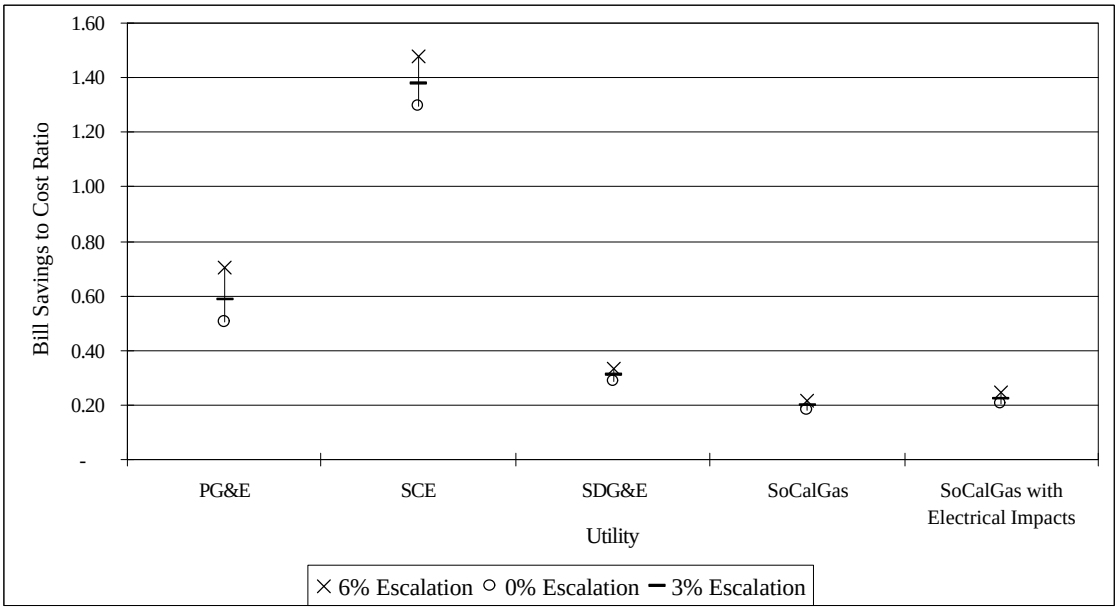
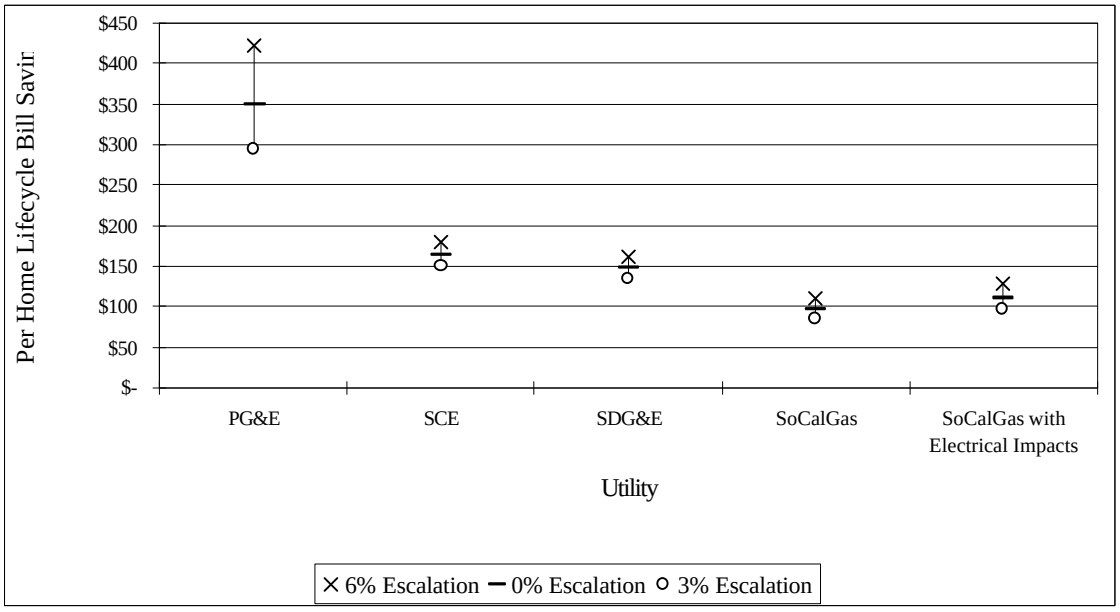


Exhibit 4.8
PY1999 Per Home Lifecycle Bill Savings with Different Escalation Rates



5 Conclusion

This document presents the definitions for separating costs within the LIEE programs. These definitions were then used to create Table TA 7.2 by utility and year as appropriate. The algorithm and assumptions used to estimate lifecycle bill savings are documented. To the extent possible, the methods used to produce the costs and savings are consistent with the AEAP. However, in order to maximize consistency across utility estimates (as requested by the ALJ) the utilities have, where possible, used common methods and values (e.g., effective useful lives and latest M&E estimate of impact). To the extent that these methods and values are different from the AEAP values, they are documented.

The results show that when reported variables have been accounted for, the LIEE programs appear to offer comparable savings to customers at similar costs in all but one service area. Lower per home savings in this one service territory is due to a large proportion of program participants living in temperate climate zones.

This document is based on utility, Energy Division, LIMEC, and public workshop input. The public workshop attendance included PG&E, SoCalGas, SDG&E, California Public Utility Commission – Energy Division and Office of Ratepayers Advocates, SCE, Insulation Contractors Association, and Community Action Agency of San Mateo County.

6 Detailed Tables

6.1 Program Costs

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

Exhibit 6.1
PG&E Table TA 7.2 – Program Year 1997

	Costs Recorded by Cost Element - 1997			
	Labor	**Non-Labor**	**Contract**	**Total**
Energy Efficiency				
Gas Appliances	$ -	$ -	$ -	$ -
Electric Appliances	$ -	$ -	$ 2,808,416	$ 2,808,416
Weatherization Measures	$ -	$ -	$ 16,496,113	$ 16,496,113
Outreach & Assessment	$ -	$ -	$ -	$ -
In Home Energy Education	$ -	$ -	$ -	$ -
Education Workshops	$ -	$ -	$ -	$ -
Energy Efficiency TOTAL	$ 1,876,272	$ 1,218,169	$ 19,304,529	$ 22,398,970
Pilots				
Pilot A	$ -	$ -	$ -	$ -
Pilot B	$ -	$ -	$ -	$ -
Total Pilots	$ -	$ -	$ -	$ -
Training Center	$ 11,515	$ -	$ -	$ 11,515
Inspections	$ 178,587	$ 2,487	$ 647,224	$ 828,298
Advertising	$ -	$ -	$ -	$ -
M&E Studies	$ -	$ -	$ -	$ -
Regulatory Compliance	$ 85,479	$ -	$ -	$ 85,479
Other Administration	$ 676,837	$ -	$ -	$ 676,837
Indirect Costs*	$ -	$ -	$ -	$ -
Oversight Costs				
LIAB Start-up	$ -	$ -	$ -	$ -
LIAB PY Past Year	$ -	$ -	$ -	$ -
LIAB PY Present Year	$ -	$ -	$ -	$ -
CPUC Energy Division	$ -	$ -	$ -	$ -
*Total Oversight Costs***	$ -	$ -	$ -	$ -
Totol Costs	**$ 2,828,690**	**$ 1,220,656**	**$ 19,951,753**	**$ 24,001,099**

Note
* PG&E did not do CAS tests in 1997
** LIAB expenditures were not reported in the 1997 AEAP filing.

Exhibit 6.2
PG&E Table TA 7.2 – Program Year 1998

	Costs Recorded by Cost Element - 1998			
	Labor	**Non-Labor**	**Contract**	**Total**
Energy Efficiency				
Gas Appliances	$ -	$ -	$ -	$ -
Electric Appliances	$ -	$ -	$ 597,142	$ 597,142
Weatherization Measures	$ -	$ -	$ 11,927,232	$ 11,927,232
Outreach & Assessment	$ -	$ -	$ -	$ -
In Home Energy Education	$ -	$ -	$ -	$ -
Education Workshops	$ -	$ -	$ -	$ -
Energy Efficiency TOTAL	$ 1,405,494	$ 789,740	$ 12,524,374	$ 14,719,608
Pilots				
Pilot A	$ -	$ -	$ -	$ -
Pilot B	$ -	$ -	$ -	$ -
Total Pilots	$ -	$ -	$ -	$ -
Training Center	$ 55,280	$ -	$ -	$ 55,280
Inspections	$ 1,318,244	$ 82,448	$ 1,924,377	$ 3,325,069
Advertising	$ -	$ -	$ -	$ -
M&E Studies*	$ -	$ -	$ -	$ -
Regulatory Compliance	$ 34,137	$ -	$ -	$ 34,137
Other Administration	$ -	$ -	$ -	$ -
Indirect Costs**	$ 607,360	$ 54,603	$ 707,414	$ 1,369,377
Oversight Costs				
LIAB Start-up	$ -	$ -	$ -	$ -
LIAB PY Past Year[1]	$ -	$ -	$ 14,611	$ 14,611
LIAB PY Present Year[2]	$ -	$ -	$ 26,353	$ 26,353
CPUC Energy Division	$ -	$ -	$ -	$ -
Total Oversight Costs	$ -	$ -	$ 40,964	$ 40,964
Total Costs[3]	**$ 3,420,515**	**$ 926,791**	**$ 15,197,129**	**$ 19,544,435**

Note

*The costs of the 1998 LIEE Load Impact study were shared by the four utilities, and not included.

**CAS test expenditures are not part of the LIEE budget and not included in the AEAP filing.

1 1997 LIAB amortization

2 1998 LIAB amortization

3 The 1998 program costs differ from the AEAP filing due to late invoicing from the contractor causing a $5.4 million reversal of good receipt.

Exhibit 6.3
PG&E Table TA 7.2 – Program Year 1999

	Costs Recorded by Cost Element - 1999			
	Labor	**Non-Labor**	**Contract**	**Total**
Energy Efficiency				
Gas Appliances	$ -	$ -	$ 86,828	$ 86,828
Electric Appliances	$ -	$ -	$ 1,560,000	$ 1,560,000
Weatherization Measures	$ -	$ -	$ 16,943,512	$ 16,943,512
Outreach & Assessment	$ -	$ -	$ -	$ -
In Home Energy Education	$ -	$ -	$ -	$ -
Education Workshops	$ -	$ -	$ -	$ -
Energy Efficiency TOTAL	$ 864,274	$ 298,430	$ 18,590,340	$ 19,753,044
Pilots				
Attic Venting	$ 10,421	$ 11,632	$ 11,868	$ 33,921
Pilot B	$ -	$ -	$ -	$ -
Total Pilots	$ 10,421	$ 11,632	$ 11,868	$ 33,921
Training Center	$ 56,134	$ -	$ -	$ 56,134
Inspections	$ 1,272,447	$ 27,007	$ 2,185,526	$ 3,484,980
Advertising	$ -	$ -	$ -	$ -
M&E Studies	$ -	$ -	$ -	$ -
Regulatory Compliance	$ 89,000	$ -	$ -	$ 89,000
Other Administration	$ -	$ -	$ -	$ -
Indirect Costs**	$ 665,374	$ 6,594	$ 1,088,324	$ 1,760,292
Oversight Costs				
LIAB Start-up	$ -	$ -	$ -	$ -
LIAB PY Past Year[1]	$ -	$ -	$ 40,964	$ 40,964
LIAB PY Present Year[2]	$ -	$ -	$ 55,000	$ 55,000
CPUC Energy Division	$ -	$ -	$ -	$ -
Total Oversight Costs	$ -	$ -	$ 95,964	$ 95,964
Total Costs	**$ 2,957,650**	**$ 343,663**	**$ 21,972,022**	**$ 25,273,335**

Note

**CAS test expenditures are not part of the LIEE budget and not included in the AEAP filing.

1 LIAB 1997 & 1998 amortization

2 LIAB 1999 operating cost

Exhibit 6.4
PG&E Table TA 7.2 – Program Year 2000

	Costs Recorded by Cost Element - thru June 2000			
	Labor	**Non-Labor**	**Contract**	**Total**
Energy Efficiency				
Gas Appliances	$ -	$ -	$ 113,190	$ 113,190
Electric Appliances	$ -	$ -	$ 1,403,750	$ 1,403,750
Weatherization Measures	$ -	$ -	$ 1,456,172	$ 1,456,172
Outreach & Assessment	$ -	$ -	$ 203,445	$ 203,445
In Home Energy Education	$ -	$ -	$ 1,108,993	$ 1,108,993
Education Workshops	$ -	$ -	$ -	$ -
Energy Efficiency TOTAL[1]	$ 844,784	$ 79,117	$ 4,285,550	$ 5,209,451
Pilots				
Attic Venting	$ 2,958	$ 1,772	$ 5,338	$ 10,068
Pilot B	$ -	$ -	$ -	$ -
Total Pilots	$ 2,958	$ 1,772	$ 5,338	$ 10,068
Training Center	$ 30,159	$ 17,474	$ 19,558	$ 67,191
Inspections	$ 805,876	$ 26,702	$ 7,444	$ 840,022
Advertising	$ -	$ -	$ -	$ -
M&E Studies	$ -	$ -	$ -	$ -
Regulatory Compliance[2]	$ 32,760	$ 26,972	$ 6,446	$ 66,178
Other Administration	$ -	$ -	$ -	$ -
Indirect Costs**	$ 150,762	$ 6,197	$ 289,412	$ 446,371
Oversight Costs				
LIAB Start-up	$ -	$ -	$ -	$ -
LIAB PY Past Year[3]	$ -	$ -	$ 20,481	$ 20,481
LIAB PY Present Year[4]	$ -	$ -	$ 14,000	$ 14,000
CPUC Energy Division[5]		$ -	$ 17,500	$ 17,500
Total Oversight Costs	$ -	$ -	$ 51,981	$ 51,981
Total Costs	**$ 1,867,299**	**$ 158,234**	**$ 4,665,729**	**$ 6,691,262**

Note

**CAS test expenditures are not part of the LIEE budget and not included in the AEAP filing.

1 Expenditure up to 6/30/2000 seems small compared to prious years due to a lag time in processing of invoices. Not all measures installed for the first half of the year were paid before 6/2000.

2 Regulatory Compliance is not included in the LIEE budget.

3 6 months amortization for LIAB 1997 & 1998

4 Estimated LIAB expenses for 6 months

5 PG&E's share for 6 months

Exhibit 6.5
SCE Table TA 7.2 – Program Year 1997

	Costs Recorded by Cost Element - 1997			
	Labor	**Non-Labor**	**Contract**	**Total**
Energy Efficiency				
- Gas Appliances	$ -	$ -	$ -	$ -
- Electric Appliances	$ 88,063	$ 35,824	$ 1,950,927	$ 2,074,814
- Weatherization	$ 192,327	$ 72,589	$ 4,624,718	$ 4,889,634
- Outreach & Assessment	$ -	$ -	$ -	$ -
- In Home Energy Education	$ -	$ -	$ -	$ -
- Education Workshop	$ -	$ -	$ -	$ -
Energy Efficiency TOTAL	$ 280,390	$ 108,413	$ 6,575,645	$ 6,964,448
Pilots				
- Pilot (A)	$ -	$ -	$ -	$ -
- Pilot (B)	$ -	$ -	$ -	$ -
Total Pilots	$ -	$ -	$ -	$ -
Training Center	$ -	$ -	$ -	$ -
Inspections	$ 68,756	$ 21,104	$ -	$ 89,860
Advertising	$ -	$ -	$ -	$ -
M&E Studies *	$ -	$ -	$ -	$ -
Regulatory Compliance *	$ -	$ -	$ -	$ -
Other Administration *	$ -	$ -	$ -	$ -
Indirect Costs	$ 143,157	$ -	$ -	$ 143,157
Oversight Costs				
- LIAB Start-up	$ -	$ -	$ -	$ -
- LIAB PY Past Year	$ -	$ -	$ 32,697	$ 32,697
- LIAB PY Present Year	$ -	$ -	$ 113,412	$ 113,412
CPUC Energy Division	$ -	$ -	$ -	$ -
Total Oversight Costs	$ -	$ -	$ 146,109	$ 146,109
Total Costs	***$ 492,303***	***$ 129,517***	***$ 6,721,754***	***$ 7,343,574***

* These costs not included within SCE's LIEE budget. They were included within departmental budgets outside of LIEE.

Exhibit 6.6
SCE Table TA 7.2 – Program Year 1998

	Costs Recorded by Cost Element - 1998			
	Labor	**Non-Labor**	**Contract**	**Total**
Energy Efficiency				
- Gas Appliances	$ -	$ -	$ -	$ -
- Electric Appliances	$ 89,957	$ 29,078	$ 2,101,611	$ 2,220,646
- Weatherization	$ 192,327	$ 72,589	$ 4,624,718	$ 4,889,634
- Outreach & Assessment	$ -	$ -	$ -	$ -
- In Home Energy Education	$ -	$ -	$ -	$ -
- Education Workshop	$ -	$ -	$ -	$ -
Energy Efficiency TOTAL	$ 282,284	$ 101,667	$ 6,726,329	$ 7,110,280
Pilots				
- Pilot (A)	$ -	$ -	$ -	$ -
- Pilot (B)	$ -	$ -	$ -	$ -
Total Pilots	$ -	$ -	$ -	$ -
Training Center	$ -	$ -	$ -	$ -
Inspections	$ 62,391	$ 17,146	$ -	$ 79,538
Advertising	$ -	$ -	$ -	$ -
M&E Studies *	$ -	$ -	$ -	$ -
Regulatory Compliance *	$ -	$ -	$ -	$ -
Other Administration *	$ -	$ -	$ -	$ -
Indirect Costs	$ 143,157	$ -	$ -	$ 143,157
Oversight Costs				
- LIAB Start-up	$ -	$ -	$ -	$ -
- LIAB PY Past Year	$ -	$ -	$ 32,697	$ 32,697
- LIAB PY Present Year	$ -	$ -	$ 113,412	$ 113,412
CPUC Energy Division	$ -	$ -	$ -	$ -
Total Oversight Costs	$ -	$ -	$ 146,109	$ 146,109
Total Costs	***$ 487,832***	***$ 118,813***	***$ 6,872,438***	***$ 7,479,083***

* These costs not included within SCE's LIEE budget. They were included within departmental budgets outside of LIEE.

Exhibit 6.7
SCE Table TA 7.2 – Program Year 1999

	Costs Recorded by Cost Element - 1999			
	Labor	**Non-Labor**	**Contract**	**Total**
Energy Efficiency				
- Gas Appliances	$ -	$ -	$ -	$ -
- Electric Appliances	$ 108,877	$ 55,202	$ 1,933,862	$ 2,097,941
- Weatherization	$ 176,091	$ 43,173	$ 3,983,615	$ 4,202,879
- Outreach & Assessment	$ -	$ -	$ -	$ -
- In Home Energy Education	$ 12,356	$ 59,646	$ 740,667	$ 812,670
- Education Workshop	$ -	$ -	$ -	$ -
Energy Efficiency TOTAL	$ 297,324	$ 158,021	$ 6,658,144	$ 7,113,490
Pilots				
- Pilot (A)	$ -	$ -	$ -	$ -
- Pilot (B)	$ -	$ -	$ -	$ -
Total Pilots	$ -	$ -	$ -	$ -
Training Center	$ -	$ -	$ -	$ -
Inspections	$ 29,881	$ 13,033	$ 11,252	$ 54,166
Advertising	$ -	$ -	$ -	$ -
M&E Studies *	$ -	$ -	$ -	$ -
Regulatory Compliance *	$ -	$ -	$ -	$ -
Other Administration *	$ -	$ -	$ -	$ -
Indirect Costs	$ 176,300	$ -	$ -	$ 176,300
Oversight Costs				
- LIAB Start-up	$ -	$ -	$ 136	$ 136
- LIAB PY Past Year	$ -	$ -	$ 20,766	$ 20,766
- LIAB PY Present Year	$ -	$ -	$ 54,812	$ 54,812
CPUC Energy Division	$ -	$ -	$ -	$ -
Total Oversight Costs	$ -	$ -	$ 75,714	$ 75,714
Total Costs	***$ 503,506***	***$ 171,054***	***$ 6,745,111***	***$ 7,419,670***

* These costs not included within SCE's LIEE budget. They were included within departmental budgets outside of LIEE.

Exhibit 6.8
SCE Table TA 7.2 – Program Year 2000

	Costs Recorded by Cost Element - 2000			
	Labor	**Non-Labor**	**Contract**	**Total**
Energy Efficiency				
- Gas Appliances	$ -	$ -	$ -	$ -
- Electric Appliances	$ 51,362	$ 24,808	$ 913,959	$ 990,129
- Weatherization	$ 60,964	$ 39,922	$ 1,015,254	$ 1,116,140
- Outreach & Assessment	$ -	$ -	$ -	$ -
- In Home Energy Education	$ 9,002	$ 59,531	$ 160,865	$ 229,398
- Education Workshop	$ -	$ -	$ -	$ -
Energy Efficiency TOTAL	$ 121,328	$ 124,261	$ 2,090,078	$ 2,335,667
Pilots				
- Pilot (A)	$ -	$ -	$ -	$ -
- Pilot (B)	$ -	$ -	$ -	$ -
Total Pilots	$ -	$ -	$ -	$ -
Training Center	$ -	$ -	$ -	$ -
Inspections	$ 26,269	$ 3,984	$ 12,775	$ 43,028
Advertising	$ -	$ -	$ -	$ -
M&E Studies *	$ -	$ -	$ -	$ -
Regulatory Compliance *	$ -	$ -	$ -	$ -
Other Administration *	$ -	$ -	$ -	$ -
Indirect Costs	$ 82,540	$ -	$ -	$ 82,540
Oversight Costs				
- LIAB Start-up	$ -	$ -	$ -	$ -
- LIAB PY Past Year	$ -	$ -	$ 314	$ 314
- LIAB PY Present Year	$ -	$ -	$ 4,070	$ 4,070
CPUC Energy Division [1]	$ -	$ -	$ 35,460	$ 35,460
Total Oversight Costs	$ -	$ -	$ 39,844	$ 39,844
Total Costs	***$ 230,137***	***$ 128,245***	***$ 2,142,696***	***$ 2,501,078***

* These costs not included within SCE's LIEE budget. They were included within departmental budgets outside of LIEE.

[1] Budgeted amount for CPUC Energy Division staff cost for PY2000, D.00-02-045 OP 9. SCE is verifying status of the invoices and will report the actual cost when the invoices are received and paid

Exhibit 6.9
SDG&E Table TA 7.2 – Program Year 1997

	Costs Recorded by Cost Element - 1997			
	Labor	**Non-Labor**	**Contract**	**TOTAL**
Energy Efficiency				
- Gas Appliances	$ 15,820	$ 1,118	$ 420,637	$ 437,576
- Electric Appliances	$ -	$ -	$ 276,924	$ 276,924
- Weatherization Measures	$ 110,743	$ 7,828	$ 2,636,798	$ 2,755,369
- Outreach Assessment/In Home Energy Education	$ 15,820	$ 1,118	$ 424,985	$ 441,923
- Education Workshops	$ -	$ -	$ -	$ -
Energy Efficiency TOTAL	$ 142,384	$ 10,064	$ 3,759,344	$ 3,911,792
Pilots				
- Pilot (A)	$ -	$ -	$ -	$ -
- Pilot (B)	$ -	$ -	$ -	$ -
Total Pilots	$ -	$ -	$ -	$ -
Training Center	$ -	$ -	$ -	$ -
Inspections	$ 189,846	$ 13,419	$ -	$ 203,265
Advertising	$ 6,328	$ 447	$ -	$ 6,775
M&E Studies	$ -	$ -	$ -	$ -
Regulatory Compliance	$ 31,641	$ 2,236	$ -	$ 33,877
Other Administration	$ -	$ -	$ -	$ -
Indirect Costs	$ 9,492	$ 671	$ -	$ 10,163
Oversight Costs				
- LIAB Start-Up	$ -	$ -	$ -	$ -
- LIAB PY Past Year	$ -	$ -	$ -	$ -
- LIAB PY Present Year	$ -	$ -	$ -	$ -
- CPUC Energy Division	$ -	$ -	$ -	$ -
Total Oversight Costs	$ -	$ -	$ -	$ -
Total Costs	***$ 379,691***	***$ 26,838***	***$ 3,759,344***	***$ 4,165,873***

Exhibit 6.10
SDG&E Table TA 7.2 – Program Year 1998

	Costs Recorded by Cost Element - 1998			
	Labor	**Non-Labor**	**Contract**	**TOTAL**
Energy Efficiency				
- Gas Appliances	$ 18,138	$ 10,800	$ 238,119	$ 267,058
- Electric Appliances	$ -	$ -	$ -	$ -
- Weatherization Measures	$ 108,829	$ 64,801	$ 2,568,022	$ 2,741,652
- Outreach Assessment/In Home Energy Education	$ 18,138	$ 10,800	$ 496,374	$ 525,312
- Education Workshops	$ -	$ -	$ -	$ -
Energy Efficiency TOTAL	$ 145,105	$ 86,401	$ 3,302,515	$ 3,534,021
Pilots				
- Pilot (A)	$ -	$ -	$ -	$ -
- Pilot (B)	$ -	$ -	$ -	$ -
Total Pilots	$ -	$ -	$ -	$ -
Training Center	$ -	$ -	$ -	$ -
Inspections	$ 217,658	$ 129,601	$ -	$ 347,259
Advertising	$ 7,255	$ 4,320	$ -	$ 11,575
M&E Studies	$ -	$ -	$ -	$ -
Regulatory Compliance	$ 36,276	$ 21,600	$ -	$ 57,877
Other Administration	$ -	$ -	$ -	$ -
Indirect Costs	$ 10,883	$ 6,480	$ -	$ 17,363
Oversight Costs				
- LIAB Start-Up	$ -	$ -	$ -	$ -
- LIAB PY Past Year	$ -	$ -	$ -	$ -
- LIAB PY Present Year	$ -	$ -	$ -	$ -
- CPUC Energy Division	$ -	$ -	$ -	$ -
Total Oversight Costs	$ -	$ -	$ -	$ -
Total Costs	***$ 417,177***	***$ 248,403***	***$ 3,302,515***	***$ 3,968,095***

Exhibit 6.11
SDG&E Table TA 7.2 – Program Year 1999

	Costs Recorded by Cost Element - 1999			
	Labor	**Non-Labor**	**Contract**	**TOTAL**
Energy Efficiency				
- Gas Appliances	$ 19,224	$ 8,009	$ 344,109	$ 371,341
- Electric Appliances	$ -	$ -	$ 122,986	$ 122,986
- Weatherization Measures	$ 115,341	$ 48,051	$ 2,514,950	$ 2,678,343
- Outreach Assessment/In Home Energy Education	$ 19,224	$ 8,009	$ 502,886	$ 530,118
- Education Workshops	$ -	$ -	$ -	$ -
Energy Efficiency TOTAL	$ 153,788	$ 64,069	$ 3,484,932	$ 3,702,788
Pilots				
- Pilot (A)	$ -	$ -	$ -	$ -
- Pilot (B)	$ -	$ -	$ -	$ -
Total Pilots	$ -	$ -	$ -	$ -
Training Center	$ -	$ -	$ -	$ -
Inspections	$ 230,682	$ 96,103	$ -	$ 326,785
Advertising	$ 7,689	$ 3,203	$ -	$ 10,893
M&E Studies	$ -	$ -	$ -	$ -
Regulatory Compliance	$ 38,447	$ 16,017	$ -	$ 54,464
Other Administration	$ -	$ -	$ -	$ -
Indirect Costs	$ 11,534	$ 4,805	$ -	$ 16,339
Oversight Costs				
- LIAB Start-Up	$ -	$ -	$ -	$ -
- LIAB PY Past Year	$ -	$ -	$ 38,948	$ 38,948
- LIAB PY Present Year	$ -	$ -	$ 13,128	$ 13,128
- *CPUC Energy Division*	$ -	$ -	$ -	$ -
Total Oversight Costs	**$** -	**$** -	$ 52,076	$ 52,076
Total Costs	***$ 442,141***	***$ 184,197***	***$ 3,537,008***	***$ 4,163,346***

Exhibit 6.12
SDG&E Table TA 7.2 – Program Year 2000

	Costs Recorded by Cost Element - 2000			
	Labor	**Non-Labor**	**Contract**	**TOTAL**
Energy Efficiency				
- Gas Appliances	$ 9,393	$ 5,962	$ 134,238	$ 149,593
- Electric Appliances	$ -	$ -	$ 128,899	$ 128,899
- Weatherization Measures	$ 65,748	$ 41,736	$ 661,763	$ 769,247
- Outreach Assessment/In Home Energy Education	$ 9,393	$ 5,962	$ 159,848	$ 175,203
- Education Workshops	$ -	$ -	$ -	$ -
Energy Efficiency TOTAL	$ 84,533	$ 53,660	$ 1,084,749	$ 1,222,942
Pilots				
- Pilot (A)	$ -	$ -	$ -	$ -
- Pilot (B)	$ -	$ -	$ -	$ -
Total Pilots	$ -	$ -	$ -	$ -
Training Center	$ -	$ -	$ -	$ -
Inspections	$ 112,711	$ 71,547	$ -	$ 184,257
Advertising	$ 3,757	$ 2,385	$ -	$ 6,142
M&E Studies	$ -	$ -	$ -	$ -
Regulatory Compliance	$ 18,785	$ 11,924	$ -	$ 30,710
Other Administration	$ -	$ -	$ -	$ -
Indirect Costs	$ 5,636	$ 3,577	$ -	$ 9,213
Oversight Costs				
- LIAB Start-Up	$ -	$ -	$ -	$ -
- LIAB PY Past Year	$ -	$ -	$ 9,737	$ 9,737
- LIAB PY Present Year	$ -	$ -	$ 15,011	$ 15,011
- CPUC Energy Division*	$ -	$ -	$ -	$ -
Total Oversight Costs	**$ -**	**$ -**	$ 24,748	$ 24,748
Total Costs	***$ 225,421***	***$ 143,094***	***$ 1,109,497***	***$ 1,478,012***

*SDG&E has CPUC costs for PY2000, but they were invoiced after the June cut off date

Exhibit 6.13
SoCalGas Table TA 7.2 – Program Year 1997

	Costs Recorded by Cost Element - 1997			
	Labor	**Non-Labor**	**Contract**	**Total**
Energy Efficiency				
Gas Appliances	$ 91,322	$ 271,356	$ 2,039,861	$ 2,402,539
Weatherization Measures	$ 592,153	$ (18,969)	$ 9,079,091	$ 9,652,275
Outreach & Assessment / In Home Energy Education	$ -	$ (47,035)	$ 317,285	$ 270,250
Education Workshops	$ -	$ -	$ 392,922	$ 392,922
Energy Efficiency TOTAL	$ 683,475	$ 205,352	$ 11,829,159	$ 12,717,986
Pilots				
Audit Pilot	$ -	$ 18,623	$ 17,105	$ 35,728
Performance Based Pilot	$ -	$ 4,242	$ 54,771	$ 59,013
Outreach Pilot	$ -	$ 17,011	$ 26,112	$ 43,123
Total Pilots	$ -	$ 39,876	$ 97,988	$ 137,864
Training Center	$ 105,130	$ 17,454	$ 42,008	$ 164,592
Inspections	$ -	$ (3,079)	$ 775,066	$ 771,987
Advertising	$ -	$ -	$ -	$ -
M&E Studies	$ -	$ -	$ 471,581	$ 471,581
Regulatory Compliance	$ 30,000	$ -	$ -	$ 30,000
Other Administration	$ -	$ 84,496	$ 40,641	$ 125,137
Indirect Costs**	$ 175,018	$ 303,523	$ -	$ 478,541
Oversight Costs				
LIAB Start-up	$ -	$ -		$ -
LIAB PY Past Year	$ -	$ -	$ -	$ -
LIAB PY Present Year	$ -	$ -	$ -	$ -
CPUC Energy Division	$ -	$ -	$ -	$ -
Total Oversight Costs	$ -	$ -	$ -	$ -
Total Recorded Program Costs	***$ 683,475***	***$ 286,769***	***$ 12,644,866***	***$ 13,615,110***
Total Captured Utility Costs	***$ 993,647***	***$ 563,150***	***$ 13,215,826***	***$ 14,772,575***

Notes:
In 1997 both M&E costs and Indirect Charges were not charged to the Program. Indirect chages include labor costs of furnace inspections and pension & benefits, and payroll taxes.
Regulatory compliance labor estimated at one-half of one program FTE.
Other Administration Costs includes IT charges for systems support, printing and mailing costs, miscellaneous expenses and consultant costs.

Exhibit 6.14
SoCalGas Table TA 7.2 – Program Year 1998

	Costs Recorded by Cost Element - 1998			
	Labor	**Non-Labor**	**Contract**	**Total**
Energy Efficiency				
Gas Appliances	$ 134,622	$ 11,920	$ 2,553,684	$ 2,700,226
Weatherization Measures	$ 585,616	$ (82,482)	$ 8,880,980	$ 9,384,114
Outreach & Assessment / In Home Energy Education	$ -	$ (33,180)	$ 309,525	$ 276,345
Education Workshops	$ -	$ -	$ 332,284	$ 332,284
Energy Efficiency TOTAL	$ 720,238	$ (103,742)	$ 12,076,473	$ 12,692,969
Audit Pilot	$ -	$ -	$ (312)	$ (312)
Training Center	$ 131,937	$ 9,848	$ -	$ 141,785
Inspections	$ 100,000	$ (5,559)	$ 509,957	$ 604,398
Advertising	$ -	$ -	$ -	$ -
M&E Studies	$ -	$ -	$ -	$ -
Regulatory Compliance	$ 30,000	$ -	$ -	$ 30,000
Other Administration	$ 4,380	$ 100,009	$ (1,176)	$ 103,213
Indirect Costs**	$ -	$ 346,173	$ -	$ 346,173
Oversight Costs				
LIAB Start-up	$ -	$ -	$ -	$ -
LIAB PY Past Year	$ -	$ -	$ -	$ -
LIAB PY Present Year	$ -	$ -	$ -	$ -
CPUC Energy Division	$ -	$ -	$ -	$ -
Total Oversight Costs	$ -	$ -	$ -	$ -
Total Recorded Program Costs	***$ 986,555***	***$ 556***	***$ 12,584,942***	***$ 13,572,053***
Total Captured Utility Costs	***$ 986,555***	***$ 346,729***	***$ 12,584,942***	***$ 13,918,226***

Notes:

Indirect Charges not charged to Program.

Beginning in 1998 furnace inspections charged to Program.

Regulatory compliance labor estimated at one-half of one program FTE.

Other Administration Costs includes IT charges for systems support, printing and mailing costs, miscellaneous.

Exhibit 6.15
SoCalGas Table TA 7.2 – Program Year 1999

	Costs Recorded by Cost Element - 1999			
	Labor	**Non-Labor**	**Contract**	**Total**
Energy Efficiency				
Gas Appliances	$ 79,895	$ 7,552	$ 3,167,396	$ 3,254,843
Weatherization Measures	$ 639,766	$ 8,177	$ 10,375,856	$ 11,023,799
Outreach & Assessment / In Home Energy Education	$ -	$ 3,912	$ 183,165	$ 187,077
Education Workshops	$ -	$ 9,265	$ 491,316	$ 500,581
Energy Efficiency TOTAL	$ 719,661	$ 28,906	$ 14,217,733	$ 14,966,300
Outreach Pilot	$ -	$ -	$ (531)	$ (531)
Total Pilots			$ (531)	$ (531)
Training Center	$ 156,428	$ 21,131	$ -	$ 177,559
Inspections	$ 120,000	$ 772	$ 590,381	$ 711,153
Advertising	$ -	$ -	$ -	$ -
M&E Studies	$ -	$ -	$ -	$ -
Regulatory Compliance	$ 65,000	$ -	$ -	$ 65,000
Other Administration	$ -	$ 92,462	$ 21,711	$ 114,173
Indirect Costs**	$ -	$ 400,545		$ 400,545
Oversight Costs				
LIAB Start-up	$ -	$ -	$ -	$ -
LIAB PY Past Year	$ -	$ -	$ -	$ -
LIAB PY Present Year	$ -	$ -	$ 68,677	$ 68,677
CPUC Energy Division	$ -	$ -	$ -	$ -
Total Oversight Costs	$ -	$ -	$ 68,677	$ 68,677
Total Recorded Program Costs	***$ 1,061,089***	***$ 211,948***	***$ 14,897,971***	***$ 16,102,331***
Total Captured Utility Costs	***$ 1,061,089***	***$ 543,816***	***$ 14,829,294***	***$ 16,434,199***

Notes:

Indirect Charges not charged to Program.

Regulatory compliance labor estimated at one program FTE.

Other Administration Costs includes IT charges for systems support, printing and mailing costs, miscellaneous.

Exhibit 6.16
SoCalGas Table TA 7.2 – Program Year 2000

	Costs Recorded by Cost Element - thru June 2000			
	Labor	**Non-Labor**	**Contract**	**Total**
Energy Efficiency				
Gas Appliances	$ 35,047		$ 1,769,356	$ 1,804,403
Weatherization Measures	$ 321,850		$ 3,695,724	$ 4,017,574
Outreach & Assessment / In Home Energy Education	$ -	$ -	$ 149,355	$ 149,355
Education Workshops	$ -	$ -	$ 142,865	$ 142,865
Energy Efficiency TOTAL	$ 356,897	$ -	$ 5,757,300	$ 6,114,197
Total Pilots	$ -	$ -	$ -	$ -
Training Center	$ 82,884	$ 3,209		$ 86,093
Inspections	$ 90,000	$ 10,555	$ 291,410	$ 391,965
Advertising	$ -	$ -	$ -	$ -
M&E Studies	$ -	$ -	$ 28,050	$ 28,050
Regulatory Compliance	$ 120,000	$ -	$ -	$ 120,000
Other Administration	$ -	$ 169,755		$ 169,755
Indirect Costs**	$ -	$ 178,654	$ -	$ 178,654
Oversight Costs				
LIAB Start-up	$ -	$ -	$ -	$ -
LIAB PY Past Year	$ -	$ -	$ -	$ -
LIAB PY Present Year	$ -	$ -	$ 8,284	$ 3,284
CPUC Energy Division	$ -	$ -	$ 10,049	$ 10,049
Total Oversight Costs	$ -	$ -	$ 18,333	$ 18,333
Total Recorded Program Costs	***$ 649,781***	***$ 183,519***	***$ 6,095,093***	***$ 6,928,393***
Total Captured Utility Costs	***$ 649,781***	***$ 362,173***	***$ 6,095,093***	***$ 7,102,047***

Notes:

M&E for Statewide Study, PY1998.

Regulatory compliance labor estimated at two program FTE.

Indirect Charges not charged to Program.

Other Administration Costs includes IT charges for systems support, printing and mailing costs, miscellaneous.

6.2 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 6.17
PG&E Life Cycle Bill Savings– Program Year 1997

AEAP Reported:

Measure Description*	Number Installed	Per Measure Electric Impact (kWh)	Per Measure Gas Impact (Therms)	EUL	Total Measure Life Cycle Bill Savings ($)
Mandatory Wx - MF w/o AC	9,941	82.90	11.14	20	$ 2,012,322
Mandatory Wx - MF w AC	5,096	217.14	11.14	20	$ 1,993,844
Mandatory Wx - MH w/o AC	2,886	82.90	11.14	20	$ 584,203
Mandatory Wx - MH w AC	1,284	217.14	11.14	20	$ 502,373
Mandatory Wx - SF w/o AC	13,811	80.42	15.47	20	$ 3,208,585
Mandatory Wx - SF w AC	12015	138.57	15.47	20	$ 3,774,132
Non-Mandatory Wx - MF w/o A	9,941	51.10	6.86	20	$ 1,240,578
Non-Mandatory Wx - MF w AC	5,096	133.86	6.86	20	$ 1,229,186
Non-Mandatory Wx - MH w/o A	2886	51.10	6.86	20	$ 360,156
Non-Mandatory Wx - MH w AC	1,284	133.86	6.86	20	$ 309,708
Non-Mandatory Wx - SF w/o AC	13,811	49.58	9.53	20	$ 1,978,062
Non-Mandatory Wx - SF w AC	12,015	85.43	9.53	20	$ 2,326,716
Non-Mandatory TCAP - T1	1,463	802.00	0	10	$ 1,031,063
Non-Mandatory TCAP - T1A	3,310	802.00	0	10	$ 2,332,754
Non-Mandatory TCAP - T1B	29	1,399.00	0	5	$ 20,326
Total Bill Savings for All Measures in Program Year					$ 22,904,008

Total Number of Homes Served by the Program during Program Year		45,033
Life Cycle Bill Savings Per Home	$	508.60

Measure Description*

Mandatory WX Measures	*Non-Mandatory WX Measures*	*Non-Mandatory TCAP*
Attic insulation	Evaporative cooler covers	Refrigerators
Water heater blanket	Reusable furnace filters	
Low flow shower head	Water heater pipe wrap	
Door weather stripping	Energy Education	
Caulking		
Minor Home Repair		
Attic venting		
Attic access weather stripping		

Exhibit 6.18
PG&E Life Cycle Bill Savings– Program Year 1998

AEAP Reported:

Measure Description*	Number Installed	Per Measure Electric Impact (kWh)	Per Measure Gas Impact (Therms)	EUL	Total Measure Life Cycle Bill Savings ($)
Mandatory Wx - SF w/o AC	11,672	106.24	11.91	20	$ 2,892,045
Mandatory Wx - MF w/o AC	8,633	47.73	16.52	20	$ 1,729,046
Mandatory Wx - MH w/o AC	262	89.57	23.12	20	$ 82,013
Mandatory Wx - SF w AC	7,116	94.82	11.91	20	$ 1,646,243
Mandatory Wx - MF w AC	2,543	110.42	16.52	20	$ 738,764
Mandatory Wx - MH w AC	230	178.72	23.12	20	$ 101,504
Non-Mandatory Wx - SF w/o AC	11,672	43.56	4.89	20	$ 1,185,921
Non-Mandatory Wx - MF w/o AC	8,633	19.57	6.78	20	$ 709,018
Non-Mandatory Wx - MH w/o AC	262	36.73	9.48	20	$ 33,630
Non-Mandatory Wx - SF w AC	7,116	38.88	4.89	20	$ 675,063
Non-Mandatory Wx - MF w AC	2,543	45.28	6.78	20	$ 302,940
Non-Mandatory Wx - MH w AC	230	73.28	9.48	20	$ 41,623
Non-Mandatory App - SF	1,568	855.80	0	10	$ 1,201,601
Non-Mandatory App - MF	191	713.60	0	10	$ 122,048
Non-Mandatory App - MH	56	882.60	0	10	$ 44,258
Total Bill Savings for All Measures in Program Year					$ 11,505,718

Total Number of Homes Served by the Program during Program Year		31,744
Life Cycle Bill Savings Per Home	$	362.45

Measure Description*

Mandatory WX Measures	*Non-Mandatory WX Measures*	*Non-Mandatory APP*
Attic insulation	Evaporative cooler covers	Refrigerators
Water heater blanket	Reusable furnace filters	Furnaces
Low flow shower head	Water heater pipe wrap	
Door weather stripping	Energy Education	
Caulking		
Minor Home Repair		
Attic venting		
Attic access weather stripping		

Exhibit 6.19
PG&E Life Cycle Bill Savings– Program Year 1999

AEAP Reported:

Measure Description	Number Installed	Per Measure Electric Impact (kWh)	Per Measure Gas Impact (Therms)	EUL	Total Measure Life Cycle Bill Savings ($)
Weatherization - SF w/o AC	14,245	125.40	14.20	20	$ 4,307,102
Weatherization - MF w/o AC	11,354	56.30	19.60	20	$ 2,781,779
Weatherization - MH w/o AC	1,224	105.70	27.50	20	$ 468,968
Weatherization - SF w AC	8,125	111.90	14.20	20	$ 2,294,990
Weatherization - MF w AC	5,160	130.30	19.60	20	$ 1,827,864
Weatherization - MH w AC	496	211.00	27.50	20	$ 267,220
Refrigerator - SF	3,023	855.80	0	10	$ 2,369,176
Refrigerator - MF	628	713.60	0	10	$ 410,562
Refrigerator - MH	184	882.60	0	10	$ 148,821
Evaporative Cooler - SF	574	542.00	0	10	$ 284,916
Evaporative Cooler - MF	13	542.00	0	10	$ 6,281
Evaporative Cooler - MH	55	542.00	0	10	$ 27,407
Furnace - SF	109	0	13.00	10	$ 7,253
Furnace - MF	5	0	13.00	10	$ 305
Furnace - MH	8	0	13.00	10	$ 534
Total Bill Savings for All Measures in Program Year					$ 15,203,179

Total Number of Homes Served by the Program during Program Year		43,480
Life Cycle Bill Savings Per Home	$	349.66

Exhibit 6.20
PG&E Life Cycle Bill Savings– Program Year 2000

Installations through June 2000

Measure Description	Number Installed	Per Measure Electric Impact (kWh)		Per Measure Gas Impact (Therms)	EUL	Total Measure Life Cycle Bill Savings ($)
		SH	AC			
Attic Access Weatherstripping - sf	4,627	13.60	6.50	0.72	5	$ 16,723.40
Attic Access Weatherstripping - mf	437	12.30	5.10	0.07	5	$ 587.82
Attic Access Weatherstripping - mh	3	6.80	3.25	0.72	5	$ 8.10
Attic Insulation - sf	2,284	271.70	129.90	29.00	25	$ 845,130.40
Attic Insulation - mf	83	266.10	102.00	2.90	25	$ 8,607.04
Caulking - sf	9,438	10.20	4.88	1.08	5	$ 39,905.67
Caulking - mf	4,066	9.23	3.83	0.10	5	$ 4,675.93
Caulking - mh	992	10.20	4.88	1.08	5	$ 4,016.02
Compact Fluorescent Hard Wired Porch Ligl	27	70.00	0.00	0.00	20	$ 2,866.11
Compact Fluorescent Lights	17,161	57.80	0.00	0.00	8	$ 780,106.94
Door Weatherstripping - sf	9,147	30.60	14.63	3.23	5	$ 116,025.81
Door Weatherstripping - mf	3,324	27.68	11.48	0.30	5	$ 11,467.88
Door Weatherstripping - mh	926	30.60	14.63	3.23	5	$ 11,246.49
Evaporative Cooler Covers	1,549	0.00	0.00	2.60	3	$ 7,528.21
Faucet Aerators	17,087	0.00	0.00	3.50	5	$ 177,725.29
Furnace Filters - sf	4,615	10.20	4.88	1.08	5	$ 19,513.10
Furnace Filters - mf	1,089	9.23	3.83	0.10	5	$ 1,252.36
Furnace Filters - mh	658	10.20	4.88	1.08	5	$ 2,663.85
Low Flow Showerhead	15,243	247.20	0.00	16.40	10	$ 1,369,290.61
Minor Home Repair - sf	9,770	67.90	32.50	7.20	10	$ 492,770.27
Minor Home Repair - mf	3,098	66.50	25.50	0.70	10	$ 43,609.11
Minor Home Repair - mh	879	67.90	32.50	7.20	10	$ 42,455.22
Outlet Gaskets	14,307	0.00	0.00	0.80	15	$ 81,545.80
Portable Evaporative Coolers	908	353.60	0.00	0.00	7	$ 226,068.38
Refrigerator - sf	2,144	542.00	0.00	0.00	15	$ 1,467,717.17
Refrigerator - mf	116	542.00	0.00	0.00	15	$ 79,410.07
Refrigerator - mh	398	542.00	0.00	0.00	15	$ 272,458.69
Water Heater Blanket - sf	2,035	197.80	0.00	13.20	5	$ 82,472.39
Water Heater Blanket - mf	171	197.80	0.00	13.20	5	$ 6,930.11
Water Heater Blanket - mh	199	197.80	0.00	13.20	5	$ 8,064.87
Water Heater Pipe Wrap	1,192	53.00	0.00	4.00	15	$ 34,886.77
Total Bill Savings for All Measures in Program Year						$ 6,257,730

Total Number of Homes Served by the Program during Program Year		19,376
Life Cycle Bill Savings Per Home	$	322.96

Exhibit 6.21
SCE Life Cycle Bill Savings– Program Year 1997

Measure Description	Number Installed	Per Measure Electric Impact [1]	EUL	Total Measure Life Cycle Bill Savings - From Algorithm
		(kWh)	(Yrs)	($)
Evaporative Cooler Installation	2,295	682.50	15	$ 1,668,688
Evaporative Cooler Maintenance [2]	12,429	172.75	4	$ 821,693
Refrigerator Replacement [2]	455	695.82	15	$ 337,285
Relamping	240,574	45.70	6	$ 5,887,505
Weatherization	2,363	496.56	20	$ 1,494,134
Total Bill Savings for All Measures In Program Year				**$ 10,209,305**

Total Number of Homes Served by the Program during Program Year		71,867
Life Cycle Bill Savings Per Home	$	142.06

This calculation is based on LIEE data through 12/31/97 of which 40% of participants are also on the CARE rate.

[1] - KWh savings claims based on the 2/19/97 Load Impact Evaluation of the 1995 Direct Assistance Program, for Evaporative Cooler Installation (weighted average), Relamping and Weatherization (weighted average).

[2] - KWh savings claims based on 8/28/92 Unit Energy Savings (UES) manual.

Exhibit 6.22
SCE Life Cycle Bill Savings– Program Year 1998

Measure Description	Number Installed	Per Measure Electric Impact [1]	EUL	Total Measure Life Cycle Bill Savings - From Algorithm
		(kWh)	(Yrs)	($)
Evaporative Cooler Installation	2,682	654.47	15	$ 1,889,980
Evaporative Cooler Maintenance	9,826	190.94	4	$ 1,714,651
Relamping	202,299	45.70	6	$ 4,909,198
Weatherization	2,561	536.45	20	$ 1,773,651
Total Bill Savings for All Measures In Program Year				**$ 10,287,480**

Total Number of Homes Served by the Program during Program Year		70,391
Life Cycle Bill Savings Per Home	$	146.15

This calculation is based on LIEE data through 12/31/98 of which 40% of participants are also on the CARE rate.

[1] - KWh savings claims based on the 2/19/97 Load Impact Evaluation of the 1995 Direct Assistance Program, for Evaporative Cooler Installation (weighted average), Relamping and Weatherization (weighted average).

Exhibit 6.23
SCE Life Cycle Bill Savings– Program Year 1999

Measure Description	Number Installed	Per Measure Electric Impact [1]	EUL	Total Measure Life Cycle Bill Savings - From Algorithm
		(kWh)	(Yrs)	($)
Evaporative Cooler Installation	2,317	612.97	15	$ 1,566,586
Evaporative Cooler Maintenance	1,773	177.62	4	$ 119,297
Porch Light [2]	22,173	204.10	2	$ 905,477
Refrigerator Replacement [3]	284	1,631.00	15	$ 510,930
CFB-Relamping	175,797	45.70	6	$ 4,345,831
Weatherization	2,469	584.93	20	$ 1,790,234
Total Bill Savings for All Measures In Program Year				**$ 9,238,356**

Total Number of Homes Served by the Program during Program Year [4]		56,534
Life Cycle Bill Savings Per Home	$	163.41

This calculation is based on LIEE data through 12/31/99 of which 40% of participants are also on the CARE rate.

[1] - KWh savings claims based 2/19/97 Load Impact Evaluation of the 1995 Direct Assistance Program, for Evaporative Cooler Installation (weighted average), Relamping and Weatherization (weighted average).

[2] - Engineering estimate.

[3] -Edison replaces the older refrigerators, at least 10 years old, with super efficiency units (30% over the standard). The way the savings are measured is based on usage differential between the new and the old units. Overall, we calculate a weighted average based on the number of the diffrent types of refrigerators replaced.

[4] - Porch light and refrigerator replacement are not part of this home served count.

Exhibit 6.24
SCE Life Cycle Bill Savings– Program Year 2000

Measure Description	Number Installed	Per Measure Electric Impact [1]	EUL	Total Measure Life Cycle Bill Savings - From Algorithm
		(kWh)	(Yrs)	($)
Evaporative Cooler Installation	553	705.28	15	$ 441,895
Porch Light [2]	8,358	204.10	2	$ 346,234
Refrigerator Replacement [3]	717	1,776.00	15	$ 1,442,761
CFB-Relamping	47,717	45.70	6	$ 1,208,186
Weatherization	410	553.28	20	$ 308,586
Total Bill Savings for All Measures In Program Year				**$ 3,747,663**

Total Number of Homes Served by the Program during Program Year [4]		13,251
Life Cycle Bill Savings Per Home	$	282.82

This calculation is based on LIEE data through 6/30/00 of which 40% of participants are also on the CARE rate.
[1] - KWh savings claims based 2/19/97 Load Impact Evaluation of the 1995 Direct Assistance Program, for Evaporative Cooler Installation (weighted average), Relamping and Weatherization (weighted average).
[2] - Engineering estimate.

[3] -Edison replaces the older refrigerators, at least 10 years old, with super efficiency units (30% over the standard). The way the savings are measured is based on usage differential between the new and the old units. Overall, we calculate a weighted average based on the number of the diffrent types of refrigerators replaced.

[4] - Porch light and refrigerator replacement are not part of this home served count.

Exhibit 6.25
SDG&E Life Cycle Bill Savings– Program Year 1997

Measure Description	Number Installed	Per Measure Electric Impact	Per Measure Gas Impact	EUL	Total Measure Life Cycle Bill Savings
		(kWh)	(Therms)	(years)	($)
Weather stripping - MF (gas)	4,468	0	1	5	$ 16,962
Weather stripping - MF (electric)	789	5	0	5	$ 1,762
Weather stripping - SF (gas)	1,866	0	3	5	$ 16,188
Weather stripping - SF (electric)	329	5	0	5	$ 736
Minor Home Repair Materials	3,439	5	8	10	$ 142,032
Low Flow Showerheads (gas)	5,587	0	7	10	$ 186,773
Low Flow Showerheads (electric)	986	174	0	10	$ 142,614
Caulking - MF	4,777	0	1	5	$ 18,133
Caulking - SF	1,856	0	3	5	$ 16,103
Ceiling Insulation R-19 (gas)	241	0	21	25	$ 41,784
Ceiling Insulation R-19 (electric)	42	34	0	25	$ 2,242
Ceiling Insulation R-11 (gas)	98	0	21	25	$ 16,979
Ceiling Insulation R-11 (electric)	17	34	0	25	$ 911
Water Heater Blankets (gas)	470	0	6	5	$ 7,392
Water Heater Blankets (electric)	83	138	0	5	$ 5,117
Furnace Replacement	78	0	8	22	$ 4,831
Exterior CFL Fixture	2,091	181	0	20	$ 517,881
Compact Fluorescent Lights	7,812	77	0	9	$ 458,212
Refrigerator Replacement	1,002	402	0	15	$ 456,313
Total Bill Savings for All Measures in Program Year					**$ 2,052,965**

Total Number of Homes Served by the Program during Program Year		7,876
Life Cycle Bill Savings Per Home	$	260.66

Exhibit 6.26
SDG&E Life Cycle Bill Savings– Program Year 1998

Measure Description	Number Installed	Per Measure Electric Impact	Per Measure Gas Impact	EUL	Total Measure Life Cycle Bill Savings
		(kWh)	(Therms)	(years)	($)
Weather stripping - MF (gas)	5,936	0	1	5	$ 21,632
Weather stripping - MF (electric)	1,047	5	0	5	$ 2,432
Weather stripping - SF (gas)	1,343	0	3	5	$ 11,188
Weather stripping - SF (electric)	237	5	0	5	$ 550
Minor Home Repair Materials	3,910	5	8	10	$ 160,481
Low Flow Showerheads (gas)	5,318	0	7	10	$ 175,843
Low Flow Showerheads (electric)	938	174	0	10	$ 140,466
Caulking - MF	6,738	0	1	5	$ 24,557
Caulking - SF	1,365	0	3	5	$ 11,371
Ceiling Insulation R-19 (gas)	184	0	21	25	$ 32,267
Ceiling Insulation R-19 (electric)	33	34	0	25	$ 1,775
Ceiling Insulation R-11 (gas)	96	0	21	25	$ 16,802
Ceiling Insulation R-11 (electric)	17	34	0	25	$ 924
Water Heater Blankets (gas)	304	0	6	5	$ 4,594
Water Heater Blankets (electric)	54	138	0	5	$ 3,442
Furnace Replacement	78	0	8	22	$ 4,857
Exterior CFL Fixture	9	181	0	20	$ 2,302
Compact Fluorescent Lights	10,062	77	0	9	$ 611,012
Total Bill Savings for All Measures in Program Year					**$ 1,226,496**

Total Number of Homes Served by the Program during Program Year		8,717
Life Cycle Bill Savings Per Home	$	140.70

Exhibit 6.27
SDG&E Life Cycle Bill Savings– Program Year 1999

Measure Description	Number Installed	Per Measure Electric Impact	Per Measure Gas Impact	EUL	Total Measure Life Cycle Bill Savings
		(kWh)	(Therms)	(years)	($)
Weather stripping - MF (gas)	4,320	0	1	5	$ 15,678
Weather stripping - MF (electric)	762	5	0	5	$ 1,891
Weather stripping - SF (gas)	915	0	3	5	$ 7,594
Weather stripping - SF (electric)	162	5	0	5	$ 401
Minor Home Repair Materials	2,968	5	8	10	$ 123,625
Low Flow Showerheads (gas)	3,727	0	7	10	$ 124,566
Low Flow Showerheads (electric)	658	174	0	10	$ 103,439
Caulking - MF	4,653	0	1	5	$ 16,888
Caulking - SF	934	0	3	5	$ 7,748
Ceiling Insulation R-19 (gas)	118	0	21	25	$ 21,068
Ceiling Insulation R-19 (electric)	21	34	0	25	$ 1,184
Ceiling Insulation R-11 (gas)	45	0	21	25	$ 8,033
Ceiling Insulation R-11 (electric)	8	34	0	25	$ 451
Water Heater Blankets (gas)	400	0	6	5	$ 6,007
Water Heater Blankets (electric)	71	138	0	5	$ 4,826
Exaporative Cooler Cover	287	0	26	3	$ 12,104
Furnace Replacement	47	0	8	22	$ 2,981
Refrigerator Replacement	200	402	0	15	$ 98,387
Exterior CFL Fixture	95	181	0	20	$ 25,338
Compact Fluorescent Lights	8,758	77	0	9	$ 559,736
Evaporative Cooler Replacement	1	130	0	7	$ 87
Total Bill Savings for All Measures in Program Year					**$ 1,142,032**

Total Number of Homes Served by the Program during Program Year		7,761
Life Cycle Bill Savings Per Home	$	147.15

Exhibit 6.28
SDG&E Life Cycle Bill Savings– Program Year 2000

Measure Description	Number Installed	Per Measure Electric Impact	Per Measure Gas Impact	EUL	Total Measure Life Cycle Bill Savings
		(kWh)	(Therms)	(years)	($)
Weather stripping - MF (gas)	1,413	0	1	5	$ 5,328
Weather stripping - MF (electric)	249	5	0	5	$ 668
Weather stripping - SF (gas)	322	0	3	5	$ 2,777
Weather stripping - SF (electric)	57	5	0	5	$ 152
Minor Home Repair Materials	1,168	5	8	10	$ 50,478
Low Flow Showerheads (gas)	1,860	0	7	10	$ 64,338
Low Flow Showerheads (electric)	328	174	0	10	$ 54,589
Caulking - MF	1,641	0	1	5	$ 6,189
Caulking - SF	378	0	3	5	$ 3,259
Ceiling Insulation R-19 (gas)	45	0	21	25	$ 8,297
Ceiling Insulation R-19 (electric)	8	34	0	25	$ 472
Ceiling Insulation R-11 (gas)	12	0	21	25	$ 2,192
Ceiling Insulation R-11 (electric)	2	34	0	25	$ 125
Water Heater Blankets (gas)	200	0	6	5	$ 3,121
Water Heater Blankets (electric)	35	138	0	5	$ 2,607
Exaporative Cooler Cover	208	0	26	3	$ 9,164
Furnace Replacement	26	0	8	22	$ 1,704
Refrigerator Replacement	237	402	0	15	$ 122,468
Exterior CFL Fixture	31	181	0	20	$ 8,656
Compact Fluorescent Lights	4,009	77	0	9	$ 271,623
Evaporative Cooler Replacement	21	130	0	7	$ 1,956
Total Bill Savings for All Measures in Program Year					**$ 620,160**

Total Number of Homes Served by the Program during Program Year		2,437
Life Cycle Bill Savings Per Home	$	254.48

Exhibit 6.29
SoCalGas Life Cycle Bill Savings– Program Year 1997

Measure Description	Number Installed	Per Measure Electric Impact (kWh)	Per Measure Gas Impact (Therms)	EUL	Total Measure Life Cycle Bill Savings ($)
Lo-Flow Showerhead SF,MF,MH	17,417	-	8.8	10	$ 687,977
Ceiling Insulation SF	1,631	-	18.9	25	$ 253,698
Ceiling Insulation MF	1,614	-	18.9	25	$ 251,054
BER SF	10,664	-	4.5	10	$ 215,402
BER MF	7,935	-	4.5	10	$ 160,279
BER MH	774	-	4.5	10	$ 15,634
Weatherstripping/Caulking SF	12,452	-	3.0	5	$ 93,276
Weatherstripping/Caulking MF	9,175	-	3.0	5	$ 68,728
Weatherstripping/Caulking MH	1,218	-	3.0	5	$ 9,124
Water Heater Blanket SF	4,354	-	7.0	5	$ 76,102
Water Heater Blanket MF	2,695	-	7.0	5	$ 47,105
Water Heater Blanket MH	197	-	7.0	5	$ 3,443
Door Threshold SF, MF, MH	17,433	-	2.0	5	$ 87,059
Door Shoe SF, MF, MH	19,554	-	2.0	5	$ 97,651
Faucet Aerator SF,MF, MH	20,005	-	3.5	5	$ 174,830
Pipe Insulation SF	2,104	-	2.6	15	$ 33,092
Pipe Insulation MF	1,426	-	2.6	15	$ 22,428
Pipe Insulation MH	273	-	2.6	15	$ 4,294
Register Seal SF	199	-	0.4	5	$ 199
Register Seal MF	83	-	0.4	5	$ 83
Register Seal MH	536	-	0.4	5	$ 535
Exhaust Vent Damper SF	172	-	1.7	3	$ 454
Exhaust Vent Damper MF	344	-	1.7	3	$ 909
Exhaust Vent Damper MH	12	-	1.7	3	$ 32
Evaporative Cooler Cover SF	207	-	2.6	3	$ 836
Evaporative Cooler Cover MF	105	-	2.6	3	$ 424
Evaporative Cooler Cover MH	163	-	2.6	3	$ 659
Switch/Outlet Gaskets SF, MF	18,841	-	0.8	15	$ 91,179
Furnace Replacement SF	1,787	-	6.8	22	$ 93,366
Furnace Repair SF	314	-	0.0	10	$ -
Weatherization*	21,100	12.0	0.0	20	$ 322,418
Total Bill Savings for All Gas Measures in Program Year					$ 2,489,852
Total Bill Savings for All Gas & Electric Measures in Program Year					$ 2,812,270

*This measure includes the electric AC savings resulting from weatherization; per unit kWhs are taken from SCE's "Impact Evaluation of 1999 DAP" dated February 19, 1997

Total Number of Homes Served by the Program during Program Year		22,887
Life Cycle Bill Savings Per Home - Just Gas Measures	$	108.79
Life Cycle Bill Savings Per Home - Gas & Electric Measures	$	122.88

Exhibit 6.30
SoCalGas Life Cycle Bill Savings– Program Year 1998

AEAP Reported:

Measure Description	Number Installed	Per Measure Electric Impact (kWh)	Per Measure Gas Impact (Therms)	EUL	Total Measure Life Cycle Bill Savings ($)
Lo-Flow Showerhead SF,MF,MH	20,160		8.8	10	$ 817,319
Ceiling Insulation SF	1,808	-	18.9	25	$ 289,109
Ceiling Insulation MF	1,170	-	18.9	25	$ 187,090
BER SF	11,202	-	4.5	10	$ 232,234
BER MF	6,663	-	4.5	10	$ 138,134
BER MH	689	-	4.5	10	$ 14,284
Weatherstripping/Caulking SF	13,150	-	3.0	5	$ 100,816
Weatherstripping/Caulking MF	7,763	-	3.0	5	$ 59,516
Weatherstripping/Caulking MH	2,505	-	3.0	5	$ 19,205
Water Heater Blanket SF	3,720	-	7.0	5	$ 66,546
Water Heater Blanket MF	2,189	-	7.0	5	$ 39,158
Water Heater Blanket MH	338	-	7.0	5	$ 6,046
Door Threshold SF, MF, MH	16,437	-	2.0	5	$ 84,010
Door Shoe SF, MF, MH	18,253	-	2.0	5	$ 93,292
Faucet Aerator SF,MF, MH	40,339	-	3.5	5	$ 360,806
Pipe Insulation SF, MF, MH	3,533	-	2.6	15	$ 57,084
Register Seal SF, MF, MH	7,867	-	0.4	5	$ 8,042
Exhaust Vent Damper SF,MF,MH	310	-	1.7	3	$ 835
Evaporative Cooler Cover SF	551	-	2.6	3	$ 2,269
Switch/Outlet Gaskets SF, MF	18,152	-	0.8	15	$ 90,243
Exhaust Dampers	105	-	1.7	3	$ 283
Furnace Replacement SF	1,809	-	6.8	22	$ 97,150
Furnace Repair SF	523	-	0.0	10	$ -
Weatherization	22,202	12.0	0.0	20	$ 347,033
Total Bill Savings for All Gas Measures in Program Year					$ 2,763,472
Total Bill Savings for All Gas & Electric Measures in Program Year					$ 3,110,506

*This measure includes the electric AC savings resulting from weatherization; per unit kWhs are taken from SCE's "Impact Evaluation of 1999 DAP" dated February 19, 1997

Total Number of Homes Served by the Program during Program Year		24,011
Life Cycle Bill Savings Per Home - Just Gas Measures	$	115.09
Life Cycle Bill Savings Per Home - Gas & Electric Measures	$	129.55

Exhibit 6.31
SoCalGas Life Cycle Bill Savings– Program Year 1999

AEAP Reported:

Measure Description	Number Installed	Per Measure Electric Impact (kWh)	Per Measure Gas Impact (Therms)	EUL	Total Measure Life Cycle Bill Savings ($)
Lo-Flow Showerhead SF,MF,MH	20,068	-	8.8	10	$ 836,635
Ceiling Insulation SF	1,961	-	18.9	25	$ 322,696
Ceiling Insulation MF	1,181	-	18.9	25	$ 194,342
BER SF	13,929	-	4.5	10	$ 296,949
BER MF	8,366	-	4.5	10	$ 178,353
BER MH	647	-	4.5	10	$ 13,793
Weatherstripping/Caulking SF	14,615	-	3	5	$ 115,070
Weatherstripping/Caulking MF	8,869	-	3	5	$ 69,830
Weatherstripping/Caulking MH	1,485	-	3	5	$ 11,692
Water Heater Blanket SF	3,155	-	7	5	$ 57,962
Water Heater Blanket MF	1,874	-	7	5	$ 34,428
Water Heater Blanket MH	207	-	7	5	$ 3,803
Faucet Aerator SF,MF, MH	23,667	-	3.5	5	$ 217,398
Pipe Insulation SF, MF, MH	3,097	-	2.6	15	$ 51,479
Register Seal SF, MF, MH	604	-	0.4	5	$ 634
Evaporative Cooler Cover SF	548	-	2.6	3	$ 2,314
Switch/Outlet Gaskets SF, MF	21,160	-	0.8	15	$ 108,223
Exhaust Dampers	105	-	1.7	3	$ 290
Furnace Replacement SF	2,257	-	6.8	22	$ 124,728
Furnace Repair SF	607	-	0.0	10	$ -
Weatherization	25,238	12.0	0.0	20	$ 404,400
Total Bill Savings for All Gas Measures in Program Year					$ 2,640,618
Total Bill Savings for All Gas & Electric Measures in Program Year					$ 3,045,018

*This measure includes the electric AC savings resulting from weatherization; per unit kWhs are taken from SCE's "Impact Evaluation of 1999 DAP" dated February 19, 1997

Total Number of Homes Served by the Program during Program Year		27,495
Life Cycle Bill Savings Per Home - Just Gas Measures	$	96.04
Life Cycle Bill Savings Per Home - Gas & Electric Measures	$	110.75

Exhibit 6.32
SoCalGas Life Cycle Bill Savings– Program Year 2000

Installations through June 2000

Measure Description	Number Installed	Per Measure Electric Impact (kWh)	Per Measure Gas Impact (Therms)	EUL	Total Measure Life Cycle Bill Savings ($)
Lo-Flow Showerhead SF,MF,MH	8,101	-	8.8	10	$ 353,174
Ceiling Insulation SF	739	-	18.9	25	$ 126,296
Ceiling Insulation MF	363	-	18.9	25	$ 62,037
BER SF	6,227	-	4.5	10	$ 138,822
BER MF	2,691	-	4.5	10	$ 59,992
BER MH	254	-	4.5	10	$ 5,663
Weatherstripping/Caulking SF	6,455	-	3	5	$ 53,790
Weatherstripping/Caulking MF	2,780	-	3	5	$ 23,166
Weatherstripping/Caulking MH	528	-	3	5	$ 4,400
Water Heater Blanket SF	1,139	-	7	5	$ 22,147
Water Heater Blanket MF	547	-	7	5	$ 10,636
Water Heater Blanket MH	45	-	7	5	$ 875
Faucet Aerator SF,MF, MH	9,099	-	3.5	5	$ 88,460
Pipe Insulation SF, MF, MH	1,359	-	2.6	15	$ 23,530
Register Seal SF, MF, MH	-	-	0.4	5	$ -
Evaporative Cooler Cover SF	214	-	2.6	3	$ 972
Switch/Outlet Gaskets SF, MF	7,980	-	0.8	15	$ 42,514
Exhaust Dampers	-	-	1.7	3	$ -
Furnace Replacement SF	1,578	-	6.8	22	$ 90,620
Furnace Repair SF	261	-	0.0	10	$ -
Weatherization	9,846	12.0	0.0	20	$ 160,726
Total Bill Savings for All Gas Measures in Program Year					$ 1,107,095
Total Bill Savings for All Gas & Electric Measures in Program Year					$ 1,267,820

*This measure includes the electric AC savings resulting from weatherization; per unit kWhs are taken from SCE's "Impact Evaluation of 1999 DAP" dated February 19, 1997

Total Number of Homes Served by the Program during Program Year		11,424
Life Cycle Bill Savings Per Home - Just Gas Measures	$	96.91
Life Cycle Bill Savings Per Home - Gas & Electric Measures	$	110.98

6.3 Different Escalation Rates

This section presents the different escalation rates for each utility from 1997 through 2000. The graphs indicate the per home lifecycle savings and bill savings to program costs ratios variation with the different escalation rates.

Exhibit 6.33
1997 Per Home Lifecycle Savings

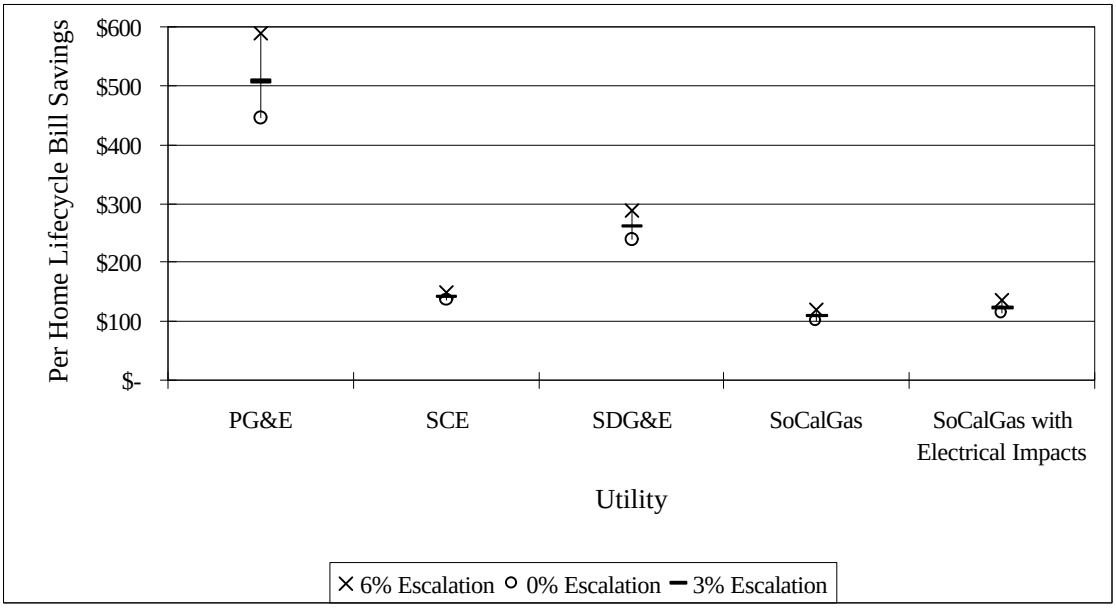


Exhibit 6.34
1998 Per Home Lifecycle Savings

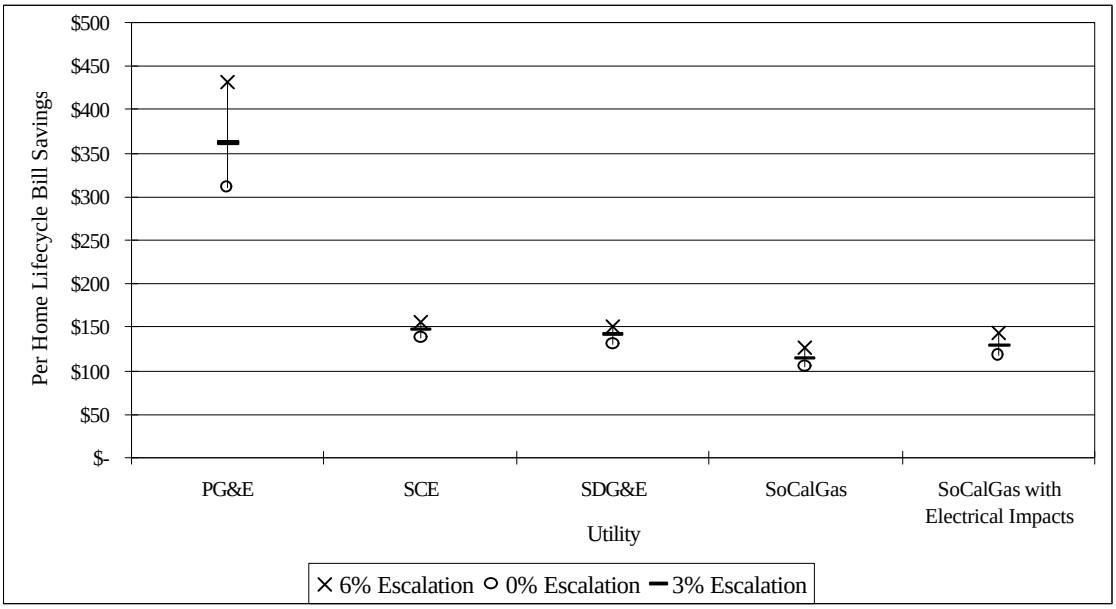


Exhibit 6.35
1999 Per Home Lifecycle Savings

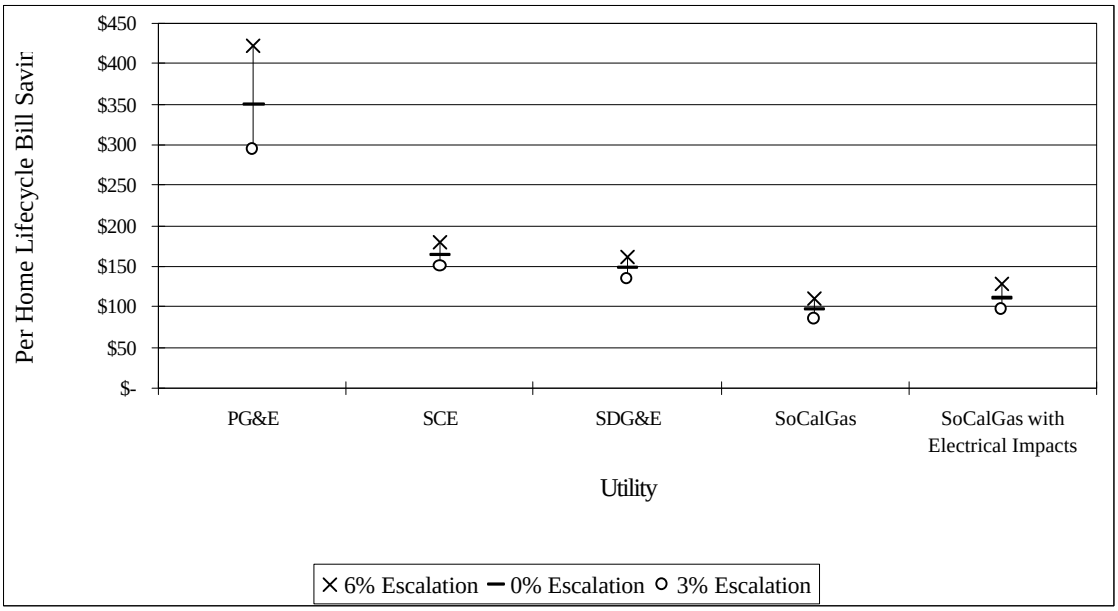


Exhibit 6.36
First Half 2000 Per Home Lifecycle Savings

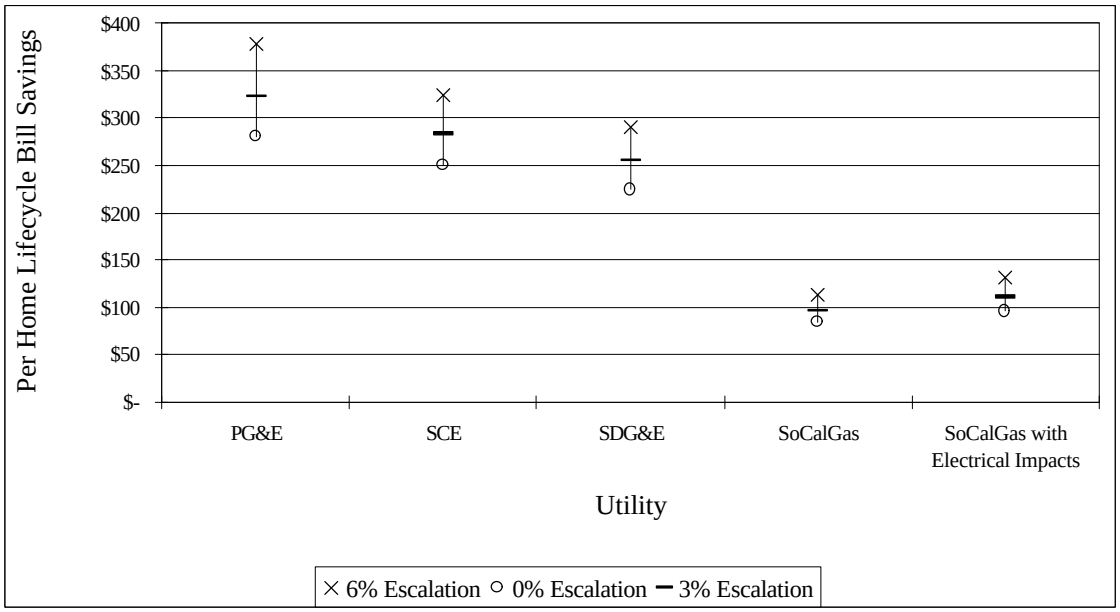


Exhibit 6.37
1997 Bill Savings to Cost Ratio

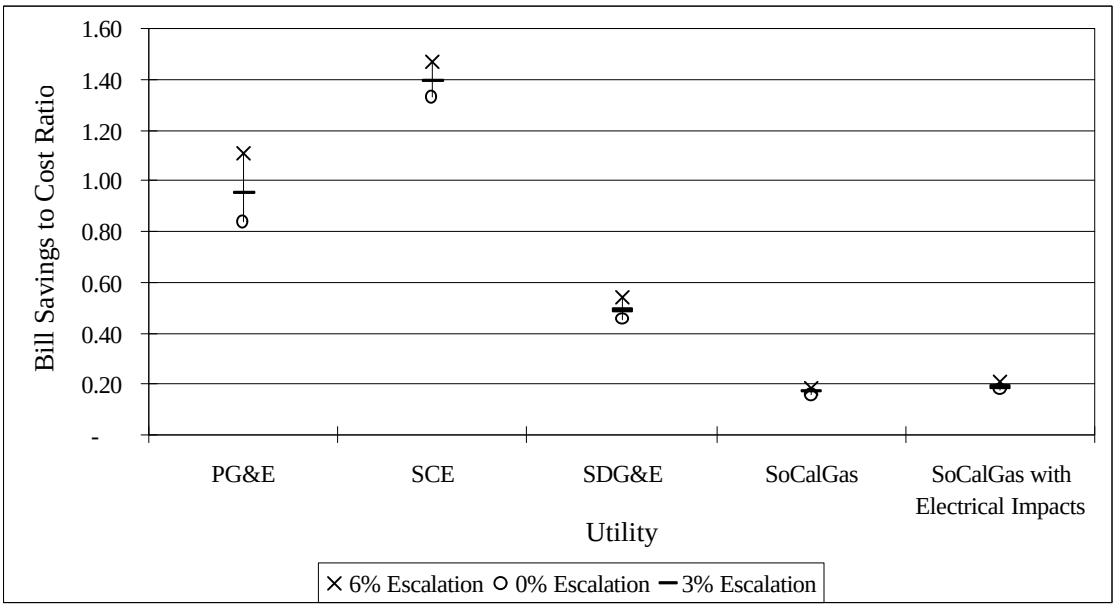


Exhibit 6.38
1998 Bill Savings to Cost Ratio

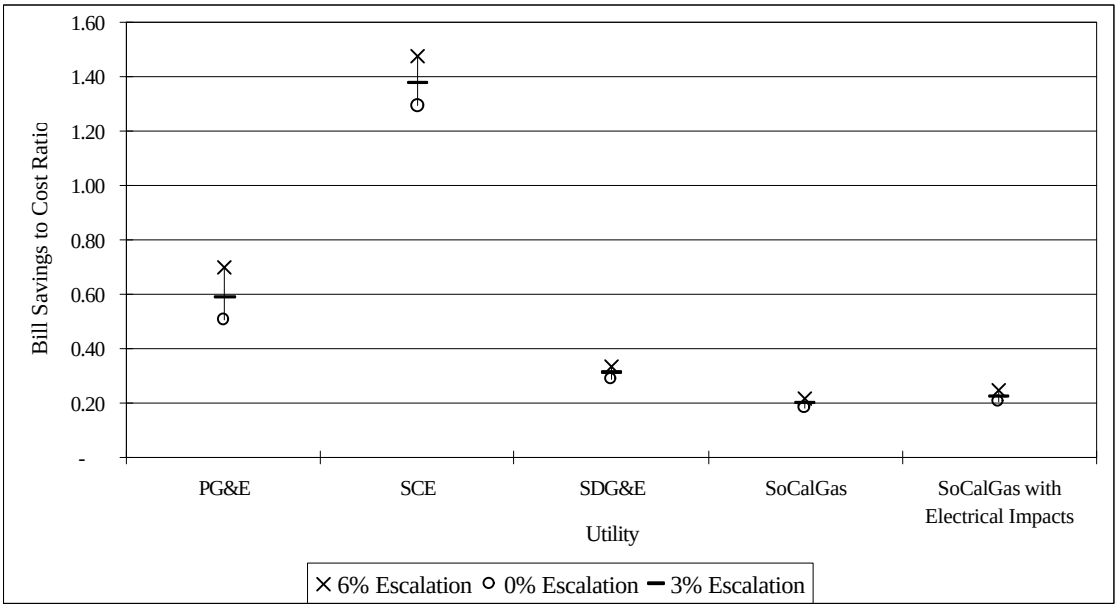


Exhibit 6.39
1999 Bill Savings to Cost Ratio

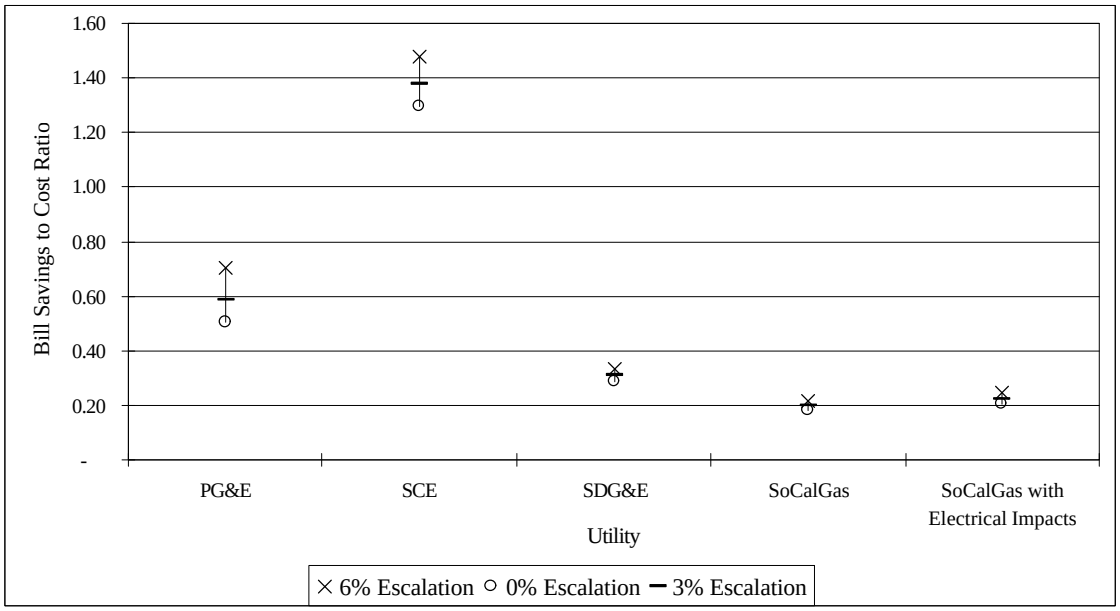
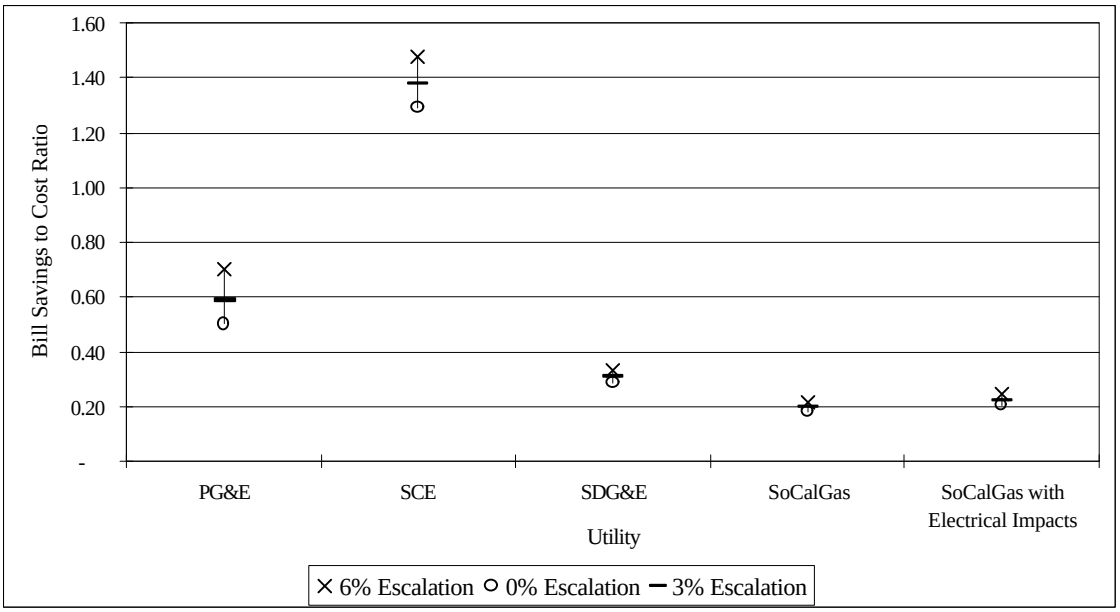


Exhibit 6.40
First Half 2000 Bill Savings to Cost Ratio



6.4 Escalation Rates Taken to 25 Years

This section presents the escalation rates for each utility from 1997 through 2025. The rates are shown for a 3% and 6% escalation rate.0% escalation rate is not shown since there is no change from the program year 2000 rates through 2025.

Exhibit 6.41
Rates through 2025 with 3% Escalation Rate

	PG&E		SCE	SDG&E		SoCalGas	
Year	kWh	Therm	kWh	kWh	Therm	kWh	Therm
1997	0.1159	0.5691	0.1155	0.1021	0.7296	0.1155	0.5801
1998	0.1159	0.5567	0.1040	0.0928	0.6434	0.1040	0.5715
1999	0.1159	0.5916	0.1040	0.0902	0.5523	0.1040	0.5209
2000	0.1159	0.6537	0.1040	0.1179	0.5926	0.1040	0.6110
2001	0.1194	0.6733	0.1071	0.1214	0.6104	0.1071	0.6293
2002	0.1230	0.6935	0.1103	0.1251	0.6287	0.1103	0.6482
2003	0.1266	0.7143	0.1136	0.1288	0.6476	0.1136	0.6677
2004	0.1304	0.7357	0.1171	0.1327	0.6670	0.1171	0.6877
2005	0.1344	0.7578	0.1206	0.1367	0.6870	0.1206	0.7083
2006	0.1384	0.7806	0.1242	0.1408	0.7076	0.1242	0.7296
2007	0.1425	0.8040	0.1279	0.1450	0.7288	0.1279	0.7515
2008	0.1468	0.8281	0.1317	0.1494	0.7507	0.1317	0.7740
2009	0.1512	0.8529	0.1357	0.1538	0.7732	0.1357	0.7972
2010	0.1558	0.8785	0.1398	0.1584	0.7964	0.1398	0.8211
2011	0.1604	0.9049	0.1440	0.1632	0.8203	0.1440	0.8458
2012	0.1652	0.9320	0.1483	0.1681	0.8449	0.1483	0.8711
2013	0.1702	0.9600	0.1527	0.1731	0.8703	0.1527	0.8973
2014	0.1753	0.9888	0.1573	0.1783	0.8964	0.1573	0.9242
2015	0.1806	1.0184	0.1620	0.1837	0.9233	0.1620	0.9519
2016	0.1860	1.0490	0.1669	0.1892	0.9509	0.1669	0.9805
2017	0.1916	1.0805	0.1719	0.1949	0.9795	0.1719	1.0099
2018	0.1973	1.1129	0.1771	0.2007	1.0089	0.1771	1.0402
2019	0.2032	1.1463	0.1824	0.2067	1.0391	0.1824	1.0714
2020	0.2093	1.1807	0.1878	0.2129	1.0703	0.1878	1.1035
2021	0.2156	1.2161	0.1935	0.2193	1.1024	0.1935	1.1366
2022	0.2221	1.2526	0.1993	0.2259	1.1355	0.1993	1.1707
2023	0.2287	1.2901	0.2053	0.2327	1.1695	0.2053	1.2059
2024	0.2356	1.3288	0.2114	0.2397	1.2046	0.2114	1.2420
2025	0.2427	1.3687	0.2178	0.2469	1.2408	0.2178	1.2793

Exhibit 6.42
Rates through 2025 with 6% Escalation Rate

	PG&E		SCE	SDG&E		SoCalGas	
Year	kWh	Therm	kWh	kWh	Therm	kWh	Therm
1997	0.1159	0.5691	0.1155	0.1021	0.7296	0.1155	0.5801
1998	0.1159	0.5567	0.1040	0.0928	0.6434	0.1040	0.5715
1999	0.1159	0.5916	0.1040	0.0902	0.5523	0.1040	0.5209
2000	0.1159	0.6537	0.1040	0.1179	0.5926	0.1040	0.6110
2001	0.1229	0.6929	0.1102	0.1250	0.6282	0.1102	0.6477
2002	0.1302	0.7345	0.1169	0.1325	0.6658	0.1169	0.6865
2003	0.1380	0.7786	0.1239	0.1404	0.7058	0.1239	0.7277
2004	0.1463	0.8253	0.1313	0.1488	0.7481	0.1313	0.7714
2005	0.1551	0.8748	0.1392	0.1578	0.7930	0.1392	0.8177
2006	0.1644	0.9273	0.1475	0.1672	0.8406	0.1475	0.8667
2007	0.1743	0.9829	0.1564	0.1773	0.8911	0.1564	0.9187
2008	0.1847	1.0419	0.1658	0.1879	0.9445	0.1658	0.9738
2009	0.1958	1.1044	0.1757	0.1992	1.0012	0.1757	1.0323
2010	0.2076	1.1707	0.1862	0.2111	1.0613	0.1862	1.0942
2011	0.2200	1.2409	0.1974	0.2238	1.1249	0.1974	1.1599
2012	0.2332	1.3154	0.2093	0.2372	1.1924	0.2093	1.2295
2013	0.2472	1.3943	0.2218	0.2515	1.2640	0.2218	1.3032
2014	0.2620	1.4780	0.2351	0.2666	1.3398	0.2351	1.3814
2015	0.2778	1.5666	0.2492	0.2826	1.4202	0.2492	1.4643
2016	0.2944	1.6606	0.2642	0.2995	1.5054	0.2642	1.5522
2017	0.3121	1.7603	0.2800	0.3175	1.5957	0.2800	1.6453
2018	0.3308	1.8659	0.2969	0.3365	1.6915	0.2969	1.7440
2019	0.3507	1.9778	0.3147	0.3567	1.7930	0.3147	1.8486
2020	0.3717	2.0965	0.3335	0.3781	1.9005	0.3335	1.9596
2021	0.3940	2.2223	0.3536	0.4008	2.0146	0.3536	2.0771
2022	0.4176	2.3556	0.3748	0.4249	2.1355	0.3748	2.2018
2023	0.4427	2.4970	0.3973	0.4503	2.2636	0.3973	2.3339
2024	0.4693	2.6468	0.4211	0.4774	2.3994	0.4211	2.4739
2025	0.4974	2.8056	0.4464	0.5060	2.5434	0.4464	2.6223

Appendix A
Participants in LIEE Costs and Bill Savings Standardization Report

The following people were instrumental in the completion of the Low Income Energy Efficiency Costs and Bill Savings Standardization Report. They either attended the weekly meetings that were held from November, 2000 through January, 2001 or provided support in obtaining program cost and bill savings numbers.

Person	Organization
Mary O'Drain	PG&E
Dennis Guido	PG&E
Laura Chiu	PG&E
Chi Lee	PG&E
Kevin McKinley	SDG&E
Henry DeJesus	SDG&E
Jack Parkhill	SCE
Angela Jones	SCE
Steve Loi	SCE
Barbara Cronin	SoCalGas
Jim Green	SoCalGas
Karen Sturgeon	SoCalGas
Donna Wagoner	CPUC – ED
Stephan Rutledge	CPUC – ED
Michael Rosauer	CPUC – ED
Josie Webb	CPUC – ORA
Tim Caulfield	Equipoise Consulting Inc
Mary Sutter	Equipoise Consulting Inc

Appendix B
First Workshop Report (11/16/00)

Public Input Workshop on the Joint Utility Low Income Energy Efficiency Bill Savings and Expenditures Standardization

Final Report

Held at:

Pacific Gas and Electric Company's

Pacific Energy Center

851 Howard, San Francisco, CA

November 16, 2000

10:00 AM to 4:00 PM

Report Date:

December 29, 2000

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I. Workshop Attendees

Representatives from the following organizations participated in the workshop: Pacific Gas & Electric Company (PG&E), Southern California Gas Company (SoCalGas), San Diego Gas and Electric Company (SDG&E), California Public Utility Commission – Energy Division (ED), Southern California Edison Company (SCE), Insulation Contractors Association (ICA), Community Action Agency of San Mateo County (CAA), and the California Public Utility Commission – Office of Ratepayers Advocates (ORA). A complete list of attendees that signed in at the workshop is presented in Attachment A.

II. Workshop Operation

The workshop on November 16, 2000, was publicly noticed through the CPUC Service List (Attachment B) and followed the agenda presented in Attachment C. The morning session covered the Low Income Energy Efficiency (LIEE) mandates as they dealt with standardizing methodology for reporting bill savings and program expenditures. The afternoon session continued on the same topic. The workshop started at 10:00 AM, took a hiatus for lunch from approximately 12:10 PM to 12:45 PM, and adjourned at approximately 2:30 PM, having completed the agenda. It was facilitated, recorded, and reported by Equipoise Consulting, Inc. The workshop was tape-recorded and the tape recordings are available upon request from PG&E.[1] The working group introductory presentation from the workshop is included in Attachment D and handouts from the workshop are included in Attachment E.

The workshop evoked a wide range of comments and recommendations and had robust participation from the various attendees. While the discussions were often extensive and diverse, only the primary points are documented in this report. These points were recorded on flip charts during the workshop. Each participant was encouraged to review the recorded information and add or modify as they felt was necessary to accurately reflect their position. Time was allotted throughout the meeting to perform this task as

[1] To obtain copies of the tapes for this workshop contact Mary O'Drain at PG&E (mjob@pge.com).

well as at the end of the workshop. All participants were made aware of the fact that the points recorded on the flip charts were the basis for the written record.

III. Overview of the Workshop

The purpose of the workshop was to obtain public input on methods for standardizing LIEE program reporting of bill savings and expenditures. The workshop was held to address Ordering Paragraph 7 of the CPUC Decision 00-07-020. Because input was recorded from all parties commenting, the input does not represent a consensus position, and can represent conflicting viewpoints.

The body of this report presents the input recorded by the workshop facilitator and reviewed by the workshop participants both throughout and at the conclusion of the workshop.

The following summary is intended to give an overview of the product of the workshop. The details are presented later in the report and should be reviewed to understand the contributions of the workshop participants.

There were six main topics highlighted during the workshop discussions.

1) Participants encouraged putting more effort into future use of any methodology and system rather than spending effort on figuring out budgets from past years. There was acknowledgement that, while the utilities were required to provide three years of historical data, plus a portion of the current year, the process being developed could be used in the future, should the Commission request continued reporting of bill savings.
2) Low income energy efficiency (LIEE) costs should be broken out by budgeted and non-budgeted[2] categories in any tables created.
3) It was recommended that burdened labor costs be used rather than unburdened costs.

[2] Costs which are charged to LIEE program accounts are considered "budgeted" costs; costs not charged to LIEE program accounts are considered "non-budgeted".

4) In Table TA 7.2 the recommendation was to drop the "furnaces (gas)" and "other measures" rows and instead separate them into "gas appliances", "electric appliances", and "weatherization measures". This would be more forward looking by allowing consideration of appliance programs separate from weatherization and would allow for program changes in the future.

5) The energy rates used in the determination of life cycle bill savings were recommended to be utility specific. The escalation rate for the energy rates was recommended to be determined from work being done by a different group on avoided costs. It was felt that Bill Savings Standardization group could benefit from the other group's expertise on escalation rates.

6) There was broad agreement that the CARE rate should be used to help determine an average energy rate for low-income customers.

IV. Proposed Methodology

Mary O'Drain of PG&E provided an overview to the discussion paper on proposed methodologies for standardizing the reporting of bill savings and expenditures. The discussion paper, which was provided in the workshop filing prior to the meeting, and in hard copy at the meeting, is included in Attachment E. An additional handout presented at the workshop was a partial copy of the Reporting Requirements Manual (RRM) Working Group Report for Low Income Assistance Programs. It is included in Attachment E as a PDF file.

After the summary presentation, questions were elicited from the workshop participants. In general the questions and discussion moved progressively, in order, through the discussion paper. In the following summation of the questions and discussion, the question is presented as a bullet, and direct responses to questions are shown in *italics* below the bulleted point.

Workshop Participant Questions:

- What is the reporting period? – CAA
  PY 1997, PY 1998, PY 1999, and up to June 30, 2000 – PG&E

- This new cost-benefit methodology is not consistent with the AEAP unless you do something different than ordered. A new methodology is planned based on the modified participant test, and the AEAP is based on the cost benefit analysis that uses the general purpose test, which is not what the RRM working group is developing. We are not sure how to resolve it, but keep in mind that you will not have a process that is consistent with the AEAP. – ICA

  We are ordered to explain any inconsistencies with the AEAP. The final report [on the methodology for bill savings and expenditures] will explain inconsistencies with the AEAP. We are moving forward in adopting what has been recommended for the AEAP – what has not been done in the past. We are in a transition stage. Issues around the transition stage will be addressed in the filing – SoCalGas

  There is another group that is working on a cost-benefit analysis, but it is not the same cost-benefit analysis that is currently being used in the AEAP. There is a considerable amount of explanation to be done [to explain inconsistencies with the AEAP]. - ICA

  Many of the same people at the utilities are working on both the cost-effectiveness test and bill savings, so coordination should be good. – PG&E

- How will this coordinate with AB1393 where the client needs to be factored in, not just the expenditures, but what happens to the client? – CAA

  We don't think it has been factored in. There is the RRM Working Group looking into trying to get some kind of factor into measuring cost effectiveness. What we are doing here is kind of outside of the cost effectiveness that we do annually to assess the program. This is a new report that the ALJ is asking for which is more focused on the lay person asking what the cost effectiveness is for the LIEE program. The ALJ is trying to look at the bill savings and be able to see it. We have been ordered to do that here. It is a little bit different than the ongoing analysis we have currently as far as cost-effectiveness. – SoCalGas

- We are concerned that you are not planning to put in information required by AB1393 in bill savings. It needs to be included. How does the [pay per measured saving] pilot project factor into this? – CAA

The cost-effectiveness report will not be done in time, there are two months difference between when the cost effectiveness test report will be done and when this report is required to be done – we cannot factor it in due to timing. We are working with the other group and are aware of cost effectiveness issues including hardship are important. – PG&E

This is looking at the costs and making sure we are reporting consistently across the state. And then once we are sure these numbers are consistent, we will use these numbers in the cost-effectiveness test that hopefully will include something related to hardship, comfort, and those things. – SDG&E

- Can you please list out the acronyms and what they mean as a separate table in the report of February, 2001? – CAA
  Yes – PG&E
- Where are rebates, efficiency equipment, and other financial incentives included? (since they are not included in administration costs)? – ICA
  They are in implementation costs. - SoCalGas
- Do implementation costs include training and inspection? – ICA
  For SoCalGas the costs are included. – SoCalGas
  For SDG&E, training is definitely included while it depends on what you mean by inspection costs since there is another category for that. Sometimes inspections are done for a number of different reasons and they might fit into different categories at different times. – SDG&E
- Where does Combustion Appliance Safety (CAS) testing fall in these definitions? – CAA
  Non-budgeted implementation costs. – PG&E
- Are all costs being included here regardless of whether they are in the LIEE budget? You should be able to separate out those not in LIEE budget and make it clear what is and what is not in the LIEE budget. – ICA
  We plan try to separate out the non-LIEE budgeted items to the best of our ability and to footnote out the part not included in LIEE budget. – SDG&E

- We assume that all the items on page 2 of the discussion paper include LIEE costs only, or is this a wrong assumption? – CAA
  We are struggling with providing commission with comparable data. The utilities have costed out programs differently across utilities. Non-program costs are things that have not been charged to the LIEE program (i.e., overhead, CAS testing). This is where there is a mixed bag of dollars and we need to minimize these differences as much as possible. We are finding out that we don't know many of these things for previous years since they were tracked differently and there is no way of retrieving that information. It is going to be a difficult task to come up with exact buckets for each utility and it may not even be feasible. We may just have to footnote what is in there for each utility. We are concerned with the accuracy and potentially providing numbers that are not real numbers, but guesstimates of what costs were. We don't know how far we will be able to go to make costs exactly comparable. – SoCalGas
  It won't be the LIEE budgets that are the problem, but the other non-budgeted items that are difficult. We hope to make it clear in the report what is going where. – SDG&E

- Will PY2001 track all these items? – CAA
  Possibly. We don't know if this reporting method will be wanted in the future or requested as such. This standardized report was requested due to an inability of the commission to compare costs between utilities. – PG&E

- After talking with SEMPRA's regulatory department, we have found that SEMPRA does not want to estimate previous regulatory and legal costs if we don't have them (and we don't), since we don't want to guess. Furthermore SEMPRA is not interested in trying to track items such as legal or regulatory costs in the future by program as charges are being made currently to the utility by business unit. We do not plan to include these costs (legal and regulatory) in the future because our systems do not accommodate charging by program and to do it manually would be burdensome, and could be misrepresentative. – SoCalGas
  The legal and regulatory costs are not charged to the programs for SDG&E or SoCalGas, they are just charged back to the utilities. – SDG&E

- Based on what we have just heard, it should be clear that this job is not the end of the process. – ICA
- We are more interested in setting up a method to track future costs that are meaningful, than in what has happened in the past. – CAA
  We were ordered to do the costs for past years, but also we are trying to set up systems for future use. – PG&E
- We feel it is more important that the utilities put more of their efforts into future tracking systems, not getting past data. – CAA
  Since this process is operationalizing definitions, which does address future tracking systems, we feel that CAA's concerns are being addressed. – PG&E
- The underlying issue here is to try to create definitions for statewide tracking with entrenched accounting systems (established and approved by the PUC for tracking in certain buckets) that are different by utility. This bill savings team cannot change the accounting systems to create a system that is uniform across utilities. This [project] will be an exercise in dealing with discrepancies. We may not be able to resolve the differences in definitions or costs without a major effort elsewhere within the utilities, and if ordered by the Commission. – SoCalGas
- If the utility companies can agree on the definitions, we feel that each utility's accounting system can figure out some way to allocate to the definitions. We recommend separating out non-LIEE budget costs, possibly as another column, table, or line. – CAA
- We may want to try to back into the numbers based on accounting principles used in each utility. Perhaps we could try to align the definitions on the accounting systems used by the utilities. We agree that the utilities will have different numbers and ways of doing accounting. – SCE
- The RRM working group is standardizing how those costs will be reported for PY2002. This group is also focused for 2002, so we will communicate with the RRM group and hopefully come up with a merged correct way of defining and tabulating costs. – PG&E

- We know that at least two of the utilities use older accounting systems that are very difficult to change or slightly modify. Based on this, the project managers may need to do their own analysis of cost, and not plan on accounting system changing. – ICA
- We are planning to start with AEAP costs and move from there. – SoCalGas, PG&E
- The total of internal and outsourced costs should add up to the same total as summarizing administration and implementation costs. If the totals are not equal, then you will need explanation as to why. – ICA
- Is labor as it is defined what is needed? Why put unburdened labor here and not include overhead such as benefits and pensions since it is the cost of the person working and part of the budget? – SDG&E
- Overhead includes fringe benefits, and you can't get an employee without it, so it should be included in labor costs. We recommend using burdened costs in labor. – CAA

  Agree with CAA. – ICA
- The measure called "Furnaces (gas)" is too narrow, it should include electric heating sources. – ICA

  The RRM group separated this measure out because it is a hardship/comfort measure, so that is why it is called out here. – SoCalGas

  It should probably be furnaces only (and would also include electric furnaces). – PG&E

  It should include the [electric furnace] measure, but probably none actually being installed because the cost has been too prohibitive. We had a [electric furnace] pilot, but found no units where we could replace the existing furnace with an electric furnace under the cost structure allowed by the program. - SCE
- How about putting gas/electric appliances separately? – CAA

  That may work because we may have new appliances which may be introduced in the program and they would fit into this scheme. – PG&E
- We don't agree that furnaces should be broken out, they are not the only hardship measure. We don't want to break this one out just because it is considered a hardship

measure. – SDG&E

We agree with SDG&E – PG&E

Possibly it was broken out since it is a measure that could increase gas use and we need to know this for cost-effectiveness. – ICA

If the furnace is not working, the customer is often using electric to heat, so there is offsetting usage. There are savings to be had if we put in a furnace. – PG&E

We (SoCalGas) are treating furnaces as a non-energy efficiency program service in reports we are providing to the commission, so there is a logic behind breaking it out. – SoCalGas

If we break out furnaces, we really need to explain why, or not break out measures. – PG&E

AB1393 categorizes energy efficient appliances by gas or electric so if it is tracked that way, it would meet the law. – CAA

We agree that we could list appliances and weatherization measures separately if that is valuable. - SoCalGas

It makes sense to us to track by electric or gas appliances. – SCE

Yes, it makes more sense than just putting furnaces there. – SDG&E

- Will outreach costs be broken out for door-to-door by the contractors? – ICA

  Yes, there will be a contractor cost for outreach and assessment. We will be able to track that cost next year (at least what they pay for it) .- SoCalGas

- On the training center row, are contractor costs included here? The contractor has no way to break out costs to send his people to training – how would you find it out? - ICA

  After much discussion, the consensus evolved that this area would not include contractor costs for attending training. These would be the costs attributable to the operation of the training center. – Facilitator.

  This is only the cost to run the training center, not the cost to the contractor to train for the program. – SDG&E

  As a contractor, we could provide a break out, if needed, of our employee training, meals, and housing during that training. They are costs borne by us. – CAA

- Does CPUC Energy Division Oversight line include Energy Division costs to support LIAB? – ICA

  It represents the 5 employee positions to support LIEE and CARE. (PG&E and ORA)

- On a theoretical issue – the bill savings approach is based on a measure approach, yet the measures interact and vary by region. We feel it is a waste of time and rate payer dollars to try to determine the savings by measure ex post since it is only the savings for the time and place it is installed. However, it is worth the cost to determine ex ante estimates for new measures. – ICA

  We have combined deemed and evaluated savings in this approach. We understand that there will be interactions and are concerned about the cost of the ex post exercise as well. – SDG&E

- Should one energy rate be used amongst the utilities or rates that are utility specific and year specific? – SoCalGas

  We feel that the avoided cost working group is providing this. We believe the energy rates used should be reflective of each utility and not a statewide value. – ICA

  We will be talking with the people that are handling this issue for each utility (i.e., discount, avoided costs, and energy rates). – PG&E

  We believe that our next big step is making the proposed algorithm work. – SDG&E

- There is difficulty forecasting energy rates. You should start with the average rate paid by the low-income customers, not just the tariff. – ICA

  We can escalate at the same rate as the avoided costs provided. – SDG&E

  Agree – ICA

  We could use the CARE rate to help determine the average energy rate of low-income customers. – SoCalGas

  Agree with this. – ICA, PG&E, and SDG&E

- It needs to be stated that this is a work in progress. We see two things that will change this, AB1393 will effect it and a needs assessment that is about to be done that may also change things. – ICA

- For dual fuel utilities, the RRM states that we should have different tables for each fuel type. We may need to allocate historical costs in TA7.2 by percentages to different fuel types or potentially just do one table with combined fuel costs. In the future, we may be able to set up accounting system so that we can capture this. What do we have to file to change the tables in the RRM? – SDG&E
  The group talked with various people about changes. We may recommend and implement changes to the RRM for our February 1, 2001 report since we don't actually have to use the RRM tables in that report. – PG&E

This concludes the documentation of the bill savings workshop. The following attachments supply detail on the planning and implementation of the workshop.

Attachment A
Sign In Sheet

The following participants signed in at the San Francisco workshop on November 14, 2000

Name	**Affiliation**	**Phone Number**	**Address**	**Email address**	**Fax Number**
Tim Caulfield	Equipoise Consulting Inc	510-531-1080	4309 Whittle Ave. Oakland, CA 94602	Equipoise@ixpres.com	510-531-1014
Barbara Cronin	Southern California Gas Company	213-244-3285	Box 513249, GT12E2 Los Angeles, CA 90051-1249	Bcronin@socalgas.com	213-244-3428
Dennis Guido	PG&E	415-972-5429	245 Market St., Room 397C	Dwg3@pge.com	
Anthony Fest	ORA	415-703-5790	505 Van Ness Ave., 4th floor SF, CA 94102	Adf@cpuc.ca.gov	415-703-2303
Michael Rosauer	CPCU Energy Division	415-703-2549	505 Van Ness Ave., 4th floor SF, CA 94102	Rosauer@cpuc.ca.gov	415-703-2200
Diane Calden	PG&E	415-973-2461	123 Mission	Dlc6@pge.com	
William Parker	Community Action Agency (CAA) of San Mateo County	650-595-1342	930 Brittan Ave. San Carlos, CA 94070	Wparker@gaprc.com	650-595-5376
Mary O'Drain	PG&E	415-973-2317	245 Market Street MC – H28L SF, CA	Mjob@pge.com	
Angela Jones	Southern	626-302-8302	2131 Walnut Ave.,	Angela.jones@sce.com	626-302-8061

Name	Affiliation	Phone Number	Address	Email address	Fax Number
	California Edison		B7, 3rd Floor		
Mary Sutter	Equipoise Consulting Inc	510-864-8507	4309 Whittle Ave. Oakland, CA 94602	Msutter@home.com	510-864-8508
Bob Burt	Insulation Contractors Association (ICA)	916-444-2950	1911 F Street Sacramento, CA 95814	Bob.burt@macnexus.org	916-448-1190
Kevin McKinley	SDG&E	858-654-1250	8335 Century Park Ct., CP12F San Diego, CA 92123	Kmckinley@sdge.com	858-636-5770
Henry DeJesus	SDG&E	858-654-1723	8335 Century Park Ct., CP12F San Diego, CA 92123	Hdejesus@sdge.com	858-636-5770
Chi Lee	PG&E	415-972-5840		Cll1@pge.com	
Laura Chiu	PG&E	415-973-9143	77 Beale, MC H28L SF, CA 94177	Lpc2@pge.com	415-972-5309
Jack Parkhill	SCE	626-302-8040	2244 Walnut Grove Rosemead, CA 91770	Parkhijf@sce.com	

Attachment B
Agenda

STATE OF CALIFORNIA GRAY DAVIS, *Governor*

PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

1.

2. November 3, 2000

RE: Workshop Notice Regarding Joint Utility Standardization of Data on Bill Savings and Expenditures for LIEE on an Overall And Per Unit Basis

To: Interested Participants

Pursuant to the July 6, 2000, Commission Decision 00-07-020, the Public Utility Commission's Energy Division will hold a workshop to facilitate public input on the Joint Utility Proposal that will be filed with the Commission on February 1, 2001.1 The February 1, 2001 proposal will address consistent statewide policies and procedures for data on Bill Savings and Expenditures for LIEE on an Overall And Per Unit Basis.

PUBLIC INPUT WORKSHOP
November 16, 2000
10 a.m. to 3 p.m.
Pacific Energy Center
851 Howard Street
San Francisco, CA

Conference call capabilities will be provided at 10 a.m. by calling 1-888-269-8492 and then by dialing pass code #38056

Within 21 days of the workshop, PG&E, on behalf of the joint utilities, will issue a draft workshop report. Within 14 days from the issuance of the draft workshop report, interested participants may file comments. Comments are limited to participants clarifying their statements made during the workshop. Within 14 days of the comment due date, PG&E, on behalf of the Joint Utilities, will issue a final workshop report. Comments on the draft workshop report and the draft and final workshop report should be served by mail on all appearances on the state service list for Rulemaking 98-07-0037. Additionally, a copy of any comments on the draft workshop report should also be sent to both:

Mary O'Drain
Low Income Energy Management
Pacific Gas & Electric Company
Mail Code H28L
PO BOX 770000
San Francisco, CA 94177-0001

Donna Wagoner
Energy Division
California Public Utilities Commission

1 The following utilities form the Joint Utilities group: Pacific Gas and Electric Company, San Diego Gas & Electric Company, Southern California Edison Company and Southern California Gas Company.

505 Van Ness Avenue
San Francisco, CA 94102

In compliance with D. 00-07-020, the Pacific Gas and Electric Company, Southern California Edison Company, San Diego Gas and Electric Company, and Southern California Gas Company are ordered to propose standardized methods for producing data on bill savings and expenditures for Low Income Energy Efficiency programs on an overall program and per unit basis, by utility. The purpose of this workshop is to invite public participation and discussion of methods for producing useful data on bill savings and expenditures.

While considerable progress has been made in developing the format for reporting bill savings and cost effectiveness results, much work still remains in developing methods to create comparable information across utilities.

Items to be discussed include:

- Introductory Remarks
- History Behind the Order
- Low Income Energy Efficiency Program Description
- Calculation of Bill Savings and Expenditures Status Summary
- Interested Party and Stakeholder input on Proposed Methods

On November 9, 2000, PG&E will mail a copy of the Joint Utility Discussion Paper to each member of the R.98-07-004 and A.99-07-004 service lists. Additionally, on November 9, 2000, an electronic copy of the discussion paper will be posted on the Low Income Advisory Board Website (http://www.liab.org) and provided electronically via the egroup membership (http:/liaboard@egroups.com). The process for getting public input will follow the guidelines of allowing equal time for each party to comment and then a round-robin discussion of issues will be immediately held. Hardcopies of the discussion paper will be provided at the meeting. Questions regarding the workshop should be addressed to Jonathan Tom of the Energy Division (phone 415-703-1809; e-mail: jpt@cpuc.ca.gov) or Donna Wagoner (phone 415-703-3175; e-mail: DLW@cpuc.ca.gov)

Sincerely,

Donna Wagoner
Energy Division

cc: Service List in Rulemaking 98-07-037
Community Services Development Department
ASCEEP

Attachment C
Agenda

Slide 1

Public Workshop on LIEE Bill Savings & Expenditures Reporting Standardization

November 16, 2000
10 AM to 3 PM
PG&E PEC
851 Howard Street, San Francisco

Slide 2

Morning Agenda

10:00	Agenda review and facilitation rules		5 minutes
10:10	Introductions - all workshop participants		5 minutes
10:10	**Utility Pilot Planning Mandates**		
	10:10 -10:20	Mary O'Drain	30 minutes
	10:20 -	Discussion	

Slide 3

Purpose of Workshop

- To present concepts previously supplied in the draft discussion paper
- To obtain input from interested parties

Slide 4

Ordering Paragraph 7

CPUC Decision 00-07-020, Ordering Paragraph 7:

With input from interested parties and the LIAB, the utilities shall jointly develop standardized methods for producing data on 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 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 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 workpapers 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.

The joint report shall be filed and served on appearances and the state service list in this proceeding and in R.98-07-037, or any successor proceeding. Comments on the report are due 30 days thereafter. Responses to the comments will be due within 15 days.

Slide 5

OP Summary

- With input from interested parties and the LIAB, the utilities shall jointly develop standardized methods for producing data on bill savings and expenditures for LIEE programs.
- Report results on an overall program, per unit (home), and by utility basis.
- Methods must be consistent with the AEAP.
- Report results, along with details, by February 1, 2001.
- Comment periods apply after the report is filed

Attachment D
Workshop Presentation

Slide 1

Bill Savings

Draft Utility Discussion Paper for Costs and Bill Saving in the Low Income Energy Efficiency Programs

Bill Savings Public Workshop
November 16, 2000 - San Francisco

Slide 2

White Paper : Introduction

- RRM Working Group Report for Low Income Assistance Programs
  - Recommends revisions to current RRM
  - Proposes working definition of energy-related hardship for LIEE programs
  - Recommends separate RRM for CARE reporting
  - Developed definitions for administration and implementation, and internal and outsourced costs
  - Presents a methodology to determine expenditures using tables of costs

Slide 3

White Paper : Introduction

- Table TA 7.2 breaks out LIEE cost elements as an attempt to compare costs between utilities
  - The Draft Bill Savings White Paper attempts to operationally define each of the LIEE cost elements for clarity and future discussion
- Tables TA 7.3 and TA 7.4 present a method that can be used to determine per unit (dwelling) bill savings
  - Tables require more clarification to assure inter-utility comparison

Slide 4

White Paper : Introduction

"...our inquiry is limited by 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."

D. 00-07-020, OP.7 ordered the utilities to:

- ...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).

Slide 5

White Paper : Costs

- By utility, the costs need to be segmented between:
  - administrative and implementation costs,
  - internal and outsourced costs, and
  - by source of utility service (e.g., electric and gas, gas only, or electric only)
- These terms are defined on p.3 of the Bill Savings White Paper

Slide 6

White Paper : Costs

- There are currently 16 cost variables listed in Table TA 7.2 that must be separated into labor, non-labor, and contract expenditure components.
  - **Labor** - Any internal direct (administrative and/or implementation) costs, unburdened by overhead, that represent person hours.
  - **Non-Labor** - All direct internal(administrative and/or implementation) costs not covered under labor. Any flyers or other literature that go out with the program are included in this non-labor category.
  - **Contract** - All outsourced costs(administrative and/or implementation). Contract costs do not need to be further broken out by labor/non-labor or administrative vs. implementation. This category includes agency employees.

Slide 7

White Paper : Costs

- Energy Efficiency Variables:
  - Furnaces (gas)
  - Other Measures
  - Outreach & Assessment
  - In Home Energy Education
  - Education Workshops
  - Pilots

Slide 8

White Paper : Costs

- LIEE Program Expenditures that are not directly attributable to measure installation:
  - Training Center & Service Provider Training
  - Inspections
  - Advertising
  - M&E Studies
  - Regulatory Compliance
  - Other Administration
  - Indirect Costs

Slide 9

White Paper : Costs

- There are currently 4 oversight costs funded by the utility budgets:
  - LIAB Start-up
  - LIAB PY Past Year
  - LIAB PY Present Year
  - CPUC Energy Division

Slide 10

White Paper : Bill Savings

- Bill savings is the life cycle net present value saved by the dwelling due to the measures installed under the LIEE programs.
  - Determined from M&E studies performed after the program was fielded.
  - M&E studies performed for PY 1995 by PG&E, SDG&E, SCE; for PY 1996 by SoCalGas; jointly for all 4 utilities for PY 1998. A joint utility impact study for PY 2000 is scheduled.
  - Not all previous utility evaluations determined savings at the measure-level.

Slide 11

White Paper : Bill Savings

- The general algorithm proposed for estimating bill savings is:

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

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 or therm) for fuel r in year Y
Impact_m	=	measure m gross impact per year (kWh or therm)
Number_m	=	number of measure type m installed
EUL_m	=	effective useful life (years) of measure type m
CP	=	Costing period, n = number of costing periods

Slide 12

White Paper : Conclusion

- The Bill Savings White Paper presents the proposed definitions for allocating costs within the LIEE programs.
- These definitions will be used to create Table TA 7.2 by utility, and reported on in the February 1, 2001 report.
- The algorithm and assumptions used to estimate lifecycle bill savings are also presented.
- The methods used to produce the costs and savings are consistent with the AEAP methods.

Attachment E
Workshop Handouts

Draft Utility Discussion Paper for Costs and Bill Saving in the Low Income Energy Efficiency Programs

This paper presents discussion points on determining expenditures and bill savings for the Low-Income Energy Efficiency (LIEE) programs. It is provided in advance of the public workshop to be held in San Francisco on November 16, 2000 at the Pacific Energy Center. The workshop will discuss the points herein as well as other relevant thoughts on determining program expenditures and bill savings that may not currently be covered in this paper.

Introduction

On October 2, 2000, the Reporting Requirements Manual (RRM) Working Group submitted a report titled "Reporting Requirements Manual (RRM) Working Group Report for Low Income Assistance Programs" to the California Public Utilities Commission (Commission). The executive summary of this report states:

> "The California Public Utilities Commission (Commission) on April 28, 2000, issued an Assigned Commissioner's Ruling (ACR) that directed the RRM Working Group to propose further modifications to the low income assistance component of the RRM for use during the Program Year (PY) 2002 planning cycle. The Commission directed the Working Group to submit a report including revised sections of the RRM no later than October l, 2000[3]. This report includes recommendations for revisions to the current version of the RRM based on consensus recommendations and a discussion of remaining areas of disagreement for Low Income Energy Efficiency (LIEE) programs. For the first time, this report proposes a working definition for energy-related hardship for LIEE programs. The Working Group recommends that a separate RRM be created for reporting California Alternate Rates for Energy (CARE) program results. While technically a separate issue from reporting requirements, the parties have developed definitions for administration and implementation, as well as internal and outsourced costs. The Working Group has developed technical recommendations for low income cost effectiveness that are presented in this report."

The RRM Workgroup report presented a methodology to determine expenditures using tables of costs (expenditures) that each utility would be required to fill in on LIEE cost elements (i.e., Table TA 7.2). However, while each element is presented, it is not further defined. With each utility using different accounting systems, there is the possibility of continued inability to compare costs between utilities. This paper attempts to operationally define each of the LIEE cost elements for clarity and future discussion. The RRM Workgroup report also presented a method that can be used to determine per unit

[3] While the Order required submission on October 1, 2000, this was a Sunday, so the actual report was submitted on Monday, October 2, 2000.

bill savings (with the unit being a dwelling) as shown in tables TA 7.3 and TA 7.4. These tables are relatively straight forward, but a few details require clarification to assure inter-utility comparison.

Parallel to the RRM Report, the Administrative Law Judge (ALJ) handed down a final opinion on the Program Year 2000 Low-Income Assistance Programs (Decision 00-07-020 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."[4] 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 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."[5]

This discussion paper is the beginning of the work planned to create the joint report of February 1, 2001. It covers both cost and bill savings issues that require resolution prior to application of the methodology proposed in the RRM Workgroup report.

Costs

Costs[6] for the LIEE programs need to be examined in several contexts. By utility, the costs need to be segmented between administrative and implementation costs, internal and outsourced costs, and by source of utility service (e.g., electric and gas, gas only, or electric only). This presents a two by two by three matrix, or essentially twelve different

[4] Page 70, Decision 00-07-020 July 6, 2000.
[5] Page 147, Decision 00-07-020 July 6, 2000.
[6] Throughout this document, the term "cost" is used in lieu of the term "expenditure" because cost represents the amount actually paid for a good or service, while expenditure represents the amount spent but 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.

cells into which the various costs need to be grouped. As an initial cut, the RRM Workgroup report recommended that the Commission adopt the following definitions:

Administrative Costs - Cost to the utility of managing an identified energy efficiency program, including salaries, materials, advertising, computer support, overhead and regulatory cost. Does not include rebates, efficiency equipment purchases, or other financial incentives offered to customers. Administrative costs consist of direct costs and indirect costs:

- Direct administrative costs are tied directly to a project or program by invoice, timesheet, or factual analysis of recorded costs.
- Indirect administrative costs are allocated to programs based on preset formulas and should include any indirect cost not charged to the program but subsidized by the utility.

Implementation Costs - Costs associated with delivering program services, including labor and materials necessary to the installation of program measures.

Internal Costs - Labor or non-labor costs that may include administrative or implementation costs.

Outsourced Costs - Contract costs for administrative or implementation costs.

Costs will be allocated by duel fuel utilities in the same manner as in the AEAP.

The RRM Working Group report presented Table TA 7.2 as the list of administrative and implementation costs. This table contains the roll up of the internal and outsourced costs to the program (i.e., the second table in **Error! Reference source not found.** above). Proposed definitions of the variables in Table TA 7.2 are included next.

Proposed Definitions of Variables in Table TA 7.2

There are currently sixteen cost variables listed in Table TA 7.2 that must be separated into labor, non-labor, and contract expenditure components. The method for breaking these cost variables down into the labor, non-labor, and contract components is defined by the following:[7]

Labor – any internal direct (administrative and/or implementation) costs, unburdened by overhead, that represents person hours.

Non-Labor – all direct internal (administrative and/or implementation) costs not covered under labor. Any flyers or other literature that go out with the program are included in this non-labor category.

Contract – all outsourced costs (administrative and/or implementation). Contract costs do not need to be further broken out by labor/non-labor or administrative vs. implementation. This category includes agency employees.

[7] The utilities made a joint filing to the PUC on May 17, 1999 addressing these definitions for the LIEE program. The definitions presented here do not conflict with those definitions, but rather add specificity for the purposes of accurately filling out Table TA 7.2.

With the column heading definitions complete, it is necessary to define the variables listed down the left hand column of Table TA 7.2. The first five variables deal with energy efficiency.

Furnaces (gas) – costs related to gas furnace tune-up, repair or replacement. This category excludes inspections.

Other Measures – costs related to all other measures exclusive of those associated with the gas furnace as listed above. Examples may include weatherizing, refrigerators, evaporative coolers, CFLs. This category excludes inspections and training.

Outreach & Assessment – costs associated with community outreach or promoting the program to attract participation in the LIEE program exclusive of In Home Energy Education and Education Workshop efforts. This includes all costs associated with door-to-door outreach, pre-participation audits, etc. This does not include inspections.

In Home Energy Education – costs for conducting in-home education efforts for the LIEE program.

Education Workshops - costs for organizing, recruiting customers for, and/or conducting education workshop efforts for the LIEE program.

The Table TA 7.2 provides lines for two pilot programs. This does not mean that two pilot programs are required or that only two programs can be presented in a program year. The number of lines required for pilot programs can be contracted or expanded as necessary to appropriately document the all costs associated with each pilot program effort. The pilot program will have the name of the specific program being funded.

There are seven variables that cover aspects of expenditures to the LIEE programs that are not directly attributable to measure installations.

Training Center and Service Provider Training – Costs attributable to the LIEE program for training center activities and/other services to train and certify LIEE implementers.

Inspections – Costs for pre- and post-inspections associated with installation of measures for the LIEE program.

Advertising – Costs attributable to the LIEE program for advertising. This may include LIEE portions of advertising or promotion costs that promote a broader range of programs. This only includes mass media advertising (e.g., TV, newspaper, radio) and direct mail.

M&E Studies – Any measurement and evaluation costs that are attributable to the LIEE program efforts.

Regulatory Compliance – The LIEE programs incur costs related to compliance of regulatory issues. These could include, but are not limited to, the utility law department, program managers providing testimony or preparing for testimony, supervisory effort for regulatory issues[8].

[8] These may or may not have been charged to the LIEE program.

Other Administration – Additional administration costs that should be allocated to the LIEE program that are not covered by other more specific categories. Allocations to Other Administration should be accompanied by a description of the costs.

Indirect Costs – Indirect costs represent the overhead costs of operations that are attributed to the LIEE program based on allocation in proportion to program effort across program type. All program costs should be shown whether budgeted to the program or not. Footnote the amount of costs that are not part of the LIEE budget.

There are four oversight costs funded by the utility budgets.

LIAB Start-up – Costs by the LIAB required to oversee the LIEE program efforts that have carried over from the LIAB start-up into present program year costs.

LIAB PY Past Year – Costs by the LIAB required to oversee the LIEE program efforts that have carried over from the LIAB previous year costs into present program year costs.

LIAB PY Present Year – Costs by the LIAB required to oversee the LIEE program efforts.

CPUC Energy Division – Costs by the CPUC Energy Division required to oversee the LIEE program efforts.

It is acknowledged that the accounting systems of the utilities are complex and unique. The task is to attempt to match costs across utilities to the best of the ability of the accounting systems and to provide information on where and how reported costs differ. This will allow as close a comparison to actual expenditures as can be reported.

Bill Savings

Bill savings is the life cycle net present value saved by the dwelling due to the measures installed under the LIEE programs. Historically, these have been determined from measurement and evaluation impact studies performed after the program was fielded. The studies followed the Protocols and Procedures for the Verification of Costs, Benefits, and Shareholder Earnings from Demand-Side Management Programs (Protocols). The LIEE programs were evaluated under the Residential Direct Assistance program. For PG&E, SCE, and SDG&E, this evaluation was required only in 1995[9]. SoCalGas was required to do an impact study of the Residential Direct Assistance program in 1996[10]. In addition there was a statewide low-income study conducted in 1999 that collected measure level information for the top six measures. These impact studies were performed, filed, and the results verified by the Office of Ratepayer Advocates (ORA).

In order to comply with the ALJ request, the bill savings for each LIEE program year needs to be based on the measures installed in that year. However, not all utility evaluations listed above determined the savings at the measure level. PG&E, and to some degree SCE, did not estimate savings at the measure level, while SoCalGas and SDG&E did. Therefore, in order to deliver the best estimate of the per year savings, as required by the order, PG&E and SCE will, as necessary, use the per measure findings of the

[9] Per Table 8A.
[10] Per Table 8B.

SoCalGas and SDG&E studies. These will be combined with their respective measure installation frequencies for each year, to compute program annual savings estimates. Where PG&E or SCE have installed a measure that is not covered by either the SoCalGas or SDG&E evaluations, a best estimate will be calculated based on the ex ante measure savings estimate and ex post realization rate for similar measures.

It should be noted that SoCalGas will account for the electric savings accrued by SCE that is attributable to the measures installed under the SoCalGas LIEE program measures. To accomplish this, SoCalGas will use Edison's ex-post per unit kWh savings from the state-wide study to represent the electric savings from the measures.

The other variables that go into any life-cycle bill saving are:

- Residential electrical rate
- Residential therm rate
- Discount rate

The values for these variables will be supplied by the Avoided Cost Working Group and will be consistent with the ALJ Bytof ruling dated October 25, 2000.

The general algorithm proposed for estimating bill savings is:

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

where:

r	=	fuel type (gas or electric)
Y	=	Year, starting with implementation program year
m	=	measure type
$\text{energy rate}_{\text{Y,r}}$	=	energy rate ($ per kWh[11] or therm) for fuel r in year Y
Impact_{m}	=	measure m gross[12] impact per year (kWh or therm)
Number_{m}	=	number of measure type m installed
EUL_{m}	=	effective useful life[13] (years) of measure type m
CP	=	Costing period, n = number of costing periods

The bill savings must be done at the same level of detail as the breakdown of costs. Therefore, bill savings must be created for three tables (electric and gas combined, electric only, and gas only) in order to compare cost effectiveness.

Conclusion

This paper presents the proposed definitions for allocating costs within the LIEE programs. These definitions will be used to create table TA 7.2 by utility and reported on

[11] The electric avoided cost values used in this calculation will be consistent with the ALJ's ruling on Cost Effectiveness Issues for PY 2000 Programs dated October 25, 2000

[12] These are defined as gross savings because they are bill savings.

[13] EUL values will be consistent with the October 25, 2000 ALJ ruling and the September 25, 2000 CALMAC Workshop Report.

in the February 1, 2001 report. The algorithm and assumptions used to estimate lifecycle bill savings are proposed as well. The methods used to produce the costs and savings are consistent with the AEAP.

The proposals in this paper are currently based on utility, Energy Division, and LIMEC input. The public is encouraged to attend the workshop on November 16, 2000 and comment on these proposals. All input at that workshop will be recorded and acknowledged in a workshop report, regardless of actual implementation into the methodology.

Sections from the RRM Working Group Report that were relevant to this discussion were also provided via handout. This is included as a PDF format file.

Along with the RRM Working Group Report sections, sections from the Decision 00-07-020 were handed out. These are also included in the PDF format file.

Appendix C
Second Workshop Report (01/16/01)

Public Input Workshop on Interim Results for the Joint Utility Low Income Energy Efficiency Bill Savings and Expenditures Standardization

Final Report

Held at:

Pacific Gas and Electric Company's

Pacific Energy Center

851 Howard, San Francisco, CA

January 16, 2001

10:00 AM to 12:00 Noon

Report Date:

January 21, 2001

Table of Contents

I. Workshop Attendees

Representatives from the following organizations participated in the workshop: Pacific Gas & Electric Company (PG&E), Southern California Gas Company (SoCalGas), San Diego Gas and Electric (SDG&E), California Public Utility Commission – Energy Division (ED), Southern California Edison Company (SCE), Insulation Contractors Association (ICA), the California Public Utility Commission – Office of Ratepayers Advocates (ORA), Knight Research, ADM Associates (ADM), Richard Heath Associates (RHA), Cal-Ucons, Inc. (Ucons), and Equipoise Consulting Inc (Equipoise). A complete list of attendees that signed in at the workshop is presented in Attachment A.

II. Workshop Operation

The workshop on January 16, 2001, was publicly noticed (Attachment B) and followed the agenda presented in Attachment C. The workshop summarized the background on the joint utility bill savings and expenditure standardization process and presented interim cost and bill savings estimates. The workshop started at 10:00 AM and adjourned at approximately 10:50 PM, having completed the agenda. It was commenced with a welcome by Donna Wagoner of the CPUC and was facilitated, recorded, and reported by Equipoise Consulting, Inc. The workshop was tape-recorded and the tape recordings are available upon request from PG&E.[1] The summary presentation from the workshop is included in Attachment C. The only handout from the workshop was the interim draft report with cost and bill savings estimates dated January 16, 2001. This draft of the report is included in Attachment D.

The workshop elicited few comments, as is demonstrated by its short length. The input that was received was recorded on flip charts during the workshop. Each participant was encouraged to review the recorded information and add or modify as they felt was necessary to accurately reflect their position. Time was set aside at the end of the workshop for this purpose. All participants were made aware that the points recorded on the flip charts were the basis for the written record. Because input was recorded from all

[1] To obtain copies of the tapes for this workshop contact Mary O'Drain at PG&E (mjob@pge.com).

parties commenting, the input does not represent a consensus position, and can represent conflicting viewpoints

III. Workshop Purpose

The purpose of the workshop was to present the interim results and to obtain public input on the standardized estimates of LIEE bill savings and expenditures. This effort addresses Ordering Paragraph 7 of the CPUC Decision 00-07-020, which is presented and discussed in Attachment C.

IV. Workshop Presentation and Discussion

Mary O'Drain of PG&E presented an overview of the bill savings and expenditures standardization effort and presented the summary results. She stated that the group would do its best to incorporate all comments, however some good suggestions may not be able to be implemented by the time the final report is completed. This presentation is attached in Attachment C. An updated draft report that was supplied to workshop participants at the meeting for discussion and is included in Attachment D. A prior draft of the report provided to the service list on January 9th stated that updated numbers would be supplied at the workshop.

After the summary presentation, questions were elicited from the workshop participants. There were no major themes that evolved from the discussion, so the discussion has not been summarized.

In the following summation of the questions and responses, the question is presented as a bullet, and direct responses to questions are shown in *italics* below the bulleted point. Requested editorial changes to the report were noted for the next draft and are not presented here.

Workshop Participant Questions:

- Is it possible to supply the bill savings by seasonally by kWh, this might help explain some of the results? (Ucons)
  The estimates were computed by measure using AEAP results, so the current methodology doesn't supply that kind of information. (PG&E)

Results by season might be useful in explaining some of the results. (Ucons)

- SoCalGas electric savings are understated since all gas furnaces have electric fans and these savings are not included in the estimates. In the future SoCalGas should be looking for more electric savings than they now report. (ICA)

  Do you know of any estimates of savings from furnace fans? (SoCalGas)

  No, I think it is just a good idea for the future. I don't think anyone has figured it out yet. You should get credit for all you do. I have never seen any estimates. (ICA)

- The rate escalation rates are low, better rates are available. They are in a [Public Utilities] Commission document dated Oct 2, 2000, I think. They did not assume, as this report did, that there would be very little escalation. These probably cannot be included by the final report. (ICA)

  Do you have a specific number and date for the document? (Equipoise)[2]

  No, I don't actually have the document, but I am pretty sure of the date and that it was a Commission report. (ICA)

  If it is the October 25, 2000 document we reviewed it. We looked at a lot of different escalators. The models are built so they can use any escalation rate. We plan on including escalation rates of zero, three and six percent in the final report. (SDG&E)

- Why is the bill savings to cost ratio for PG&E higher in the first half of 2000 than in previous years? (Ucons)

  This is because the savings for all of the measures have been accumulated but not all of the costs have hit the books yet. (Equipoise)

- Why are all the per home life cycle savings higher for all utilities in the first half of 2000?

[2] Equipoise had duel representation at the meeting, one person facilitating the meeting and one person supporting the Bill Savings and Expenditure Standardization Group. When comments are attributed to Equipoise they were made by the Equipoise staff supporting the group effort, not the facilitator.

We don't know yet. We just completed these numbers two days ago and haven't yet been able to analyze all of the reasons why. This will be included in the final report. (Equipoise)

- Is this ratio useful for the utilities to collect and track? (SoCalGas)

  Yes it is important, and it is also important simply as a matter of good public relations. It gives the general public a better idea of why we are doing this. (ICA)

  We agree with ICA that this is useful. (Ucons)

- Are there any plans to include transmission or environmental benefits in these estimates? (Ucons)

  Another group is developing a new cost effectiveness test [for LIEE]. They are handling this. (PG&E)

  When you opt to measure benefits by bill savings that is what you are measuring, and nothing else. All of the rest of the social benefits are not included. That is the struggle in this other study, how to include these things. (SCE)

  From a regulatory perspective, I always hate to see numbers reported that don't include all of the calculable costs. (Ucons)

  We have to remember here that we were told to look at bill savings in this study. (SDG&E)

- The report did a good job on the definitions. This was a difficult area and to get agreement was an accomplishment. (ICA)

- Has anyone worked out the marginal cost of installing the different measures? It seems to me you are going to make decisions on which measures to install one of the thing you need to look at is the marginal cost of installing the measure. (ADM)

  The bid cost is the marginal cost, in essence. So that cost is available. During an earlier workshop it was pointed out that all measures interact so estimating the marginal cost of any particular measure is a questionable exercise. (ICA)

We have allocated savings and costs per measure, but we have never tried to prioritize the most cost effective measures to install because the program also serves an equity objective. The new cost-effectiveness test which is being developed is one which can be applied to the cost-effectiveness of measures as well as to the overall program. Right now we install all feasible measures. (SoCalGas)

We may not want to see the cost effectiveness of individual measures because the measures are not cost effective. This program is an equity program, and is offered for societal reasons. We shouldn't be trying to go back ex post and justify these programs on a cost effectiveness basis. (SoCalGas)

Yes, but it would be of concern if the trend on the overall effectiveness was constantly downward. The information here is very encouraging. (Ucons)

You have to ask what it would take for the legislature to cancel this program, how low would the cost effectiveness have to go. Would the legislature cancel this program? The first reaction is no, the program is put on for other reasons. (SoCalGas)

In AB 1393 Section 381.5A, which went into effect this January, the legislature clearly says that there are other criteria besides cost effectiveness drive this program. One of the challenges for the new test that is being developed is incorporating performance criteria. (SDG&E)

Furnace repairs are usually not bill savers, but meets the hardship reduction requirement of the law. (ICA)

Cost effectiveness would have to be very low to cause consideration of ending the program. At some point, if our cost-benefit goes too low, the question might arise,

"Why not just give them the money, if we are accomplishing so little?" (ICA)

This concludes the documentation of the bill savings workshop. The following attachments supply detail on the planning and implementation of the workshop.

Attachment A
Sign In Sheet

The following participants signed in at the January 16, 2001 workshop.

Name	Affiliation	Phone Number	Address	Email address	Fax Number
Tim Caulfield	Equipoise Consulting Inc	510-531-1080	4309 Whittle Ave. Oakland, CA 94602	Equipoise@covad.net	510-531-1014
Barbara Cronin	Southern California Gas Company	213-244-3285	Box 513249, GT12E2 Los Angeles, CA 90051-1249	Bcronin@socalgas.com	213-244-3428
Donna Wagoner	CPUC Energy Division	415-703-3175	505 Van Ness Ave., SF, CA 94102	Dlw@cpuc.ca.gov	415-703-2200
Terrie Tannehill	CPUC Energy Division	415-703-1224	505 Van Ness Ave., 4th Floor SF, CA 94102	tjt@cpuc.ca.gov	415-703-2200
Zaida Amaya	CPUC Energy Division	415-703-1191	505 Van Ness Ave., SF, CA 94102	zca@cpuc.ca.gov	415-703-2200
Dennis Guido	PG&E	415-972-5429	Mail Code N6G PO Box 770000 SF, CA 94177-0001	Dwg3@pge.com	415-972-5309
Stephen Rutledge	CPCU Energy Division	415-703-1804	505 Van Ness Ave., SF, CA 94102	sjr@cpuc.ca.gov	415-703-2200
Diane Calden	PG&E	415-973-2461	Mail Code N6G PO Box 770000 SF, CA 94177-0001	Dlc6@pge.com	415-972-5333

Name	Affiliation	Phone Number	Address	Email address	Fax Number
Mary O'Drain	PG&E	415-973-2317	Mail Code N3G PO Box 770000 SF, CA 94177-0001	Mjob@pge.com	415-972-5309
Marian Brown	Southern California Edison	626-302-8281	2131 Walnut Ave., B7, 3rd Floor Rosemead, CA 91770	Marian.brown@sce.com	626-302-8061
Angela Jones	Southern California Edison	626-302-8302	2131 Walnut Ave., B7, 3rd Floor Rosemead, CA 91770	Angela.jones@sce.com	626-302-8061
Mary Sutter	Equipoise Consulting Inc	510-864-8507	4309 Whittle Ave. Oakland, CA 94602	Msutter@home.com	510-864-8508
Robert E. Burt	Insulation Contractors Association (ICA)	916-444-2950	1911 F Street Sacramento, CA 95814	Bob.burt@macnexus.org	916-448-1190
Don Wood	SDG&E	858-636-5799	8335 Century Park Ct., CP12F San Diego, CA 92123	dwood@sdge.com	858-636-5749
Jim Green	SoCalGas	213-244-3614	555 W. 5th Street GT22E2 Los Angeles, CA 90013	Jgreen@socalgas.com	213-244-8449

Name	Affiliation	Phone Number	Address	Email address	Fax Number
Bob Boutwell	Knight Research	858-695-0061	11417 Bootes St. San Diego, CA 92126	Rboutwe1@san.rr.com	858-695-0061
Kevin McKinley	SDG&E	858-654-1250	8335 Century Park Ct., CP12F San Diego, CA 92123	Kmckinley@sdge.com	858-636-5770
Richard Ely	ADM Associates	916-363-8383 X 247	3239 Ramos Circle Sacramento, CA 95827	Dick@davis.com	916-363-1788
George Sanchez	Richard Heath & Associates	858-514-4025	7847 Convoy Ct. #102, San Diego, CA 92116	Gsanchez@rhainc.com	858-514-4047
Tom Eckhart	Cal-Ucons, Inc.	425-646-7208	1400 112th Ave SE, Suite 100, Bellevue, WA 98004	Tom@ucons.com	425-646-6671
Karen Sturgeon Attended by Phone	SoCalGas	213-244-3311	PO Box 513249, GT12E2 Los Angeles, CA 90051-1249	Ksturgeon@socalgas.com	213-244-3428
Henry DeJesus	SDG&E	858-654-1723	8335 Century Park Ct., CP12F San Diego, CA 92123	Hdejesus@sdge.com	858-636-5770

Name	Affiliation	Phone Number	Address	Email address	Fax Number
Laura Chiu	PG&E	415-973-9143	Mail Code N3G PO Box 770000 SF, CA 94177-0001	Lpc2@pge.com	415-972-5309
Josie Webb	CPUC/ORA	415-703-2247	505 Van Ness Ave. SF, CA 94102	Wbb@cpuc.ca.gov	415-703-2200
Jack Parkhill	SCE	626-302-8040	2244 Walnut Grove Rosemead, CA 91770	Parkhijf@sce.com	

Attachment B
Workshop Notice

STATE OF CALIFORNIA Gray Davis, *Governor*

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE

SAN FRANCISCO, CA 94102-3298

January 3, 2001

RE: Workshop Notice Regarding the Utility Pay-For-Measured Savings Pilot Design and the Joint Utility Low Income Energy Efficiency (LIEE) Bill Savings and Expenditures Standardization

To: Interested Participants

Pursuant to the July 6, 2000 Commission Decision 00-07-020, the Public Utilities Commission's Energy Division will hold two public workshops to facilitate public input on the Joint Utility Proposals and/or individual utility proposals that will be filed with the Commission on February 1, 2001. [3] The February 1, 2001 proposals will address consistent statewide Pay-For-Measured Savings Pilot Design and consistent LIEE Bill Savings and Expenditures data collection and reports.

PUBLIC INPUT WORKSHOPS

Bill Savings & LIEE Expenditures	**Pay-For-Measured Savings**
January 16, 2001	**January 16, 2001**
10:00 AM to 12:00 PM	**1 PM to 4 PM**
Pacific Energy Center	**Pacific Energy Center**
851 Howard Street	**851 Howard Street**
San Francisco, CA	**San Francisco, CA**

Conference call capabilities will be provided from 10:00 AM to 12:00 PM and 1:00 PM to 4:00 PM on January 16, 2001 by calling 1-888-452-3494 and then by dialing pass code #22726.

SDG&E will distribute a joint pay-for-measured savings proposal to all persons on the service list for R. 98-07-037 on January 11. PG&E will distribute a bill savings and LIEE expenditure proposal to all persons on the same service list on January 10. Both workshops are forums for public input into the utilities' proposals. If you are not on the service list for R.98-07-037 you may obtain a copy of these proposals by contacting:

Bill Savings & LIEE Expenditures

Mary O'Drain
Low Income Energy Management
Pacific Gas and Electric Company
Mail Code H28L
PO Box 770000
San Francisco, CA 94177-001
Phone: 415-973-2317

Pay-For-Measured Savings

Don Woods
Principal Energy Program Advisor
San Diego Gas and Electric Company
8335 Century Park Court
San Diego, CA 92123-1569
Phone: 858-636-5749

[3] The following utilities form the Joint Utilities group: Pacific Gas and Electric Company; San Diego Gas and Electric Company; Southern California Edison Company; and Southern California Gas Company.

If you cannot attend the workshops and would like to provide written comments on the utility proposals that may be incorporated into the workshop discussions, please file those comments by 4 PM on January 15, 2001 with:

Stephen Rutledge
California Public Utilities Commission
Energy Division, 4th Floor
505 Van Ness Ave.
San Francisco, CA 94102

Questions regarding the workshop should be addressed to Stephen Rutledge of the Energy Division (phone 415-703-1809; e-mail sjr@cpuc.ca.gov) or Donna Wagoner (phone 415-703-3175; e-mail dlw@cpuc.ca.gov.

Sincerely,

Stephen Rutledge
Energy Division

Cc: Service List in Rulemaking 98-07-037

Attachment C
Agenda and Workshop Presentation

Slide 1

Agenda

10:00	Agenda review and facilitation rules	5 minutes
10:10	Introductions - all workshop participants	5 minutes
10:10	Summary of Findings - Mary O'Drain	10 minutes
10:20	Discussion	
11:55	Wrap-up - Facilitator	5 minutes
12:00	Meeting Adjourns	

Slide 2

Public Workshop on Interim Results - LIEE Bill Savings & Expenditures Reporting Standardization

January 16, 2001
10 AM to 12 Noon
PG&E PEC
851 Howard Street, San Francisco

Slide 3

Ordering Paragraph 7

CPUC Decision 00-07-020, Ordering Paragraph 7:

With input from interested parties and the LIAB, the utilities shall jointly develop standardized methods for producing data on 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 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 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 workpapers 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.

The joint report shall be filed and served on appearances and the state service list in this proceeding and in R.98-07-037, or any successor proceeding. Comments on the report are due 30 days thereafter. Responses to the comments will be due within 15 days.

Slide 4

OP Summary

- With input from interested parties and the LIAB, the utilities shall jointly develop standardized methods for producing data on bill savings and expenditures for LIEE programs.
- Report results on an overall program, per unit (home), and by utility basis.
- Methods must be consistent with the AEAP.
- Report results, along with details, by February 1, 2001.
- Comment periods apply after the report is filed

Slide 5

Purpose of Workshop

- To present the interim results previously supplied in the draft report.
- To obtain input from interested parties

Slide 6

Summary Bill Savings to Cost Ratio by Service Territory

Program Year	PG&E	SDG&E	Combined SCE and SoCalGas
1997	0.95	0.62	0.59
1998	0.46	0.52	0.63
1999	0.77	0.42	0.52
First Half of 2000	1.61	0.64	0.54

Slide 7

Summary of Per Home Life Cycle Bill Savings by Service Territory

Program Year	PG&E	SDG&E	Combined SCE and SoCalGas
1997	509	330	276
1998	362	235	287
1999	350	223	284
First Half of 2000	556	383	428

Slide 8

Discussion

- More detailed summary results are presented in Section 4, Exhibits 4.2 and 4.3, of the report handed out today.
- Detailed Tables are in Section 5, Exhibits 5.1 - 5.32, of the report handed out today.
- Questions/Discussion?

Attachment D
Draft Report as of 01/16/01
(Supplied at Workshop)

Note: Attachment D is supplied as a separate electronic file for the Workshop Report.