State Report – California

This Appendix furnishes detailed information for California, including:

- Statistical Overview – Key characteristics for California households and housing units.
- Needs Assessment – Statistics for California low-income households and estimates of the need for energy affordability and energy efficiency programs.
- Legal and Regulatory Framework – A description of the legal and regulatory framework for low-income programs and identification of any legal or regulatory barriers to program design enhancements.
- Low-Income Affordability Programs – Information on California's publicly funded affordability programs, the ratepayer-funded affordability programs targeted by this study, and an assessment of the share of need currently being met.
- Affordability Program Evaluation – A summary of the available evaluation findings regarding the performance of California's affordability programs.
- Energy Efficiency Programs – Information on California's publicly funded energy efficiency programs and the ratepayer-funded energy efficiency programs targeted by this study.
- Energy Efficiency Program Evaluation – A summary of the available evaluation findings regarding the performance of California's energy efficiency programs.

This report was developed from a number of publicly available sources. We gratefully acknowledge the information received and contributions from Sarita Sarvate, California Public Utilities Commission, and Hazlyn Fortune, California Public Utilities Commission, Office of the Ratepayer Advocate. This report was developed by APPRISE and Fisher, Sheehan, and Colton. The statements, findings, conclusions, and recommendations are solely those of analysts from APPRISE and Fisher, Sheehan, and Colton. They do not necessarily reflect the views of any individual consulted regarding California programs.

I. Statistical Overview

California is the nation's largest state in terms of population. It is at the higher end of income (13th in median family income in 2005) but is about average in terms of its poverty rate (21st in individuals below poverty). An important challenge for low-income households in California is the high cost of living. In 2005, the median housing value was $477,700 and the median rent was $973.

Most housing units (92%) in California are heated with regulated fuels, predominantly natural gas (69%). Electric prices are 32% above the national average, but gas prices are 8% below the national average. The weather is mild in the winter (2,634 heating degree days compared to the national average of 4,524) and moderate in the summer (905 cooling degree days compared to the national average of 1,242). Households are most at risk from the cold during the months of December and January, and are most at risk from the heat during the months July through September. Because California is so large and diverse, substate analysis is required to assess heating and cooling risks.

The following population and housing statistics were developed using data from the 2005 American Community Survey (ACS).

Population Profile

Total Population	35.3 million
Individuals 65 and Over	3.7 million (10%)
Individuals Under 18	9.7 million (27%)
Individuals 5 & Over Who Speak a Language Other than English at Home	13.8 million (39%)
Individuals Below Poverty	13% (21st nationally)

Household Profile

Total Households	12.1 million
Median Household Income	$53,629 (9th nationally)
Homeowners	
Total Homeowners	7.1 million (58%)
Median Value	$477,700 (1st nationally)
Median Housing Burden	25%
Renters	
Total Renters	5.0 million (42%)
Median Rent	$973
Median Rental Burden	31%

The following energy statistics were derived from a number of sources, including the 2005 American Community Survey (ACS), the Energy Information Administration's (EIA) supplier data collection, and NOAA's National Climatic Data Center (NCDC).

Energy Profile

Home Heating Fuel (Source: 2005 ACS)	
Utility gas	69%
Electricity	23%
Fuel Oil	0%
Other	8%
2005 Energy Prices (Source: EIA)	
Natural gas, per ccf	$1.186
Electricity, per kWh	$0.1249
Fuel oil, per gallon	n/a
Weather (Source: NCDC)	
Heating Degree Days	2,634
Months of Winter (i.e., average temperature below 50°)	2
Cooling Degree Days	905
Months of Summer (i.e., average temperature above 70°)	3
Days with Temperatures Over 90°	25

[Note: Updates are available for energy prices and weather for 2006. Population statistics updates for 2006 will be available in August 2007.]

II. Profile of Low Income Households

California policymakers have chosen to target the publicly funded and ratepayer-funded low income programs at households with incomes at or below 200% of the HHS Poverty Guideline. For 2005, the income standard for a one-person household was about $19,150 and the income standard for a four-person household was $38,700. For the analysis of low-income households in California, we will focus on households with incomes at or below 200% of the HHS Poverty Guideline.

Table 1 furnishes information on the number of California households with incomes that qualify them for the LIHEAP program and the ratepayer-funded programs. About 28% of California households are income-eligible for these programs.

Table 1
Eligibility for Ratepayer Programs (2005)

Poverty Group	Number of Households	Percent of Households
Income at or below 150%	3,374,933	28%
Income above 150%	8,728,586	72%
ALL HOUSEHOLDS	12,103,519	100%

Source: 2005 ACS

Tables 2A and 2B furnish information on main heating fuels and housing unit type for California low-income households. Table 2A shows that about 63% of low-income households use natural gas as their main heating fuel, somewhat less than the 69% for all California households. Low-income households are more likely to heat with electricity than the California average. Table 2B shows that one of the reasons for the higher rate of electric main heat is that 33% of low-income households are in buildings with 5 or more units. Many multiunit buildings use electric space heating rather than natural gas or fuel oil. Almost half of all low-income households live in single family homes, while 12% live in buildings with 2-4 units. Few households (6%) live in mobile homes.

Table 2A
Main Heating Fuel for Low-Income Households (2005)

Main Heating Fuel	Number of Households	Percent of Households
Electricity	916,973	27%
Fuel Oil	13,481	0%
No fuel used	134,951	4%
Other Fuels	178,794	5%
Utility Gas	2,130,734	63%
ALL LOW INCOME	3,374,933	100%

Source: 2005 ACS

Table 2B
Housing Unit Type for Low-Income Households (2005)

Housing Unit Type	Number of Households	Percent of Households
Boat, RV, Van, etc	8,875	1%
Building with 2-4 units	391,588	12%
Building with 5+	1,109,467	33%
Mobile Home	210,997	6%
Single Family	1,654,006	49%
ALL LOW INCOME	3,374,933	100%

Source: 2005 ACS

Almost 3.375 million California households are categorized as low-income. However, only those households that directly pay an electric bill or a gas bill are eligible for the California ratepayer-funded programs. Table 2C shows that about 92% of low-income households directly pay an electric bill and that about 75% of low-income households directly pay a gas bill.

Table 2C
Low-Income Households
Direct Payment for Electric and/or Gas Bill (2005)

Poverty Group	Number of Households	Percent of Households
Electric Bill - Direct Payment	3,112,608	92%
Gas Bill - Direct Payment	2,540,978	75%
ALL INCOME ELIGIBLE	3,374,933	100%

Source: 2005 ACS

Tables 3A and 3B show the distribution of electric bills and burden for low-income households that do not heat with electricity and reported electric expenditures separately from gas expenditures.[1] Table 3A shows the distribution of electric expenditures for households that do not have electricity as their main heating fuel and Table 3B shows the electric energy burden.[2] Among these households, about 75% have an electric bill that is less than $1,000 per year while about 13% have an annual electric bill of $1,500 or more. Electric energy burden is less than 5% of income for 60% of these households, while it is greater than 15% of income for 13% of households.[3]

[1]The ACS allows respondents who have a combined electric and gas bill from one utility to report the total for both fuels. Those households are not included in these tables.

[2] Electric energy burden is defined as the household's annual electric bill divided by the household's annual income.

[3] About 13% of households have their electric usage included in their rent. These households have a nonzero electric energy burden, since part of their rent is used to pay the electric bill. However, since there is no way to measure the share of rent that is used to pay the electric bill, electric energy burden is unknown for these households.

Table 3A
Electric Bills for Low-Income Households without Electric Heat (2005)

Electric Bill	Number of Households	Percent of Households
$1 to less than $500	834,404	42%
$500 to less than $1,000	658,041	33%
$1,000 to less than $1,500	248,557	12%
$1,500 or more	257,706	13%
TOTAL	1,998,708	100%

Source: 2005 ACS

Table 3B
Electric Burden for Low-Income Households without Electric Heat (2005)

Electric Burden	Number of Households	Percent of Households
0% to less than 5%	1,208,274	60%
5% to less than 10%	409,683	20%
10% to less than 15%	127,672	6%
15% or more	253,079	13%
TOTAL	1,998,708	100%

Source: 2005 ACS

Tables 4A and 4B show the distribution of electric bills and burden for low-income households that heat with electricity. Table 4A shows the distribution of electric expenditures and Table 4B shows the electric energy burden. Among these households, about 72% have an electric bill that is less than $1,000 per year while about 14% have an annual electric bill of $1,500 or more. Electric energy burden is less than 5% of income for about 58% of these households, while it is greater than 15% of income for 13%.

Table 4A
Electric Bills for Low-Income Households with Electric Heat (2005)

Electric Bill	Number of Households	Percent of Households
$1 to less than $500	286,250	39%
$500 to less than $1,000	246,761	33%
$1,000 to less than $1,500	101,885	14%
$1,500 or more	104,952	14%
TOTAL	739,848	100%

Source: 2005 ACS

Table 4B
Electric Burden for Low-Income Households with Electric Heat (2005)

Electric Burden	Number of Households	Percent of Households
0% to less than 5%	429,302	58%
5% to less than 10%	155,069	21%
10% to less than 15%	56,076	8%
15% or more	99,401	13%
TOTAL	739,848	100%

Source: 2005 ACS

Tables 5A and 5B show the distribution of gas bills and burden for low-income households that heat with gas and report their gas bills separately from their electric bills. Table 5A shows the distribution of gas expenditures and Table 5B shows the gas energy burden. Among these households, about 90% have a gas bill that is less than $1,000 per year while about 4% have an annual gas bill of $1,500 or more. Gas energy burden is less than 5% of income for about 76% of these households, while it is greater than 15% of income for 8%.

Table 5A
Gas Bills for Low-Income Households (2005)

Gas Bill	Number of Households	Percent of Households
$1 to less than $500	1,428,554	66%
$500 to less than $1,000	515,828	24%
$1,000 to less than $1,500	137,213	6%
$1,500 or more	84,887	4%
TOTAL	2,166,482	100%

Source: 2005 ACS

Table 5B
Gas Burden for Low-Income Households (2005)

Gas Burden	Number of Households	Percent of Households
0% to less than 5%	1,651,612	76%
5% to less than 10%	258,615	12%
10% to less than 15%	73,738	3%
15% or more	182,517	8%
TOTAL	2,166,482	100%

Source: 2005 ACS

Tables 6A and 6B show the distribution of total electric and gas expenditures for low-income households that pay bills directly to a utility company. Table 6A shows the distribution of electric and gas expenditures and Table 6B shows the electric and gas energy burden. About 93% of households have an electric bill, a gas bill, or both. Almost half of low-income households have a total electric and gas bill that is less than $1,000 per year while only 8% have an annual bill of $2,500 or more. Electric and gas energy burden is less than 5% of income for close to 40% of low-income households, while it is greater than 25% of income for about one in ten low income households.

Table 6A
Electric and Gas Bills for Low-Income Households (2005)

Electric and Gas Bill	Number of Households	Percent of Households
$1 to less than $500	605,921	18%
$500 to less than $1,000	1,039,885	31%
$1,000 to less than $1,500	655,871	19%
$1,500 to less than $2,000	336,769	10%
$2,000 to less than $2,500	211,541	6%
$2,500 or more	284,237	8%
No Bill	240,709	7%
ALL INCOME ELIGIBLE	3,374,933	100%

Source: 2005 ACS

Table 6B
Electric and Gas Burden for Low-Income Households (2005)

Electric and Gas Burden	Number of Households	Percent of Households
0% to less than 5%	1,318,751	39%
5% to less than 10%	896,631	27%
10% to less than 15%	347,523	10%
15% to less than 20%	145,992	4%
20% to less than 25%	80,513	2%
More than 25%	344,814	10%
No Bill	240,709	7%
ALL INCOME ELIGIBLE	3,374,933	100%

Source: 2005 ACS

We have developed a series of demographic tables for households that pay an electric or gas bill. Table 7 furnishes information on the presence of vulnerable members in the household and illustrates what share of the population might be particularly susceptible to energy-related health risks. Table 8 shows the household structure for these households, and Table 9 presents statistics on the language spoken at home by these households.

Just over one-fourth of the low-income households with utility bills are elderly. Almost one-third do not have any vulnerable household members. Some programs choose to target vulnerable households with outreach procedures and may offer priority to these households.

Table 7
Vulnerability Status for Low-Income Households with Utility Bills (2005)

Vulnerability Type	Number of Households	Percent of Households
Disabled	511,190	16%
Elderly	837,055	27%
No Vulnerable Members	1,014,892	32%
Young Child	771,087	25%
Total	3,134,224	100%

Source: 2005 ACS

About 44% of the low-income households have children, nearly one-fourth are headed by a person 65 or older, and close to one-third are other household types. Single parent families with children represent about one-fifth of low-income households with utility bills.

Table 8
Household Type for Low-Income Households with Utility Bills (2005)

Household Type	Number of Households	Percent of Households
Married with Children	761,930	24%
Other	993,983	32%
Senior Head of Household	752,350	24%
Single with Children	625,961	20%
TOTAL	3,134,224	100%

Source: 2005 ACS

Just under 40% of low income households speak Spanish; another 5% speak an Indo-European language (e.g., Russian, Polish). In total, program managers might find that more than half of all eligible households speak a language other than English at home.

Table 9
Language Spoken at Home by Low-Income Households with Utility Bills (2005)

Language Spoken	Number of Households	Percent of Households
English	1,446,518	46%
Spanish	1,219,284	39%
Indo-European	151,630	5%
Other	316,792	10%
TOTAL	3,134,224	100%

Source: 2005 ACS

III. Legal Regulatory Framework

California's rate affordability program for energy utilities is a creature of statute. Created in 1989, the Low-Income Rate Affordability (LIRA) program was codified into simple language providing that "the commission shall establish a program of assistance to low income electric and gas customers, the cost of which shall not be borne solely by any single class of customers."[4] The program was implemented by the California Public Utilities Commission (CPUC) through a series of orders in a proceeding devoted exclusively to responding to the legislation.[5] The program was subsequently renamed as the California Alternate Rates for Energy (CARE) program.[6]

A. The Structure of the California Program

The California CARE program is a simple rate discount. Simplicity has been an objective from the program's inception. As the Commission noted:

> This program is simple—simple to understand, simple to explain, simple to compute. Simplicity of understanding and explanation will facilitate outreach and explanation by customer service departments and result in a quick start to this program. It confers a noticeable bill decrease on participating customers.[7]

The California low-income rate applies to the state's investor-owned utilities.[8] It allows a rate discount off both consumption and fixed monthly charges.

While program eligibility was initially set at 150% of the Federal Poverty Level,[9] eligibility has since been increased to 200% of the Poverty Level. The increased eligibility guideline was approved in response to recent increases in natural gas prices. The commission considered whether to increase eligibility to either 200% of Poverty Level or 250% of Poverty Level. It decided:

> Making CARE discounts available to a broader range of residential customers is an important way to help more customers this winter. Because of the need to protect all customer classes, however, we must exhibit moderation. The utilities would have us extend CARE eligibility only to a subset of those customers earning between 175% and 200% of poverty levels, and this approach would even further limit exposure to other customers. We are persuaded that the elderly and disabled are not the only customers in this income range who will

---

[4] California Public Utilities Code, §739(g) (1989). The program was created by the "Dills Bill," Senate Bill 987.

[5] Investigation on the Commission's Own Motion to Comply with Senate 987 and Realign Residential Rates, Including Baseline Rates, of California Energy Utilities. The Interim Option, Decision 89-07-062 was issued July 19, 1989. The Final Opinion, D.89-09-844, was issued September 7, 1989. An Order on Petition for Modification, D.89-11-018, was issued September 29, 1989.

[6] See, California Public Utilities Code, §382(a) (2007). After restructuring the electric industry, the California legislature had prescribed that "program provided to low-income electricity customers, including but not limited to, targeted energy efficiency services and the California Alternative Rates for Energy program shall be funded at not less than 1996 authorized levels based on an assessment of customer need." Id.

[7] D.89-09-044, at 7 – 8.

[8] The California Code allows, but does not require, "local publicly-owned electric utilities" to fund energy assistance. Section 385 of the Public Utilities Act provides that "each local publicly owned electric utility shall establish a nonbypassable, usage based charge on local distribution service of not less than the lowest expenditure level of the three largest electrical corporations in California on a percent of revenue basis. . .to fund investments by the utility and other parties *in any or all of the following*. . .(4) services provided for low-income electricity customers, including, but not limited to, energy efficiency services, education, weatherization, and rate discounts." (emphasis added).

[9] The original eligibility guideline was set so that eligibility for LIRA would be the same as eligibility for California's Universal Lifeline Telephone Service (ULTS). Consumer Advisory and Compliance Division, California Public Utilities Commission, *Low-Income Ratepayer Assistance Program (LIRA): Program Report*, at 2 (September 1, 1990).

> face special challenges this winter and beyond. It would make sense also to include families, many of which may have to choose between buying clothing and paying utility bills. For ease of implementation, it may be better to qualify a broader class of new customers (all of those earning up to 200% of poverty level) than to ask the utilities to invoke a new series of more subtle rules for eligibility.[10]

The commission noted that its decision was not without cost. "Although the impact on other customers may be measurable," the commission said, "it is small. We will instruct the utilities to allow all residential customers earning no more than 200% of poverty levels to enroll in the CARE program."[11]

California utilities "receive reimbursement on a dollar-for-dollar basis of all bill subsidies" provided to low-income customers.[12] California utilities use what are called "two-way balancing accounts" through which to recover their CARE expenditures.

> Two-way balancing accounts allow the utility to recover actual program costs that may be higher than the amount of funding authorized, subject to audit or reasonableness review. One-way balancing accounts limit total recovery to the authorized funding level. The large investor-owned utilities (PG&E, SCE, San Diego Gas & Electric Company and Southern California Gas Company) have two-way balancing accounts for CARE administrative and subsidy costs. These costs are particularly difficult to forecast accurately in advance, due to the open-ended nature of program eligibility (i.e., anyone who qualifies for the programs is entitled to participate).[13]

One advantage of the two-way balancing accounts, the commission said, is that the state's utilities can "increase their efforts, as needed, to meet (and exceed) their minimum CARE penetration targets."[14]

The costs of the California rate affordability program are passed through to nearly all customer classes.[15] The forecast program cost is divided by the forecast value of non-exempt electricity sales and volume of transported gas. To assure that program participants are not charged with the cost of the program, the discount rate is set before the surcharge is determined through which program costs are recovered. Costs are recovered on a volumetric basis.[16]

The California legislature made several significant policy declarations regarding low-income affordability programs, when it enacted state legislation restructuring the electric industry. The legislature determined that it was important for the state utility commission to consider the affordability of energy:

> In order to meet legitimate needs of electric and gas customers who are unable to pay their electric and gas bills and who satisfy eligibility criteria for assistance, recognizing that electricity is a basic necessity and that all residents of the state

---

[10] Interim Order Approving Various Emergency Program Changes in Light of Anticipated High Natural Gas Prices in the Winter of 2005-2006, Order Instituting Rulemaking on the Commission's Proposed Policies and Programs Governing Post-2003 Low-Income Assistance Programs, D.05-10-044, at 9 – 10 (October 27, 2005).
[11] Id., at 10.
[12] R-04-01-006, at 38.
[13] In the Matter of the Application of Southwest Gas Corporation for Authority to Adjust Public Purpose Program Surcharges, et al., D.03-03-007, at 39 (March 13, 2003), *citing* D.02-09-021, at 7 – 9 (establishing the rationale for CARE balancing accounts).
[14] D.03-03-007, at 48.
[15] Exempted from paying CARE costs are CARE customers, customers with special contracts negotiated before September 1989, utility electric generation customers, and miscellaneous small customer classes (such as street lighting).
[16] D.89-09-004, at 19 – 20.

> should be able to afford essential electricity and gas supplies, the commission shall ensure that low-income ratepayers are not jeopardized or overburdened by monthly energy expenditures. Energy expenditures may be reduced through the establishment of different rates for low-income ratepayers, different levels of rate assistance, and energy efficiency programs.[17]

The legislature then declared that the extent and design of any low-income rate affordability program should be based on a "needs assessment." Beginning in 2002, the legislature said, "an assessment of the needs of low-income electricity and gas ratepayers shall be conducted periodically by the commission. . .The assessment shall evaluate low-income program implementation and the effectiveness of weatherization services and energy efficiency measures in low-income households. The assessment shall consider whether existing programs adequately address low-income electricity and gas customers' energy expenditures, hardship, language needs, and economic burdens."[18]

B. California's Coverage Goal

California's stated goal for its CARE program is to achieve 100% penetration within the low-income population.[19] The Commission articulated its objective in unequivocal terms: "Simply put, our goal is to reach 100% of low-income customers who are eligible for, and desire to participate in, the CARE program."[20] The commission adopted a "rapid deployment policy" through which utilities were to take all reasonable efforts to expand the enrollment in CARE.[21] It acknowledged that, while the objective certainly applied statewide, it would be met with varying degrees of success by different utilities.

> We recognize that the utilities will not reach this goal at the same pace, given differences in demographic characteristics and the magnitude of the eligible low-income population within each service territory, as well as differences in where each utility stands today with respect to program penetration. We also recognize that the law of diminishing returns applies to CARE outreach efforts over time, i.e., it becomes increasingly difficult to enroll additional customers, the closer the utility moves toward achieving 100% participation.[22]

Each utility submits to the California utility commission a biannual plan on how it intends to implement the CARE program. Since the discount provided by each utility's program in California is identical, the regulatory review is primarily of the level of administrative costs incurred,[23] along with a review of the outreach and enrollment processes utilized by each company.[24] The California utility commission establishes utility-specific expectations on the

---

[17] Public Utilities Code, §382(b) (2007).
[18] Id., at §382(c) (2007).
[19] D.05-10-044.
[20] Interim Decision: Status of Rapid Deployment, CARE Penetration Goals, Automatic Enrollment, and Related Program Planning Issues, Order Instituing Rulemaking on the Commission's Proposed Policies and Programs Governing Low-Income Assistance Programs, D.02-07-033, at 4 (July 17, 2002).
[21] In the Matter of Compliance Application of Pacific Gas and Electric Company for Approval of Year 2001 Low-Income Programs, et al., D.01-05-033, at 41 – 52 (May 3, 2001).
[22] D.02-07-033, at 4.
[23] See, e.g., D.06-12-038 (December 15, 2006), Order Approving Utility Budgets for Low Income Energy Efficiency Programs and California Alternative Rate for Energy. ("Each of the applicant utilities has CARE rates that discount electricity and gas by 20%. Although the application of the rate itself requires no particular administrative work, the utilities must conduct targeted outreach and marketing efforts to maximize participation by qualified customers." Id., at 46).
[24] See, e.g., Order Instituting Rulemaking on the Commission's Proposed Policies and programs Governing post-2003 Low-Income Assistance Programs, D.05-04-052 (April 21, 2005), Appendix A, *Energy Division Report on Program Year 2005 California Alternate Rates for Energy (CARE) and Low-Income Energy Efficiency (LIEE) Programs of the Small and Multi-Jurisdictional Utilities* (April 29, 2005) (hereafter Appendix A). ("PacifiCorp has done a dismal job of reaching its eligible population and increasing enrollment. Due to the rural and diverse nature of

penetration rate for the CARE program in each service territory[25] and determines whether the utility is adequately addressing those expectations.[26]

Given California's emphasis on reaching 100% of its eligible population, one focus of the state utility commission's review of each utility's biannual plan involves the extent of outreach and ease of enrollment. The commission also sought to minimize the extent to which recertification causes a dropoff in enrollment. In reviewing Southern California Edison's 2005 CARE budget and operating plan, for example, the commission noted:

> SCE states that there is a shrinking pool of remaining CARE-eligible but non-participating customers in its territory, requiring increasingly sophisticated outreach to reach these customers. SCE also believes it needs to reduce the percentage of customers that are removed from the program during the recertification process. (After two years in the CARE program, customers must recertify their financial eligibility. The recertification process requires active efforts by customers and thus causes customers who fail to respond to requests for recertification to fall off of the rolls.[27]

The California commission sought to have the automatic enrollment of households in the state Department of Community Services and Development (DCSD) Energy Assistance programs into CARE.[28] Moreover, gas and electric utilities serving the same geographic areas are encouraged to share participant lists to facilitate the enrollment of CARE participants from one utility into the CARE program of the corresponding utility providing other fuels.[29] Efforts to automatically enroll MediCal participants into CARE, however, encountered privacy constraints imposed by federal laws regarding medical records[30] without the express permission of the customer.[31] Even then, the commission encouraged the state's utilities, along with its own staff, to negotiate a means to routinely obtain the permission of customers to use these MediCal records for automatic enrollment. The Commission noted:

> We commend PG&E and the other utilities for efforts they have made to date to accommodate Commission orders regarding automatic enrollment. Automatic enrollment causes large numbers of eligible customers to enroll in the program at limited expense. We plan to continue examining how to expand the program going forward, through arranging for specific customer consent or other methods. In the meantime, the Commission has ordered the IOUs to automatically enroll customers whose data we have received from the DCSD.[32]

PacifiCorp's territory and their high volume of low-income customers, Energy Division feels it is imperative that PacifiCorp exceed their proposed 2005 penetration benchmark of 39% or a target of 6,000 enrolled. To meet this benchmark and target, PacifiCorp would need to enroll a net of 1,581 new CARE-eligible. Energy Division recommends the Commission require PacifiCorp to increase their efforts to reach the over 15,000 eligible CARE customers. Energy Division recommends that a benchmark of 70% with a target of 10,902 enrolled by set for PacifiCorp for 2005." Id., at 15.

[25] See e.g., D.03-03-007, Final Opinion: Post-2002 Low-Income Assistance Programs for Small and Multi-Jurisdictional Utilities (March 14, 2003).

[26] D.02-07-033, see also, R-04-01-006, Appendix A, at 10 ("In D.02-07-033, the Commission ordered an overall CARE participation goal of 100%, while acknowledging that it may not be possible to achieve 100% participation right away. In recognition of that, the Commission set benchmark penetration levels for each utility to achieve over the subsequent years. In D.03-03-007, the Commission set the most recent benchmarks for the [small and multijurisdiction utilities—SMJU]. Energy Division recommends that the Commission set higher benchmarks for the SMJU for 2005 and continue to require aggressive outreach and recertification efforts, with the caveat that each utilities' eligible population, benchmarks and budgets may need adjusting depending on the results of the Needs Assessment Study.")

[27] D.05-04-052, at 40.

[28] Id., at 41.

[29] Appendix A, at 23 – 24.

[30] See, e.g., 42 U.S.C. §1396(a) (2007); 42 C.F.R. §§431-300 – 431.302 (2007).

[31] D.05-04-052, at 48.

[32] Id.

In addition to promoting "automatic enrollment," through which a customer is enrolled in CARE without the customer having to apply for the discount, the California commission is also aggressively pursuing ways to implement "categorical eligibility." This enrollment process permits a customer to demonstrate eligibility with documentation of participation in a government means-tested program rather than having to provide evidence of income.[33]

Finally, the Commission has both approved, and encouraged, the development of "a probability model to indicate a customer's likelihood of being eligible for CARE and therefore exempt from the recertification process."[34] In a related vein, the companies have extended the certification period for fixed income customers from two years to four years "because customers on fixed incomes tend to remain in related programs for long periods. PG&E expects this policy change to mitigate the current high numbers of fixed income CARE customers that do not respond to a request for recertification and are dropped from the program."[35] The commission noted, also, that Southern California Gas Company reported in support of its proposal to extend the certification period from two to four years for certain fixed income households that "the incomes for those customers on pensions, SSDI, SSI, and Social Security do not change dramatically from year-to-year. Placing these customers on a four-year recertification cycle will ensure that many are not removed from the program because they fail to respond to the recertification request."[36]

In contrast to what the commission encourages, the California commission *discourages* the use of mass media marketing campaigns. The commission limits mass media expenditures to 10% of total outreach expenditures, emphasizing that they sought, through such funding approval, "a very limited, targeted media campaign to fund non-English radio and print advertising for CARE outreach. . ."[37]

C. Summary and Conclusions

The California rate affordability program is a legislatively-created program designed to deliver moderate benefits to as many eligible customers as possible. Called California Alternate Rates for Energy (CARE), the rate affordability initiative is structured to provide a 20% discount to customers with income at or below 200% of the Federal Poverty Level. While the discount is not substantial, as the commission notes, "it confers a noticeable bill decrease on participating customers."

The California Public Utilities Commission, which is the state agency charged with administering the CARE program, has taken aggressive steps to make the program broadly available. The commission sets penetration objectives for each natural gas and electric utility, and then undertakes a periodic review of whether those penetration goals are being achieved. The penetration goals take into account the size of the utility, the nature of the service territory (e.g., urban or rural), and the demographics of the service territory.

Given the simplicity of the California program –according to the commission, "this program is simple—simple to understand, simple to explain, simple to compute"—the primary role the commission has undertaken has been to review the administrative costs incurred by each utility and the mechanisms for facilitating outreach, enrollment, and participant retention. Amongst the strategies adopted by the commission are the automatic enrollment of customers who participate in other public assistance programs; declaring the categorical eligibility of customers

[33] D.06-12-038, at 47.
[34] Id., at 50.
[35] Id., at 52.
[36] Id., at 9.
[37] D.03-03-007, at 46 (March 13, 2003). See also, D.01-05-033 (small, targeted mass media for non-English radio and print for small and multi-jurisdictional utilities).

participating in public assistance programs for which automatic enrollment is not available;[38] and the sharing of participant information between natural gas and electric utilities serving the same geographic area.

In addition to devoting substantial attention to *getting* low-income customers on to the CARE program, the California Public Utilities Commission devotes considerable attention to *keeping* low-income customers on the program once they are enrolled. The commission has approved proposals to extend the "certification period" for participants –that period of time before the end of which a customer must re-establish his or her income eligibility—to four years for certain fixed-income customers for whom the commission has determined income does not vary from year-to-year. Moreover, the commission has approved the use of probabilistic models by California's utilities to determine whether particular CARE participants would continue to be income-eligible, thus exempting such customers from any need to recertify.[39]

Given the open-ended nature of participation in the California CARE program, California utilities are ensured dollar-for-dollar cost recovery of the discount provided. Those costs are spread over all customer classes, with very limited exceptions.

IV. Low-Income Affordability Programs

The two major affordability programs available to low-income households in California are the LIHEAP Program and the California Alternate Rates for Energy (CARE) Program.

- LIHEAP Program – In 2005, the California LIHEAP program received about $92.4 million in funding from the Federal government.[40] Since about 90% of low-income households use natural gas or electricity for their home heating fuel, we will estimate that about $83.2 million was made available to gas and electric customers for LIHEAP benefits.

- California Alternate Rates for Energy Program – In 2005, the California Alternate Rates for Energy Program furnished about $563.6 million in electric and gas benefits to eligible households.[41]

In total, about $647 million was available to help pay the electric and gas bills for low-income households. Using the ACS data, we estimated the following statistics regarding the aggregate electric and gas bills for low-income households in California.

- Aggregate Electric and Gas Bill – The total electric and gas bill paid directly by low-income households is estimated to be about $3.8 billion. The available funding of $647 million in benefits would cover about 17% of the total bill for low-income households.

- 5% Need Standard – Some analysts suggest that 5% of income is an affordable amount for low-income households to pay for the energy needs. The aggregate value of electric and gas bills that exceeds 5% of income is estimated to be about $1.6 billion. The available funding of $647 million in benefits could cover about 40% of the unaffordable amount for low-income households. [Note: If benefits from either of these two programs are allocated to households with an energy burden less than 5% of income, the program would not cover 40% of the estimated need.]

---

[38] Any record of participation in some programs has been deemed by the state to involve *medical* records, release of which would be in violation of federal law protecting the confidentiality of medical records.
[39] Eligibility for CARE is simply a toggle. A customer either is income-eligible or the customer is not. The California utilities, in other words, need not know precisely *what* income a customer has, so long as that income falls within the eligibility guidelines.
[40] Source: LIHEAP Clearinghouse
[41] Source: LIHEAP Clearinghouse

- 15% Need Standard – Some analysts suggest that 15% of income is an affordable amount for low-income households to pay for the energy needs. The aggregate value of electric and gas bills that exceeds 15% of income is estimated to be about $547 million. The available funding of $647 million in benefits could cover more than 100% of the unaffordable amount for low-income households if it were targeted to only those households with energy bills greater than 15% of income.

- 25% Need Standard – Many low-income households pay more than 25% of income for energy service. Among the ratepayer-funded low-income programs that have used a percent-of-income guideline in their benefit determination process, none have been as high as 25% of income for combined use of electric and gas. The aggregate value of electric and gas bills that exceeds 25% of income is estimated to be about $350 million. The available funding of $647 million in benefits could cover more than 100% of the unaffordable amount for low-income households if it were targeted to households with energy bills greater than 25% of income.

These statistics demonstrate that California has made a significant investment in making energy bills affordable for low-income customers. One important issue for the California program is the difference in targeting associated with a rate discount program for the other program types. Our statistics demonstrate that California has the ability to reduce the energy burden for all low income customers in California to less than 15% of income. [Note: Table 6B shows that about 16% of California low-income households have an energy burden of 15% of income or more.] However, the rate discount program is focused on reducing the energy burden of all customers by 20%, rather than targeting the benefits to the highest burden households.

Some important features of the California CARE program include:

- CPUC Oversight – The CPUC has overall responsibility for setting CARE policy.

- Utility Program Operations – Each regulated California utility is responsible for operation of the program, including the development of systems for outreach, intake, and financial reporting.

- Program Funding/Participation – Program funding for 2006 was about $622 million and served about 3.4 million electric and gas customers.

- Targeting – The program attempts to serve all eligible customers. Program outreach is focused on reaching demographic groups that are less likely to participate in public programs.

- Benefit Type – The program is a rate discount program. The rate discount is 20%.

- Program Certification and Recertification – Customers are allowed to self-certify for the program. Program recertification is required every two years. However, recent decisions have relaxed that requirement for certain groups.

The following table furnishes detailed information on the CARE program.

Program State	California.
Program Name	California Alternate Rates for Energy (CARE).
Utility Company (If Applicable)	n/a
Program Goals	
Funding Source (SBC or	SBC – Public Goods Charge paid by all non-low-income ratepayers.

Rates)	[NOTE: The CPUC defines the PGC as a nonbypassable surcharge imposed on all retail sales to fund public goods research, development and demonstration, and energy efficiency activities, and possibly to support low-income assistance programs.]
Annual Program Funds – Budgeted/Allocated (2005, 2006)	$604,202,077 (PY2005 Budgeted) $622,247,414 (PY2006 Allocated).
Annual Program Funds – Expended (2005)	$613,314,665.
# of Households Served (2005)	3,368,783.
Participation Limit (Maximum # of Enrollees)	None. All CARE-eligible customers who apply for CARE are placed in the program.
Eligibility – % of Poverty Level	n/a (see next item).
Eligibility – Other Criteria	For PY2006-2007 (June 1, 2006, through May 31, 2007), total household income must be at or below the following limits: Household Size — CARE Income Limit 1 to 2 — $28,600 3 — $33,600 4 — $40,500 5 — $47,400 6 — $54,300 Add $6,900 for each additional family member. [NOTE: The above figures are roughly 200% of the federal poverty guidelines.]
Targeted Groups	n/a.
Benefit Calculation Type (% of Income, Benefit Matrix, etc.)	Fixed-percentage discount.
Benefit Calculation (Document Formula)	
Benefit Amount (Mean Subsidy)	$176.
Benefit Limit	None.
% of Program Dollars Spent on Administrative Costs	2.91%.
Benefit Distribution (Fixed Payment, Fixed Payment with a Limit, Fixed Credit, Fixed Credit with Budget Billing, etc.)	Fixed 20% discount on electric and natural gas bills. Program participants are not billed at the higher rate tiers that were created for Southern California Edison, Pacific Gas and Electric Company, and San Diego Gas and Electric Company (effectively giving those customers a larger discount [per the CPUC]). CARE recipients are exempt from the CARE component of the Public Goods Charge.
Arrearage Forgiveness Plan – Y/N	No.
Amount Eligible for Forgiveness (Dollars, %, or Unlimited)	n/a
Forgiveness Requirement (Payments, On-Time Payments)	n/a
Forgiveness Period (One-Time, 12 months, 24 months, etc.)	n/a
Program Manager (PUC, State, Utility)	Individual utility companies under the oversight of the California Public Utilities Commission.
Data Manager (PUC, State, Utility, Other)	Individual utility companies.
Enrollment Responsibility (Utility, CAP, etc.)	Customer-initiated application to utility company or with a local community action agency. Referrals to the CARE Program may be made by LIEE Program contractors or other social service providers.

Application Method (Mail, In-Person, Phone)	PG&E Downloadable hard-copy application which can be mailed or faxed to PG&E. Applications may be mailed to customers on request by calling a toll-free number or sending e-mail via a link on PG&E's website. SCE Downloadable hard-copy application which is mailed to SCE. Information is available by calling a toll-free number or an e-mail link on SCE's website. SoCalGas Downloadable hard-copy application which is mailed to SoCalGas. Information is available by calling a toll-free number. SDG&E Downloadable hard-copy application which is mailed to SDG&E. Information is available by calling a toll-free number. CARE applicants self-certify that their cumulative annual household income falls with the CARE income guidelines. CARE applicants are subjected on a random basis to post-enrollment income verification.
Joint Application	
Recertification Required – Y/N	Yes.
Recertification Frequency	Single-family low-income households who have their own account must reapply every two years. Tenants who are metered or billed by their landlord must reapply every year.
Recertification Method (Agency, Automatic Enrollment, Self-Certification)	Reapplication to the customer's utility.
Recertification Procedures	The customer must request or download his or her utility's CARE application, fill it out, and submit it to the utility.
Removal Reasons	
Other Communications	
Budget Counseling	No.
Evaluation Frequency	n/a
Coordination with LIHEAP	Information on LIHEAP is available online on most utilities' websites.
Coordination with WAP	None.
Coordination with Energy Efficiency Programs	Customers enrolled in the LIEE program are automatically enrolled in the CARE program.
Coordination with Other Energy Affordability Programs	Information on other available energy affordability programs is available online on utilities' websites.

NOTES

1) The following measures were implemented by the CPUC in Decision D.05-10-044 in light of anticipated high gas prices in winter 2005-2006:

- Revise LIEE and CARE eligibility to 200% of FPG for all customers
- Hold harmless recipients from repayments if later found not to income qualify
- Suspend dropping CARE customers for recertification or post-enrollment verification failures.

2) For the winter of 2006-2007 . . .

- Income documentation was not required
- No customers were to be dropped from the program
- Reconnection fees and deposits were waived.

3) The FERA Program offers a discounted rate on the monthly bill to income-qualified customers who exceed their baseline usage by 30-100%. To qualify, there must be a minimum of 3 or more permanent residents in the household and the total household income must fall within the program guidelines (between 200-255% of the federal poverty guideline).

V. Affordability Program Evaluation Findings

No affordability program evaluation studies were publicly available.

VI. Low-Income Energy Efficiency Programs

The three major sources of funding for energy efficiency programs available to low-income households in California are the DOE Weatherization Assistance Program (WAP), the LIHEAP Program, and the Low-Income Energy Efficiency Program (LIEE).

- DOE WAP Program – In 2005, California received about $6.3 million in funding for the Weatherization Program. These funds were distributed to local agencies to deliver weatherization services to low-income households.[42]

- LIHEAP Program – In 2005, California elected to use $22.4 million (24%) of its LIHEAP funding for weatherization.

- California Low-Income Energy Efficiency Program – In 2005, the California Low-Income Energy Efficiency Program was funded at a level of about $99.0 million.[43]

In total, about $127.8 million was available to help furnish energy efficiency services to low income households in California.

It is a little more challenging to estimate the need for energy efficiency programs. In general, we would suggest that energy efficiency programs should be used in place of affordability programs when the energy efficiency programs result in cost-effective savings to the household. The literature on energy efficiency programs demonstrates that programs that target high users achieve the highest savings levels and are the most-effective. For electric baseload, programs that target households that use 8,000 kWh or more are most cost-effective. For electric heating, programs that target households that use 16,000 or more kWh are most cost-effective. For gas heating, programs that target households that use 1,200 or more therms are most cost-effective.

Our primary state-level data source, the ACS, does not ask respondents to report on the amount of electricity or natural gas that they use. However, we can develop a proxy for usage based on the respondent's estimate of the household's electric and gas bill. [Note: kWh price = 12.49 cents, therm price = 1.186].

Using the ACS data, we developed estimates of the number of households that would be eligible for energy efficiency programs using the cost-effectiveness targets. Table 10 shows that 24% of households could be targeted for high baseload bills, 8% could be targeted for high electric heat bills, and 5% could be target for high gas usage.

---

[42] Source: LIHEAP Clearinghouse
[43] Source: LIHEAP Clearinghouse

Table 10
Need for Energy Efficiency Programs for Low-Income Households (2005)

Group	Number of Households with Bills	Number of Households with High Bills	Percent of Households with High Bills
Electric Baseload Services[44]	2,281,037	538,215	24%
Electric Heating Services	739,848	59,428	8%
Gas Heating Services	1,926,383	96,503	5%

Source: 2005 ACS

In general, low income weatherization programs spend about $3,000 per unit including all costs for administration and service delivery. With the available funds, California could serve about 42,600 low income households, or about 27% of the high usage homes needing weatherization assistance and 8% of the homes need electric baseload services. These statistics demonstrate that California is making a significant investment in the energy usage reduction for low-income households.

The LIEE program actually delivered weatherization services to about 95,000 homes and treated over 160,000 households. Given the relatively low usage levels of households in California, this lower level of investment per home is probably appropriate.

The Low Income Energy Efficiency program was targeted for analysis by this study. Some important features of the LIEE program include:

- Utility Program Administration – Each utility administers the LIEE program for their service territory.
- Service Delivery – External contractors deliver program services, including both community service agencies and for-profit contractors.
- WAP Office Collaboration – We were not able to obtain information on the extent of collaboration between the WAP program and the LIEE program. We expect that it varies considerably by utility and service delivery contractor.
- Demographic/Program Targeting – LIEE program targeting varies by utility and service delivery contractor.
- Usage Targeting – We are not aware of any usage targeting in the LIEE program.
- Funding/Service Delivery – The LIEE program was funded at the level of about $130 million in FY 2006. It delivered weatherization services to over 95,000 electric and gas customers, and delivered baseload electric services to over 163,000 customers.

The following table furnishes detailed information on the LIEE program.

[44] For households that report electric and natural gas expenditures as one bill, we allocated half of the cost to electricity and half of the cost to natural gas.

Program State	California.
Program Name	Low-Income Energy Efficiency Program (LIEE).
Utility Company (If Applicable)	n/a
Program Goals	To install all feasible energy efficiency measures in qualifying low-income households.
Funding Source (SBC or Rates)	SBC – Public Goods Charge paid by all non-low-income ratepayers. [NOTE: The CPUC defines the PGC as a nonbypassable surcharge imposed on all retail sales to fund public goods research, development and demonstration, and energy efficiency activities, and possibly to support low-income assistance programs.]
Annual Program Funds – Budgeted/Allocated (2005, 2006)	$148,299,194 (PY2005 Budgeted) $130,622,968 (PY2006 Allocated).
Annual Program Funds – Expended (2005)	$130,753,284.
# of Households Served (2005)	163,197 homes treated. 95,092 homes weatherized.
Participation Limit	None.
Eligibility – % of Poverty Level	For PY2006-2007 (June 1, 2006, through May 31, 2007), total household income must be at or below the following limits: Household Size — CARE Income Limit 1 to 2 — $28,600 3 — $33,600 4 — $40,500 5 — $47,400 6 — $54,300 Add $6,900 for each additional family member. [NOTE: The above figures are roughly 200% of the federal poverty guidelines.]
Eligibility – Home Type	Single-family, multi-family, nonprofit group living, and mobile homes.
Eligibility – Energy Usage	n/a
Eligibility – Participation in Energy Assistance	n/a
Eligibility – Other Criteria	n/a
Targeted Groups	n/a
Measure Determination	An in-home energy assessment will identify measures to be installed. All feasible measures must be installed unless specifically refused by the household. In general, non-feasibility conditions refer to cases where a specific measure: ▸ Is present ▸ Is refused by the customer ▸ Cannot be physically installed ▸ Cannot be installed without risk to the household or contractor ▸ Is prohibited by code or program policy. Other measure- or repair-specific non-feasibility criteria may apply. If the Program Manager deems it necessary to limit expenditures on minor home repairs, measures will be prioritized as follows: ▸ Repairs needed to mitigate immediate hazards (e.g., repairs made to mitigate natural gas appliance testing (NGAT) failures, door repairs where doors will not close or lock) ▸ Repairs needed to mitigate major infiltration sources (e.g., broken windows, holes in doors) ▸ Repairs required to permit the installation of a measure ▸ Other repairs.
Mean Costs per Home (2005)	$658.
Targeted Average Cost (2005 or 2006)	None. Participants receive all feasible measures for which they qualify.
Cost Limit	None.

Landlord Contribution	None.
% of Program Dollars Spent on Administrative Costs	9.37%.
Efficiency Measures	Services provided include: ▸ Attic insulation ▸ Energy-efficient refrigerators ▸ Furnace repair or replacement ▸ Energy-efficient furnaces ▸ Weatherstripping ▸ Caulking ▸ Low-flow showerheads ▸ Faucet aerators ▸ Water heater blankets ▸ Refrigerator replacement ▸ Installation of CFLs (maximum of 5 per home; must be installed, not left with the customer) ▸ Installation of evaporative coolers (permanent or portable) ▸ Door and building envelope repairs that reduce air infiltration. Installation of some measures is permitted only in certain types of homes or specified climate zones. Minor home repairs – those required to enable installation of weatherization measures, reduce infiltration, or mitigate a hazardous condition – are allowable under the program.
Customer Education – Y/N	Yes.
Education as Part of Service Delivery – Y/N	Yes. Energy education topics must include: ▸ General levels of usage associated with specific end uses and appliances ▸ The impacts on usage of individual energy-efficiency measures offered through the LIEE Program or other programs offered to low-income customers by the utility ▸ Practices that diminish the savings from individual energy-efficiency measures, as well as the potential cost of such practices ▸ Ways of decreasing usage through changes in practices ▸ Information on CARE, the Medical Baseline Program, and other available programs ▸ Appliance safety information ▸ How to read a utility bill ▸ Procedures used to conduct natural gas appliance testing (if applicable).
Education Separate from Service Delivery – Y/N	Yes, through education workshops.
Follow-Up with Customers – Y/N	None, other than the required or random inspections, as applicable.
Program Manager (PUC, State, Utility)	Individual utility companies – Pacific Gas and Electric (PG&E), Southern California Edison (SCE), Southern California Gas (SoCalGas), and San Diego Gas and Electric (SDG&E) – under the oversight of the California Public Utilities Commission.
Data Manager (PUC, State, Utility, Other)	Individual utility companies.
Enrollment Responsibility (Utility, CAP, etc.)	Agencies and contractors.
Number of Provider Agencies and/or Contractors	99 (PY2005).
Type of Provider (For-Profit, CAA, etc.)	Community service agencies and building contractors.
Application Method (Mail, In-Person, Telephone)	PG&E By phone, online referral form, or online search (by ZIP code) for contractor. SCE By phone or online enrollment form. SoCalGas Telephone referral to contractor. SDG&E Telephone referral to contractor.
Joint Application	

Reasons for Service Denial	Failure to meet any of the eligibility criteria.
Type of Follow-Up	n/a
Quality Control (Inspections?, etc.)	Utilities will use in-house personnel, contract employees, or contractors to conduct inspections. However, each utility will undertake in-house either the prime contractor (administration) function or the inspection function, but not both, with the very limited exceptions. Two of the four large utilities conduct pre-inspections; the other two do not. All ceiling insulation and furnace repair/replacement jobs are inspected. Random inspections will be conducted for a sample of dwelling units for all other jobs.
Evaluation Frequency	An impact evaluation is required every other year. [NOTE: As of March 2006, the evaluation consultant will conduct the study after the utilities finish closing their program year books for 2005 and will use the last 2 years of data from each utility.]
Coordination with LIHEAP	
Coordination with WAP	
Coordination with Energy Affordability Programs	LIEE participants are automatically enrolled in the CARE program. During enrollment, customers are informed of other energy affordability programs they may qualify for.
Coordination with Other Energy Efficiency Programs	The four IOUs have a referral system with each other and with local Department of Community Services and Development (DCSD) agencies. During enrollment, customers are informed of other energy affordability programs they may qualify for.

NOTES

The following measures were implemented by the CPUC in Decision D.05-10-044 in light of anticipated high gas prices in winter 2005-2006:

- Revise LIEE and CARE eligibility to 200% of FPG for all customers
- Replace inefficient central forced air gas furnaces and perform necessary duct work
- Replace leaky water heaters
- Increase old inefficient refrigerator replacement.

VI. Energy Efficiency Program Evaluation Findings

Four participating utilities (Southern California Edison, Pacific Gas and Electric, San Diego Gas and Electric, and Southern California Gas) commissioned West Hill Energy & Computing to conduct an impact evaluation of the California Low Income Energy Efficiency Program (LIEE) for program year 2002. The objectives of the study were to investigate how to measure savings from the energy education component of the program, review impact evaluation strategies for estimating measure level savings from LIEE, and to estimate impacts of the program for 2002.[45]

The average gross savings of the program were 8 therms of gas, or 2.0 percent of pre-treatment usage. Electric savings averaged 366 kWh, or 7.2 percent of pre-treatment usage.

[45] Impact Evaluation of the 2002 California Low Income Energy Efficiency Program, Final Report, West Hill Energy & Computing, Inc., June 17, 2005.

Table 11
Usage Impact Results

	Usage		Savings
	Pre	**Post**	
Gas (therms)	410	402	8
Electric (kWh)	5,070	4,704	366