Before the Public Utilities Commission
of the State of California
R 98-07-037
ACR December 29, 1999

COMMENTS OF SESCO, INC.
LIEE STANDARDIZATION PROJECT
UTILITIES' PHASE II DRAFT SUPPLEMENTAL REPORT

November 17, 2000

SESCO, Inc. strongly supports the standardization of low income programs statewide so that all of the state's low income families are eligible to receive the same quality and amount of services regardless of the utility providing those services. While there may be justifiable differences in services based upon customer needs, climate zone, housing stock, etc., the differences in services provided should not be based upon arbitrary service area lines.

On the other hand, if there are greater needs in some climate zones and circumstances, then it is important that the low income families in those climates and circumstances receive all feasible energy efficiency improvements offered.

COMBUSTION APPLIANCE SAFETY (CAS) TESTING

SESCO's support for a standardized statewide effort that assures that all customers receive a full package of services regardless of location with respect to utility service area boundaries is particularly true in the case of safety considerations related to energy use. We agree with and support the Commission's clear policy on this matter:

> "The important issue for the safety of low-income customers receiving weatherization services is to ensure that the utility's inspection and response procedures effectively protect all LIEE program participants from potentially hazardous situations in the home. By today's decision, we affirm the Assigned Commissioner's ruling that directs the utilities to achieve greater consistency in these procedures, including CAS testing." D.00-070-020, "Section 10.4.3 Conclusions"; p. 89 (approximate)

Of all LIEE contractors and service providers in the state, SESCO, Inc. has more experience with and certainly suffered the greatest amount from the combining of CAS testing with the LIEE program. CAS testing has greatly reduced our revenues both as

a contractor and as an administrator, it has increased our costs, disrupted our delivery of services, made solicitation of contractors more difficult, depressed customer satisfaction, greatly reduced the measures installed, and... our public reputation has suffered from a perceived (albeit incorrect) lack of concern over CAS-induced "hazard fails". Later in this report, we will provide more details on these problems.

We provide this background in order that there be no misunderstanding that we do not fully appreciate the problems involved with CAS testing within LIEE or that we did not take them into account in putting forward our recommendations concerning CAS testing. Based upon our experience and records, we make the following recommendation concerning CAS testing:

> **To protect the health and safety of low income families throughout the state, full CAS testing or its equivalent should be made a mandatory part of the standardized services provided to LIEE customers using combustion appliances.**

Back in 1997 and 1998, this was not our position; SESCO was opposed to the CAS testing. However, the results of the work undertaken by PG&E in the intervening years during which SESCO was both the administrator and a major contractor in PG&E's impacted LIEE program has convinced us that there is a great "hidden menace" from improperly working combustion appliances. While this is applicable to all customers, it may be particularly so for low income families who traditionally tend to have older and less well maintained appliances.

Of the 75,000+ CAS tests conducted by PG&E for the LIEE, 26% (nearly 20,000) of the homes **failed** the safety test. Applying this same ratio to the LIEE units treated by SoCalGas and SDG&E would mean that the real safety problems of over 5,200 low income families annually treated by SoCalGas and 2,000 by SDG&E are being overlooked in each year's programs.

PG&E CAS TESTING RESULTS

SESCO does not claim expertise in the efficacy of CAS testing, i.e., that a failed CAS test does, in fact, indicate an unsafe condition or that the current CAS testing is the best alternative for providing such protection assurances. Our assumption is that it does indicate an unsafe condition when it is failed. Should others have a different position, then we are amenable to this being reviewed and questioned. Furthermore, we claim no knowledge that the CAS testing as done by PG&E is the appropriate procedure to detect and correct such problems. We are certainly open to the use of carbon monoxide alarms recommended by the Insulation Contractors Association or to recommendations that the CAS tests be conducted by the implementing contractors as is done in the state's low income weatherization administered by the California Department of Community Services and Development ("CSD") should either of these be

determined efficacious for these purposes.

However, for the purposes of this discussion, we do rely upon our assumption (admittedly rebuttable) that the PG&E CAS testing "fail" does indicate an unsafe situation and that the process it uses is the one best suited for the function of assuring the safety of low income participants in LIEE.

PG&E began conducting and reporting CAS test results for LIEE in April 1998 and continues through the present[1]. These following results are for those LIEE-related CAS tests completed before June 30, 2000 -- about two year's worth of CAS tests.

Table 1: Results of PG&E CAS Testing, April 1998-June 2000

107,000	Approximate number of customers qualified and audited for LIEE
18,456	Approximate number not requiring CAS tests or PG&E pre-approval visits, e.g., all electric, no combustion appliances in home[2], no infiltration measures allowed[3], no infiltration measures needed[4], infiltration measures refused[5]; (17% of all qualified)
88,544	Number of required CAS Tests (84% of all LIEE qualified)
13,044	CAS-CGIs, i.e., number of CAS requests that PG&E could not complete; "CGI" is short-hand for "Can't Get In"; (15% of CAS requests)
75,500	Completed CAS tests (85% of those requested)

[1] The Follow-up Report contains an excellent review of the CAS testing procedures which accurately describes the LIEE-CAS process and the tests conducted.

[2] Included electric customers' apartments with master metered gas heat and/or water heating which appliances were not located within ten feet of living space.

[3] In utility overlap areas where the gas heating was supplied by another utility (e.g., Santa Barbara, San Luis Obisbo, etc.), PG&E regulations do not allow installation of weatherization measures under the PG&E LIEE program, including infiltration reduction measures or minor home repairs (MHR).

[4] If all infiltration measures had already been installed by the customer, PG&E did not test the combustion appliances nor conduct a pre-approval visit.

[5] Because the CAS testing sometimes resulted in appliances being "red tagged" and gas service shut-off or tenants being informed of "dangerous" situations, some landlords or homeowners would refuse infiltration measures rather than submit to a CAS test.

3,787	Failed CAS due solely to insufficient venting (5% of those tested)[6]
16,062	Failed the CAS test (21% of of those tested)[7]
55,651	CAS tests completed and passed (74% of those tested)
32,893	Total number of CGIs and Fails not initially allowed to receive infiltration measures or MHR (37% of total CAS tests required)
3,787	CAS venting-only fails subsequently fixed by contractor as MHR
628	CAS "Fails" that were subsequently fixed by the contractor or the customer and then "Passed" (4% of all failed CAS tests)
534	"CGIs" that were subsequently tested and "Passed" (4% of the CGIs)
4,949	Number of "Not Passed" customers subsequently passing (15% of total with CAS problem)
27,944	Net number of CGIs and Fails not allowed to receive infiltration measures or MHR (32% of total CAS tests)
55.4%	Average payments to Contractors for Measure and MHR installations in homes for CAS fails or CGIs as a percentage of average payment for a CAS "pass" home (does not include quality, customer satisfaction and completion bonuses nor energy education fees)[8]

The results indicate that at least 26% of all combustion homes have a pre-existing safety related problem, based upon the two year results involving over 75,000 evaluations. Assuming also that 10% of the homes do not have combustion appliances (using the 90%-10% split between electric heat and gas heat recommended in the utilities' Phase II Final report), then on an annual basis, statewide, the LIEE programs (as described in the utilities' November 6, 2000 LIEE Applications) are treating about 17,000 homes which have combustion safety problems at the time of the LIEE installations. About 9,400 of these are being protected through PG&E's CAS testing, but the rest have essentially no such protection.[9]

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[6] Instances in which the CAS test would have failed solely due to insufficient venting but was subsequently passed when the Contractor installed sufficient combustion venting access ("CVA").

[7] Does NOT include those that failed, but that PG&E repaired prior to releasing test results. Nor does it include "CVA-only Fails" (see prior footnote).

[8] The impact for other utilities may be much larger since the portion of work done for non-infiltration measures (e.g., attic insulation and venting) and thus not affected is much larger in PG&E's service area than in those of the three other major utilities.

[9] While the other gas utilities have some gas testing program similar to

	Target Homes	Gas Heat	Projected CAS Fails
PG&E	40,000	36,000	9,360
SoCalGas	22,500	20,250	5,265
SDG&E	8,500	7,650	1,989
TOTAL	71,000	63,900	16,614

And remember, that this 26% rate is a conservative estimate. It does NOT include those many homes that PG&E and its Gas Service Representatives (GSRs) were able to fix or repair on their own prior to issuing a final CAS test result. Where there is no systematic CAS testing, these have all gone undetected and unprotected.

In order to secure a true picture of the extent of the safety issue, it is necessary to get from PG&E a report on the number and percentage of homes which failed the CAS test but which were then "fixed" by PG&E's people. Each percentage of homes that were so "fixed" by PG&E would indicate an additional 639 of LIEE-treated low income homes with gas safety problems per year statewide. In their reply to these comments, we ask that PG&E provide such information to the Commission. If this key information is not produced by PG&E, we ask that the Commission request it from PG&E to assist the Commission in deciding on the significance of the safety problem in low income residences.[10]

However, even without these "extra" problem homes, the already high level (26% of homes with combustion appliances) with pre-existing safety problems is sufficient to justify the continuation, extension and expansion of the CAS testing (or its equivalent) to all low income homes statewide.

Do LIEE Services Seriously Increase Potential CAS Dangers?

SoCalGas has posed the legitimate question as to whether or not the amount of infiltration reduction work done in an LIEE job is sufficient to have an impact on combustion gas concentrations. SoCalGas points out that the amount of infiltration work is minimal and probably has no significant impact.

Based upon how little weatherstripping is done (doors, but not windows) and

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PG&E's CAS, they are either limited to a tiny percentage of the treated customers (SoCalGas) or their testing procedures are much less extensive and have much less strenuous standards for detecting unsafe conditions (SDG&E). See Report's Appendix A for comparison of different testing programs.

[10] In late October, SESCO requested this data of PG&E's Central Inspection Program which conducts the LIEE CAS tests, but this was not provided at that time.

how the caulking is installed (i.e., mostly on the exterior where it has little impact on reducing infiltration), SESCO believes that SoCalGas could be correct in projecting that the infiltration reduction efforts in LIEE have little incremental impact. However, that issue of LIEE impact on air quality is (a) readily testable and (b) largely irrelevant.

The information to immediately prove or disprove SoCalGas' contention is already available in PG&E's LIEE records. PG&E not only conducted 75,500 pre-installation CAS tests, PG&E reports that it also conducted POST-installation CAS tests on at least 20% of the homes which received infiltration measures after receiving a PRE-installation CAS test. To determine if the LIEE infiltration work has any impact in increasing the concentration of combustion gases, we can compare the common Pre- and Post-installation tests on these 15,000 homes. While there will be some random increases and decreases, we should see the average concentrations recorded in the Post-tests increase over those readings in the Pre-tests for the same homes if the LIEE work actually does increase the concentrations. If on the other hand, SoCalGas is correct, then there will be no increase (at least none that is statistically significant).

The large number of test data comparison points (15,000) will allow us to examine the impact in great detail to determine if the impacts are limited to certain types of situations. Moreover, PG&E established the admirable practice of fully repairing or replacing any faulty appliances whenever the Post-installation test showed that the readings in the post-installation readings exceeded the safety thresholds. This will also give us an estimate as to the number of instances such activity can be expected.

It may be that PG&E has already conducted some of these evaluations on the data it has collected. Unfortunately, PG&E has not published nor made available any such evaluation nor the underlying data to the public. We ask that PG&E in its response to these comments provide such data as would indicate the extent and frequency of increases and decreases between pre- and post-installation readings and the number of times that the post-installation readings were increased to such a large extent as to force the readings over the safety threshold. If these are not provided, we ask that the Commission request and secure such data to assist the Commission to evaluate the impact of LIEE weatherization on the concentration of combustion gases in treated homes.

However, while this may be of great interest to all, it is irrelevant.

The CAS test is used to identify an ALREADY EXISTING energy-related safety problem. It is irrelevant that it was or was not caused by the LIEE work. It exists. For utilities to ignore this safety issue is the same as to ignore jagged or broken windows[11] because they were not caused by the LIEE program.

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[11] We note that in CAS "non-passed" homes (i.e., all of those that either failed

Under AB 1393, as well as under long-standing Commission policies, the energy-related safety of LIEE participants is a key consideration in the services provided. It is inappropriate to ignore a safety problem as extensive and pervasive as PG&E data indicates (i.e., 26%+ of all gas low income homes have CAS-related safety problems which were so serious that they could not be fixed by PG&E's Gas Service Representatives).

[NOTE: The issue of whether or not LIEE infiltration work exacerbates combustion safety is very important in alleviating some of the more difficult problems caused by the timing of the test. These are covered later.]

CAS Testing Problems to Anticipate

The negative concerns expressed by many parties (including SESCO) as to the problems of imposing CAS testing onto the LIEE program have been, for the most part, borne out by experience. In many instances, they are worse than we had anticipated. It is therefore important that the standardization program recognize those problems and the potential impact they may have upon becoming a part of the standardized statewide effort.

1. Fewer Measures Installed

Unless the home passes the CAS test, infiltration measures may not installed. Based upon two years of efforts, about a third of the PG&E homes fell into this category (this does not count the number that deliberately refused the infiltration measures so as to avoid the CAS testing procedures). Prior to the CAS tests, about 98% of the homes received infiltration measures. After CAS testing was introduced, only about 65% receive them.

For most homes, infiltration measures represent the overwhelming number of measures installed. In this category are caulking and weatherstripping, thresholds, repairing of broken and cracked windows, repair or replacement of doors and door/window frames, wall holes, and most other minor home repairs. While attic insulation is not affected, less than 15% of PG&E homes received insulation and only about 5% of California's low income homes receive insulation outside of PG&E's service area.

The most typical LIEE installation for those who did not pass CAS is to receive

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or which were not tested), contractors are forbidden from fixing jagged or broken windows because it would be a "hazard" to reduce infiltration by so fixing these problems or other minor home repairs needed.

only a showerhead, aerators and some CFLs.

2. Disruptions In Program Delivery

Before a qualified home can be treated, the CAS testing required must be identified to the utility, scheduled, conducted, fixed (if possible) or passed, and reported back to the contractor. If the utility or the contractor or the customer fix the CAS problem, a new CAS test must be conducted (except for CVA-only, which did not require a second test) and the process repeated. While PG&E made a very strong, good-faith effort to return the the average CAS results in about ten days, a large fraction would often take several weeks or up to a month in delays.

For example, as of November 15, 2000, SESCO had not received about one fourth of the CAS results for homes originally enrolled in October. Sixteen percent of the October homes had received no CAS results for more than 30 days.

It is not feasible to schedule installations until after the CAS results are received, making subsequent follow-up calls necessary. Because results come in over a period of time (3 days to 30+ days), it was very difficult to schedule an entire building at a time.

The delays in processing and being able to schedule the installation resulted in customer dissatisfaction and especially in later refusals or lost customers. Between the delays, repeated visits and fewer measures available, many of the low income families drop out of the program even before the installation of measures.

Out of the 107,000 low income households which were qualified and enrolled into the program, less than 94,000 elected to say in the program and have the work done. This was a loss of almost 13%. According to reports by contractors in other programs in in pre-CAS PG&E programs, it is considered unusual to lose even 2% of enrolled customers.

Nor does this count the number of low income families that rejected any remaining (or were not qualified for) measures, but elected to stay in the program in order to participate in the energy education efforts.

3. Lower Revenues, Higher Costs for Contractors

The CAS testing process resulted in greatly reduced revenues for the contractors even while it drives up some costs. Under the PG&E program, payments to contractors for homes that did not pass CAS were only 55% of the payments for the homes that had passed CAS. The drops in revenues would be even greater in the Multi-family and Mobile home categories, because they seldom have attic insulation payments that are unaffected by CAS fails. And the CAS-induced drops in contractor

revenue would be even greater in the other utilities' programs which have a much lower frequency of attic insulation and which expend a much greater portion of their budgets on minor home repairs.

LIEE contractors are normally paid based upon the number and type of measures installed in an LIEE residence. To the best of our knowledge, no program (and certainly not PG&E's) guarantees a minimum amount of work or payment in each unit. When the amount of work available in the treated homes drops significantly, then revenues for that home also drops significantly.

Most contractors spread their fixed administrative costs over the measures which are expected to be installed. When the measures decrease, these fixed costs may not be covered adequately.

Even worse, the CAS process drives up the cost of providing services. The uncertainties related to the CAS process (e.g., which measures are to be installed and when will the results be returned), make it impossible to schedule the installation work when the outreach and qualifications conducted. This necessitates follow-up scheduling and outreach, as well as making it more difficult to assure a full schedule for the installation crews.

Also, we have seen that the amount of outreach has to be increased. In this case, the number of families enrolled was 13% greater than needed, and this cost was absorbed by the contractors in that PG&E has, to date, refused to pay for more outreach than the minimum needed to reach goals (i.e., assumes no drop-outs).

In the event that a contractor crew mistakenly installs an infiltration measure or MHR in a home that had not passed CAS, this becomes a "Hazard" fail and the utility requires the contractor to fix or replace the faulty appliance, regardless of the cost to the contractors. To date, PG&E has been unwilling to allow the removal of the measure(s).

4. Contractor Reputation At Risk

While the most obvious issue of contractor reputation is the greater possibility of "hazard" fails for what is admittedly a pre-existing problem, the more frequent customer relations problem is different and often overlooked. When the outreach personnel audits the home and recommends the proper measures to be installed, the customer develops an expectation that those measures will be installed. (Regardless of what "conditions" are stated with respect to first needing to pass the CAS test, the customer "hears" only the improvements they are expecting to receive.)

When the customer is later offered or receives only a small fraction of those measures, they often blame the contractor or the LIEE program. It is even worse in

those very few instances in which an appliance is "red tagged" and gas service shut off! Note that this has happened in a VERY few instances; however, those instances have been referenced far out of proportion by those with a concern over the potential for this happening to their tenants. This is particularly true in areas of heavy multi-family use or where there is a tight-knit ethnic community.

5. Other Higher Costs to LIEE

While the utilities are not allowed to include the direct costs of the actual CAS tests in their LIEE budgets, the LIEE budget and utility LIEE costs are severely impacted.

The most obvious is the cost for that portion of the CAS visit charged to the LIEE program in the guise of a "measure pre-approval" visit. However, this pre-approval visit is used only because the CAS test was being done. For example, in the PG&E program, ONLY those homes which were required to have a CAS test ever received a pre-approval visit (e.g., all-electric and those not having infiltration measures installed never received a pre-approval visit)[12].

It is reasonable that the utilities provide a description of how they divide the costs of a CAS-related visit where that is combined with functions charged to the LIEE budget. This may impact not only the pre-installation CAS tests at PG&E, but also the post-installation testing done by SDG&E and by PG&E.

Under the Standardization Effort, the entire issue of whether or not a pre-approval visit should be used has been tabled until the CAS testing issue is resolved, again indicating a direct cause-effect status between CAS testing and the use of an LIEE pre-approval visit.

A smaller but clearer cost to LIEE are the repairs charged to the LIEE budget that are the direct result of the CAS process. For example, under PG&E's program a recoverable MHR cost charged to the LIEE budget is the installation of Combustion Venting needed to satisfy the CAS test.

The entire LIEE inspection process is affected. A much larger number of inspectors are required since they must now do pre-inspections. And they must be trained to conduct CAS testing, which requires them to spend much more time in the residence. The cost of a measures-only inspection is roughly the same regardless of

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[12] A few months ago, PG&E began offering pre-approval visits for all homes, including those which do not require a CAS test. There was not explanation for this change in policy. The use of the pre-approval is still handled differently depending upon the need for CAS tests.

the number measures installed, but its fixed costs as a fraction of the value of the measures installed increase greatly for a job with only non-infiltration measures. All of these make the utilities' administrative and inspection processes much less efficient and more expensive. Such extra costs must come out of the LIEE budgets that would otherwise be used for treating additional homes.

A Solution to Most CAS Testing Problems

Almost all problems that crop up with respect to the CAS testing are caused by the Pre-installation testing for CAS. Since the concern is that the home be safe after the work is installed, it makes more sense from a safety-only standpoint to conduct the CAS test after the work is done and any increases in gas concentrations (if this is so) caused by the LIEE work is included in that post-installation evaluation.

Strictly from an LIEE disruption standpoint, it makes sense to conduct the CAS tests after the work is done. Under those circumstances, there would be no need to wait for uncertain CAS results to schedule the customer and commit to which measures to install. There would be no reduction in energy efficiency measures to benefit the low income family and no reduction in revenues (nor cost increases) to the LIEE service providers. The LIEE budgets would not have the additional burdens and inefficiencies resulting from the CAS test and the CAS testing process could be kept clearly separate from the LIEE installation process. This is the process used by SDG&E and there appear to be fewer disruptions due to that process.

The reduction in costs to the CAS testing in needing only one set of visits can also be used by the utilities to offset any costs needed to repair any causes of the failures, if this is needed.

This still leaves open the issue brought up by PG&E of those treated customers that refuse to have the CAS test after the work is done or refuse to fix the problem once it is identified. The first response will depend upon the results found in the evaluation of PG&E's current records of before and after testing. If, as SoCalGas projects, there is no increase in gas concentration or that they are so small as to not represent an increase in danger, then there is no impact from the installation of the measures. The second response is that this is a customer's decision and is no different than if the customer refuses the test before the LIEE measures are installed. The utility did not cause the problem, the utility has made every reasonable effort to inform the customer of the potential problem, and the utility has offered to conduct the evaluation to determine the extent of the problem is any.

CAS (Even with the Problems) Better Than No CAS Option

We have spent some effort to recount the potential issues with CAS testing being integrated with the LIEE and to offer procedures to reduce or mitigate those problems.

However, it should be clear that we support the extension of the CAS testing to all utilities and to all low income families that might face combustion safety issues.

This position holds true even if none of our suggestions for improvements are acted upon. CAS with the problems is preferable than no CAS at all.

NO! To "Minimum" Standards: Splitting the Baby NOT a Solution

The utilities have tried to finesse this key safety issue by ducking the responsibility to come up with a standardized process. Instead they have come up with a "minimum standards" program which seeks to split the baby.

In this proposal, a bare minimum effort is "required" but any utility is allowed to go beyond this level. To summarize the proposed minimum: "If any LIEE party smells gas, call the utility!"

This minimum is little different from the current program offered to all customers by all gas utilities. Low income households already have all of these available to them.

The PG&E results, if accurately portraying the situation, already show that at least 26% of all gas homes have a safety problem. A program that does not similarly detect this proportion should not be allowed.

The CAS program is designed to save lives. Considering the large number of problems detected, it appears to be doing so. It would be unconscionable to ignore or to "minimum-ize" a safety problem of this size.

This "minimum" device is a poorly disguised effort by the utilities to avoid deciding what is the better system. Under this minimum PG&E or any other utility can undertake the current CAS testing (or one even more intrusive) or one that is virtually non-existent. It makes a mockery of the Commission's repeated calls for a standardization of the CAS procedures.

If this "minimums" device is acceptable here, then it could also be used for attic insulation, appliance replacements, customer certification procedures, installations and much more.

A "minimum standard" philosophy would mean that low income families on one side of the service area line would be getting a different set of programs and benefits, solely because of their location with respect to that service area boundary. This should be rejected.

The "minimum standard" would allow many problem homes to slip through without having their safety problems detected, let alone fixed. And we can, if anyone

is interested in doing so, test this hypothesis using already available data.

Under the "minimum standard", both the PG&E CAS testing and the SDG&E testing process would be allowed. If the minimum program is all that is needed, then the portion of homes detected would be about the same and SDG&E would show that about 25%-30% of the tested homes would fail their test. If this is true, then the minimum proposed (at least as implemented by SDG&E), would be satisfactory and could be used instead of the CAS test. If the records show significantly less than this, then the SDG&E process may be missing thousands of safety problems being captured by PG&E's more comprehensive process.

As part of their comments in response to these comments, SDG&E should provide the number and proportion of testing "fails" captured by their system. If these are not produced, then the Commission should request this information as part of its evaluation of a standardized CAS process. SoCalGas should provide the same. However, since SoCalGas has been testing only those for which a potential problems has been detected beforehand, their fraction is not representative of all LIEE homes.

Even where supposedly similar, the "minimum standards" process allows radically different procedures and standards. For example, the "same" test (e.g., an ambient CO test) can have greatly different set-pints for the "hazard" threshold. In fact, this already exists. Buried in thirteen pages of tables in the Report's appendix (see App. A, Tables 7.8.1 and 7.8.2) is that SDG&E allows a CO level more than three times higher than those allowed by PG&E or by fellow-SEMPRA company SoCalGas (SDG&E's 35 ppm vs 10 ppm for PG&E/SoCalGas). Since this is also used an "action trigger" for other tests, this one line item is very important. It is indicative of the many differences which are hidden by a "minimum standards" approach to customer safety.

While dwarfed by the importance of customer safety, the concerns over impact on program operations remain even with the "minimum standards" approach. For example, they allow the testing to take place either before or after installation (or both). This would allow PG&E to continue with its pre-installation testing while all others undertake post-testing only. This will mean that PG&E's low income customers will get a much smaller package of measures, their contractors suffer from higher costs, disruptions, reduced revenues and differing standards for inspection quality and "hazard" fails. This will end the Commission's concept of a standardized package of measures for all customers regardless of service area.

To assure an appropriate and standardized treatment of safety concerns and to assure a standardized installation package and program implementation, it is necessary that there be a single testing procedure and thresholds. Unless anyone can demonstrate a more appropriate safety level, it is reasonable that the PG&E CAS testing procedures be used, with whatever adjustments are desirable to minimize the resultant

negative impacts on the LIEE program.

Conclusion

The CAS testing procedure is a disruptive, flawed process that is apparently necessary to to deal with a very significant energy-related safety problem in low income homes being treated under LIEE.

If CAS testing works to provide adequate protection on this safety issue, then it should be used by all utilities and be provided to all low income participants who have combustion appliances. Efforts should be made to mitigate its worst problems.

If, on the other hand, CAS does not work to provide adequate protection, then it is so disruptive and burdensome to the LIEE process, that it should be forbidden from being integrated into the LIEE efforts by any utility, including PG&E.

There should be sufficient data and expertise on this subject to have long since completed the evaluation as to what CAS process, if any to use on a standardized basis statewide. If there is not, then the issue should be given to the Commission to decide as soon as possible. The Commission should order utilities to provide the information requested herein as well as any other related information necessary to determine the appropriate gas testing procedures to be used.

In the event the Commission cannot decide at this time, we urge it to err on the side of safety for the 25%+ of the low income homes that have been found to have safety problems with their appliances. On that basis, until a final result and consensus is reached, require the use of the full CAS testing procedure by all utility LIEE programs.

EVAPORATIVE COOLERS FOR RENTAL UNITS

SESCO, Inc. strongly supports the standardization of low income programs statewide so that all of the state's low income families are eligible to receive the same quality and amount of services regardless of the utility providing those services. While there may be justifiable differences in services based upon customer needs, climate zone, housing stock, etc., the differences in services provided should not be based upon arbitrary service area lines.

The Report recommends a deferment of the decision on providing evaporative coolers to rental customers. SESCO neither opposes nor supports such a deferral.

However, we are disappointed that the Report ignored so many other aspects related to evaporative coolers and which can provide for the opportunity for

discrepancies among various utilities.

The key question about evaporative coolers to be determined is whether or not low income customers are to be required or asked to make any co-payments for these, as currently done by SCE. This is done by SCE to both owners and renters and is not affected by the renter question. However, to the best of our knowledge, this is not done by any other utility.

The Report does not indicate what happens if the customer refuses or is unable to to pay any co-payment. Does this mean that this customer is not allowed to receive the evaporative cooler while their neighbor, because they are able to pay the fee, receives the evaporative cooler?

If low income families can be asked to pay for evaporative coolers, can they be asked to pay for any other LIEE services offered by the providers at the time of the LIEE services. And can they be offered and asked to pay for any non-LIEE provided services at the time of the LIEE visit. SESCO opposes any LIEE co-payment for any measures and we ask that the Commission rule on this key policy matter.

The decision by the Commission as to the permissibility of charging low income customers with a co-payment for LIEE measures is vital policy decision that will affect the decisions about other measures.

In the event that the Commission decides to take up and not defer this issue, we do recommend that rental units be offered evaporative coolers. We also believe that low income families should receive all measures, regardless of their status as home owners v. renters.

The Report indicates that "the primary argument against providing evaporative coolers to rental units is that .. Since the landlord takes ownership of the evaporative cooler, some of the major benefits of the unit accrues to the landlord." (Report, pp. 9)

However, this is true of almost all measures. For example, attic insulation is expected to last 25 years, long after we can reasonably expect the low income family to be living in that unit. Therefore, in a very similar manner, the major benefits of the insulation will accrue to the landlord. This is true of all measures which the tenant does not take with them when they move. If an evaporative cooler is a worthwhile measure, then it should be installed and we should, as we do for all other measures, assume that it will continue to be used by either that low income family or by a successor low income family that moves into that home. This is the justification we have for virtually all of our LIEE measures, and there is no need to develop a new policy solely for evaporative coolers.

SESCO recommends that renters be provided with evaporative coolers. If still

considered a problem, we recommend that the evaporative coolers be used to minimize the potential for "landlord enrichment". We recommend that no customer co-payment be required for evaporative coolers or any other measure.

ELIGIBILITY OF MASTER-METERED UNITS

AB 1393 and prior legislation states that utilities are to provide weatherization and related LIEE services to their low income customers. They are not given the right to limit participation to only certain low income customers. The proposed policy on master-metered provides for inconsistent procedures which discriminates against certain groups of low income customers.

Direct utility customers are obviously covered under this requirement and utilities are only questioning the treatment of master-metered customers. Some insights and recommendations:

1. **The Partially Master-Metered.** The legislation says that utilities are to provide these services to their low income customers. It does NOT say to provide these services only if the low income customers buy certain types of services (e.g., heating). There are about 1.8 million gas master metered customers, but only about 400,000 electric master metered customers (see Report, pp. 11). Ignoring the potential for services provided by other utilities, this means that a minimum of about 1.4 million master metered customers are also direct customers of the electric utilities. As such they are covered under the legislated mandate to provide LIEE weatherization services to those customers. Considering that air conditioning and other electric usage often costs more in apartments than the gas heating bills, this is a reasonable provision and should be so ordered. Moreover, through their electric bills, they are directly paying the Public Goods Charge to support the LIEE weatherization effort.

2. **The Fully Master-Metered.** We recognize that a reasonable argument can be made that non-customers should not be eligible for LIEE weatherization. However, the utilities have already established precedents and policies that indicates that these customers should be provided with such services. First is that there is no legal prohibition from providing LIEE services to those who are not direct customers. Utilities are ALREADY doing so with certain types of agricultural and group homes. Most important is their policies with respect to master metered customers who then sub-meter the usage. Low income families who receive sub-metered services are considered the same as if they direct customers of the utilities. Hence, the utilities have already established the policy that low income families that are NOT direct customers qualify. This policy should be extended to master metered customers.

The response to this contention is that sub-metered customers pay for their services, even if indirectly, while other master-metered (i.e., those not sub-metered) do not pay for their own utility service. Again, the utilities have already established a firm precedent that contradicts this position requiring utility bill payment by LIEE recipients. There are numerous low income and senior citizens whose utility bills are paid by third parties. However, even though these are not paying for their services directly, they are eligible to receive LIEE weatherization. Even more relevant to this discussion are the large number of individually metered houses and apartments whose bills are issued to and paid by public housing authorities and similar organizations. Tenants in such homes, even though they do not pay for their utility bills, have long been eligible for LIEE weatherization. This policy should be extended to master metered customers who do not pay for their utility bills.

3. **Eliminate "All-or-Nothing" Qualification.** The Report appears to recommend that only those master-metered buildings wherein at least 80% are verified as low income will be treated. In our prior comments we recommended the use of 66%, as currently used by SCG and SCE and we recommend that same 66% threshold here is one is to be used. However, the more important consideration is the requirement that at least 80% be qualified or NONE would be treated. Under the standard program, the 80%/66% thresholds are used to qualify the entire building, even those which are not qualified. In the event that less than the 80/66 threshold is reached, all of those who were qualified can still be treated. This is the policy that should be used for master-metered.

   Consider the customer satisfaction and contractor issues that would arise in a 100 unit apartment in which 50 to 60 of the units are verified low income, audited, had measures described and received other provisions short of the installation of measures. However, the contractor is not able to secure the needed threshold of 80/66 to provide actual measures to the others. This would cause a major problem if these low income customers, through no fault of their own are precluded from receiving treatment while in the next door building similar low income families are treated. We recommend that all master-metered low income families be allowed to receive LIEE services regardless of what fraction of others in their building also sign up and qualify.

4. **Eliminate "Cap" on Master-Metered Units.** If the Commission determines that master metered low income customers should not be treated under LIEE, then there is no need for a cap. If such customers are to be treated, then there should be no discrimination against them that provides for a maximum. At the very least, they should be treated no differently than any other type of customer. We say "at the very least" because we believe that these should be treated better than other customers.

If master-metered customers are determined eligible after many years of being locked out of the program, then it is reasonable that an "affirmative action" effort be undertaking to bring their participation up to the reasonable levels of close to other customers. If anything, there should be a minimum target that disproportionately targets master-metered customers to make up for past years.

If there is to be a maximum, then it should be standardized across the state (perhaps as a set fraction of the master-metered customers) and not left up to each utility. Furthermore, that maximum should be set by budget dollars not by units treated. This is true because master-metered units tend to be smaller than the average customer and less likely to be able to receive many of the services. Thus, for example, a 15% participation by units treated would likely result in less than 10% of the budget going to this group.

CEILING INSULATION LEVELS

Report Uses Discriminatory Cost-Effectiveness Criteria

The installation of attic insulation is required wherever it is feasible, the same as for all other measures. In these evaluations, we agree that insulation should not be installed wherever it is not technically feasible (e.g., insufficient clearance). The only remaining issue is whether or not it is economically feasible, i.e., the cost of attic insulation is feasible given the increase in benefits (its relative cost-effectiveness). This testing for cost-effectiveness is allowed for all measures under the existing laws and regulations. However, to determine if the cost-effectiveness is sufficient, we must determine what is the **threshold** of cost-effectiveness below which the programs will not install a measure. This cost-effectiveness evaluation procedure should not be used to discriminate solely against attic insulation if other less cost-effective measures are allowed to continue to be installed.

However, this is exactly what the Report Team has done. And it has discriminated against the correct amount of attic insulation in so doing.

This fact is clearly indicated in the Report's description of the procedures used:

"For each existing ceiling insulation level, the level of insulation that gave **the highest net benefits** (present value of savings less the installed cost) was chosen as the amount of insulation to add." (emphasis added, Report, pp. 7)

This is equivalent to looking at the insulation level with the highest TRC ratio. The higher the excess of benefits over costs, the greater the TRC (or UC) ratios. A

reduced level of net benefits equates to a lower TRC. It is apparent that when incremental costs of more insulation exceeded incremental benefits, this was the stopping point.

However, the average TRC for the LIEE programs has historically been far below break-even (1.00), let alone been maximized above break-even. The norms have usually been in the 0.2 to 0.4 ranges. However, the Report Team held attic insulation to a far higher standard -- not only break-even, but the maximum allowed.

The test for cost-effectiveness acceptability is what is the cost-effectiveness of each measure that is being used. If attic insulation exceeds the cost-effectiveness levels already accepted for some other measures (other than those needed for the health and safety of the occupants), then the added attic insulation should be added to the repertoire of eligible measures in that instance.

Trying to determine the "cost-effectiveness" of attic insulation in the vacuum of ignorance about other measures' cost-effectiveness is inappropriate. If attic insulation is limited by some finding that it exceeds some arbitrary perceived threshold for cost-effectiveness, then we should expect that ALL measures will be tested to see if they exceed that threshold.

The Report Team should be instructed to return to the drawing boards and recalculate the appropriate insulation levels such that attic insulation should be increased as long as attic insulation as a measure has a higher TRC ratio than the program as a whole. As long as that occurs, the program's cost-effectiveness will be improved for the benefit of ratepayers, and the program's comprehensiveness and energy savings will be improved for the benefit of the low income families participating.

Report Discriminates Against Electric Heat Users

The devise of assuming that all customers use a 90% gas heat and 10% electric heat to calculate the cost-effectiveness of insulation and other measures obfuscates the very real needs of the electric heat customers. Including 10% electric heat cost into the equation for gas heat will not significantly increase the savings return for the gas heat customer. However, changing the electric heat customer to a 90% gas heat customer will certainly and detrimentally affect the calculations for receiving more insulation and other weatherization sensitive measures.

The Report recognizes the impact of this averaging together of electric and gas heat, but excuses it on the basis of some (unnamed) utilities' "reluctance to have separate policies ... for gas and electric space heating." (Report, pp. 5)

We point out that the state's CSD-run weatherization program successfully distinguishes not only between gas and electric customers but also by propane customers. We also point out that such differences are already recognized and

implemented by the utilities for their energy efficiency programs. This perceived reluctance by "some of the utilities" should not be the determining factor which prevents the low income electric heat customers from receiving the services and measures needed.

We ask that the Report be recalculated for electric heat and for gas heat separately.

Report Uses Incorrect Avoided Costs

We complement the Report Team for rejecting the use of utility avoided costs as the basis for determining cost-effectiveness. Since the program is specifically meant to help low income families, the appropriate test is on what are the avoided costs of the low income family participants. Unfortunately, the Report "split the baby" and took the average of the two. The Report should use customer participant savings as the basis for avoided costs.

in any event, the utility avoided costs are not those approved by the Commission. According to the Report, the avoided costs used were from the CALMAC report of October 2, 2000 (Report, pp. 4, footnote). However, the Commission rejected those recommendations and implemented a procedure which gave a much higher value in its October 25, 2000 "Ruling on Cost-Effectiveness Issues for PY 2001 Programs". Those procedures, along with the more liberal off-peak escalator reviewed in the Ruling, should now be applied to these recommendations.

We recommend that the cost-effectiveness studies should be re-run using the Commission-approved avoided cost procedures contained in its October 25 Ruling.

Allow Greater Number of Approved Levels

The calculations used assume the "neat" circumstances of a few precise, discreet insulation levels being added. The explanation given was that this matched "the standard practice for insulation contractors." The program is not being run for the convenience of either insulation contractors or administrators. The state's accepted insulation standard is generally R-30. It is reasonable that when the LIEE program leaves a home treated, added insulation is brought to at least that level, regardless of the current systems. We note that PG&E has for many years provided for upgrading all attics treated to R-30, regardless of the prior insulations levels ranging from R-0 to R-11. Insulation contractors "learned" this system. Their primary complaint is insufficient insulation frequency, not the inconvenience of dealing with odd installation levels.

Even more important is that the "increments" allowed be more varied than the "neat, discrete" values of R-11, R-19 or R-30. It may well be that these individual levels are not cost-effective, but some intervening level is cost-effective. Since the

overwhelming majority of insulated attics are "blown", there is no reason to limit the added levels to even numbers offered by "batt insulation" manufacturers.

New Climate Zones Distort Insulation/Weatherization Needs

If the increased simplicity of fewer climate zones has the impact of resulting in lowered services to pockets of low income families that can no longer be differentiated, then we should continue with the long used and tested climate zones developed by the California Energy Commission. We note that the CEC climate zones have long been used by all of the utilities in their other energy efficiency programs and both they and the marketplace are very familiar with their use. As for the CBOs and CAAs, they are used to an even more complex and stratified system used by the state weatherization program which uses over a hundred climate zones of differing HDD and CDD and then has different systems for types of heating and a/c fuels. (One of the utility consultants hired to help write the Report, Richard Heath Associates, Inc., also helped redesign the state's weatherization and insulation protocols and could also help assure that similar specificity is offered to help the utilities' low income customers).

The Standardization Report should not underestimate that ability of providers to deliver localized services if this will help low income families receive more benefits directed to those who are in greater need for them. If the CEC climate zones combined into each of the utility climate zones produce no difference in heating and cooling needs then there is certainly no problem with combining the climate zones. However, the reason that the California energy Commission has 16 different climate zones and not five different climate zones is that there are 16 significantly different climate zones in the state.

The Report Team should be instructed to recalculate all values separately for the 16 climate zones. Only if they produce the same values can they be combined.

SESCO, Inc. is ready to review and discuss our comments and recommendations with the Report Team or any other interested party interested in following up with this matter.

Prepared by:

Richard M. Esteves
SESCO, Inc.
2301 Tripaldi Way
Hayward CA 94545

sesco-LF@att.net