

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Examine the
Commission's Future Energy Efficiency
Policies, Administration and Programs.

R.01-08-028
(Issued August 23, 2001)

**COMMENTS OF SESCO, INC. CONCERNING
"THE JOINT FILING OF THE SAN FRANCISCO PEAK ENERGY PILOT PROGRAM
2003-2004 ENERGY EFFICIENCY PROGRAM IMPLEMENTATION PLAN
BY PACIFIC GAS AND ELECTRIC COMPANY (U-E) AND THE
CITY AND COUNTY OF SAN FRANCISCO IN COMPLIANCE WITH
ORDERING PARAGRAPH 12 IN DECISION (D.) 03-04-055" (FILING)**

Note: ALJ Lynn T. Carew, acting in the absence of ALJ Kim Malcolm, granted SESCO, Inc. permission to file these comments concerning the PIP no later than close of business (COB) Tuesday, July 29, 2003. ALJ Carew also instructed SESCO to provide this notice at the start of our comments.

Prepared by:

Richard M. Esteves
SESCO, INC.
415 West Foothill Boulevard, #212
Claremont, California 91711
(909) 445-0450 (ph.)
(909) 445-0446 (fax)
sesco@optonline.net

July 29, 2003

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SESCO, Inc., a minority-owned contractor specializing in residential, low income and small commercial energy conservation projects respectfully submits these comments on the proposed Program Implementation Plan (PIP) of the San Francisco Peak Energy Pilot Program (Pilot) submitted by Pacific Gas and Electric Company (PG&E) and the City and County of San Francisco (CCSF).

SESCO’s comments are limited to identifying and recommending needed improvements in the PIP, particularly the need to overcome the current unfair treatment of residential ratepayers. These comments do not speak to the issue of program administration, the quality of prior programs, or the desirability of program goals already approved. These comments do not infer any agreement or disagreement with any matter not discussed herein, only that we are seeking to limit our comments to a few major issues under current consideration.

SUMMARY

Residential ratepayers are gravely shortchanged in the Pilot. Residential customers, who pay an estimated 40% of San Francisco’s utility bills and PGC contributions, will, according to the tables provided by PG&E and CCSF, receive only two percent (2%) of the program’s benefits. Tenants of multifamily facilities, which according to the PIP, “dominated” San Francisco’s residential sector (Filing, p.C1-2), are scheduled to receive only 0.7% of the Pilot’s benefits, again according to PG&E/CCSF figures. These percentages should be greatly increased and protected against arbitrary reductions.

The Program’s success is excessively dependent upon rebates for screw-in CFLs in commercial facilities, which account for 15.4 MW and 61% of all the benefits (\$39.3 million for commercial screw-in CFLs out of a Pilot total of \$64.6 million). The Pilot’s success and savings projections also assume that all of the original 298,000 CFLs rebated will be replaced six or seven times over the next eight years without using any further PGC rebates; the Pilot takes credit for the savings from these projected replacements. Dependence upon this one measure should be reduced and steps taken to better assure the longevity of the savings.

Although gas ratepayers contribute eleven percent of PG&E’s energy efficiency budget, the Pilot provides only 0.3% of its benefits to gas ratepayers. Gas ratepayers tend to be

disproportionately residential customers. As long as the Pilot uses gas customer payments for part of its funding, it should take seriously its obligation to provide gas savings benefits.

STOP SHORTCHANGING RESIDENTIAL CUSTOMERS

According to PG&E/CCSF, the Pilot's total benefits are \$64,572,811 (Filing, p.5).

According to their PIP Worksheets, single family residential customers will receive 1.5% of these benefits or \$999,578 (PIP, Table PIP4-Total Benefits, sum of cells V26 through V31).

According to their PIP Worksheets, multi-family *residential* customers will receive a 0.7% of these benefits or \$432,842 (PIP, Table PIP4-Total Benefits, sum of cells V10 through V12 and V15 plus V16). These line items represent programmable thermostats and hard wired CFL fixtures for the interior and exterior of the apartments. These are the only Pilot measures which are to be installed in the tenant's space and which will help reduce the energy billed to the tenant. We assume for this evaluation that the utility bills of all such apartments are paid directly by the tenants and are not master metered and paid by the landlord.

We also note that there are elements to the multifamily program that do not benefit residential customers but do benefit commercial customers¹. These include such items as lighting fixtures and upgrades for common areas and garages, and commercial coin-operated washing machines. These commercial customer benefits, which make up the overwhelming majority (85%, or \$2,388,812 of the \$2,821,654) of multifamily benefits, go directly to reducing the utility bills of the commercial landlord and not to residential ratepayers. (PIP, Table PIP4-Total Benefits, sum of cells V13-V14 and V17 through V23) We have no objection to this provision, except to point out that these are not residential customer benefits but commercial customer benefits. This commercial customer multifamily effort is equal to 3.7% of the Pilot's total benefits.

We also note that the PIP speaks of assisting customers to participate in the Low Income Energy Efficiency (LIEE) programs. However, no additional funding is provided for the LIEE program and these savings and benefits would be delivered to PG&E's San Francisco customers regardless of the Pilot. The Pilot's PIP worksheets correctly claim no incremental benefits or additional savings due to the LIEE program measures and efforts.

Thus, residential customers, adding together both single family and multifamily residential customer benefits, are projected to receive, due to the Pilot, total benefits of \$1,432,420. Residential customers are thus being allocated 2.2% of the Pilot's \$64.6 million in benefits.

¹ PG&E, as most other utilities, generally classifies multifamily common areas, such as hallways, garage areas, laundries, offices, etc. as commercial, not residential, customers.

SESCO estimates that residential customers provide about 40% of PGC funds from San Francisco². Based upon their contributions to the EE funds that are paying for the Pilot, residential customers are therefore getting only one twentieth of their proportionate amount due.

According to the PIP filing of PG&E and CCSF (Filing, Table A2), the \$16.3 million funding for the pilot was taken from a variety of statewide and local programs. Of these, \$3.0 million came from residential programs, or about 18% of the total. If we split the cross-cutting information programs, this percentage rises to 20% of the Pilot funds that were taken from programs that were for the benefit of residential customers.

This is a very bad deal for residential customers. They give up \$3.0+ million worth of programs that would have provided at least as much in benefits and get back only \$1.4 million in benefits. This is, at best, a benefit cost ratio of only 47%.

Furthermore, residential customer programs are charged for 20% of the program but are returned only 2% of the benefits. Based upon the amounts contributed directly to the Pilot from their programs, residential ratepayers are getting only about one tenth of their proportionate share.

While all residential customers are being shortchanged, this is particularly acute for multifamily residential customers, who are receiving only 0.7% of the benefits.

Fortunately, correcting these misallocations should not seriously affect the energy savings goals of the Pilot. According to the market research information provided in the Filing (Att. C, p.C1-2), “multifamily dwellings have greater energy savings potential than single family dwellings” and “residential energy use contributes to San Francisco’s winter evening peak.”

Thus, we recommend that the PIP be re-directed so as to require that an absolute minimum of 20% of the total benefits go to residential customers and that two thirds should be targeted to multifamily residential customers (tenants, not commercial landlords who will be covered from the commercial customer sector). We believe that equity considerations, savings opportunities and need would require that at least 40% would be targeted to residential ratepayers and urge that this be at least evaluated; we consider the 20% level the absolute reasonable minimum that the Commission should consider.

A program of incentives for in-dwelling installation of CFLs would be particularly effective, especially in reducing winter evening peaks. Residential lighting use, particularly in apartments, is extremely high during these times. Other excellent measures include programmable thermostats, energy efficient showerheads and aerators, and duct testing and sealing (particularly helpful for reducing air conditioning peaks).³

² Statewide the average is about 35% for electric PGC funds and about 60% for gas PGC funds. Because of the relatively small amount contributed by San Francisco industrial base, we have rounded to the total to about 40% for SF’s residential ratepayers.

³ SESCO does not provide a specific list of measures and incentives at this time, as we respect the collegial concept which we encourage be used to decide the specifics measures and rebates needed. SESCO would be pleased to

EXCESSIVE, INCORRECT RELIANCE UPON COMMERCIAL SCREW-IN CFLS

The Pilot Program's success is excessively dependent upon rebates for screw-in CFLs in commercial facilities, which account for 61% of all the benefits. These screw-in CFLs account for \$39.3 million of the Pilot's total benefits of \$64.6 million (PIP, Table PIP4-Total Benefits, sum of cells V79 and V81). If this one measure were found to be much less successful or were removed from the program, the overall TRC cost-effectiveness would drop from a robust 2.55 to a merely passable 1.40 (calculated using PIP, Table 3 Cost-Effectiveness Tests and setting the number of CFL rebates to zero.) Equally important, the projected savings needed would not be realized, even if the measures were actually installed.

The Pilot's savings and cost-effectiveness success currently assumes that all of the original 298,000 CFLs rebated (PIP, Program Activities Worksheet [PAW], the sum of cells K81 plus K83) will be replaced upon burnout over their projected eight year term (PIP, PAW, Cells H81 and H83). In the PIP's cost-effectiveness calculations, this expectation allows PG&E/CCSF to claim a benefit of \$132 per screw-in CFL (\$39.3 million divided by 298,000 CFLs). Based upon the rebates of \$4.75 or \$6.50, this represents a return on the rebates of 20 or 28 to 1.

Since the standard for an Energy Star CFL is a 6,000 hour life and these commercial screw-in CFLs are projected by the PIP to burn for 5,563 hours per year (PIP, PAW, cells E81 and E83), **this expectation relies upon eight generations of CFLs being installed as needed.**⁴ After the first rebated screw-in CFL, participating commercial customers are expected to purchase seven successive generations of CFLs with no further rebates or assistance. This in turn will require that a total of 2.1 million more CFLs be installed for this measure to be as successful as projected.

Even if we take a leap of faith that these CFLs will be replaced in kind over the next eight years, there is the problem of accounting for any PGC funding which the customers may utilize, even unknowingly. Not only can no PGC funds be used for rebates, there can be no "upstream" rebates available. Currently, due to the upstream CFL program almost all CFLs in California's stores are the beneficiaries of PGC funding and rebates. Only if we assume that all such support will be eliminated next year can we assume that there will be no further PGC support for succeeding generations of CFLs. Only then can the Pilot reasonably claim all of the resultant savings.

By comparison, in residential customer applications, the calculation of benefits from an installed CFL presumes that no additional or successive generation of CFLs are

work with CCSF, PG&E and other interested parties to determine the best measures and incentives to achieve the goals listed herein.

⁴ 8 year term times 5563 hours per year = 44,504 hours use. 44,504 hours divided by 6000 hours life per CFL = 7.4 CFL generations. Substituting an 8000 hour life would need 5.5 CFLs; 10,000 hour life would need 4.4 CFLs; a 20,000 hour life would need 2.2 CFLs.

installed. This is a much more conservative and realistic approach to the benefits from the CFLs.

We recognize that CFLs have been attributed a life of eight years. However, this is in keeping with various residential studies where CFLs have a much lower annual usage and therefore each CFL is expected to last about eight years. Plus, most of those evaluations took place at a time in which California utilities required the use of CFLs with an average life of 9-10,000 hours.

We do not oppose the use of CFLs as a very cost-effective energy measure. We only recommend that the benefits be more accurately considered and that steps be taken to enhance the likelihood of an accurate projection.

The following steps will help ameliorate the problem of excessive unreasonable benefits being assumed for the CFLs:

1. Only CFLs with a measure life of at least 9,000 or 10,000 hours be used. This will reduce the CFLs to five generations and reduce the number of “replacement” CFLs needed from 2.1 million to 1.2 million.
2. Require that all CFLs be a two piece unit so that only the much less costly lamp portion needs to be replaced.
3. Increase the TRC cost of each CFL for each successive CFL “generation” required by the amount of the CFL rebate to account for future PGC expenditures.

However, there is, practically speaking, only way way to assure that the CFLs life extends to the eight year level projected and that the benefits exist and that the peak demand savings exist over the eight year period as projected: Permanent socket modifiers or similar devices.

The use of commercial screw-in CFLs must be limited only to those situations in which as part of the CFL installation a “permanent socket modifier” is used. This device assures that only CFLs can be installed in the socket in the future. This makes each socket used the equivalent of a hard wired fixture in which only CFLs can or will be used in the future.

Without such a socket modifier, it will be necessary to greatly decrease the expected effective useful life of this measure. Even if the 8 year life for a screw-in CFL is technically allowed, we cannot use this as an excuse if we rely upon the phantom savings to protect against future transmission or power shortages. Currently this is by far the most important peak demand savings measure, accounting for a total of 15.4 MW in peak savings.⁵

⁵ The total peak demand savings is developed from the values in PIP, Program Activities Worksheet. The peak savings for screw-in CFLs is derived by multiplying the values in rows 81 and 83 for “Gross Peak kW [per unit]” in column J, by the “Net-To-Gross ratio” in column P, by the “Program Unit Goal” in Column Q. Adding the two peak demand reductions shows a total of 15.4 MW of projected peak demand savings for commercial customer screw-in CFLs.

PILOT SHORTCHANGES NATURAL GAS CUSTOMERS

According to the Filing of PG&E/CCSF, total gas benefits for the Pilot are only \$195,821, three tenths of one percent (0.3 %) of the total benefits of \$64.6 million.

According to the EE Policy Manual (table 5.1), about 11% of PG&E's 2002 energy efficiency funding comes from the contributions of gas customers. Even if this has changed a bit over the years, it appears that gas customers are getting about one thirtieth of their proportionate share of the Pilot's benefits.

Many of the programs from which funding was taken to fund the Pilot were themselves useful for producing gas savings. While we do not know what portion was attributed to the gas side, we must reasonably assume that it was much more than 0.3 %.

It is also true that the portion of PGC funds paid by residential customers is greater for gas than for electricity. Thus, the shortchanging of residential customers discussed above is further exacerbated by the even greater shortchanging of gas customers.

SESCO does recognize the reasonable position that a major objective of the Pilot is to reduce electric peak usage. SESCO also recognizes that this can and should continue to be one of the most important and perhaps the most important objective.

However, as long as the Pilot is using gas customer funds, it must take gas customer benefits into account. Otherwise, we have a situation in which gas customers are clearly and deliberately subsidizing electric customer savings.

There need be no reduction in commitment to the 16 MW goal (Filing, p.2) for peak energy savings by this increased emphasis on those measures which save both gas and electricity. The current PIP measures provide for 23.7 MW⁶ of net demand reduction, nearly 50% greater than the 16 MW goal. The 16 MW goal can certainly be reached while meeting some of the needs of gas benefits.

For example, the Pilot plans to install programmable thermostats in apartments -- which save both electricity and natural gas. However, for some reason, the Pilot appears to be installing only 132 T-stats in apartments (PIP, Project Activities Worksheet, cell K12). It can readily increase this to 10-20,000. During the first six months of 2003, SESCO alone has installed over 6,800 programmable thermostats in greater Los Angeles apartments, representing 41% of the 16,000+ apartments treated.

⁶ The total peak demand savings is developed from the values in PIP, Program Activities Worksheet. The peak savings for each measure listed is derived by multiplying the "Gross Peak kW [per unit]" in column J, by the "Net-To-Gross ratio" in column P, by the "Program Unit Goal" in Column Q. Adding the sum of the measure peak demand reductions shows a total of 27.3 MW of projected peak demand savings.

Hot water use has a double peak, once in the morning and again in the evenings to coincide with dish washing and evening bathing. The installation of energy efficient showerheads and aerators is a very cost-effective measure which provides great peak savings for electric water heating and great overall savings at very low incremental costs for gas or electric energy savings. As a measure of comparison, SESCO has installed during the first six months of 2003, approximately 14,000 showerheads and 18,000 aerators in 16,000 apartments visited. By using 2.0 gpm “supersaver” showerheads, we were able to secure significant savings in virtually all multifamily units.

Therefore, we recommend and request that the Pilot’s PIP be adjusted so that a minimum of 5% of the benefits (less than half of gas customers’ proportionate share) be derived from gas savings.

PROTECT RESIDENTIAL, MULTIFAMILY AND GAS BENEFITS

PG&E and CCSF have asked to be able to shift incentives and funding around among the various Pilot program elements without needing to request permission from the ALJ or Commissioner, etc. (Filing, pp.6-7)

While we are concerned with providing so little control over such an enormous and wide-ranging program, we do appreciate the need to have some flexibility at this stage of program development. Therefore we recommend a compromise. Allow the Pilot’s administrators the flexibility to raise or lower incentives as may be needed. And allow the shifting of funds among program elements that treat similar program elements, e.g., shifting funding from one type of large commercial program to another.

Allow the shifting of funds from one customer category to another only up to 10% of the category from which it is shifted; provided however, that under no circumstances may funds be shifted from gas to electric savings efforts and that no funds be shifted from multifamily to single family and that no funds be shifted from residential to non-residential categories. These may be shifted only by requesting and securing permission from the Commission (or its designated representative) after having served the service list with their request and comments be allowed.

CONCLUSION

SESCO requests and recommends the following actions be required by the Commission prior to any approval of the San Francisco Peak Energy Pilot’s Program Implementation Plan:

1. The allocation of measures be altered so that residential ratepayers and residential customer participants receive a minimum of 20% of the Pilot’s projected benefits and that multifamily tenants receive a minimum of two thirds of this amount.
2. All commercial CFLs claimed shall be required to be installed with a permanent socket modifier or similar device which will assure the replacement in kind of the CFL over its projected savings life

3. As an alternative to #2 above, the PIP shall revise its measure life and or savings expectations so that these do not rely upon the customer's repeated replacement of the CFL upon burn-out.
4. The allocation on measures be altered so that gas savings account for a minimum of 5.0% of the programs total benefits, with residential customers receiving a minimum of half of such benefits. These savings may be a part of the minimums required in #1 above.
5. PG&E/CCSF shall require permission from the Commission (or its designated representative) following notice and comments from the service list prior to shifting any funds (a) from gas savings effort to electric savings programs, (b) from multi-family measures or efforts to any other, and (c) from residential measures and efforts to non-residential programs and efforts.
6. PG&E/CCSF shall work with interested parties to develop the specific measures and incentives needed to assure these savings will be realized.

SESCO appreciates the opportunity provided to us to submit these comments. We are prepared to work with the Commission, its staff, CCSF, PG&E and other interested parties to make this program a success.

Respectfully submitted,

Richard M. Esteves
SESCO, Inc.
July 29, 2003
sesco@optonline.net

CERTIFICATE OF SERVICE

I hereby certify that I served the foregoing **COMMENTS OF SESCO, INC. ON THE ASSIGNED COMMISSIONER'S RULING (JULY 3, 2003) PROPOSING DIRECTION AND SCOPE FOR FURTHER RULEMAKING** by emailing this document in MS Word 6.0 format to all email addresses on the R.01-08-028 service list. A list of the email addresses is attached to the original of this filing.

Dated: July 29, 2003

Richard M. Esteves

R.01-08-028 Email Service List

June 30, 2003

sesco@optonline.net; ykmcree@sablaw.com; mharrigan@ase.org; darrell@iwfa.com; jimross@r-c-s-inc.com; wally.kolberg@swgas.com; bridget.branigan@swgas.com; randy.sable@swags.com; ckmitche@powernet.net; dnorris@sppc.com; jwhargrove@sppc.com; ceaston@sempra.com; pfeffer@scag.ca.gov; reflectormike@earthlink.net; wallis@winegardenergy.com; Mcart108@earthlink.net; arago@qcsc.com; rsperberg@onsitenergy.com; kenm@powerlogic-usa.com; kkam@sdenergy.org; Robsharp1@aol.com; cornstark1@aol.com; kmckenna@ambag.org; cal.broomhead@sfgov.org; marcel@turn.org; srovetti@sflower.org; jes@cpuc.ca.gov; joe.como@sfgov.org; ek@a-klaw.com; jlondon@gralegal.com; ecl8@pge.com; SCarter@nrdc.org; mmccormick@gralegal.com; wmcguire@mcguireco.com; jhamrin@resource-solutions.org; shallenbgr@aol.com; ted@energy-solution.com; kmcelroy@xenergy.com; donlink@jps.net; paulfenn@local.org; twombly@kw-engineering.com; mrw@mrwassoc.com; pjpowerlaw@aol.com; swentworth@oaklandnet.com; gpeterson@mncee.org; mike@comfortwise.com; glynnis@starband.net; rlw@rlw.com; springer@davisenergy.com; wem@igc.org; westdakota@aol.com; asowell@scsa.ca.gov; jtachera@energy.state.ca.us; lmh@eslawfirm.com; bburt@macnexus.org; kmills@cfbf.com; mpa@a-klaw.com; dan@meeek.net; bwildman@sbwconsulting.com; tom@ucons.com; dws@keywaycorp.com; christine.holbrook@csgroup.com; d.d.gilligan@worldnet.att.net; stevef@ensave.com; reknuj@aol.com; joseph.ballantine@uinet.com; jlb@anyserda.org; shastie@navigantconsulting.com; tdavis5128@aol.com; elsharif@ghpc.org; wsey01@attglobal.net; jdrivera@drintl.com; spillerm@gru.com; rutledgev@publicfm.com; martha.davis@appl.qe.com; julie_a_white@email.whirlpool.com; staples@staples-ad.com; nphall@tecmrkt.com; sstrom@mncee.org; jcameron@arcainc.com; jodyk@ncat.org; jesherman@earthlink.net; skumatz@serainc.com; william.dalton@xcelenergy.com; dfrey@archenergy.com; derek.williams@mountainmonitoring.com; dm@getwise.org; olson@ghpc.org; fspasaro@semprautilities.com; moerbeznik@attbi.com; bgroch@greentechenergy.com; nancy.arter@rrwconsulting.com; susanne.obermire@rrwconsulting.com; AGREENFIELD@GLOBALGREEN.ORG; ab50@aol.com; susan-munves@santa-monica.org; dinalane@gte.net; operations@ossonline.com; thamilton@cheers.org; michaelgibbs@icfconsulting.com; admin@gesusa.org; case.admin@sce.com; don.arambula@sce.com; janet.combs@sce.com; ipena@ecosconsulting.com; moore@ecosconsulting.com; kswitzer@scwater.com; shiv@quixnet.net; mgorman@agclawfirm.com; willieg@ci.chula-vista.ca.us; ercaldwell@maacproject.org; jet2@cox.net; rdt222@cox.net; RHS@AESC-INC.COM; dale.foster@ttemi.com; mshames@ucan.org; carellano_sweinc@sbcglobal.net; gsanchez@rhainc.com; jjensen@rhainc.com; jon@vpideas.com; jyamagata@semprautilities.com; cpucservice@sdenergy.org; dgordon@sandiego.gov; jcervantes@sandiego.gov; neilmiller@earthlink.net; alan@rer.com; jsynasio@us-power.com; brenda@rer.com; sthigpen@drintl.com; energyanalysis@earthlink.net; sharong@moval.org; elmoa@cityoftemecula.org; ogradyj@cityoftemecula.org; harring@cityoftemecula.org; mark@alohasys.com; MikeW@alohasys.com; jlcra@earthlink.net; bob.belhumeur@corporatesystems.com; johnp@energycoalition.org; tflanigan@energycoalition.org; toca@utility-savings.com; dwylie@aswengineering.com; johnt@blueowltechnologies.com; ltgwiz@msn.com; koeller@earthlink.net; abrice@rhainc.com; kristine@rhainc.com; rkeys@attbi.com; pcnessa@csufresno.edu; lcasentini@drintl.com; vrabl@aspensys.com; dbachrach@nrdc.org; chris@emeter.com; ann.kelly@sfgov.org; difellman@fellmanlaw.com; jpeck@semprautilities.com; cpucases@pge.com; jcl@cpuc.ca.gov; pgh@cpuc.ca.gov; rg1@cpuc.ca.gov; michael@headquartersadv.com; pedro@headquartersadv.com; iberrio@greenlining.org; lifcentral@lif.org; docket-control@gralegal.com; leoralawton@fscgroup.com; tmfry@nexant.com; luluw@newsdata.com; lmacdonald@icfconsulting.com; mtirpak@icfconsulting.com; vjensen@icfconsulting.com; jparker@icfconsulting.com; renee_fernandez@emcorgroup.com; jimflanigan@iname.com; chrischouteau@earthlink.net; jwwd@pge.com; rsridge@attbi.com; barbara@rhainc.com; fkeneipp@pacbell.net; tnicotre@attbi.com; chris@advancedheat.com; agoel@insyncinfo.com; rknight@bki.com; bfoster@gepllc.com; gepqh@gellc.com; fisherconsultants@msn.com; etlowe@aol.com; Jaybhalla@aol.com; graynor@tmarshall.com; msutter@alamedanet.net; sam@energy-solution.com; bmast@frontierassoc.com; jerryl@abag.ca.gov; ssherwood@xenergy.com; kcorfee@xenergy.com; fountain@dnai.com; rdeangelis@energy-law-group.com; kchurchill@accenv.com; cwootencohen@earthlink.net; pmiller@nrdc.org; rschmidt@bartlewells.com; qcworldmail@yahoo.com; drebello@qcworld.com; eparker@qcworld.com; jcavalli@qcworld.com; ned2@ci.berkeley.ca.us; ppiette@qcworld.com; craigtyler@attbi.com; elvine@lbl.gov; mwbeck@lbl.gov; rwwilson@lbl.gov; irina@ideasarecheap.com; john@proctoreng.com; philsson1@attbi.com; sustainablefairfax@earthlink.net; jna@speakeasy.org; timrosenfeld@earthlink.net; hmoore@marincounty.net;

jdquinley@aol.com; emainland@earthlink.net; eie@geopraxis.com; tconlon@geopraxis.com; adiff@aol.com;
rita@ritanortonconsulting.com; gthomas@ecoact.org; emahlon@ecoact.org; jennifer@rer.com;
joseph.leung@gsa.co.santa-clara.ca.us; Vicki.Swank@gsa.co.santa-clara.ca.us; terryhughes@afo.net;
kenh@mid.org; BillM@soldata.com; mattb@rlw.com; bknox@cityofdavis.org; mjberm@davisenergy.com;
rmccann@umich.edu; reports@aees.org; blaising@braunlegal.com; dmahone@h-m-g.com; stone@h-m-g.com;
energy@directapps.com; tcrooks@navigantconsulting.com; vfleming@navigantconsulting.com;
dreynolds@aspensys.com; gvigneron@scsa.ca.gov; jeinhorn@rs-e.com; JLENZMEIER@CBIA.ORG;
jcastleberry@rs-e.com; lscott@rs-e.com; maryann@cuwcc.org; pstoner@lgc.org; rachel@ceert.org;
rnaylor@nmgovlaw.com; tara.dunn@dgs.ca.gov; fdeleon@energy.state.ca.us; martha.lake@attbi.com;
TMichel@egia.com; dick@adm-energy.com; talereza@adm-energy.com; karen@klindh.com; jparks@smud.org;
shall@rcip.com; rmowris@earthlink.net; pwelker@peci.org; brianh@quantecllc.com; llutz@attbi.com;
ssirkin@ecosconsulting.com; drobison@teleport.com; john_mclain@pgn.com; carel.dewinkel@state.or.us;
rbordner@emi1.com; MADUNHAM17@aol.com; phil.hastings@state.me.us; brian.k.dancause@state.me.us;
wickend@together.net; charles.bredwell@cpa.state.tx.us; nieves.lopez@puc.state.tx.us; keklund@idwr.state.id.us;
rknecht@puc.state.nv.us; mer@cpuc.ca.gov; ppl@cpuc.ca.gov; ru4@cpuc.ca.gov; tam@cpuc.ca.gov;
ctd@cpuc.ca.gov; dmb@cpuc.ca.gov; dsh@cpuc.ca.gov; dlw@cpuc.ca.gov; ewk@cpuc.ca.gov; cpe@cpuc.ca.gov;
jf2@cpuc.ca.gov; kim@cpuc.ca.gov; lrm@cpuc.ca.gov; nyg@cpuc.ca.gov; ska@cpuc.ca.gov; ssr@cpuc.ca.gov;
zap@cpuc.ca.gov; ztc@cpuc.ca.gov; mary.tucker@ci.sj.ca.us; agarcia@energy.state.ca.us; alo@cpuc.ca.gov;
cm2@cpuc.ca.gov; dhungerf@energy.state.ca.us; dks@cpuc.ca.gov; cpacounsel@dgs.ca.gov;
jsugar@energy.state.ca.us; mmesseng@energy.state.ca.us; njenkins@energy.state.ca.us; taryn_smith@dca.ca.gov;
teckman@nwppc.org; charles.m.stephens@state.or.us; sprice7@mindspring.com; marie@greenaction.org