

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**



FILED

01-02-07
02:30 PM

Order Instituting Rulemaking to Implement the
Commission's Procurement Incentive
Framework and to Examine the Integration of
Greenhouse Gas Emissions Standards into
Procurement Policies

R.06-04-009

**COMMENTS ON PROPOSED DECISION OF
THE ENERGY PRODUCERS AND USERS COALITION AND
THE COGENERATION ASSOCIATION OF CALIFORNIA**

Michael Alcantar
Donald Brookhyser
Alcantar & Kahl LLP
1300 SW Fifth Avenue
Suite 1750
Portland, OR 97201
503.402.9900 office
503.402.8882 fax
mpa@a-klaw.com
deb@a-klaw.com

Counsel to the
Cogeneration Association of California

Evelyn Kahl
Seema Srinivasan
Alcantar & Kahl LLP
120 Montgomery Street
Suite 2200
San Francisco, CA 94104
415.421.4143 office
415.989.1263 fax
ek@a-klaw.com
sls@a-klaw.com

Counsel to the
Energy Producers and Users Coalition

January 2, 2007

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Implement the
Commission's Procurement Incentive
Framework and to Examine the Integration of
Greenhouse Gas Emissions Standards into
Procurement Policies

R.06-04-009

**COMMENTS ON PROPOSED DECISION OF
THE ENERGY PRODUCERS AND USERS COALITION AND
THE COGENERATION ASSOCIATION OF CALIFORNIA**

The Energy Producers and Users Coalition¹ and the Cogeneration Association of California² (EPUC/CAC) provide these comments on the Proposed Decision (PD) distributed in this case on December 13, 2006. EPUC/CAC acknowledge the work by Staff and by the parties that produced a Final Staff Report resolving many of the issues in this case. EPUC/CAC also recognize that the PD built on this Report, and acknowledged many of the concerns of EPUC/CAC and of other market participants in crafting an emission performance standard (EPS) that would prevent backsliding while remaining workable and

¹ EPUC is an ad hoc group representing the electric end use and customer generation interests of the following companies: Aera Energy LLC, BP America Inc. (including Atlantic Richfield Company), Chevron U.S.A. Inc., Shell Oil Products US, THUMS Long Beach Company, and Occidental Elk Hills, Inc.

² CAC represents the power generation, power marketing and cogeneration operation interests of the following entities: Coalinga Cogeneration Company, Mid-Set Cogeneration Company, Kern River Cogeneration Company, Sycamore Cogeneration Company, Sargent Canyon Cogeneration Company, Salinas River Cogeneration Company, Midway Sunset Cogeneration Company and Watson Cogeneration Company.

practical. However, there remain several significant issues in the PD which must be corrected to make this mechanism work effectively. Specifically,

- The determination of whether the EPS applies to a resource must turn on the nature of the “long term commitment” made by the utility rather than the overall operation of the generating facility. The Commission must make this modification to meet the requirements of SB 1368 and to ensure that utility-owned facilities and commitments under contract receive comparable treatment.
- The application of the EPS should be subject to a minimum size threshold. A minimum threshold, which is allowed by SB 1368 and by the Commission’s inherent authority to adopt regulations implementing a statute, will provide for administrative ease and is consistent with standards adopted in other greenhouse gas (GHG) regulatory frameworks.
- The EPS should be set at 1,100 lbs/MWh, which is consistent with SB 1368, to ensure the continued operation of most existing facilities to meet California’s growing demand.
- The Commission should clarify the methodology for application of the EPS to a bottoming-cycle cogeneration unit. Prior notice of this methodology is required to facilitate contracting between the utility and operator of the facility.

I. THE DETERMINATION OF WHETHER THE EPS APPLIES TO A RESOURCE MUST TURN ON THE NATURE OF THE “LONG TERM COMMITMENT.”

The PD concludes that “*determining whether the EPS applies to a resource should be made based on the characteristics of the generating facilities underlying the contract, and not on the contracted-for deliveries.*”³ This conclusion makes sense in the context of utility-owned generation. Applied to third-party facilities, however, this conclusion violates the requirement of SB 1368

³ PD at 64.

that the EPS be applied to “long term commitments” and fails to provide for comparable treatment of utility-owned facilities and contract procurement.

Senate Bill 1368 establishes the requirement for application of the EPS as follows:

*No load-serving entity or local publicly owned electric utility may enter into a long-term financial commitment unless any baseload generation **supplied under the long-term financial commitment** complies with the greenhouse gases emission performance standard established by the commission....*

PU Code 8341(a). This language makes clear that the EPS applies to baseload generation supplied under a long-term commitment, not to the facility itself.

Section 8340(j) reinforces this conclusion, providing the following definition:

*‘Long-term financial commitment’ means either a new ownership investment in baseload generation **or a new or renewed contract** with a term of five or more years, which includes procurement of baseload generation.*

Indeed, the Commission’s jurisdiction in the case of third-party contracts flows from its authority over utility procurement, rather than jurisdiction over the third-party facilities.⁴ It is clear that, in the case of third-party contracts, the focal point of the regulation is on the “new or renewed contract.”

The PD acknowledges this argument to a limited degree, including the language looking to the generation “*supplied under the long-term financial commitment.*” It dismisses the argument that the EPS is applied to the contracted delivery, rather than the facility, on grounds that this interpretation

⁴ D.06-02-032 , Dkt. No. R.04-04-003, p. 18, 20.

would render other statutory provisions useless. Specifically, the PD points to Section 8341(4),⁵ which provides:

*In determining whether a long-term financial commitment is for baseload generation, the commission shall consider the **design of the powerplant and the intended use of the powerplant.***

The PD stops short of the next phrase of the statute, however, which provides that the Commission should determine the design and intended use

based upon the electricity purchase contract, any certification received from the Energy Commission, any other permit or certificate necessary for the operation of the powerplant, including a certificate of public convenience and necessity, any procurement approval decision for the load-serving entity, and **any other matter the commission determines is relevant under the circumstances....**

In the case of a utility-owned facility, which is wholly subject to this Commission's jurisdiction, it may be entirely reasonable to look to the actual physical design of the facility. However, the Legislature appears to have recognized that in the case of assessing the baseload characteristics of a third-party contract, it is the contract that determines the financial commitment of the LSE and defines the commitment subject to regulation.

The distinction between types of long-term commitments – contracts or utility construction – can be seen in the following example. Consider two generating facilities -- a merchant generator and a similarly-situated generator owned by an industrial customer. The merchant generator is a combustion turbine with 5 MW capacity which is dispatched for peak generation and has a capacity factor of 20%. The industrial customer operates a turbine generator with 30 MW capacity; the generator is used principally to satisfy on-site load of

⁵ PD at 63.

the customer and operates at a 90% capacity factor. It has a contract with an LSE to supply as-available capacity and energy, but it never supplies more than 5 MW and its sales are equivalent to a 20% capacity factor. The two generators supply the same product to the market and create the same potential financial risk to the procuring LSE. Under the PD's proposed rule, however, the customer generation would be captured by the EPS while the merchant generator would not. Because the Commission's jurisdiction rests on the utility portfolio – the Commission otherwise has no jurisdiction over the customer generator pursuant to PU Code Section 218 -- each facility should be judged in the same way based on its effect on the portfolio.

The PD's attempt to look beyond the Commission's jurisdiction is not justified on grounds of financial risk to utility ratepayers. The financial risk discussed during the workshop was the risk that additional restrictions would be placed on the emissions of a powerplant, raising the cost of procurement from that plant. Similarly, Sec. 1(g) of SB 1368 states that one of the purposes of the legislation is to "*reduce California's exposure to costs associated with future federal regulation of these emissions.*" While the generation facility under an LSE contract may bear the financial burden of complying with GHG regulations, the LSE's financial risk under third-party purchases is confined to the generation under contract. In the example above, the only costs which the LSE would be exposed to (if any) under the third-party contract would be the proportionate share of the compliance costs allocated to the 5 MW procured by contract. Any

financial risk imposed on the LSE is measured by the size of the commitment, not the size of the underlying resource.

The Commission should modify the PD to require that for purposes of third-party contracts, a determination of whether the EPS will be applied will turn on the characteristics of the long-term commitment. Any other conclusion would run counter to SB 1368 and discriminate against non-utility generators.

II. A MINIMUM SIZE THRESHOLD IS APPROPRIATE.

The Commission's Staff and several parties recommended the adoption of a minimize size exemption from the EPS. Although there was some disagreement at the workshop as to the level of the threshold, the general consensus supported some threshold. The PD rejects this threshold, finding it incompatible with the provisions of SB 1368.⁶ EPUC/CAC submit that this finding was in error and urge the Commission to adopt the Staff's earlier proposal of a 25 MW minimize size threshold.

A minimum size threshold improves the efficiency and reduces the administrative burden of the EPS. The application of the EPS to commitments below a certain threshold (e.g. 25 MW) imposes the same regulatory and administrative burden on the supplier, on the utility, and on the Commission, for a negligible reduction in carbon emissions.

SB 1368 does not preclude the use of such a threshold. The statute provides the Commission with much discretion in how it implements the standard. For instance, 8341(d)(6) provides:

⁶ PD at 76.

In adopting and implementing the greenhouse gases emission performance standard, the commission, in consultation with the Independent System Operator shall consider the effects of the standard on system reliability and overall costs to electricity customers.

This section clearly gives the Commission much flexibility in how it implements the standard. The Commission, in implementing the standard can determine that where the standard might otherwise apply, it will not because of an unreasonable cost to consumers.

Sec. 8341(b)(4) also grants the Commission a high degree of latitude in the development of its program. This section provides that in determining whether a commitment is for baseload generation, the Commission may consider *“any other matter the commission determines is relevant under the circumstances.”* This suggests that the assessment of the baseload characteristic is not a mechanistic, “cookie cutter” procedure. Not every unit with a 60% capacity factor need be considered baseload. The Commission could find that units of capacity less than 25 MW do not provide “baseload generation” to which the EPS will be applied.

Both of these sections demonstrate that SB 1368 gave the Commission significant discretion in implementation. State agencies have the authority to adopt regulations *“to implement, interpret, make specific or otherwise carry out the provisions of the statute,”* which are *“consistent and not in conflict with the statute and reasonably necessary to effectuate the purpose of the statute.”*⁷

⁷ Government Code § 11342.

Agencies are “empowered to fill up the details of the enabling legislation.”⁸

Providing for some minimum thresholds to ensure the regulatory burdens are cost-effective is consistent with SB 1368 and properly fills in the gaps in implementing that statute.

III. THE EPS SHOULD BE SET AT 1,100 LBS/MWH.

SB 1368 requires the Commission to set the EPS “no higher than the rate of emissions” of a combined cycle unit.⁹ There is, however, no single definitive rate of emissions that meets this requirement, as demonstrated in the workshop debate. Consequently, the Commission has a range of discretion in what number to select. EPUC/CAC submit that a rate of 1100 lbs/MWh, rather than the proposed 1000 lbs/MWh, would be a more prudent choice to ensure continued availability of existing supplies.

The data supplied in the case demonstrated that there are existing combined cycle units with emission levels at 1020 lbs/MWh.¹⁰ The EPS should be set at a level that would include such units. This ensures that the largest possible pool of resources is available for long-term contracting. Availability for long-term contracting is a beneficial outcome consistent with this Commission’s policies. This Commission, particularly through the resource adequacy regulations, has sought to motivate and/or require load-serving entities to meet a large majority of their load with long-term contracts. This avoids the short-term

⁸ Masonite Corp. v. The Superior Court of Mendocino County, 25 Cal.App.4th 1045, 1053 (1994); Helene Curtis, Inc. v. Assessment Appeals Bd. of Los Angeles County, 76 Cal.App.4th 124, 129 (1999).

⁹ PU Code 8341(d)(1).

¹⁰ *Final Workshop Report*, R.06-04-009, October 2, 2006, p. 33.

volatility in price and supply the California markets experienced in the crisis of 2000-2001.

In its comments, EPUC/CAC did not mean to suggest that protection of all gas-fired units was somehow mandated by SB 1368. However, such protection is beneficial. Given the extremely small reserve margin in most parts of the state, the Commission must adopt policies consistent with maximizing the LSEs' opportunities to meet their load. This is particularly true for the Southern California region if hotter than normal weather prevails.¹¹

A standard of 1,100 lbs/MWh is permitted under SB 1368 and would maximize the resources available to LSEs in the state.

IV. THE DECISION MUST CLARIFY TREATMENT OF BOTTOMING-CYCLE COGENERATION UNITS.

EPUC/CAC requested exemption from the EPS for bottoming cycle cogeneration facilities on grounds that, without supplemental firing, there are no emissions associated with the generation of electricity from these facilities. The PD rejects this proposal on grounds that these facilities are, in fact, "powerplants" and no evidence was presented to support the exemption.¹² Further, the PD concludes that the calculations adopted for cogeneration facilities can be readily applied to bottoming cycle facilities.¹³ The PD errs in its conclusion that the

¹¹ The 2005 Integrated Energy Policy Report of the California Energy Commission states on pg. 52:

projections indicate that in a one-in-ten case, even 15-17 percent reserve margins might not be enough to maintain system reliability in Southern California due to transmission constraints.

¹² PD at 86.

¹³ *Id.* at 86-87.

proposed regulation for cogeneration is equally applicable to all forms of cogeneration.

Bottoming cycle cogeneration units are a unique form of generation. In their basic operation, these facilities generate useful electricity from waste heat that is the byproduct of an industrial process. Consequently, they consume no additional energy to generate electricity and, importantly, generation of electricity does not contribute any additional emissions. Even if the electricity generation functions were suspended, the underlying industrial process would still produce the same level of emissions. EPUC/CAC therefore requested that the Commission clarify the application of the EPS to such generators, where the generation process has no associated emissions.

The bottoming-cycle cogeneration may be a “powerplant” as defined under SB 1368; however, the Commission could clarify that where such powerplants create no additional emissions, they are deemed in compliance. In this way, their treatment would be comparable to that of renewables like wind and solar.¹⁴ Any emissions associated with the waste heat used to generate electricity belong in the industrial sector, not the electricity sector.

EPUC/CAC acknowledge that some bottoming cycle units may have supplemental firing associated with the electricity generating function. The Commission’s clarification could state that where supplemental firing is used, the unit must be assessed under the EPS. The rule could state, further, that bottoming-cycle cogeneration unit would be deemed in compliance upon

¹⁴ PD, Sec. 1.6, p. 16.

provision of evidence (such as Federal Energy Regulatory Commission certification documents) showing that supplemental firing is not used.

The PD suggests that the methodology for calculating emissions of cogeneration can be applied to bottoming cycle units. EPUC/CAC appreciates the adoption by the PD of the methodology proposed by EPUC/CAC, and the recognition by the Commission of FERC's definition of "useful thermal energy."¹⁵ However, there is a major problem in applying the calculation methodology to bottoming cycle units. It is not cured as the PD suggests simply by showing the thermal energy output first in the worksheets in Attachment 5.¹⁶

The cogeneration conversion methodology is based on the assumption that, in a topping cycle cogeneration unit, some of the fuel burned produces *useful* thermal energy while some produces electricity. Because there is a single combustion of fuel in cogeneration, those uses cannot be easily identified, and there must be an allocation. The conversion methodology provides for that allocation.

The conversion does not work, however, in the case of a bottoming cycle unit, such as a calciner. In that case, absent supplemental firing of the generation unit, all of the carbon-emitting energy consumed is attributable to the calcining process. The industrial process produces waste heat that, if not used in a bottoming cycle facility, would be truly wasted into the atmosphere and could not be considered "useful." In a bottoming cycle unit, some of that waste heat is used to produce electricity. If no supplemental energy is added to the waste heat

¹⁵ *Id.*, p. 98.

¹⁶ *Id.*, fn. 126, p. 92

to fire the generation, then there are no additional emissions created in order to produce electricity. All of the emissions are created as part of the calcining process, and no emissions are created for electricity generation. For these reasons, all of the emissions are associated with and should be assigned to the industrial process – a process over which this Commission holds no jurisdiction.

In a case without supplemental firing, to assign any emissions to the process of electricity generation would be erroneous. To do so would suggest that if the electricity production were suspended, some allocated part of the emissions would cease, which is inaccurate. In fact, however, the industrial calcining process would still continue, creating the same total emissions.

To resolve this issue, the Commission should state that bottoming cycle units without supplemental firing are deemed to be in compliance. As a more complicated alternative, the Commission could clarify that in using the PD's Attachment 5, the "fuel in" amount on Tables C and D for a bottoming cycle cogeneration unit would be only the amount of any supplemental firing and should not include the fuel used in the underlying industrial process.

V. CONCLUSION

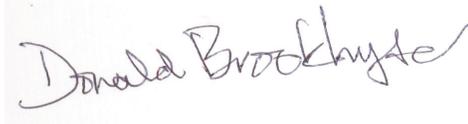
The EPS rule can be improved by making the following revisions:

- Basing the application of the test for the baseload characteristic on the amount delivered under a contract, not the underlying unit.
- Restoring the 25 MW threshold as a minimum size threshold.
- Setting the standard at 1,100 lbs/MWh.

- Clarifying that bottoming cycle cogeneration units that do not add supplemental energy are in compliance with the EPS.

January 2, 2007

Respectfully submitted,

A handwritten signature in black ink that reads "Donald Brookhyser". The signature is written in a cursive style with a long, sweeping tail on the final letter.

Evelyn Kahl
Michael Alcantar
Seema Srinivasan
Donald Brookhyser

Counsel to the Energy Producers & Users
Coalition and the Cogeneration Association of
California

CERTIFICATE OF SERVICE

I, Karen Terranova hereby certify that I have on this date caused the attached **Comments on Proposed Decision of the Energy Producers & Users Coalition and the Cogeneration of California** in R.06-04-009 to be served to all known parties by either United States mail or electronic mail, to each party named in the official attached service list obtained from the Commission's website, attached hereto, and pursuant to the Commission's Rules of Practice and Procedure.

Dated January 2, 2007 at San Francisco, California.

A handwritten signature in cursive script that reads "Karen Terranova". The signature is written in black ink and is positioned above a horizontal line.

Karen Terranova

ADRIAN PYE
ENERGY AMERICA, LLC
263 TRESSER BLVD.
STAMFORD, CT 6901
adrian.pye@na.centrica.com

RICK C. NOGER
PRAXAIR PLAINFIELD, INC.
2711 CENTERVILLE ROAD, SUITE 400
WILMINGTON, DE 19808
rick_noger@praxair.com

KEITH R. MCCREA
SUTHERLAND, ASBILL & BRENNAN, LLP
1275 PENNSYLVANIA AVE., N.W.
WASHINGTON, DC 20004-2415
keith.mccrea@sablaw.com

MICHAEL A. YUFFEE
MCDERMOTT WILL & EMERY LLP
600 THIRTEENTH STREET, N.W.
WASHINGTON, DC 20005-3096
myuffee@mwe.com

KEVIN BOUDREAUX
CALPINE POWER AMERICA-CA, LLC
717 TEXAS AVENUE, SUITE 1000
HOUSTON, TX 77002
kevin.boudreaux@calpine.com

E.J. WRIGHT
OCCIDENTAL POWER SERVICES, INC.
5 GREENWAY PLAZA, SUITE 110
HOUSTON, TX 77046
ej_wright@oxy.com

ERIC GUIDRY
WESTERN RESOURCE ADVOCATES
2260 BASELINE ROAD, SUITE 200
BOULDER, CO 80304
eguidry@westernresources.org

LARRY BARRETT
BARRETT CONSULTING ASSOCIATES, INC.
PO BOX 60429
COLORADO SPRINGS, CO 80960
lbarrett@adelphia.net

JENINE SCHENK
APS ENERGY SERVICES
400 E. VAN BUREN STREET, SUITE 750
PHOENIX, AZ 85004
jenine.schenk@apses.com

DARRELL SOYARS
SIERRA PACIFIC RESOURCES
6100 NEIL ROAD
RENO, NV 89520-0024
dsoyars@sppc.com

DENNIS M.P. EHLING
KIRKPATRICK & LOCKHART NICHOLSON
GRAHAM
10100 SANTA MONICA BLVD., 7TH FLOOR
LOS ANGELES, CA 90067
dehling@kling.com

GREGORY KOISER
CONSTELLATION NEW ENERGY, INC.
350 SOUTH GRAND AVENUE, SUITE 3800
LOS ANGELES, CA 90071
gregory.koiser@constellation.com

NORMAN A. PEDERSEN
HANNA AND MORTON, LLP
444 SOUTH FLOWER STREET, NO. 1500
LOS ANGELES, CA 90071
npedersen@hanmor.com

MICHAEL MAZUR
3 PHASES ENERGY SERVICES, LLC
2100 SEPULVEDA BLVD., SUITE 37
MANHATTAN BEACH, CA 90266
mmazur@3phases.com

TIFFANY RAU
CARSON HYDROGEN POWER PROJECT LLC
ONE WORLD TRADE CENTER, SUITE 1600
LONG BEACH, CA 90831-1600
tiffany.rau@bp.com

GREGORY S.G. KLATT
DOUGLASS & LIDDELL
411 E. HUNTINGTON DRIVE, STE. 107-356
ARCADIA, CA 91006
klatt@energyattorney.com

MAUREEN LENNON
CALIFORNIA COGENERATION COUNCIL
595 EAST COLORADO BLVD., SUITE 623
PASADENA, CA 91101
maureen@lennonassociates.com

RICHARD HELGESON
SOUTHERN CALIFORNIA PUBLIC POWER
AUTHORITY
225 S. LAKE AVE., SUITE 1250
PASADENA, CA 91101
rhelgeson@scppa.org

DANIEL W. DOUGLASS
DOUGLASS & LIDDELL
21700 OXNARD STREET, SUITE 1030
WOODLAND HILLS, CA 91367
douglass@energyattorney.com

PAUL DELANEY
AMERICAN UTILITY NETWORK (A.U.N.)
10705 DEER CANYON DRIVE
ALTA LOMA, CA 91737
pssed@adelphia.net

AKBAR JAZAYEIRI
SOUTHERN CALIFORNIA EDISON COMPANY
2244 WALNUT GROVE AVE. ROOM 390
ROSEMEAD, CA 91770
akbar.jazayeri@sce.com

ANNETTE GILLIAM
SOUTHERN CALIFORNIA EDISON COMPANY
2244 WALNUT GROVE AVENUE
ROSEMEAD, CA 91770
annette.gilliam@sce.com

RONALD MOORE
GOLDEN STATE WATER/BEAR VALLEY
ELECTRIC
630 EAST FOOTHILL BOULEVARD
SAN DIMAS, CA 91773
rkmoore@gswater.com

DAN HECHT
SEMPRA ENERGY
101 ASH STREET
SAN DIEGO, CA 92101
dhecht@sempratrading.com

DANIEL A. KING
SEMPRA ENERGY
101 ASH STREET, HQ13
SAN DIEGO, CA 92101
daking@sempra.com

LISA G. URICK
SAN DIEGO GAS & ELECTRIC COMPANY
101 ASH STREET
SAN DIEGO, CA 92101
Lurick@sempra.com

SYMONE VONGDEUANE
SEMPRA ENERGY SOLUTIONS
101 ASH STREET, HQ09
SAN DIEGO, CA 92101-3017
svongdeuane@semprasolutions.com

THEODORE ROBERTS
SEMPRA GLOBAL
101 ASH STREET, HQ 13D
SAN DIEGO, CA 92101-3017
troberts@sempra.com

BILL LYONS
CORAL POWER, LLC
4445 EASTGATE MALL, SUITE 100
SAN DIEGO, CA 92121
Bill.Lyons@shell.com

THOMAS DARTON
PILOT POWER GROUP, INC.
9320 CHESAPEAKE DRIVE, SUITE 112
SAN DIEGO, CA 92123
tdarton@pilotpowergroup.com

STEVE RAHON
SAN DIEGO GAS & ELECTRIC COMPANY
8330 CENTURY PARK COURT, CP32C
SAN DIEGO, CA 92123-1548
lschavrien@semprautilities.com

GLORIA BRITTON
ANZA ELECTRIC COOPERATIVE, INC.
PO BOX 391909
ANZA, CA 92539
GloriaB@anzaelectric.org

LYNELLE LUND
COMMERCE ENERGY, INC.
600 ANTON BLVD., SUITE 2000
COSTA MESA, CA 92626
llund@commerceenergy.com

GEORGE HANSON
CITY OF CORONA
730 CORPORATION YARD WAY
CORONA, CA 92880
george.hanson@ci.corona.ca.us

TAMLYN M. HUNT
COMMUNITY ENVIRONMENTAL COUNCIL
26 W. ANAPAMU ST., 2/F
SANTA BARBARA, CA 93102
thunt@cecmail.org

JEANNE M. SOLE
CITY AND COUNTY OF SAN FRANCISCO
1 DR. CARLTON B. GOODLETT PLACE, RM.
234
SAN FRANCISCO, CA 94102
jeanne.sole@sfgov.org

LAD LORENZ
SOUTHERN CALIFORNIA GAS COMPANY
601 VAN NESS AVENUE, SUITE 2060
SAN FRANCISCO, CA 94102
llorenz@semprautilities.com

MARCEL HAWIGER
THE UTILITY REFORM NETWORK
711 VAN NESS AVENUE, SUITE 350
SAN FRANCISCO, CA 94102
marcel@turn.org

NINA SUETAKE
THE UTILITY REFORM NETWORK
711 VAN NESS AVE., STE 350
SAN FRANCISCO, CA 94102
nsuetake@turn.org

Diana L. Lee
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
dil@cpuc.ca.gov

F. Jackson Stoddard
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
fjs@cpuc.ca.gov

AUDREY CHANG
NATURAL RESOURCES DEFENSE COUNCIL
111 SUTTER STREET, 20TH FLOOR
SAN FRANCISCO, CA 94104
achang@nrdc.org

EVELYN KAHL
ALCANTAR & KAHL, LLP
120 MONTGOMERY STREET, SUITE 2200
SAN FRANCISCO, CA 94104
ek@a-klaw.com

MICHAEL P. ALCANTAR
ALCANTAR & KAHL, LLP
120 MONTGOMERY STREET, SUITE 2200
SAN FRANCISCO, CA 94104
mpa@a-klaw.com

SEEMA SRINIVASAN
ALCANTAR & KAHL, LLP
120 MONTGOMERY STREET, SUITE 2200
SAN FRANCISCO, CA 94104
sis@a-klaw.com

CHRISTOPHER J. WARNER
PACIFIC GAS AND ELECTRIC COMPANY
77 BEALE STREET
SAN FRANCISCO, CA 94105
cjw5@pge.com

EDWARD G POOLE
ANDERSON DONOVAN & POOLE
601 CALIFORNIA STREET SUITE 1300
SAN FRANCISCO, CA 94108
epoole@adplaw.com

BRIAN T. CRAGG
GOODIN, MACBRIDE, SQUERI, RITCHIE &
DAY
505 SANSOME STREET, SUITE 900
SAN FRANCISCO, CA 94111
bcragg@gmssr.com

JAMES D. SQUERI
GOODIN MACBRIDE SQUERI RITCHIE & DAY
LLP
505 SANSOME STREET, STE 900
SAN FRANCISCO, CA 94111
jsqueri@gmssr.com

JOSEPH M. KARP
WINSTON & STRAWN LLP
101 CALIFORNIA STREET
SAN FRANCISCO, CA 94111
jkarp@winston.com

KAREN BOWEN
WINSTON & STRAWN LLP
101 CALIFORNIA STREET
SAN FRANCISCO, CA 94111
kbowen@winston.com

LISA A. COTTLE
WINSTON & STRAWN LLP
101 CALIFORNIA STREET, 39TH FLOOR
SAN FRANCISCO, CA 94111
lcottle@winston.com

JEFFREY P. GRAY
DAVIS WRIGHT TREMAINE, LLP
505 MONTGOMERY STREET, SUITE 800
SAN FRANCISCO, CA 94111-6533
jeffgray@dwt.com

SARA STECK MYERS
122 28TH AVENUE
SAN FRANCISCO, CA 94121
ssmyers@att.net

LARS KVALE
CENTER FOR RESOURCE SOLUTIONS
PO BOX 39512
SAN FRANCISCO, CA 94129
lars@resource-solutions.org

BRIAN K. CHERRY
PACIFIC GAS AND ELECTRIC COMPANY
PO BOX 770000 MC B10C
SAN FRANCISCO, CA 94177-0001
bkc7@pge.com

ANDREA WELLER
STRATEGIC ENERGY
3130 D BALFOUR RD., SUITE 290
BRENTWOOD, CA 94513
aweller@sel.com

JENNIFER CHAMBERLIN
STRATEGIC ENERGY, LLC
3130 D BALFOUR ROAD, STE 290
BRENTWOOD, CA 94513
jchamberlin@sel.com

KERRY HATTEVIK
MIRANT CORPORATION
696 WEST 10TH STREET
PITTSBURG, CA 94565
kerry.hattevik@mirant.com

AVIS KOWALEWSKI
CALPINE CORPORATION
3875 HOPYARD ROAD, SUITE 345
PLEASANTON, CA 94588
kowalewskia@calpine.com

WILLIAM H. BOOTH
LAW OFFICES OF WILLIAM H. BOOTH
1500 NEWELL AVENUE, 5TH FLOOR
WALNUT CREEK, CA 94596
wbooth@booth-law.com

WILLIAM H. CHEN
CONSTELLATION NEW ENERGY, INC.
2175 N. CALIFORNIA BLVD., SUITE 300
WALNUT CREEK, CA 94596
bill.chen@constellation.com

J. ANDREW HOERNER
REDEFINING PROGRESS
1904 FRANKLIN STREET
OAKLAND, CA 94612
hoerner@redefiningprogress.org

JANILL RICHARDS
CALIFORNIA ATTORNEY GENERAL'S OFFICE
1515 CLAY STREET, 20TH FLOOR
OAKLAND, CA 94702
janill.richards@doj.ca.gov

CLIFF CHEN
UNION OF CONCERNED SCIENTIST
2397 SHATTUCK AVENUE, STE 203
BERKELEY, CA 94704
cchen@ucsusa.org

GREGG MORRIS
GREEN POWER INSTITUTE
2039 SHATTUCK AVENUE, STE 402
BERKELEY, CA 94704
gmorris@emf.net

JOHN GALLOWAY
UNION OF CONCERNED SCIENTISTS
2397 SHATTUCK AVENUE, SUITE 203
BERKELEY, CA 94704
jgalloway@ucsusa.org

R. THOMAS BEACH
CROSSBORDER ENERGY
2560 NINTH STREET, SUITE 213A
BERKELEY, CA 94710
tomb@crossborderenergy.com

BARRY F. MCCARTHY
MCCARTHY & BERLIN, LLP
100 PARK CENTER PLAZA, SUITE 501
SAN JOSE, CA 95113
bmcc@mccarthyllaw.com

C. SUSIE BERLIN
MC CARTHY & BERLIN, LLP
100 PARK CENTER PLAZA, SUITE 501
SAN JOSE, CA 95113
sberlin@mccarthyllaw.com

JOY A. WARREN
MODESTO IRRIGATION DISTRICT
PO BOX 4060
MODESTO, CA 95352
joyw@mid.org

JOHN JENSEN
MOUNTAIN UTILITIES
PO BOX 205
KIRKWOOD, CA 95646
jjensen@kirkwood.com

MARY LYNCH
CONSTELLATION ENERGY COMMODITIES
GROUP
2377 GOLD MEDAL WAY
GOLD RIVER, CA 95670
mary.lynych@constellation.com

LEONARD DEVANNA
CLEAN ENERGY SYSTEMS, INC.
11330 SUNCO DRIVE, SUITE A
RANCHO CORDOVA, CA 95742
lrdevanna-rf@cleanenergysystems.com

ANDREW BROWN
ELLISON, SCHNEIDER & HARRIS, LLP
2015 H STREET
SACRAMENTO, CA 95814
abb@eslawfirm.com

BRUCE MCLAUGHLIN
BRAUN & BLAISING, P.C.
915 L STREET, SUITE 1420
SACRAMENTO, CA 95814
mclaughlin@braunlegal.com

GREGGORY L. WHEATLAND
ELLISON, SCHNEIDER & HARRIS, LLP
2015 H STREET
SACRAMENTO, CA 95814
glw@eslawfirm.com

JANE E. LUCKHARDT
DOWNEY BRAND LLP
555 CAPITOL MALL, 10TH FLOOR
SACRAMENTO, CA 95814
jluckhardt@downeybrand.com

JEDEDIAH J. GIBSON
ELLISON, SCHNEIDER & HARRIS LLP
2015 H STREET
SACRAMENTO, CA 95814
jjg@eslawfirm.com

VIRGIL WELCH
ENVIRONMENTAL DEFENSE
1107 9TH STREET, SUITE 540
SACRAMENTO, CA 95814
vwelch@environmentaldefense.org

WILLIAM W. WESTERFIELD, III
ELLISON, SCHNEIDER & HARRIS L.L.P.
2015 H STREET
SACRAMENTO, CA 95814
www@eslawfirm.com

ANN L. TROWBRIDGE
DAY CARTER & MURPHY, LLP
3620 AMERICAN RIVER DRIVE, SUITE 205
SACRAMENTO, CA 95864
atrowbridge@daycartermurphy.com

DAN SILVERIA
SURPRISE VALLEY ELECTRIC COOPERATIVE
PO BOX 691
ALTURAS, CA 96101
dansvec@hdo.net

JESSICA NELSON
PLUMAS-SIERRA RURAL ELECTRIC CO-OP
73233 STATE ROUTE 70, STE A
PORTOLA, CA 96122-7064
jnelson@psrc.coop

DONALD BROOKHYSER
ALCANTAR & KAHL
1300 SW FIFTH AVE., SUITE 1750
PORTLAND, OR 97210
deb@a-klaw.com

KYLE L. DAVIS
PACIFICORP
825 NE MULTNOMAH,
PORTLAND, OR 97232
kyle.l.davis@pacificorp.com

NATALIE HOCKEN, ESQ.
PACIFICORP
825 NE MULTNOMAH
PORTLAND, OR 97232
Natalie.Hocken@PacifiCorp.com

SHAY LABRAY
PACIFICORP
825 NE MULTNOMAH, SUITE 2000
PORTLAND, OR 97232
shayleah.labray@pacificorp.com

KELLY NORWOOD
AVISTA UTILITIES
PO BOX 3727, MSC-29
SPOKANE, WA 99220-3727
kelly.norwood@avistacorp.com

IAN CARTER
INTERNATIONAL EMISSIONS TRADING ASSN.
350 SPARKS STREET, STE. 809
OTTAWA, ON K1R 7S8
carter@ieta.org

CAROL JOLLY
PO BOX 585
CHESTERFIELD, MA 1012
cajollyco@verizon.net

BRIAN M. JONES
M. J. BRADLEY & ASSOCIATES, INC.
47 JUNCTION SQUARE DRIVE
CONCORD, MA 1742
bjones@mjbbradley.com

RICHARD COWART
REGULATORY ASSISTANCE PROJECT
50 STATE STREET, SUITE 3
MONTPELIER, VT 5602
rapcowart@aol.com

STEVEN S. SCHLEIMER
BARCLAYS BANK, PLC
200 PARK AVENUE, FIFTH FLOOR
NEW YORK, NY 10166
steven.schleimer@barclayscapital.com

STEVEN HUHMAN
MORGAN STANLEY CAPITAL GROUP INC.
2000 WESTCHESTER AVENUE
PURCHASE, NY 10577
steven.huhman@morganstanley.com

ERIN M. MURPHY
MCDERMOTT WILL & EMERY LLP
600 THIRTEENTH STREET, N.W.
WASHINGTON, DC 20005
emmurphy@mwe.com

DALLAS BURTRAW
1616 P STREET, NW
WASHINGTON, DC 20036
burtraw@rff.org

VERONIQUE BUGNION
POINT CARBON
205 SEVERN RIVER RD
SEVERNA PARK, MD 21146
vb@pointcarbon.com

LISA DECKER
CONSTELLATION ENERGY GROUP, INC.
111 MARKET PLACE, SUITE 500
BALTIMORE, MD 21202
lisa.decker@constellation.com

KYLE D. BOUDREAUX
FPL GROUP
700 UNIVERSE BLVD., JES/JB
JUNO BEACH, FL 33408
kyle_boudreaux@fpl.com

CATHY S. WOOLLUMS
MIDAMERICAN ENERGY HOLDINGS
COMPANY
106 EAST SECOND STREET
DAVENPORT, IA 52801
cswoollums@midamerican.com

BRIAN POTTS
ONE SOUTH PINCKNEY STREET
MADISON, WI 53703
bhpotts@michaelbest.com

JAMES ROSS
RCS, INC.
500 CHESTERFIELD CENTER, SUITE 320
CHESTERFIELD, MO 63017
jimross@r-c-s-inc.com

GARY HINNERS
RELIANT ENERGY, INC.
PO BOX 148
HOUSTON, TX 77001-0148
ghinners@reliant.com

PAUL M. SEBY
MCKENNA LONG & ALDRIDGE LLP
1875 LAWRENCE STREET, SUITE 200
DENVER, CO 80202
pseby@mckennalong.com

TIMOTHY R. ODIL
MCKENNA LONG & ALDRIDGE LLP
1875 LAWRENCE STREET, SUITE 200
DENVER, CO 80202
todil@mckennalong.com

KEVIN J. SIMONSEN
ENERGY MANAGEMENT SERVICES
646 EAST THIRD AVENUE
DURANGO, CO 81301
kjsimonsen@ems-ca.com

BRIAN MCQUOWN
RELIANT ENERGY
7251 AMIGO ST., SUITE 120
LAS VEGAS, NV 89119
bmquown@reliant.com

DOUGLAS BROOKS
SIERRA PACIFIC POWER COMPANY
6226 WEST SAHARA AVENUE
LAS VEGAS, NV 89151
dbrooks@nevpc.com

CYNTHIA MITCHELL
ENERGY ECONOMICS, INC.
530 COLGATE COURT
RENO, NV 89503
ckmitchell1@sbcglobal.net

ELENA MELLO
SIERRA PACIFIC POWER COMPANY
6100 NEIL ROAD
RENO, NV 89520
emello@sppc.com

TREVOR DILLARD
SIERRA PACIFIC POWER COMPANY
6100 NEIL ROAD
RENO, NV 89520
regulatory@sierrapacific.com

FRANK LUCHETTI
NEVADA DIV. OF ENVIRONMENTAL
PROTECTION
901 S. STEWART ST., SUITE 4001
CARSON CITY, NV 89701
fluchetti@ndep.nv.gov

ROBERT L. PETTINATO
LOS ANGELES DEPARTMENT OF WATER &
POWER
111 NORTH HOPE STREET, SUITE 1150
LOS ANGELES, CA 90012
robert.pettinato@ladwp.com

RASHA PRINCE
SAN DIEGO GAS & ELECTRIC
555 WEST 5TH STREET, GT14D6
LOS ANGELES, CA 90013
rprince@semprautilities.com

CURTIS L. KEBLER
GOLDMAN, SACHS & CO.
2121 AVENUE OF THE STARS
LOS ANGELES, CA 90067
curtis.kebler@gs.com

MICHAEL MCCORMICK
CALIFORNIA CLIMATE ACTION REGISTRY
515 S. FLOWER ST. SUITE 1640
LOS ANGELES, CA 90071
mike@climateregistry.org

MIKE SANDLER
4731 LA VILLA MARINA, UNIT B
MARINA DEL REY, CA 90292
msandler@pair.com

HARVEY EDER
PUBLIC SOLAR POWER COALITION
1218 12TH ST., 25
SANTA MONICA, CA 90401
harveyederpspc.org@hotmail.com

RACHEL MCMAHON
GLOBAL GREEN USA
2218 MAIN STREET
SANTA MONICA, CA 90404
rmcmahon@globalgreen.org

STEVE ENDO
EPARTMENT OF WATER & POWER
45 EAST GLENARM STREET
PASADENA, CA 91105
sendo@ci.pasadena.ca.us

STEVEN G. LINS
CITY OF GLENDALE
613 EAST BROADWAY, SUITE 220
GLENDALE, CA 91206-4394
slins@ci.glendale.ca.us

TOM HAMILTON
ENERGY CONCIERGE SERVICES
321 MESA LILA RD
GLENDALE, CA 91208
THAMILTON5@CHARTER.NET

BRUNO JEIDER
BURBANK WATER & POWER
164 WEST MAGNOLIA BLVD.
BURBANK, CA 91502
bjeider@ci.burbank.ca.us

ROGER PELOTE
THE WILLIAMS COMPANY, INC.
12736 CALIFA STREET
VALLEY VILLAGE, CA 91607
roger.pelote@williams.com

CASE ADMINISTRATION
SOUTHERN CALIFORNIA EDISON COMPANY
2244 WALNUT GROVE AVE., RM. 370
ROSEMEAD, CA 91770
case.admin@sce.com

TIM HEMIG
NRG ENERGY, INC.
1819 ASTON AVENUE, SUITE 105
CARLSBAD, CA 92008
tim.hemig@nrgenergy.com

BARRY LOVELL
15708 POMERADO RD., SUITE 203
POWAY, CA 92064
bjl@bry.com

ADRIAN E. SULLIVAN
SEMPRA ENERGY
101 ASH STREET, HQ13D
SAN DIEGO, CA 92101
asullivan@sempra.com

AIMEE M. SMITH
SEMPRA ENERGY
101 ASH STREET HQ13
SAN DIEGO, CA 92101
amsmith@sempra.com

DONALD C. LIDDELL, P.C.
DOUGLASS & LIDDELL
2928 2ND AVENUE
SAN DIEGO, CA 92103
liddell@energyattorney.com

YVONNE GROSS
SEMPRA ENERGY
101 ASH STREET
SAN DIEGO, CA 92103
ygross@sempraglobal.com

JOHN LAUN
APOGEE INTERACTIVE, INC.
1220 ROSECRANS ST., SUITE 308
SAN DIEGO, CA 92106
jlaun@apogee.net

JOHN W. LESLIE
LUCE, FORWARD, HAMILTON & SCRIPPS, LLP
11988 EL CAMINO REAL, SUITE 200
SAN DIEGO, CA 92130
jleslie@luce.com

ORLANDO B. FOOTE, III
HORTON, KNOX, CARTER & FOOTE
895 BROADWAY, SUITE 101
EL CENTRO, CA 92243
ofoote@hkcf-law.com

ELSTON K. GRUBAUGH
IMPERIAL IRRIGATION DISTRICT
333 EAST BARIONI BLVD.
IMPERIAL, CA 92251
ekgrubaugh@iid.com

JAN PEPPER
CLEAN POWER MARKETS, INC.
418 BENVENUE AVENUE
LOS ALTOS, CA 94024
pepper@cleanpowermarkets.com

GLORIA D. SMITH
ADAMS, BROADWELL, JOSEPH & CARDOZO
601 GATEWAY BLVD., SUITE 1000
SOUTH SAN FRANCISCO, CA 94080
gsmith@adamsbroadwell.com

MARC D. JOSEPH
ADAMS BRADWELL JOSEPH & CARDOZO
601 GATEWAY BLVD. STE 1000
SOUTH SAN FRANCISCO, CA 94080
mdjoseph@adamsbroadwell.com

DIANE I. FELLMAN
LAW OFFICES OF DIANE I. FELLMAN
234 VAN NESS AVENUE
SAN FRANCISCO, CA 94102
diane_fellman@fpl.com

HAYLEY GOODSON
THE UTILITY REFORM NETWORK
711 VAN NESS AVENUE, SUITE 350
SAN FRANCISCO, CA 94102
hayley@turn.org

MATTHEW FREEDMAN
THE UTILITY REFORM NETWORK
711 VAN NESS AVENUE, SUITE 350
SAN FRANCISCO, CA 94102
freedman@turn.org

MICHEL FLORIO
711 VAN NESS AVE., STE. 350
SAN FRANCISCO, CA 94102
mflorio@turn.org

MICHAEL A. HYAMS
SAN FRANCISCO PUBLIC UTILITIES COMM
1155 MARKET ST., 4TH FLOOR
SAN FRANCISCO, CA 94103
mhyams@sfwater.org

DAN ADLER
CALIFORNIA CLEAN ENERGY FUND
582 MARKET ST., SUITE 1015
SAN FRANCISCO, CA 94104
Dan.adler@calcef.org

DEVRA WANG
NATURAL RESOURCES DEFENSE COUNCIL
111 SUTTER STREET, 20TH FLOOR
SAN FRANCISCO, CA 94104
dwang@nrdc.org

KAREN TERRANOVA
ALCANTAR & KAHL, LLP
120 MONTGOMERY STREET, STE 2200
SAN FRANCISCO, CA 94104
filings@a-klaw.com

NORA SHERIFF
ALCANTAR & KAHL, LLP
120 MONTGOMERY STREET, SUITE 2200
SAN FRANCISCO, CA 94104
nes@a-klaw.com

OLOF BYSTROM
CAMBRIDGE ENERGY RESEARCH
ASSOCIATES
555 CALIFORNIA STREET, 3RD FLOOR
SAN FRANCISCO, CA 94104
obystrom@cera.com

SHERYL CARTER
NATURAL RESOURCES DEFENSE COUNCIL
111 SUTTER STREET, 20TH FLOOR
SAN FRANCISCO, CA 94104
scarter@nrdc.org

COLIN PETHERAM
SBC CALIFORNIA
140 NEW MONTGOMERY ST., SUITE 1325
SAN FRANCISCO, CA 94105
cp284@att.com

NORMAN J. FURUTA
FEDERAL EXECUTIVE AGENCIES
333 MARKET STREET, 10TH FLOOR, MS
1021A
SAN FRANCISCO, CA 94105-2195
norman.furuta@navy.mil

HOWARD V. GOLUB
NIXON PEABODY LLP
2 EMBARCADERO CENTER, STE. 2700
SAN FRANCISCO, CA 94111
hgolub@nixonpeabody.com

MARTIN A. MATTES
NOSSAMAN, GUTHNER, KNOX & ELLIOTT,
LLP
50 CALIFORNIA STREET, 34TH FLOOR
SAN FRANCISCO, CA 94111
mmattes@nossaman.com

LISA WEINZIMER
PLATTS
695 NINTH AVENUE, NO. 2
SAN FRANCISCO, CA 94118
lisa_weinzimer@platts.com

ARNO HARRIS
RECURRENT ENERGY, INC.
220 HALLECK ST., SUITE 220
SAN FRANCISCO, CA 94129
arno@recurrentenergy.com

GRACE LIVINGSTON-NUNLEY
PACIFIC GAS AND ELECTRIC COMPANY
PO BOX 770000 MAIL CODE B9A
SAN FRANCISCO, CA 94177
gx12@pge.com

SEBASTIEN CSAPO
PACIFIC GAS AND ELECTRIC COMPANY
PO BOX 770000
SAN FRANCISCO, CA 94177
sscb@pge.com

GREG BLUE
140 MOUNTAIN PKWY.
CLAYTON, CA 94517
greg.blue@sbcglobal.net

MONICA A. SCHWEBS, ESQ.
BINGHAM MCCUTCHEN LLP
1333 N. CALIFORNIA BLVD.
WALNUT CREEK, CA 94596
monica.schwebs@bingham.com

KHURSHID KHOJA
THELEN REID BROWN RAYSMAN & STEINER
101 SECOND STREET, SUITE 1800
SAN FRANCISCO, CA 94105
kkhoja@thelenreid.com

CALIFORNIA ENERGY MARKETS
517-B POTRERO AVENUE
SAN FRANCISCO, CA 94110
cem@newsdata.com

JANINE L. SCANCARELLI
FOLGER LEVIN & KAHN LLP
275 BATTERY STREET, 23RD FLOOR
SAN FRANCISCO, CA 94111
jscancarelli@flk.com

CHRISTOPHER A. HILEN
DAVIS WRIGHT TREMAINE LLP
505 MONTGOMERY STREET, SUITE 800
SAN FRANCISCO, CA 94111-6533
christopherhilen@dwt.com

STEVEN MOSS
SAN FRANCISCO COMMUNITY POWER COOP
2325 3RD STREET, SUITE 344
SAN FRANCISCO, CA 94120
steven@moss.net

DAREN CHAN
PO BOX 770000, MAIL CODE B9A
SAN FRANCISCO, CA 94177
d1ct@pge.com

JASMIN ANSAR
PG&E
PO BOX 770000
SAN FRANCISCO, CA 94177
jxa2@pge.com

SOUMYA SASTRY
PACIFIC GAS AND ELECTRIC COMPANY
PO BOX 770000
SAN FRANCISCO, CA 94177
svs6@pge.com

ANDREW J. VAN HORN
VAN HORN CONSULTING
12 LIND COURT
ORINDA, CA 94563
andy.vanhorn@vhcenergy.com

WILLIAM F. DIETRICH
DIETRICH LAW
2977 YGNACIO VALLEY ROAD, 613
WALNUT CREEK, CA 94598-3535
dietrichlaw2@earthlink.net

STEPHANIE LA SHAWN
PACIFIC GAS AND ELECTRIC COMPANY
77 BEALE STREET, RM. 996B
SAN FRANCISCO, CA 94105
S1L7@pge.com

ANN G. GRIMALDI
MCKENNA LONG & ALDRIDGE LLP
101 CALIFORNIA STREET, 41ST FLOOR
SAN FRANCISCO, CA 94111
agrimaldi@mckennalong.com

JOSEPH F. WIEDMAN
GOODIN MACBRIDE SQUERI RITCHIE &
DAY, LLP
505 SANSOME STREET, SUITE 900
SAN FRANCISCO, CA 94111
jwiedman@gmssr.com

JEN MCGRAW
CENTER FOR NEIGHBORHOOD
TECHNOLOGY
PO BOX 14322
SAN FRANCISCO, CA 94114
jen@cnt.org

SHAUN ELLIS
2183 UNION STREET
SAN FRANCISCO, CA 94123
sellis@fypower.org

ED LUCHA
PACIFIC GAS AND ELECTRIC COMPANY
PO BOX 770000, MAIL CODE: B9A
SAN FRANCISCO, CA 94177
ell5@pge.com

JONATHAN FORRESTER
PG&E
PO BOX 770000
SAN FRANCISCO, CA 94177
JDF1@PGE.COM

VALERIE J. WINN
PACIFIC GAS AND ELECTRIC COMPANY
PO BOX 770000, B9A
SAN FRANCISCO, CA 94177-0001
vjw3@pge.com

JOSEPH M. PAUL
DYNEGY, INC.
2420 CAMINO RAMON, SUITE 215
SAN RAMON, CA 94583
Joe.paul@dynegy.com

JODY S. LONDON
JODY LONDON CONSULTING
PO BOX 3629
OAKLAND, CA 94609
jody_london_consulting@earthlink.net

MRW & ASSOCIATES, INC.
1814 FRANKLIN STREET, SUITE 720
OAKLAND, CA 94612
mrw@mrwassoc.com

CLYDE MURLEY
CONSULTANT
600 SAN CARLOS AVENUE
ALBANY, CA 94706
clyde.murley@comcast.net

RYAN WISER
BERKELEY LAB
ONE CYCLOTRON ROAD
BERKELEY, CA 94720
rhwiser@lbl.gov

KENNY SWAIN
POWER ECONOMICS
901 CENTER STREET
SANTA CRUZ, CA 95060
kswain@powereconomics.com

RICHARD SMITH
MODESTO IRRIGATION DISTRICT
1231 11TH STREET
MODESTO, CA 95352-4060
richards@mid.org

BARBARA R. BARKOVICH
BARKOVICH & YAP, INC.
44810 ROSEWOOD TERRACE
MENDOCINO, CA 95460
brbarkovich@earthlink.net

RICHARD MCCANN, PH.D
M. CUBED
2655 PORTAGE BAY, SUITE 3
DAVIS, CA 95616
rmccann@umich.edu

SAEED FARROKHPAY
FEDERAL ENERGY REGULATORY
COMMISSION
110 BLUE RAVINE RD., SUITE 107
FOLSOM, CA 95630
saeed.farrokhpay@ferc.gov

ELLEN WOLFE
RESERO CONSULTING
9289 SHADOW BROOK PL.
GRANITE BAY, CA 95746
ewolfe@resero.com

STEVEN KELLY
INDEPENDENT ENERGY PRODUCERS ASSN
1215 K STREET, SUITE 900
SACRAMENTO, CA 95814-3947
steven@iepa.com

CARLA PETERMAN
1815 BLAKE ST., APT. A
BERKELEY, CA 94703
carla.peterman@gmail.com

BRENDA LEMAY
HORIZON WIND ENERGY
1600 SHATTUCK, SUITE 222
BERKELEY, CA 94709
brenda.lemay@horizonwind.com

PHILLIP J. MULLER
SCD ENERGY SOLUTIONS
436 NOVA ALBION WAY
SAN RAFAEL, CA 94903
philm@scdenergy.com

MAHLON ALDRIDGE
ECOLOGY ACTION
PO BOX 1188
SANTA CRUZ, CA 95060
emahlon@ecoact.org

CHRISTOPHER J. MAYER
MODESTO IRRIGATION DISTRICT
1231 11TH STREET
MODESTO, CA 95354
chrism@mid.org

JOHN R. REDDING
ARCTURUS ENERGY CONSULTING
44810 ROSEWOOD TERRACE
MENDOCINO, CA 95460
johnredding@earthlink.net

CAROLYN M. KEHREIN
ENERGY MANAGEMENT SERVICES
1505 DUNLAP COURT
DIXON, CA 95620-4208
cmkehrein@ems-ca.com

DAVID BRANCHCOMB
BRANCHCOMB ASSOCIATES, LLC
9360 OAKTREE LANE
ORANGEVILLE, CA 95662
david@branchcomb.com

AUDRA HARTMANN
LS POWER GENERATION
980 NINTH STREET, SUITE 1420
SACRAMENTO, CA 95814
ahartmann@lspower.com

EDWARD J. TIEDEMANN
KRONICK, MOSKOVITZ, TIEDEMANN &
GIRARD
400 CAPITOL MALL, 27TH FLOOR
SACRAMENTO, CA 95814-4416
etiedemann@kmtg.com

REED V. SCHMIDT
BARTLE WELLS ASSOCIATES
1889 ALCATRAZ AVENUE
BERKELEY, CA 94703
rschmidt@bartlewells.com

EDWARD VINE
LAWRENCE BERKELEY NATIONAL
LABORATORY
BUILDING 90-4000
BERKELEY, CA 94720
elvine@lbl.gov

CARL PECHMAN
POWER ECONOMICS
901 CENTER STREET
SANTA CRUZ, CA 95060
cpechman@powereconomics.com

ERIC WANLESS
NATURAL RESOURCES DEFENSE COUNCIL
111 SUTTER STREET, 20TH FLOOR
SAN FRANCISCO, CA 95104
ewanless@nrdc.org

ROGER VANHOY
MODESTO IRRIGATION DISTRICT
1231 11TH STREET
MODESTO, CA 95354
rogerv@mid.org

CLARK BERNIER
RLW ANALYTICS
1055 BROADWAY, SUITE G
SONOMA, CA 95476
clark.bernier@rlw.com

CALIFORNIA ISO
151 BLUE RAVINE ROAD
FOLSOM, CA 95630
e-recipient@caiso.com

SCOTT TOMASHEFSKY
NORTHERN CALIFORNIA POWER AGENCY
180 CIRBY WAY
ROSEVILLE, CA 95678-6420
scott.tomashefsky@ncpa.com

CURT BARRY
717 K STREET, SUITE 503
SACRAMENTO, CA 95814
curt.barry@iwpnews.com

LYNN HAUG
ELLISON, SCHNEIDER & HARRIS, LLP
2015 H STREET
SACRAMENTO, CA 95816
lmh@eslawfirm.com

BALWANT S. PUREWAL
DEPARTMENT OF WATER RESOURCES
3310 EL CAMINO AVE., LL-90
SACRAMENTO, CA 95821
bpurewal@water.ca.gov

HOLLY B. CRONIN
CALIFORNIA DEPARTMENT OF WATER
RESOURCES
3310 EL CAMINO AVE., LL-90
SACRAMENTO, CA 95821
hcronin@water.ca.gov

KAREN NORENE MILLS
CALIFORNIA FARM BUREAU FEDERATION
2300 RIVER PLAZA DRIVE
SACRAMENTO, CA 95833
kmills@cbbf.com

KAREN LINDH
LINDH & ASSOCIATES
7909 WALERGA ROAD, NO. 112, PMB119
ANTELOPE, CA 95843
karen@klindh.com

DENISE HILL
4004 KRUSE WAY PLACE, SUITE 150
LAKE OSWEGO, OR 97035
Denise_Hill@transalta.com

ALEXIA C. KELLY
THE CLIMATE TRUST
65 SW YAMHILL STREET, SUITE 400
PORTLAND, OR 97204
akelly@climatetrust.org

KEVIN FOX
STOEL RIVES LLP
900 SW FIFTH AVENUE, SUITE 2600
PORTLAND, OR 97204
ktfox@stoel.com

ANNIE STANGE
ALCANTAR & KAHL
1300 SW FIFTH AVE., SUITE 1750
PORTLAND, OR 97210
sas@a-klaw.com

ALAN COMNES
WEST COAST POWER
3934 SE ASH STREET
PORTLAND, OR 97214
alan.comnes@nrgenergy.com

MARK C. TREXLER
TREXLER CLIMATE+ENERGY SERVICES, INC.
529 SE GRAND AVE, M SUITE 300
PORTLAND, OR 97214-2232
mtrexler@climateservices.com

SAM SADLER
OREGON DEPARTMENT OF ENERGY
625 NE MARION STREET
SALEM, OR 97301-3737
samuel.r.sadler@state.or.us

LISA SCHWARTZ
ORGEON PUBLIC UTILITY COMMISSION
PO BOX 2148
SALEM, OR 97308-2148
lisa.c.schwartz@state.or.us

JESUS ARREDONDO
NRG ENERGY INC.
4600 CARLSBAD BLVD.
CARLSBAD, CA 99208
jesus.arredondo@nrgenergy.com

KAREN MCDONALD
POWEREX CORPORATION
666 BURRAND STREET
VANCOUVER, BC V6C 2X8
karen.mcdonald@powerex.com

James Loewen
CALIF PUBLIC UTILITIES COMMISSION
320 WEST 4TH STREET SUITE 500
LOS ANGELES, CA 90013
loe@cpuc.ca.gov

Charlotte TerKeurst
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
cft@cpuc.ca.gov

Christine S. Tam
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
tam@cpuc.ca.gov

Donald R. Smith
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
dsh@cpuc.ca.gov

Ed Moldavsky
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
edm@cpuc.ca.gov

Eugene Cadenasso
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
cpe@cpuc.ca.gov

Harvey Y. Morris
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
hym@cpuc.ca.gov

Jaclyn Marks
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
jm3@cpuc.ca.gov

George S. Tagnipes
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
jst@cpuc.ca.gov

Joel T. Perlstein
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
jtp@cpuc.ca.gov

Jonathan Lakritz
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
jol@cpuc.ca.gov

Judith Ikle
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
jci@cpuc.ca.gov

Julie A. Fitch
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
jf2@cpuc.ca.gov

Kristin Ralff Douglas
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
krd@cpuc.ca.gov

Lainie Motamedi
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
lrm@cpuc.ca.gov

Matthew Deal
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
mjd@cpuc.ca.gov

Meg Gottstein
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
meg@cpuc.ca.gov

Merideth Sterkel
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
mts@cpuc.ca.gov

Nancy Ryan
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
ner@cpuc.ca.gov

Sara M. Kamins
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
smk@cpuc.ca.gov

Suzy Hong
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
suh@cpuc.ca.gov

Theresa Cho
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
tcx@cpuc.ca.gov

BILL LOCKYER
STATE OF CALIFORNIA, DEPT OF JUSTICE
PO BOX 944255
SACRAMENTO, CA 94244-2550
ken.alex@doj.ca.gov

GRANT A. ROSENBLUM
CALIFORNIA ISO
151 BLUE RAVINE ROAD
FOLSOM, CA 95630
grosenblum@caiso.com

JUDITH B. SANDERS
CALIFORNIA INDEPENDENT SYSTEM
OPERATOR
151 BLUE RAVINE ROAD
FOLSOM, CA 95630
jsanders@caiso.com

JULIE GILL
CALIFORNIA INDEPENDENT SYSTEM
OPERATOR
151 BLUE RAVINE ROAD
FOLSOM, CA 95630
jgill@caiso.com

MARY MCDONALD
CALIFORNIA INDEPENDENT SYSTEM
OPERATOR
151 BLUE RAVINE ROAD
FOLSOM, CA 95630

PHILIP D. PETTINGILL
CALIFORNIA INDEPENDENT SYSTEM
OPERATOR
151 BLUE RAVINE ROAD
FOLSOM, CA 95630
ppettingill@caiso.com

MICHAEL SCHEIBLE
CALIFORNIA AIR RESOURCES BOARD
1001 I STREET
SACRAMENTO, CA 95677
mscheibl@arb.ca.gov

MEG GOTTSTEIN
PO BOX 210/21496 NATIONAL STREET
VOLCANO, CA 95689
gottstein@volcano.net

B. B. BLEVINS
CALIFORNIA ENERGY COMMISSION
1516 9TH STREET, MS-39
SACRAMENTO, CA 95814
bblevins@energy.state.ca.us

DEBORAH SLON
OFFICE OF THE ATTORNEY GENERAL
1300 I STREET, 15TH FLOOR
SACRAMENTO, CA 95814
deborah.slon@doj.ca.gov

Don Schultz
CALIF PUBLIC UTILITIES COMMISSION
770 L STREET, SUITE 1050
SACRAMENTO, CA 95814
dks@cpuc.ca.gov

KAREN GRIFFIN
CALIFORNIA ENERGY COMMISSION
1516 9TH STREET, MS 39
SACRAMENTO, CA 95814
kgriffin@energy.state.ca.us

LISA DECARLO
CALIFORNIA ENERGY COMMISSION
1516 9TH STREET MS-14
SACRAMENTO, CA 95814
ldecarlo@energy.state.ca.us

PIERRE H. DUVAIR
CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET, MS-41
SACRAMENTO, CA 95814
pduvair@energy.state.ca.us