

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  
(Filed April 13, 2006)

**DOCKET**  
**07-OIIP-1**

DATE FEB 28 2008

RECD. FEB 28 2008

**COMMENTS OF THE DIVISION OF RATEPAYER ADVOCATES  
ON THE INTERIM OPINION ON GREENHOUSE GAS REGULATORY  
STRATEGIES**

DIANA L. LEE

Attorney for the Division of  
Ratepayer Advocates  
California Public Utilities Commission  
505 Van Ness Avenue  
San Francisco, CA 94102  
Phone: (415) 703-4342  
Fax: (415) 703-4432  
Email: [dil@cpuc.ca.gov](mailto:dil@cpuc.ca.gov)

PAUL S. PHILLIPS

Regulatory Analyst for the Division of  
Ratepayer Advocates  
California Public Utilities Commission  
505 Van Ness Avenue  
San Francisco, CA 94102  
Phone: (415) 703-2039  
Email: [psp@cpuc.ca.gov](mailto:psp@cpuc.ca.gov)

CHRISTINE S. TAM

Regulatory Analyst for the Division of  
Ratepayer Advocates  
California Public Utilities Commission  
505 Van Ness Avenue  
San Francisco, CA 94102  
Phone: (415) 355-5556  
Email: [tam@cpuc.ca.gov](mailto:tam@cpuc.ca.gov)

BETH MOORE

Regulatory Analyst for the Division of  
Ratepayer Advocates  
California Public Utilities Commission  
505 Van Ness Avenue  
San Francisco, CA 94102  
Phone: (415) 703-1784  
Email: [blm@cpuc.ca.gov](mailto:blm@cpuc.ca.gov)

## TABLE OF CONTENTS

### PAGE

<b>TABLE OF AUTHORITIES.....</b>	<b>i</b>
<b>I. INTRODUCTION.....</b>	<b>1</b>
<b>II. DISCUSSION.....</b>	<b>2</b>
A. IT IS PREMATURE TO MANDATE INCREASING RENEWABLE ENERGY PROCUREMENT BEYOND THE CURRENT RENEWABLE PORTFOLIO STANDARD (RPS) STATUTORY REQUIREMENTS.....	2
B. DRA RECOMMENDS THAT THE COMMISSION PURSUE A GOAL OF INTEGRATING RENEWABLE ENERGY POLICY INTO CLIMATE CHANGE POLICY. ....	5
C. THE ARB SHOULD CLARIFY WHETHER GHG EMISSIONS REDUCTIONS ATTRIBUTED TO THE EXISTING RPS PROGRAM COUNT TOWARD THE ACHIEVEMENT OF AB 32 GOALS. ....	6
D. EMISSIONS FROM IN-STATE GENERATION SERVING CALIFORNIA’S MULTI-JURISDICTIONAL UTILITIES’ SHOULD BE EXCLUDED TO AVOID DOUBLE REGULATION. ....	7
<b>III. CONCLUSION .....</b>	<b>8</b>

APPENDIX A: Proposed Changes to Findings of Fact and Conclusions of Law

## **TABLE OF AUTHORITIES**

	<b><u>Page</u></b>
<b><u>Commission Decisions</u></b>	
D.07-09-017 .....	6
D.07-01-039 .....	6
<b><u>Public Utilities Code Section</u></b>	
Section 399.11 .....	5
<b><u>Health and Safety Code Section</u></b>	
Section 38562(d)(2) .....	7
<b><u>Other Authorities</u></b>	
2008 Energy Action Plan Update .....	3

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  
(Filed April 13, 2006)

**COMMENTS OF THE DIVISION OF RATEPAYER ADVOCATES ON  
THE INTERIM OPINION ON GREENHOUSE GAS REGULATORY  
STRATEGIES**

**I. INTRODUCTION**

The Division of Ratepayer Advocates (DRA) submits these comments on the Proposed "Interim Opinion Interim Opinion Greenhouse Gas Regulatory Strategies (PD)", pursuant to Rule 14.3 of the Commission's Rules of Practice and Procedure. The PD recommends policies and requirements designed to reduce greenhouse gas emissions for adoption by the California Air Resources Board (ARB).

As a preliminary matter, DRA wishes to clarify the PD's characterization of DRA's support for an electricity sector cap-and-trade program. Contrary to the PD's statement that "[o]ther parties including DRA and LADWP assert that additional information is needed before the desirability of a cap-and-trade system can be determined,"<sup>1</sup> DRA supports the use of cap-and-trade as part of a regulatory system to reduce GHG emissions at the lowest cost. The PD shortly thereafter accurately describes DRA's position on the advantages of a cap-and-trade scheme:

---

<sup>1</sup> PD. pp. 17-18.

Supporters submit that, by establishing a market price for carbon (PG&E), providing price visibility and access to the global marginal price of abatement (SDG&E), and giving the right price signals (DRA, IEP, and EPUC/CAC), a cap-and-trade system would provide the least-cost method of obtaining emission reductions.<sup>2</sup>

Juxtaposed in this manner, these two statements in the PD appear to conflict with one another, and DRA would simply like to clarify that it supports a cap-and-trade system, precisely for the reasons offered in the second statement above. Moreover, DRA supports the PD's recommendation that ARB adopt a mix of direct regulatory requirements along with a cap-and-trade system for the electricity sector. DRA provides the following recommendations to amend and clarify the findings and conclusions of the PD.

## **II. DISCUSSION**

### **A. It is premature to mandate increasing renewable energy procurement beyond the current Renewable Portfolio Standard (RPS) statutory requirements.**

The PD recommends that the "Air Resources Board (ARB) work with the Public Utilities Commission and the Energy Commission (Joint Commissions) to set requirements that all retail providers of electricity, including publicly owned utilities (POUs), *must* deliver more than 20 percent of their power from renewable sources in the future, at levels and dates to be determined."<sup>3</sup> DRA opines that an immediate mandate to increase renewable procurement beyond 20% is premature, based on the arguments below.

As described in the PD, current renewable portfolio standard (RPS) statutes require investor owned utilities (IOUs), community choice aggregators, energy service

---

<sup>2</sup> PD at 18.

<sup>3</sup> PD, Ordering Paragraph (OP) 3 (emphasis added).

providers, and POUs to provide a minimum of 20% of delivered energy from renewable sources by 2010. Current forecasts indicate that the IOUs will likely fall short of reaching that target,<sup>4</sup> though with flexible compliance they may achieve this goal by 2013.

Meanwhile, since the adoption of SB 1068, renewable prices have been steadily increasing. The price of wind generation has almost doubled over the last four years as California utilities strive to meet their RPS mandate and other states in the West adopt their RPS statutes, which has sharply increased the demand for renewables. Any further regulatory pressure to increase renewable procurement at this point would likely push renewable prices higher, which in turn would add to the overall cost of the RPS program and disproportionately increase the burden to ratepayers.

Second, from a policy perspective, expanding the regulatory mandate for specific resources such as renewables appears to contradict the intent of a market-based GHG compliance mechanism, which is to provide flexibility for regulated entities to meet their GHG reduction targets in the most cost-effective manner. While DRA agrees with the PD's statement that "a cap-and-trade program in combination with [a certain minimum level of] mandatory reductions should be able to produce the GHG emissions reductions required by AB 32 at a lower cost than reliance on additional mandatory reductions,"<sup>5</sup> the Joint Commissions should for now let the market determine the amount of renewables above and beyond the the 20% requirements that would be deployed to meet the goals of AB32. To the extent that renewables turn out to be more costly than other GHG reduction options, it would not make sense to deploy additional renewables, if, for example, energy efficiency beyond current targets would make more sense. In other words, limiting flexibility will drive up overall compliance costs.

Third, the overall economic gains from instituting a cap-and-trade system will be limited by the portion of reductions coming from the cap-and-trade system versus

---

<sup>4</sup> 2008 Energy Action Plan Update, p.12.

<sup>5</sup> PD, p.32.

regulatory mandates. As noted in the PD, “several parties recognize that a cap-and-trade program is likely to provide only a relatively small portion of the overall emissions reductions needs”<sup>6</sup> for the electricity sector. DRA agrees, and adds that more restrictive regulatory mandates could result in fewer benefits from the inclusion of the electricity sector in the California cap-and-trade program. To illustrate this, assume that the cost of GHG allowance is \$9 per ton under a cap-and-trade scheme, whereas GHG reductions from renewables come to \$10 per ton. The economic gain from the trading system would thus be \$1 per ton (\$10-\$9), and the *total* economic gain would be \$1 times total tons of GHG reduced under the trading program. Thus, the more reductions that occur under the trading the system, the greater the total economic gain.

It is also important to remember that there are necessary administrative costs associated with including the electricity sector in a cap-and-trade program. While administrative costs are generally thought to be small compared to the overall value of the program, they do need to be considered when assessing the value of the cap-and-trade program. Also, administrative costs will likely not vary greatly with the amount of GHG reductions covered under a trading system. Thus, the greater the emissions reductions achieved under the trading system, the lower administrative costs on a per-ton basis. Conversely, if the amount of reductions under the trading system is very limited, then it is possible that the administrative costs of including the electricity sector outweigh the economic gains of doing so.

Finally, the Commission has recently adopted an Order Instituting Rulemaking (OIR) to integrate and refine procurement policies underlying long-term procurement plans (LTTPs).<sup>7</sup> One of the goals for the new OIR is to “serve as the forum for comparing resource alternatives against each other, in terms of uniform criteria such as cost, risk, reliability, and environmental impact, in order to optimize California’s electric

---

<sup>6</sup> *Id.*, p. 20.

<sup>7</sup> R.08-02-007 Order Instituting Rulemaking to Integrate and Refine Procurement Policies underlying Long-Term Procurement Plans), issued on February 20, 2008.

resource portfolio.”<sup>8</sup> In particular, the OIR notes the need to evaluate the feasibility and cost of an increased renewables target (33% by 2020) as part of the utilities’ integrated resource plan, which is not expected to be conducted until 2012. DRA agrees that an integrated resource planning process is the appropriate vehicle to determine the most cost effective amount of renewables in the utilities’ portfolio. In light of this separate process, DRA recommends that the Joint Commission refrain from mandating an increase in renewables target in their recommendations to the ARB at this time. Consistent with this recommendation, OP #3 in the PD should be deleted.

**B. DRA recommends that the Commission pursue a goal of integrating renewable energy policy into climate change policy.**

Rather than promoting an increased mandate for renewables, DRA recommends that the Commission pursue a goal of integrating renewable energy policy into climate change policy. While the RPS program was established in 2001 for the purposes of “increasing the diversity, reliability, public health and environmental benefits of the energy mix”<sup>9</sup> the greatest value of renewables might be in carbon emission reductions.

The RPS program provides ratepayer-funded subsidies to renewable generators for costs above the market-price referent (MPR), a CPUC-established benchmark that compares the cost of natural gas fired powers to renewables, thereby enabling utilities to comply with the RPS statute. A cap-and-trade program could potentially replace the need for such subsidies by raising fossil fuel-based generation costs to reflect the cost of carbon emissions. In the long run, this would enable renewables to become a fully competitive and self-sustaining supply of electricity, which is the ultimate goal of the RPS program.

---

<sup>8</sup> *Id.*, p.8.

<sup>9</sup> Public Utilities Code Section 399.11



One frequently asked question is how null power would be treated in a GHG cap-and-trade program.<sup>10</sup> The record on this has been vague. D.07-01-039 ruled that “for the limited purposes of the emissions performance standard, null power would be assigned the emissions value of the underlying renewable generation.”<sup>11</sup> D.07-09-017 left open the issue of GHG emissions attributions to null power in its recommendations to ARB regarding GHG emissions reporting protocols.<sup>12</sup> The current PD again defers resolution of the issue.<sup>13</sup> In the meantime, the momentum for developing a tradable REC (renewable energy credit) program has been building within R.06-02-012.

In the process of integrating renewable energy and climate change policies, an important goal is the eventual elimination of price subsidies for renewables commensurate with their increased market value as the true price of carbon is revealed. DRA recommends that the Commission convene a public workshop to discuss this important issue.

**C. The ARB should clarify whether GHG emissions reductions attributed to the existing RPS program count toward the achievement of AB 32 goals.**

Another question that has been raised repeatedly is whether the GHG emissions reductions attributed to the existing RPS program count toward the achievement of AB 32 goals. AB 32 states that “[f]or regulations pursuant to Part 5 [market-based compliance mechanisms], the reduction is in addition to any greenhouse gas emission reduction otherwise required by law or regulation, and any other greenhouse gas emission

---

<sup>10</sup> Null power refers to electricity generated from a renewable resource for which the renewable and environmental attributes have been sold to another party.

<sup>11</sup> D.07-09-017, p.33.

<sup>12</sup> “The attribution of GHG emissions to null power is an issue that will be dealt with as California decides whether to implement a REC program.” (D.07-09-017, p.34)

<sup>13</sup> “The treatment of renewable generation could become more complicated, however, depending on future developments regarding tradable RECs.” (Proposed Decision, p.68)

reduction that otherwise would occur.”<sup>14</sup> One possible interpretation of this is that GHG emission reductions attributed to renewables procured to meet the 20% goal established by SB1038 would *not* count towards the AB 32 goals. If that is the case, compliance with AB 32 could indeed be far more costly than presently projected.

DRA recommends that the ARB clarify whether GHG emissions reductions attributed to the existing RPS program count toward the achievement of AB 32 goals. For example, the ARB could determine that the total GHG reductions to be achieved through a cap-and-trade mechanism is net of the projected GHG reductions based on the 20% RPS goals, such that the sum total of GHG reductions will meet AB32 goals. Clarification on this issue should be made prior to ARB’s adoption of a scoping plan to implement AB32.

**D. Emissions from in-state generation serving California’s multi-jurisdictional utilities should be excluded to avoid double regulation.**

The PD recommends that California’s multi-jurisdictional utilities (MJUs) be treated differently from other deliverers in the system given the difficulty to distinguish the sources of electricity used to serve their California customers from their non-California customers. Specifically, the PD recommends that MJUs be regulated on a retail provider basis, with GHG emissions attributed based on a proportional share of their electricity sales in California.

Regulating MJUs on a retail provider basis while applying a first deliverer point of regulation to the rest of electricity sector will create double regulation for the in-state generation contracted by an MJU, since in-state generation is already accounted under the first deliverer regulatory approach. To avoid such double regulation, DRA recommends that the in-state generation from an MJU’s resource portfolio be subtracted out prior to determining the GHG emissions for its California load. Apart from this separate

---

<sup>14</sup> Health and Safety Code Section 38562(d)(2).

treatment of in-state generation, DRA supports the PD's recommendation regarding MJUs.

### **III. CONCLUSION**

For the foregoing reasons, the CPUC and CEC should modify their recommendations to the ARB regarding GHG regulatory strategies.

Respectfully submitted,

/s/     DIANA L. LEE

---

Diana L. Lee  
Attorney for Division of Ratepayer Advocates

California Public Utilities Commission  
505 Van Ness Avenue  
San Francisco, CA 94102  
Phone: (415) 703-4342  
Fax: (415) 703-4432

February 28, 2008

## APPENDIX A

### Proposed Changes to Findings of Fact, Conclusions of Law and Ordering Paragraphs.

7. For the electricity sector, a cap-and-trade system, in conjunction with the continuation ~~and strengthening~~ of existing policies regarding energy efficiency building codes and appliance efficiency standards, retail provider energy efficiency programs, the renewables portfolio standard program, and the emissions performance standard as recommended in this decision, is likely to be a less expensive means of complying with AB 32 GHG emission reduction requirements than sole reliance on existing and increased mandatory programmatic requirements.

In addition, consistent with this recommendation, OP #3 in the PD should be deleted.

**CERTIFICATE OF SERVICE**

I hereby certify that I have this day served a copy of **“REPLY COMMENTS OF THE DIVISION OF RATEPAYER ADVOCATES ON THE INTERIM OPINION ON GREENHOUSE GAS REGULATORY STRATEGIES ”** in **R.06-04-009** by using the following service:

☒ **E-Mail Service:** sending the entire document as an attachment to an e-mail message to all known parties of record to this proceeding who provided electronic mail addresses.

☐ **U.S. Mail Service:** mailing by first-class mail with postage prepaid to all known parties of record who did not provide electronic mail addresses.

Executed on February 28, 2008 at San Francisco, California.

/s/      Rosemary Mendoza

\_\_\_\_\_  
ROSEMARY MENDOZA

**N O T I C E**

Parties should notify the Process Office, Public Utilities Commission, 505 Van Ness Avenue, Room 2000, San Francisco, CA 94102, of any change of address and/or e-mail address to insure that they continue to receive documents. You must indicate the proceeding number on the service list on which your name appears.

\*\*\*\*\*

## SERVICE LIST

### R.06-04-009

cadams@covantaenergy.com  
steven.schleimer@barclayscapital.com  
steven.huhman@morganstanley.com  
rick\_noger@praxair.com  
keith.mccrea@sablaw.com  
ajkatz@mwe.com  
ckrupka@mwe.com  
kyle\_boudreaux@fpl.com  
cswoollums@midamerican.com  
Cynthia.A.Fonner@constellation.com  
kevin.boudreaux@calpine.com  
trdill@westernhubs.com  
ej\_wright@oxy.com  
todil@mckennalong.com  
steve.koerner@el Paso.com  
jenine.schenk@apses.com  
jbw@slwplc.com  
kelly.barr@srpnet.com  
rrtaylor@srpnet.com  
smichel@westernresources.org  
roger.montgomery@swgas.com  
Lorraine.Paskett@ladwp.com  
ron.deaton@ladwp.com  
snewsom@semprautilities.com  
dhuard@manatt.com  
curtis.kebler@gs.com  
dehling@kling.com  
gregory.koiser@constellation.com  
npedersen@hanmor.com  
mmazur@3phasesRenewables.com  
vitaly.lee@aes.com  
tiffany.rau@bp.com  
klatt@energyattorney.com  
rhelgeson@scppa.org  
douglass@energyattorney.com  
pssed@adelphia.net  
bwallerstein@aqmd.gov  
akbar.jazayeri@sce.com  
cathy.karlstad@sce.com  
Laura.Genao@sce.com  
rkmoore@gswater.com  
dwood8@cox.net  
atrial@sempra.com  
apak@sempraglobal.com  
dhecht@sempratrading.com  
daking@sempra.com

svongdeuane@semprasolutions.com  
troberts@sempra.com  
liddell@energyattorney.com  
marcie.milner@shell.com  
rwinthrop@pilotpowergroup.com  
tdarton@pilotpowergroup.com  
lschavrien@semprautilities.com  
GloriaB@anzaelectric.org  
llund@commerceenergy.com  
thunt@cecmail.org  
jeanne.sole@sfgov.org  
john.hughes@sce.com  
llorenz@semprautilities.com  
marcel@turn.org  
nsuetake@turn.org  
dil@cpuc.ca.gov  
fjs@cpuc.ca.gov  
achang@nrdc.org  
rsa@a-klaw.com  
ek@a-klaw.com  
kgrenfell@nrdc.org  
mpa@a-klaw.com  
sls@a-klaw.com  
bill.chen@constellation.com  
epoole@adplaw.com  
agrimaldi@mckennalong.com  
bcragg@goodinmacbride.com  
jsqueri@gmsr.com  
jarmstrong@goodinmacbride.com  
kbowen@winston.com  
lcottle@winston.com  
mday@goodinmacbride.com  
sbeatty@cwclaw.com  
vprabhakaran@goodinmacbride.com  
jkarp@winston.com  
edwardoneill@dwt.com  
jeffgray@dwt.com  
cjw5@pge.com  
ssmyers@att.net  
lars@resource-solutions.org  
alho@pge.com  
bk7@pge.com  
aweller@sel.com  
jchamberlin@strategicenergy.com  
beth@beth411.com  
kerry.hatlevik@mirant.com

kowalewskia@calpine.com  
hoerner@redefiningprogress.org  
janill.richards@doj.ca.gov  
cchen@ucsusa.org  
gmorris@emf.net  
tomb@crossborderenergy.com  
kjinnovation@earthlink.net  
bmcc@mccarthyllaw.com  
sberlin@mccarthyllaw.com  
Mike@alpinenaturalgas.com  
joyw@mid.org  
bdicapo@caiso.com  
UHelman@caiso.com  
jjensen@kirkwood.com  
mary.lynch@constellation.com  
lrdevanna-rf@cleanenergysystems.com  
abb@eslawfirm.com  
mclaughlin@braunlegal.com  
glw@eslawfirm.com  
jluckhardt@downeybrand.com  
jdh@eslawfirm.com  
vwelch@environmentaldefense.org  
www@eslawfirm.com  
westgas@aol.com  
scohn@smud.org  
atrowbridge@daycartermurphy.com  
dansvec@hdo.net  
notice@psrec.coop  
cynthia.schultz@pacificorp.com  
kyle.l.davis@pacificorp.com  
ryan.flynn@pacificorp.com  
carter@ieta.org  
jason.dubchak@niskags.com  
bjones@mjb Bradley.com  
kcolburn@symbioticstrategies.com  
rapcowart@aol.com  
Kathryn.Wig@nrgenergy.com  
sasteriadis@apx.com  
george.hopley@barcap.com  
ez@pointcarbon.com  
burtraw@rff.org  
vb@pointcarbon.com  
andrew.bradford@constellation.com  
gbarch@knowledgeinenergy.com  
ralph.dennis@constellation.com  
smindel@knowledgeinenergy.com  
brabe@umich.edu  
bpotts@foley.com  
james.keating@bp.com  
jimross@r-c-s-inc.com

ahendrickson@commerceenergy.com  
cweddington@commerceenergy.com  
tcarlson@reliant.com  
ghinners@reliant.com  
zaiontj@bp.com  
julie.martin@bp.com  
fiji.george@elpaso.com  
echiang@elementmarkets.com  
fstern@summitblue.com  
nenbar@energy-insights.com  
nlenssen@energy-insights.com  
bbaker@summitblue.com  
william.tomlinson@elpaso.com  
kjsimonsen@ems-ca.com  
jholtkamp@hollandhart.com  
Sandra.ely@state.nm.us  
bmcquown@reliant.com  
dbrooks@nevp.com  
anita.hart@swgas.com  
randy.sable@swgas.com  
bill.schrand@swgas.com  
jj.prucnal@swgas.com  
sandra.carolina@swgas.com  
ckmitchell1@sbcglobal.net  
chilen@sppc.com  
emello@sppc.com  
dsoyars@sppc.com  
tdillard@sppc.com  
jgreco@terra-genpower.com  
leilani.johnson@ladwp.com  
randy.howard@ladwp.com  
Robert.Rozanski@ladwp.com  
robert.pettinato@ladwp.com  
HYao@SemptraUtilities.com  
rprince@semprautilities.com  
rkeen@manatt.com  
nwhang@manatt.com  
pjazayeri@stroock.com  
derek@climaterestry.org  
david@nemtzwow.com  
harveyederpspc.org@hotmail.com  
sendo@ci.pasadena.ca.us  
slins@ci.glendale.ca.us  
THAMILTON5@CHARTER.NET  
bjeider@ci.burbank.ca.us  
rmorillo@ci.burbank.ca.us  
aimee.barnes@ecosecurities.com  
case.admin@sce.com  
Jairam.gopal@sce.com  
tim.hemig@nrgenergy.com

bjl@bry.com  
aldyn.hoekstra@paceglobal.com  
ygross@sempraglobal.com  
jlaun@apogee.net  
kmkiener@fox.net  
scottanders@sandiego.edu  
jkloberdanz@semprautilities.com  
andrew.mcallister@energycenter.org  
jennifer.porter@energycenter.org  
sephra.ninow@energycenter.org  
dniehaus@semprautilities.com  
jleslie@luce.com  
ofoote@hkcf-law.com  
ekgrubaugh@iid.com  
mona@landsiteinc.net  
pepper@cleanpowermarkets.com  
gsmith@adamsbroadwell.com  
mdjoseph@adamsbroadwell.com  
Diane\_Fellman@fpl.com  
hayley@turn.org  
mflorio@turn.org  
Dan.adler@calcef.org  
mhyams@sfwater.org  
tburke@sfwater.org  
norman.furuta@navy.mil  
amber@ethree.com  
annabelle.malins@fco.gov.uk  
dwang@nrdc.org  
filings@a-klaw.com  
nes@a-klaw.com  
obystrom@cera.com  
sdhilton@stoel.com  
scarter@nrdc.org  
abonds@thelen.com  
brbc@pge.com  
cbaskette@enernoc.com  
colin.petheram@att.com  
jwmctarnaghan@duanemorris.com  
kfox@wsgr.com  
kkhoja@thelenreid.com  
pvallen@thelen.com  
ray.welch@navigantconsulting.com  
spauker@wsgr.com  
jwmctarnaghan@duanemorris.com  
rreinhard@mofo.com  
cem@newsdata.com  
arno@recurrentenergy.com  
hgolub@nixonpeabody.com  
jscancarelli@flk.com  
jwiedman@goodinmacbride.com

mmattes@nossaman.com  
bwetstone@hotmail.com  
jen@cnt.org  
lisa\_weinzimer@platts.com  
steven@moss.net  
sellis@fypower.org  
ELL5@pge.com  
GXL2@pge.com  
jxa2@pge.com  
JDF1@PGE.COM  
RHHJ@pge.com  
sscb@pge.com  
SEHC@pge.com  
svs6@pge.com  
S1L7@pge.com  
vjw3@pge.com  
karla.dailey@cityofpaloalto.org  
farrokh.albuyeh@oati.net  
dtibbs@aes4u.com  
jhahn@covantaenergy.com  
andy.vanhorn@vhcenergy.com  
Joe.paul@dynegy.com  
info@calseia.org  
gblue@enxco.com  
sbeserra@sbcglobal.net  
monica.schwebs@bingham.com  
phansch@mofo.com  
wbooth@booth-law.com  
josephhenri@hotmail.com  
pthompson@summitblue.com  
dietrichlaw2@earthlink.net  
alex.kang@itron.com  
Betty.Seto@kema.com  
JerryL@abag.ca.gov  
jody\_london\_consulting@earthlink.net  
steve@schiller.com  
mrw@mrwassoc.com  
rschmidt@bartlewells.com  
adamb@greenlining.org  
stevek@kromer.com  
clyde.murley@comcast.net  
brenda.lemay@horizonwind.com  
carla.peterman@gmail.com  
elvine@lbl.gov  
rhwisser@lbl.gov  
C\_Marnay@lbl.gov  
philm@scdenergy.com  
rita@ritanortonconsulting.com  
cpechman@powereconomics.com  
emahlon@ecoact.org



richards@mid.org  
rogerv@mid.org  
tomk@mid.org  
fwmonier@tid.org  
brbarkovich@earthlink.net  
johnrredding@earthlink.net  
clark.bernier@rlw.com  
rmccann@umich.edu  
cmkehrein@ems-ca.com  
grosenblum@caiso.com  
mgillette@enernoc.com  
rsmutny-jones@caiso.com  
saeed.farrokhpay@ferc.gov  
e-recipient@caiso.com  
david@branchcomb.com  
kenneth.swain@navigantconsulting.com  
kdusel@navigantconsulting.com  
gpickering@navigantconsulting.com  
lpark@navigantconsulting.com  
davidreynolds@ncpa.com  
scott.tomashefsky@ncpa.com  
ewolfe@resero.com  
Audra.Hartmann@Dynegy.com  
Bob.lucas@calobby.com  
curt.barry@iwpnews.com  
danskopec@gmail.com  
dseperas@calpine.com  
dave@ppallc.com  
dkk@eslawfirm.com  
wynne@braunlegal.com  
kgough@calpine.com  
kellie.smith@sen.ca.gov  
kdw@woodruff-expert-services.com  
mwaugh@arb.ca.gov  
pbarthol@energy.state.ca.us  
pstoner@lgc.org  
rachel@ceert.org  
bernardo@braunlegal.com  
steven@lipmanconsulting.com  
steven@iepa.com  
wtasat@arb.ca.gov  
lmh@eslawfirm.com  
etiedemann@kmtg.com  
ltenhope@energy.state.ca.us  
bushinskyj@pewclimate.org  
obartho@smud.org  
bbeebe@smud.org  
bpurewal@water.ca.gov  
dmacmull@water.ca.gov  
kmills@cbbf.com

karen@klindh.com  
ehadley@reupower.com  
sas@a-klaw.com  
egw@a-klaw.com  
akelly@climatetrust.org  
alan.comnes@nrgenergy.com  
kyle.silon@ecosecurities.com  
californiadockets@pacificorp.com  
Philip.H.Carver@state.or.us  
samuel.r.sadler@state.or.us  
lisa.c.schwartz@state.or.us  
cbreidenich@yahoo.com  
dws@r-c-s-inc.com  
jesus.arredondo@nrgenergy.com  
charlie.blair@delta-ee.com  
Tom.Elgie@powerex.com  
clarence.binninger@doj.ca.gov  
david.zonana@doj.ca.gov  
ayk@cpuc.ca.gov  
agc@cpuc.ca.gov  
aeg@cpuc.ca.gov  
blm@cpuc.ca.gov  
bbc@cpuc.ca.gov  
cf1@cpuc.ca.gov  
cft@cpuc.ca.gov  
tam@cpuc.ca.gov  
dsh@cpuc.ca.gov  
edm@cpuc.ca.gov  
eks@cpuc.ca.gov  
cpe@cpuc.ca.gov  
hym@cpuc.ca.gov  
jm3@cpuc.ca.gov  
jnm@cpuc.ca.gov  
jbf@cpuc.ca.gov  
jk1@cpuc.ca.gov  
jst@cpuc.ca.gov  
jtp@cpuc.ca.gov  
jol@cpuc.ca.gov  
jci@cpuc.ca.gov  
jf2@cpuc.ca.gov  
krd@cpuc.ca.gov  
lrm@cpuc.ca.gov  
ltt@cpuc.ca.gov  
mjd@cpuc.ca.gov  
ner@cpuc.ca.gov  
pw1@cpuc.ca.gov  
psp@cpuc.ca.gov  
pzs@cpuc.ca.gov  
rmm@cpuc.ca.gov  
ram@cpuc.ca.gov

smk@cpuc.ca.gov  
sgm@cpuc.ca.gov  
svn@cpuc.ca.gov  
scr@cpuc.ca.gov  
tcx@cpuc.ca.gov  
ken.alex@doj.ca.gov  
ken.alex@doj.ca.gov  
jsanders@caiso.com  
jgill@caiso.com  
ppettingill@caiso.com  
mscheibl@arb.ca.gov  
gcollord@arb.ca.gov  
jdoll@arb.ca.gov  
pburmich@arb.ca.gov  
bblevins@energy.state.ca.us  
dmetz@energy.state.ca.us  
deborah.slone@doj.ca.gov  
dks@cpuc.ca.gov  
kgriffin@energy.state.ca.us  
ldecarlo@energy.state.ca.us  
m Pryor@energy.state.ca.us  
mgarcia@arb.ca.gov  
pduvair@energy.state.ca.us  
wsm@cpuc.ca.gov  
ntronaas@energy.state.ca.us  
hurlock@water.ca.gov  
hcronin@water.ca.gov  
rmiller@energy.state.ca.us