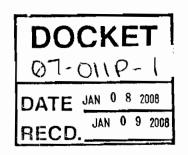
BEFORE THE PUBLIC UTILITIES COMMISSION AND THE CALIFORNIA ENERGY COMMISSION OF THE STATE OF CALIFORNIA



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

Rulemaking 06-04-009 (Filed April 13, 2006)

Order Instituting Informational Proceeding – AB 32.

CEC Docket No. 07-OIIP-01

SOUTHERN CALIFORNIA GENERATION COALITION REPLY COMMENT ON NATURAL GAS SECTOR POINT OF REGULATION ISSUES

Norman A. Pedersen, Esq. HANNA AND MORTON LLP 444 South Flower Street, Suite 1500 Los Angeles, California 90071-2916 Telephone: (213) 430-2510

Facsimile: (213) 623-3379 E-mail: npedersen@hanmor.com

Attorney for the SOUTHERN CALIFORNIA GENERATION COALITION

Dated: January 8, 2008

TABLE OF CONTENTS

GHG	EMISSION REDUCTION COSTS SHOULD BE CONTAINED	
WITI	HIN SECTORS AND NOT BE PERMITTED TO MIGRATE FROM	
ONE	SECTOR TO ANOTHER.	3
NAT	URAL GAS-RELATED EMISSIONS SHOULD BE TREATED IN A	
MAN	NER SIMILAR TO THE TREATMENT OF ELECTRICITY-	
REL	ATED EMISSIONS	6
A.	The Gas Utilities Err in Arguing Against Parallel Treatment for the Gas and Electric Sectors on the Basis that There Are Limited	
	Opportunities for GHG Emission Reductions in the Gas Sector	7
B.	If a Cap-and-Trade Regime Were Imposed on the Electricity Sector, a Similar Regime Should be Imposed on the Natural Gas Sector to Avoid an Inequitable Allocation of the GHG Emission Reduction	
	Burden Among Sectors	9
C.	If a Cap-and-Trade Regime Is Established for the Electricity Sector, a Similar Regime Should Be Established for the Natural Gas Sector to	
	Enhance the Liquidity of the Market for GHG Emission Allowances	9
CON	CLUSION	. 11
	WITH ONE NATU MAN RELA A. B.	Gas and Electric Sectors on the Basis that There Are Limited Opportunities for GHG Emission Reductions in the Gas Sector. B. If a Cap-and-Trade Regime Were Imposed on the Electricity Sector, a Similar Regime Should be Imposed on the Natural Gas Sector to Avoid an Inequitable Allocation of the GHG Emission Reduction Burden Among Sectors. C. If a Cap-and-Trade Regime Is Established for the Electricity Sector, a

BEFORE THE PUBLIC UTILITIES COMMISSION AND THE CALIFORNIA ENERGY 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 Emission Standards into Procurement Policies.

Rulemaking 06-04-009 (Filed April 13, 2006)

Order Instituting Informational Proceeding – AB 32.

CEC Docket No. 07-OIIP-01

SOUTHERN CALIFORNIA GENERATION COALITION REPLY COMMENT ON NATURAL GAS SECTOR POINT OF REGULATION ISSUES

In accordance with the Administrative Law Judge's Ruling Requesting Comments on Type and Point of Regulation Issues for the Natural Gas Sector ("Gas POR Ruling") dated November 28, 2007, and the Assigned Commissioner's Ruling Modifying the Phase 2 Scoping Memo and Updating the Phase 2 Schedule dated December 21, 2007, in the captioned proceeding, the Southern California Generation Coalition ("SCGC") respectfully submits this reply comment. SCGC responds to various points raised in opening comments filed on December 17, 2007, on natural gas point of regulation issues. In accordance with the Gas POR Ruling, this reply comment is being submitted simultaneously to both the California Public Utilities Commission ("CPUC") and the California Energy Commission ("CEC") (jointly, "Commissions").

The starting point for most of the opening comments was a paper entitled "Preliminary

Staff Recommendations for Treatment of Natural Gas Sector Greenhouse Gas Emissions" ("Staff

Proposal") that was attached to the July 12, 2007 Administrative Law Judges' Ruling Regarding Comments on Staff Natural Gas Proposal and Notice of Prehearing Conference. The Staff explained that natural gas sector end-use combustion is an important contributor to total California greenhouse gas ("GHG") emissions. The natural gas sector *excluding* combustion for electric generation ("EG") was 13.87% of the 2004 statewide total (5.38% residential, 2.26% commercial, 6.18% industrial, and 0.04% transportation). Staff Proposal at 7.

Given the substantial natural gas sector contribution to statewide GHG emissions, the Staff proposed that if a cap-and-trade regime is established for California, the gas sector should be a capped sector as well as the electricity sector. Staff Proposal at 15. However, the Staff explained that there should not be double regulation. Emissions from gas combustion within other GHG regulatory sectors should not be included in the gas sector. Thus, EG emissions that are regulated as part of the electricity sector should be excluded from the gas sector. *Ibid* at 16. Likewise, emissions from large industrial facilities that are treated by the California Air Resources Board ("CARB") as individually regulated point sources should be excluded from the gas sector, and emissions associated with natural gas usage for transportation in liquefied natural gas ("LNG") and compressed natural gas ("CNG") vehicles should be included in the transportation sector and excluded from the gas sector.

These important exclusions from the gas sector would leave, primarily, usage by "millions of residential and commercial end users" in the gas sector. *Ibid* at 15. Insofar as regulating the millions of residential and commercial points of combustion would be "impractical," the Staff proposed that the point of regulation for the natural gas sector should be California gas distribution utilities. *Ibid*.

The December 17, 2007 opening comments that were filed in response to the Gas POR Ruling reflect consensus support for avoiding double regulation of EG, transportation, and industrial point source emissions to the extent to which those emissions fall within other GHG regulatory sectors. SCGC, likewise, supports the proposed exclusions. SCGC urges that the Commissions and CARB to adopt the exclusions and, for the reasons discussed below, also adopt a regulatory policy that the cost of attaining GHG emission reductions in a sector should be contained within that sector and not be allowed to migrate to other sectors.

Although there is consensual support for avoiding double regulation of emissions, there does not appear to be consensual support for the Staff recommendation that, if a cap-and-trade program is established for California, the natural gas sector emissions should be treated similarly to how electricity sector emissions are treated. Southern California Gas Company ("SoCalGas"), San Diego Gas and Electric Company ("SDG&E"), and Pacific Gas and Electric Company ("PG&E") argue that even if the electric sector is subject to a cap on emissions and a cap-and-trade regime, the gas sector should not be subject to a cap. In making their argument for the natural gas sector to escape parallel treatment with the electric sector, the gas utilities fail to recognize important GHG emission reduction measures that are available to the gas sector, and they fail to recognize the need to include the gas sector in a cap-and-trade program if such a program is established for the electric sector.

I. GHG EMISSION REDUCTION COSTS SHOULD BE CONTAINED WITHIN SECTORS AND NOT BE PERMITTED TO MIGRATE FROM ONE SECTOR TO ANOTHER.

GHG emission reduction costs that are incurred to reduce GHG emissions within a sector should be contained within that sector and not permitted to migrate to other sectors. As the Southern California Edison Company ("SCE") urged: "[T]he CPUC should adopt regulations that prevent the natural gas sector from unfairly allocating compliance costs to natural gas users

that will also be subject to GHG regulation [as] part of different sectors." SCE Opening Comment at 3-4.

There is, for example, a danger that the cost of reducing GHG emissions in the transportation sector will be imposed on gas and electric sector customers. Natural gas can serve as a "substitute for higher-emitting petroleum transportation fuels...." PG&E Opening Comment at 11. "Increased use of natural gas and transportation results directly in the reduction in petroleum fuel consumption in contrast to what would otherwise be the case." Clean Energy Fuels Corporation ("Clean Energy") Opening Comment at 2.

The Commission has pending before it proposals by SDG&E and SoCalGas to promote the use of natural gas as a substitute for petroleum as a transportation fuel with the costs being passed through to natural gas sector customers and to gas-fired electric generators that are in the GHG electricity sector. SDG&E and SoCalGas propose, among other things, the following:

- Authority to ratebase natural gas vehicle ("NGV") transportation fueling facilities at government-owned sites.
- \$1.5 million per year of incremental funding to construct NGV infrastructure, including fueling facilities at government-owned sites, and to demonstrate small scale liquefied natural gas ("LNG") facilities.
- \$1.75 million per year of incremental funding to expand NGV RD&D programs to include demonstration at the San Pedro Bay Ports of hydrogen/compressed natural gas ("hydrogen/CNG") blend fueling station, study and demonstration of the new Cummins ISL G heavy-duty natural gas engine, demonstration of CNG/hybrid vehicle technology and development and optimization of natural gas engines and chassis design for medium-duty fleet vehicles.
- \$3.0 million per year of incremental NGV funding to expand customer education and information programs.

SDG&E/SoCalGas Application 07-08-031 at IV-1 - IV-2 (August 31, 2007). SDG&E and SoCalGas propose to record the cost of these and other programs in a new Climate Action

Initiative Balancing Account ("CAIBA") for recovery on an equal percent of marginal cost ("EPMC") basis from SoCalGas and SDG&E customers. *Ibid* at VII-5.

The cost of GHG emission reduction measures that benefit one sector, in this instance the transportation sector, should not be spread to other sectors. SCGC joins SCE in recommending that the CPUC adopt rules that could prevent the sort of cross-subsidization of one GHG regulatory sector by another GHG regulatory sector as would occur under the SDG&E and SoCalGas proposals in A.07-08-031. Further, SCGC urges the Commissions to recommend to CARB that it adopt a policy against inter-sector cross-subsidization of GHG emission reduction costs.

Additionally, gas-sector costs should not be allowed to migrate to other sectors by moving the point of regulation upstream from the California gas utilities. El Paso Natural Gas Company and Mojave Pipeline Company (jointly, "El Paso") explain that moving the point of regulation upstream to interstate pipelines "creates a carbon tax on the end users, effectively increasing [natural gas] prices." El Paso Opening Comment, Att. 2 at 14. If an interstate pipeline were made a point of regulation and were required to buy allowances, the impact on the price of gas as delivered by the pipeline would be substantial:

\$Tonne CO ₂	Natural Gas (\$MMBtu)
\$10	\$0.53
\$20	\$1.06
\$30	\$1.60
\$40	\$2.13
\$50	\$2.66

El Paso Ibid at 18.

This change in gas prices that would occur if upstream entities were made a point of regulation for the gas sector should be avoided. **First**, the increase in the price of gas costs would apply to gas-consuming entities in the electricity and transportation sectors as well as in the gas sector. Thus, "internalizing" GHG emission costs in the price of gas would impose costs on other sectors. **Second**, the adopted measures would be ineffective. As El Paso explained: "Past experience has shown that increased fuel prices are not sufficient to trigger large efficiency increases." *Ibid* at 9. El Paso explained further:

The upstream point of regulation theory assumes that: (1) compliance costs incurred by the upstream regulated or covered entity will be smoothly transmitted through the natural gas value chain; and (2) appropriate price signals are transmitted to downstream users to facilitate changes in emissions profile and behavior. While theoretically this may be true, the practical regulatory, legal and technical hurdles may hinder past through of compliance costs downstream and make cause an insufficient price signal to downstream customers to promote fundamental changes in their emissions profile....

Ibid at 11. **Third**, any attempt by California to make upstream entities such as interstate pipelines a point of regulation would be an unlawful intrusion upon federal jurisdiction. *Ibid* at 32; Indicated Producers Opening Comment at 10-12.

II. NATURAL GAS-RELATED EMISSIONS SHOULD BE TREATED IN A MANNER SIMILAR TO THE TREATMENT OF ELECTRICITY-RELATED EMISSIONS.

The CPUC Staff recommended that "natural gas-related emissions be treated in a manner similar to the treatment of electricity-related emissions...." Staff Proposal at 15. PG&E, SoCalGas, and SDG&E disagree. They argue that GHG emission reduction opportunities are available in the electricity sector but are not available in the natural gas sector. Their argument is wrong and, furthermore, implicitly contradicts their contention that the "first-seller" approach should be adopted for establishing the point of regulation in the electricity sector. Additionally,

the gas utilities ignore important reasons for establishing parallel treatment for the gas and electricity sectors as proposed by the CPUC Staff.

A. The Gas Utilities Err in Arguing Against Parallel Treatment for the Gas and Electric Sectors on the Basis that There Are Limited Opportunities for GHG Emission Reductions in the Gas Sector.

PG&E, SDG&E, and SoCalGas contend that even if a cap-and-trade regime is established for the electricity sector, there should be no parallel treatment of the natural gas sector. The gas utilities agree with the CPUC Staff that large end-users of natural gas should be left out of the gas sector, leaving usage by smaller customers in the gas sector. However, the gas utilities contend that for those small customers "emission reduction opportunities... are more limited" than for the larger customers that are in other sectors. PG&E Opening Comment at 2. They contend that the "bulk of [natural gas sector savings by smaller customers] can be achieved through a well-integrated set of programmatic measures directed at small customer natural gas consumption, which would include state appliance and building efficiency codes and standards, complementary utility energy efficiency programs, and possibly a point of sale efficiency program." *Ibid* at 3. PG&E argues: "Apart from these efficiency improvements, there appears to be very limited cost-effective opportunities for other, lower carbon fuels to substitute for small customer natural gas consumption." *Ibid*.

In fact, contrary to PG&E, there are other opportunities for gas-sector emission reductions by small gas consumers beyond energy efficiency. Just as electric sector emissions can be reduced by a combination of energy efficiency and the addition of renewable generation resources, natural gas consumption can be reduced by a combination of energy efficiency and renewable resources. As noted by the Natural Resources Defense Council ("NRDC") and Union of Concerned Scientists ("UCS"), gas sector emissions can be obtained by "encouraging use of biomethane [and] encouraging use of solar water and space heating," in addition to expanding

existing efficiency programs and tightening building and appliance standards. NRDC Opening Comment at 7-8.

This year, Assembly Bill ("AB") 1470 became effective to promote the use of solar thermal water and space heating by providing \$250 million of incentives for the installation of 200,000 solar water heating systems. Solar water heating systems "can reduce residential natural gas consumption between 30 and 75 percent. Commercial systems would also yield similar results." California Solar Energy Industries Association ("CSEIA") Opening Comments at 4. It is simply false that energy efficiency is the only tool in the gas utilities' shed for attaining natural gas sector GHG emission reductions.

It is ironic that PG&E and SDG&E, suggest that opportunities for attaining GHG emission reductions on the gas side would actually be less than on the electric side. On the electric side, both PG&E and SDG&E have staunchly supported adoption of the "first-seller" approach to point of regulation. Under that approach, in-state generators and importers of electricity would be the point of regulation. However, neither generators nor importers would have available to them energy efficiency or a shift to renewable resources as tools to obtain GHG emission reductions. If in-state generators and importers were the point of regulation, their only option to reducing GHG emissions would be to improve their heat rates at their generation facilities. Only if retail providers of electricity are made the point of regulation in the electricity sector would all of the tools that are cited by PG&E be available to the entities that are designated as the points of regulation.

B. If a Cap-and-Trade Regime Were Imposed on the Electricity Sector, a Similar Regime Should be Imposed on the Natural Gas Sector to Avoid an Inequitable Allocation of the GHG Emission Reduction Burden Among Sectors.

If a cap-and-trade regime were imposed on the electricity sector, a similar regime should be imposed on the natural gas sector with the gas utilities being the point of regulation, as recommended in the Staff Proposal. "The natural gas sector should be regulated to the same extent that other sectors will be regulated in order to ensure the reduction of GHG emissions." SCE Opening Comment at 3. Capping both sectors will ensure that the gas sector takes an appropriate share of the responsibility for reducing GHG emissions: "It is important for all sectors to take responsibility for their emissions." Sacramento Municipal Utility District ("SMUD") Opening Comment at 1-2.

If a hard cap were established for the electricity sector but not for the gas sector, there would be a potential for a disproportionately high percentage of emission reductions to be sought from the electric sector, with the gas utilities that would be the points of regulation in the gas sector getting more lenient treatment. If a cap-and-trade regime is imposed in the electric sector, the same should be imposed on the gas sector in the interest of maintaining inter-sector equity: "To ensure consistency of treatment among various sectors of the California economy, and in particular the energy sectors, staff recommends that natural gas-related emissions be treated in a manner similar to the treatment of electricity-related emissions in the final approach adopted by ARB." Staff Proposal at 15.

C. If a Cap-and-Trade Regime Is Established for the Electricity Sector, a Similar Regime Should Be Established for the Natural Gas Sector to Enhance the Liquidity of the Market for GHG Emission Allowances.

Stakeholders have been concerned about the market manipulation and abuse that can result from instituting a cap-and-trade system, particularly if a cap-and-trade system were

adopted exclusively for the electricity sector. The Los Angeles Department of Water and Power ("LADWP"), for example, worries about whether a cap-and-trade market for emission allowances would be "robust enough... to resist the influence of market power and/or manipulation, gaming and other potentially negative impacts that would have serious implications for electric sector, particularly system reliability and price volatility." LADWP Opening Comments on Electric Point of Regulation Issues at 5-6 (Dec. 3, 2007). LADWP urges that a key principle that "should be included in the evaluation of a GHG emission reduction program is the prevention/protection against market manipulation and gaming in emission trading." *Ibid* at 10.

Enhancing market liquidity is an important measure that can be taken to reduce the potential for market abuse. Including the natural gas sector as well as the electric sector in a capand-trade regime would add both emission allowances and players to the carbon market. "More emissions and more players mean greater liquidity, which enhances market operation." Indicated Producers Opening Comment at 5. Thus, if the Commission decides to adopt a cap-and-trade scheme for the electric sector, it should also do so for the gas sector.

Even PG&E recognizes that market liquidity would be enhanced by including both electric sector and the gas sector in a cap-and-trade regime, although PG&E seems to be more concerned about illiquidity if there were a gas-only cap-and-trade market rather than an electric-only market:

If the electricity sector is not included in the California cap-and-trade system, then the natural gas sector should also be left out of any cap-and-trade system. Without participation by the electric sector, it is unclear how a broad and liquid California market could be implemented. Without this, the market could be thin and allowance prices high and volatile.

PG&E Opening Comment at 17.

PG&E admits that if a cap-and-trade regime were established, market liquidity could be enhanced by including both the gas sector and the electric sector in the cap-and-trade market because there is diversity between gas usage that is covered by the gas sector and usage in the electricity and industrial point usage sectors:

[F] luctuations in residential and small commercial natural gas use are generally driven by cold winters, which is different than what drives short-term variations in electricity demand, and likely to be different than what drives short-term variations in electricity demand, and likely to be different than what drives short-term variations in demand by large natural gas customers (such as oil refineries), as well as the cement and transportation sectors.

Ibid at 3.

Thus, if a cap-and-trade regime is to be established, there should be parallel treatment of the gas and electric sectors to enhance liquidity of the resulting GHG emission allowance market. Of course, if the establishment of a cap-and-trade program is deferred until implementation of a regional or national program, these concerns about market liquidity are eliminated.

III. CONCLUSION.

For the reasons set forth above, SCGC urges the CPUC to adopt a rule in this proceeding that can be applied in other proceedings such as <u>SDG&E/SoCalGas</u>, A.07-08-031, against intersector migration of GHG emission reduction costs, and SCGC urges the Commissions to recommend that CARB adopt a policy against inter-sector cross-subsidization. Further, if the Commissions are to propose a cap-and-trade system for the electric or gas sectors, SCGC

recommends that the Commissions maintain parallel treatment of the two sectors in the interest of inter-sector equity and to enhance the liquidity of the resulting market for GHG emission allowances.

Respectfully submitted,

/s/ Norman A. Pedersen

Norman A. Pedersen, Esq. HANNA AND MORTON LLP 444 South Flower Street, Suite 1500 Los Angeles, California 90071-2916

Telephone: (213) 430-2510 Facsimile: (213) 623-3379 E-mail: npedersen@hanmor.com

Attorney for the SOUTHERN CALIFORNIA GENERATION COALITION

Dated: January 8, 2008

CERTIFICATE OF SERVICE

I hereby certify that I have this day served a copy of the **SOUTHERN CALIFORNIA GENERATION COALITION REPLY COMMENT ON NATURAL GAS SECTOR POINT OF REGULATION ISSUES** on the service list for CPUC Docket No. R.06-04-009 and CEC Docket No. 07-OIIP-01 by serving a copy to each party by electronic mail and/or by mailing a properly addressed copy by first-class mail with postage prepaid.

Executed on January 8, 2008, at Los Angeles, California.

/s/ Sylvia Cantos	
Sylvia Cantos	

R.06-04-009 SERVICE LIST DOCKET 07-OIIP-01 SERVICE LIST

abb@eslawfirm.com abonds@thelen.com achang@nrdc.org adamb@greenlining.org aeg@cpuc.ca.gov agc@cpuc.ca.gov

agrimaldi@mckennalong.com aimee.barnes@ecosecurities.com

ajkatz@mwe.com

akbar.jazayen@sce.com akelly@climatetrust.org alan.comnes@nrgenergy.com aldyn.hoekstra@paceglobal.com

alho@pge.com amber@ethree.com

andrew.bradford@constellation.com andrew.mcallister@energycenter.org andy.vanhorn@vhcenergy.com

anita.hart@swgas.com annabelle.malins@fco.gov.uk annette.gilliam@sce.com apak@sempraglobal.com arno@recurrentenergy.com

atrial@sempra.com

atrowbridge@daycartermurphy.com Audra.Hartmann@Dynegy.com

aweller@sel.com

bbaker@summitblue.com

bbc@cpuc.ca.gov bbeebe@smud.org

bblevins@energy.state.ca.us bcragg@goodinmacbride.com

bdicapo@caiso.com bernardo@braunlegal.com beth@beth411.com Betty.Seto@kema.com bill.chen@constellation.com bill.schrand@swgas.com bjeider@ci.burbank.ca.us

bjl@bry.com

bjones@mjbradley.com

bkc7@pge.com blm@cpuc.ca.gov

bmcc@mccarthylaw.com bmcquown@reliant.com Bob.lucas@calobby.com bpotts@foley.com bpurewal@water.ca.gov brabe@umich.edu brbarkovich@earthlink.net

BRBc@pge.com

brenda.lemay@horizonwind.com

burtraw@rff.org

bushinskyj@pewclimate.org bwallerstein@aqmd.gov bwetstone@hotmail.com C Marnay@lbl.gov

cadams@covantaenergy.com californiadockets@pacificorp.com

carla.peterman@gmail.com carter@ieta.org

carer@leta.org
case.admin@sce.com
cathy.karlstad@sce.com
cbaskette@enernoc.com
cbreidenich@yahoo.com
cchen@ucsusa.org
cem@newsdata.com
cf1@cpuc.ca.gov
cft@cpuc.ca.gov

charlie.blair@delta-ee.com

chilen@sppc.com cjw5@pge.com

ckmitchell1@sbcglobal.net

ckrupka@mwe.com

clarence.binninger@doj.ca.gov

clark.bernier@rlw.com clyde.murley@comcast.net cmkehrein@ems-ca.com colin.petheram@att.com

cpe@cpuc.ca.gov

cpechman@powereconomics.com cswoollums@midamerican.com

curt.barry@iwpnews.com curtis.kebler@gs.com

Cynthia.A.Fonner@constellation.com cynthia.schultz@pacificorp.com

daking@sempra.com
Dan.adler@calcef.org
danskopec@gmail.com
dansvec@hdo.net
dave@ppallc.com

david.zonana@doj.ca.gov david@branchcomb.com david@nemtzow.com davidreynolds@ncpa.com dbrooks@nevp.com deb@a-klaw.com deborah.slon@doj.ca.gov

dehling@klng.com derek@climateregistry.org

dhecht@sempratrading.com dhuard@manatt.com

Diane_Fellman@fpl.com
dietrichlaw2@earthlink.net

dil@cpuc.ca.gov dkk@eslawfirm.com dks@cpuc.ca.gov dmacmull@water.ca.gov dmetz@energy.state.ca.us dniehaus@semprautilities.com douglass@energyattorney.com

dseperas@calpine.com dsh@cpuc.ca.gov dsoyars@sppc.com dtibbs@aes4u.com dwang@nrdc.org dwood8@cox.net dws@r-c-s-inc.com

echiang@elementmarkets.com

edm@cpuc.ca.gov
egw@a-klaw.com
ehadley@reupower.com
ej_wright@oxy.com
ek@a-klaw.com
ekgrubaugh@iid.com
eks@cpuc.ca.gov
ELL5@pge.com
elvine@lbl.gov
emahlon@ecoact.org

emahlon@ecoact.org
emello@sppc.com
epoole@adplaw.com
e-recipient@caiso.com
etiedemann@kmtg.com
ewolfe@resero.com
ez@pointcarbon.com
farrokh.albuyeh@oati.net
fiji.george@elpaso.com
filings@a-klaw.com
fjs@cpuc.ca.gov

fstern@summitblue.com

fwmonier@tid.org

gbarch@knowledgeinenergy.com

gblue@enxco.com

george.hopley@barcap.com

ghinners@reliant.com GloriaB@anzaelectric.org glw@eslawfirm.com

gmorris@emf.net gpickering@navigantconsulting.com

gregory.koiser@constellation.com

grosenblum@caiso.com gsmith@adamsbroadwell.com

gxl2@pge.com

harveyederpspc.org@hotmail.com

hayley@turn.org hcronin@water.ca.gov hgolub@nixonpeabody.com hoerner@redefiningprogress.org

hurlock@water.ca.gov HYao@SempraUtilities.com

hym@cpuc.ca.gov info@calseia.org

jack.burke@energycenter.org Jairam.gopal@sce.com james.keating@bp.com janill.richards@doj.ca.gov

jarmstrong@goodinmacbride.com jason.dubchak@niskags.com

jbf@cpuc.ca.gov jbw@slwplc.com

jchamberlin@strategicenergy.com

jci@cpuc.ca.gov JDF1@PGE.COM jdh@eslawfirm.com jdoll@arb.ca.gov jeanne.sole@sfgov.org jeffgray@dwt.com jen@cnt.org

jenine.schenk@apses.com jennifer.porter@energycenter.org

JerryL@abag.ca.gov

jesus.arredondo@nrgenergy.com

jf2@cpuc.ca.gov jgill@caiso.com

jgreco@caithnessenergy.com jhahn@covantaenergy.com jimross@r-c-s-inc.com jj.prucnal@swgas.com jjensen@kirkwood.com jk1@cpuc.ca.gov

jkarp@winston.com

jkloberdanz@semprautilities.com

jlaun@apogee.net jleslie@luce.com iluckhardt@downeybrand.com

jm3@cpuc.ca.gov jnm@cpuc.ca.gov

jody_london_consulting@earthlink.net

Joe.paul@dynegy.com john.hughes@sce.com johnrredding@earthlink.net

jol@cpuc.ca.gov

josephhenri@hotmail.com

joyw@mid.org

jsanders@caiso.com jscancarelli@flk.com jsqueri@gmssr.com jst@cpuc.ca.gov jtp@cpuc.ca.gov julie.martin@bp.com

jwiedman@goodinmacbride.com jwmctamaghan@duanemorris.com

jxa2@pge.com karen@klindh.com

karla.dailey@cityofpaloalto.org Kathryn.Wig@nrgenergy.com

kbowen@winston.com

kcolburn@symbioticstrategies.com kdusel@navigantconsulting.com kdw@woodruff-expert-services.com

keith.mccrea@sablaw.com kellie.smith@sen.ca.gov kelly.barr@srpnet.com ken.alex@doj.ca.gov ken.alex@doj.ca.gov

kenneth.swain@navigantconsulting.com

kerry.hattevik@mirant.com kevin.boudreaux@calpine.com

kfox@wsgr.com kgough@calpine.com kgrenfell@nrdc.org

kgriffin@energy.state.ca.us kjinnovation@earthlink.net kjsimonsen@ems-ca.com kkhoja@thelenreid.com klatt@energyattomey.com

kmills@cfbf.com kmkiener@fox.net

kowalewskia@calpine.com

krd@cpuc.ca.gov

kyle.l.davis@pacificorp.com kyle.silon@ecosecurities.com kyle_boudreaux@fpl.com lars@resource-solutions.org Laura.Genao@sce.com lcottle@winston.com

Idecarlo@energy.state.ca.us leilani.johnson@ladwp.com liddell@energyattorney.com lisa.c.schwartz@state.or.us lisa_weinzimer@platts.com llorenz@semprautilities.com llund@commerceenergy.com

Imh@eslawfirm.com

Lorraine.Paskett@ladwp.com lpark@navigantconsulting.com

Irdevanna-rf@cleanenergysystems.com

Irm@cpuc.ca.gov

Ischavrien@semprautilities.com Itenhope@energy.state.ca.us

ltt@cpuc.ca.gov marcel@tum.org

marcie.milner@shell.com mary.lynch@constellation.com mclaughlin@braunlegal.com mdjoseph@adamsbroadwell.com

mflorio@tum.org
mgarcia@arb.ca.gov
mgillette@enernoc.com
mhyams@sfwater.org
Mike@alpinenaturalgas.com

mjd@cpuc.ca.gov

mmattes@nossaman.com

mmazur@3phasesRenewables.com monica.schwebs@bingham.com

mpa@a-klaw.com

mpryor@energy.state.ca.us mrw@mrwassoc.com mscheibl@arb.ca.gov mwaugh@arb.ca.gov

nenbar@energy-insights.com

ner@cpuc.ca.gov nes@a-klaw.com

nlenssen@energy-insights.com

norman.furuta@navy.mil notice@psrec.coop npedersen@hanmor.com

nsuetake@turn.org

ntronaas@energy.state.ca.us

nwhang@manatt.com obartho@smud.org obystrom@cera.com ofoote@hkcf-law.com

pbarthol@energy.state.ca.us

pburmich@arb.ca.gov pduvair@energy.state.ca.us pepper@cleanpowermarkets.com

phanschen@mofo.com Philip.H.Carver@state.or.us philm@scdenergy.com pjazayeri@stroock.com ppettingill@caiso.com pseby@mckennalong.com

psp@cpuc.ca.gov pssed@adelphia.net pstoner@lgc.org

pthompson@summitblue.com

pvallen@thelen.com pw1@cpuc.ca.gov pzs@cpuc.ca.gov rachel@ceert.org

ralph.dennis@constellation.com

ram@cpuc.ca.gov

randy.howard@ladwp.com randy.sable@swgas.com rapcowart@aol.com

ray.welch@navigantconsulting.com

rhelgeson@scppa.org
RHHJ@pge.com
rhwiser@lbl.gov
richards@mid.org
rick_noger@praxair.com
rita@ritanortonconsulting.com

rkeen@manatt.com rkmoore@gswater.com rmccann@umich.edu rmiller@energy.state.ca.us

rmm@cpuc.ca.gov rmonillo@ci.burbank.ca.us robert.pettinato@ladwp.com Robert.Rozanski@ladwp.com roger.montgomery@swgas.com

rogerv@mid.org ron.deaton@ladwp.com rprince@semprautilities.com rreinhard@mofo.com

rrtaylor@srpnet.com rsa@a-klaw.com

rschmidt@bartlewells.com rsmutny-jones@caiso.com rwinthrop@pilotpowergroup.com ryan.flynn@pacificorp.com

S1L7@pge.com

saeed.farrokhpay@ferc.gov

samuel.r.sadler@state.or.us sandra.carolina@swgas.com Sandra.ely@state.nm.us

sas@a-klaw.com sasteriadis@apx.com sbeatty@cwclaw.com sberlin@mccarthylaw.com sbeserra@sbcglobal.net

scarter@nrdc.org scohn@smud.org

scott.tomashefsky@ncpa.com scottanders@sandiego.edu

scr@cpuc.ca.gov sdhilton@stoel.com sellis@fypower.org

sendo@ci.pasadena.ca.us sephra.ninow@energycenter.org

sgm@cpuc.ca.gov slins@ci.glendale.ca.us sls@a-klaw.com

smichel@westernresources.org smindel@knowledgeinenergy.com

smk@cpuc.ca.gov

snewsom@semprautilities.com

spauker@wsgr.com sscb@pge.com ssmyers@att.net

steve.koerner@elpaso.com

steve@schiller.com stevek@kromer.com

steven.huhman@morganstanley.com steven.schleimer@barclayscapital.com

steven@iepa.com

steven@lipmanconsulting.com

steven@moss.net svn@cpuc.ca.gov

svongdeuane@semprasolutions.com

svs6@pge.com tam@cpuc.ca.gov tburke@sfwater.org tcarlson@reliant.com tcx@cpuc.ca.gov

tdarton@pilotpowergroup.com tdillard@sierrapacific.com THAMILTON5@CHARTER.NET

thunt@cecmail.org tiffany.rau@bp.com tim.hemig@nrgenergy.com

todil@mckennalong.com
Tom.Elgie@powerex.com

tomb@crossborderenergy.com
tomk@mid.org
trdill@westernhubs.com
troberts@sempra.com
UHelman@caiso.com
vb@pointcarbon.com
vitaly.lee@aes.com
vjw3@pge.com
vprabhakaran@goodinmacbride.com
vwelch@environmentaldefense.org

wbooth@booth-law.com
westgas@aol.com
william.tomlinson@elpaso.com
wsm@cpuc.ca.gov
wtasat@arb.ca.gov
www@eslawfirm.com
wynne@braunlegal.com
ygross@sempraglobal.com
zaiontj@bp.com