

**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.

<b>DOCKET</b>	
<b>07-011P-1</b>	
DATE	OCT 31 2007
RECD.	OCT 31 2007

R. 06-04-009

**COMMENTS OF THE WESTERN POWER TRADING FORUM  
ON ALLOWANCE ALLOCATION ISSUES**

Clare Breidenich  
224 ½ 24<sup>th</sup> Avenue East  
Seattle, Washington 98112  
Telephone: (206) 829-9193  
Email: [clare@wptf.org](mailto:clare@wptf.org)  
GHG Consultant

Daniel W. Douglass  
DOUGLASS & LIDDELL  
21700 Oxnard Street, Suite 1030  
Woodland Hills, California 91367  
Telephone: (818) 961-3002  
Facsimile: (818) 961-3004  
Email: [douglass@energyattorney.com](mailto:douglass@energyattorney.com)

Attorneys for the  
**WESTERN POWER TRADING FORUM**

October 31, 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 OF THE WESTERN POWER TRADING FORUM  
ON ALLOWANCE ALLOCATION ISSUES**

In accordance with the direction provided in the October 15th, 2007, Administrative Law Judge's Ruling Requesting Comments and Noticing Workshop on Allowance Allocation Issues in the above captioned docket, the Western Power Trading Forum ("WPTF") respectfully submits the following comments on the questions raised regarding distribution of allowances under a greenhouse gas (GHG) emission trading program for the electricity sector.

**Introduction**

WPTF considers that the effectiveness of a robust trading system in reaching the overall emission cap, as well as the incentives provided for investment in low-GHG technologies, are unaffected by the method used to distribute allowances. Thus, the question of distributing allowances comes down to one of equity and distribution of costs across entities subject to the cap. In this regard, WPTF emphasizes that the electric sector will face substantial compliance costs under a GHG trading system – costs that have not been planned for in long-term investment decisions. Administrative allocation of allowances to regulated entities would mitigate these costs, and ease the sector's transition to cleaner technologies and fuels.

For this reason, WPTF recommends that administrative allocation should be the principal means of distributing emission allowances in the early years of the trading system. Transition to allowance auctioning over time is preferable to immediate 100% auction, as this will enable entities subject to the emissions cap to plan for compliance.

WPTF's responses to the specific questions raised by the Ruling are presented below.

### **3.1. Evaluation Criteria**

**Q1. Please comment on each of the criteria listed by the MAC. Are these criteria consistent with AB 32? Should other criteria be added, such as criteria specific to the electricity and/or natural gas sectors? In making trade-offs among the criteria, which criteria should receive the most weight and which the least weight?**

The criteria established by the MAC were intended to govern the design of the overall trading system, not only the distribution of allowances. Several of the criteria listed are appropriate considerations in the design of the trading system, but are not appropriate considerations for distribution of emission allowances within the electric sector. We have noted these in the response to individual criteria below. Additionally, WPTF suggests three other important criteria:

- Distribution of emission allowances should provide a level playing field for all generators and retail providers, and not discriminate between in-state and out-of-state resources.
- To the extent possible, the method for distributing allowances should be harmonized with methods used by other states in the region that implement GHG trading systems, so as not to competitively disadvantage producers in different states.
- Allowance allocation should be equitable across sectors. WPTF believes that the cap and trade system should be as broad as possible to maximize efficiency and low-cost carbon reduction opportunities. However, it is important to ensure that the electric

sector does not bear a greater burden than other sectors, simply because it is easier to regulate.

**a. Reduces the cost of the program to consumers, especially low-income consumers.**

WPTF believes that increases in retail electricity rates are a reasonable outcome of GHG regulation and send an important price signal for end-use efficiency, but that a well-designed and broad cap and trade program will create the maximum efficiencies for carbon reduction, and thus lower costs relative to other command and control approaches. WPTF recognizes that from a policy perspective it may be desirable to reduce the impact of GHG regulations on low-income consumers. However, this objective can be better addressed through other state programs.

**b. Avoids windfall profits where such profits could occur.**

The ability of a regulated entity to incur windfall profits depends on many factors – the existing regulatory environment, the entity’s position in the market and its ability to pass-through costs. Avoidance of windfall profits is therefore not solely related to the distribution of allowances.

**c. Promotes investment in low-GHG technologies and fuel (including energy efficiency).**

The incentives for investment in low-GHG technologies, fuels and practices will be the same under an administrative allocation or auction. This is due to the fact that an emission allowance has the same value under either approach - investment in GHG reductions frees up allowances which can be sold, or reduces the quantity of allowances that must be purchased.

**d. Advances the state’s broader environmental goals by ensuring that environmental benefits accrue to overburdened communities.**

Climate change is uniformly recognized as a global - not regional or local - problem. The benefits of GHG regulation will therefore accrue to all communities. Other environmental goals should be promoted through directed policies and programs, not through GHG regulation or a specific allocation method.

**e. Mitigates economic dislocation caused by competition from firms in uncapped jurisdictions.**

Competition from firms in uncapped regions arises from California's unilateral imposition of GHG regulations. Such competition is not an allocation issue and should not be a consideration in determining the method of allocation.

**f. Avoids perverse incentives that discourage or penalize investments in low-GHG technologies and fuels (including energy efficiency).**

As WPTF noted above, both administrative allocation and auction of allowances create identical incentives for investment in low GHG technologies and practices.

**g. Provides transition assistance to displaced workers.**

Again, WPTF does not consider this an appropriate criterion for allocation. If the state deems such assistance to be warranted, it would be more effectively provided through direct government assistance programs.

**h. Helps to ensure market liquidity.**

WPTF considers this an important allocation criterion. Regulators must ensure that allowances are readily available to entities subject to the cap in a timely manner and should not interfere with secondary market activities.

### **3.2. Basic Options**

**These questions should be answered for both the electricity and natural gas sectors. If your recommendations differ for a load-based or deliverer/first seller point of regulation in the electricity sector, or for the natural gas sector, explain why.**

WPTF's responses are directed to the electricity sector only.

**Q2. Broadly speaking, should emission allowances be auctioned or allocated administratively, or some combination?**

WPTF supports a gradual phase-in of auctioning of allowances. However, due to the significant costs to the electricity sector of complying with GHG regulations, WPTF believes that a majority of allowances should be administratively allocated in the early years of the program.

**Q3. If you recommend partial auctioning, what proportion should be auctioned? Should the percentage of auctioning change over time? If so, what factors should be used to design the transition toward more auctioning?**

As stated above, WPTF recommends that, initially, allowances be distributed principally through administrative allocation. Over time, the distribution method should transition toward auctioning. WPTF does not have a position on specific percentages.

WPTF does not have views on factors to be considered in the transition to increased auctioning, but suggests that this would be a good topic for a workshop.

**Q4. How should new market entrants, such as energy service providers, community choice aggregators, or (deliverer/first seller system only) new importers, obtain emission allowances, i.e., through auctioning, administrative allocation, or some combination?**

A new entrant set-aside pool of allowances should be created, under either a load-based or first seller system. To the extent possible, the same allocation method should be used to distribute allowances to new entrants as is used for incumbent entities.

### **3.3. Auctioning of Emission Allowances—General Questions**

**These questions assume that some or all emission allowances are auctioned, and should be answered for both the electricity and natural gas sectors. If your recommendations differ for a load-based or deliverer/first seller point of regulation in the electricity sector, or for the natural gas sector, explain why.**

WPTF's comments are provided for the electricity sector only.

#### **Q5. What are the important policy considerations in the design of an auction?**

WPTF believes that an auction of any portion of allowances must meet several important principles:

- Access: Auction design must ensure that allowances are made available to entities subject to the cap.
- Fairness: Must be competitive and open to all market participants. Appropriate market oversight should be in place to prevent manipulation of prices and abuse of market power by bidders.
- Transparency: Auction rules should be clear and simple.
- Price discovery: Information on bid prices must be current and accurate.
- Liquidity: Auctions need to be held periodically, and ensure that quantities of allowances equal or greater than the annualized cap are available in the market.
- Auction revenue: should be dedicated to GHG reductions and development of low-GHG technologies.

WPTF does not have specific design recommendations at this time, but reserves the right to provide recommendations in the event that auctioning of emission allowances is pursued for the electricity sector. In such an event, the issue of auction design should be a primary topic for a possible workshop.

**Q6. How often should emission allowances be auctioned? How does the timing and frequency of auctions relate to the determination of a mandatory compliance period, if at all?**

The appropriate frequency of auctions depends on the quantity of allowances auctioned relative to those administratively allocated and the availability of allowances in the secondary market. If a large portion of allowances have been administratively allocated and the secondary market is liquid, then auctioning can occur infrequently. If auctioning is used early in the trading system, then an auction prior to the compliance period is recommended to allow participants to acquire needed allowances.

**Q7. How should market power concerns be addressed in auction design? If emission allowances are auctioned, how would the administrators of such a program ensure that all market participants are participating in the program and acting in good faith?**

WPTF does not have specific recommendation on this question, but agrees that the prevention of market power should be an important factor in the design of an auction. It is particularly important that smaller entities have equal access to emission allowances.

**Q8. What criteria should be used to designate the types of expenditures that could be made with auction revenues (including use to reduce end user rates), and the distribution of money within those categories?**

WPTF considers that the use of auction revenue should support the overall policy goals of AB32. In this regard, WPTF recommends that auction revenues be dedicated to GHG reductions and the development of low-GHG technologies.

**Q9. What type of administrative structure should be used for the auction? Should the auction be run by the State or some other independent entity, such as the nonprofit organization being established by the Regional Greenhouse Gas Initiative?**

WPTF does not have a specific recommendation on the administrative structure for auctions, but recommends that any auction be administered by an independent entity.

### **3.4. Electricity Sector**

#### **3.4.1. Administrative Allocation of Emission Allowances**

Various methods have been proposed and discussed for the administrative allocation of emission allowances. The following potential methods could be used:

- a. **Grandfathering:** “A method by which emission allowances are freely distributed to entities covered under an emissions trading program based on historic emissions.” (MAC report, p. 93.)
- b. **Benchmarking:** “An allowance allocation method in which allowances are distributed by setting a level of permitted emissions per unit of input or output” (e.g., fuel used or sales to customers (pounds (lbs)/megawatt-hour or lbs/million British thermal units (MMBtu)). (MAC report, p. 90.)
- c. **Updating:** “A form of allowance allocation in which allocations are reviewed and changed over time and/or awarded on the basis of changing circumstances (such as output) rather than historical data (such as emissions, input or output). For example, allowances might be distributed based on megawatt-hours generated or tons of a product manufactured.” (MAC report, p. 96.)
- d. **Other:** Such as population (lbs of carbon dioxide (CO<sub>2</sub>)/customer or lbs CO<sub>2</sub>/capita), or cost of compliance (based on retail provider supply curves of emission reduction measures, or a comparable metric).

Answer each of the questions in this section, first, for a load-based system in the electricity sector and, second, for a deliverer/first seller system in the electricity sector. If your recommendations differ for a load-based or deliverer/first seller point of regulation, explain why.

**Q10.** If some or all allowances are allocated administratively, which of the above method or methods should be used for the initial allocations? If you prefer an option other than one of those listed above, describe your preferred method in detail. In addition to your recommendation, comment on the pros and cons of each method listed above, especially regarding the impact on market performance, prices, costs to customers, distributional consequences, and effect on new entrants.

WPTF does not have a position on a specific method of administratively allocating allowances under either a load-based or first-seller approach. However we would make the following observations:

Updating should not be considered a separate administrative allocation option, as it may be used in combination with grandfathering, benchmarking or other method. WPTF supports periodic updating of allocation method, regardless of the method used. The updating should be done frequently enough to capture significant changes in the electricity sector, electricity sector such as new market entry and exit and changes in the generation mix.

An output-based approach would be fairer to new entrants than a grandfathering approach under both a load-based and first-seller approach.

WPTF does not support a cost of compliance allocation, as it would be difficult to determine and agree on appropriate metric for measuring compliance costs. Historical emissions (grandfathering) would provide an adequate proxy for cost of compliance.

If allowances are allocated based on historical emissions under a load-based approach, then it is important to use the same method to calculate each entity's allocation as is used to assign emissions to the entity during the compliance period. For instance, if a retail provider's emissions during the compliance period are assigned based on that provider's procurement, then procurement should also be used to determine the provider's emission baseline, and hence allocation.

**Q11. Should the method for allocating emission allowances remain consistent from one year to the next, or should it change as the program is implemented?**

The method for administratively allocating allowances should remain consistent over time, but the base year or benchmark should be updated.

**Q12. If new market entrants receive emission allowance allocations, how would the proper level of allocations be determined for them?**

Under an administrative allocation approach, new market entrants (i.e. new generators or importers under a first-seller approach, or new retail providers under a load-based approach) should be allocated allowances from a set-aside pool for the first year of operation. Following the first-year, allocation to these entities would be addressed through the updating process. As noted above, an output-based allocation would be fairer to new entrants, under both a load-based and a first-seller approach, as these entrants would not have historic emissions.

**Q13. If emission allowances are allocated based on load/sales, population, or other factors that change over time, how often should the allowance allocations be updated?**

WPTF suggests that yearly would be an appropriate timeframe for allocating allowances.

**Q14. If emission allowances are allocated based on historical emissions “grandfathering” or benchmarking, what base year(s) should be used as the basis for those allocations?**

If allowances are allocated on an historic emission basis, then the base year for these allocations should be set at a year prior to active consideration of GHG regulation implementation details in order to avoid penalizing regulated entities for GHG reductions achieved prior to the compliance period. An average of generation (or sales) over a multi-year period would yield a more appropriate and representative reference than a single year.

**Q15. If emission allowances are allocated based initially on historical emissions (“grandfathering”), should the importance of historical emissions in the calculation of allowances be reduced in subsequent years as providers respond to the need to reduce GHGs? If so, how should this be accomplished? By 2020, should all allocations be independent of pre-2012 historical emissions?**

WPTF does not have a position on this issue.

**Q16. Should a two-track system be created, with different emission allowances for deliverers/first sellers or retail providers with legacy coal-fueled power plants or legacy coal contracts? What are the factors and trade-offs in making this decision? How would the two tracks be determined, e.g., using an historical system emissions factor as the cut-off? How should the allocations differ between the tracks, both initially and over time? What would be the market impact and cost consequences to consumers if a two-track method were used?**

WPTF does not support a two-track system, as it adds unnecessary complexity to the allocation scheme.

**Q17. If emission allowances are allocated administratively to retail providers, should other adjustments be made to reflect a retail provider's unique circumstances? Comment on the following examples, and add others as appropriate:**

**a. Climate zone weighting to account for higher energy use by customers in inclement climates, and**

This question is only applicable under a load-based trading system. If allowances are allocated based on load-served or historic emissions, then providers with higher consumer energy use would automatically receive more allowances than lower energy use consumers, all else being equal.

**b. Increased emission allowances if there is a greater-than-average proportion of economically disadvantaged customers in a retail provider's area.**

As WPTF stated above, we believe that the mitigation of costs to economically disadvantaged customers should be addressed through other state policies and programs rather than through allocation of allowances.

**Q18. Should differing levels of regulatory mandates among retail providers (e.g., for renewable portfolio standards, energy efficiency investment, etc.) be taken into account in determining entity-specific emission allowance allocations going forward? For example, should emission allowance allocations be adjusted for retail providers with high historical investments in energy efficiency or renewables due to regulatory mandates? If those differential mandates persist in the future, should they continue to affect emission allowance allocations?**

WPTF does not support altering allocations in response to differing levels of regulatory mandates among retail providers. A retail provider's compliance with existing regulatory mandates such as energy efficiency and RPS requirements will assist in achieving its emission target, thus allocation of additional allowances is not warranted. To ensure that these providers are not penalized for emission reductions already achieved for other regulatory purposes under an historic emission allocation, the base year should be set at a year prior to imposition of those mandates.

This question is not relevant under a first-seller approach.

**Q19. How often should the allowance allocation process occur? How far in advance of the compliance period?**

WPTF recommends that allowances be allocated as far in advance of the compliance period as feasible to facilitate planning by regulated entities, and promote the development of a liquid secondary market.

**Q20. What are the distributional consequences of your recommended emission allowance allocation approach? For example, how would your method affect customers of retail providers with widely differing average emission rates? Or differing rates of population growth?**

WPTF has no comment on these questions.

**3.4.2. Emission Allowances with a Deliverer/First Seller Point of Regulation**

**Q21. Would a deliverer/first seller point of regulation necessitate auctioning of emission allowances to the deliverers/first sellers?**

As noted above, WPTF recommends that administrative allocation should be the principal means of distributing emission allowances in the early years of the trading system, and that a transition to greater allowance auctioning over time is appropriate. For new entrants under

an output-based allocation method, it would be possible to allocate allowances using a forecast of load or sales (out of state resources/marketer in a first-seller system would be required to demonstrate a contract with a California electric service provider). However, allocation would not be possible for spot-markets sales under a first-seller approach, or if a grandfathering allocation is used. For this reason, it may be necessary to auction allowances to new entrants for the first year of operation. In subsequent years, these entities would be included in the annual allocation updating process consistent with other market participants.

**Q22. Are there interstate commerce concerns if auction proceeds are obtained from all deliverers/first sellers and spent solely for the benefit of California ratepayers? If there are legal considerations, include a detailed analysis and appropriate legal citations.**

WPTF has no comment on these questions.

**Q23. If you believe 100% auctioning to deliverers/first sellers is not required, explain how emission allowances would be allocated to deliverers/first sellers. In doing so, answer the following:**

**a. How would the amount of emission allowances given to deliverers/first sellers be determined during any particular compliance period?**

Options for allocation to resources under a first-seller approach are benchmarking and grandfathering.

**b. How would importers that are marketers be treated, e.g., would they receive emission allowance allocations or be required to purchase all their needed emission allowances through auctions? If allocated, using what method?**

See WPTF's response to question 21.

**c. How would electric service providers be treated?**

Under the deliverer/first seller approach, there are no unique issues relative to electric service providers; i.e. they would be treated the same as other first-sellers. To the extent that ESP's can demonstrate a historic relationship to a resource, they could be allocated allowances

under a grandfathered or output-based allocation. However, for power imported under new contracts or through the CAISO markets, allowances would have to be purchased through auction or the secondary market, until the allocations are updated.

**d. How would new deliverers/first sellers obtain emission allowances?**

WPTF considers it important that new entrants be treated fairly and not competitively disadvantaged relative to incumbents. Therefore, where possible, allowances should be allocated to new entrants for the first year of operation. However, in some cases, it may be more practical for new entrants to purchase allowances from auction or the secondary market for the first year of operation, as discussed in question 21 above. For following years, the entrants would receive allocations, consistent with the allocation updating process used for all market participants.

**e. Would zero-carbon generators receive emission allowance allocations?**

WPTF does not have a position on this issue.

**f. What would be the impact on market performance, prices, and costs to customers of allocating emission allowances to deliverers/first sellers?**

WPTF has no comment on this question.

**g. What would be the likelihood of windfall profits if some or all emission allowances are allocated to deliverers/first sellers?**

Although allocation of emission allowances to regulated entities under a first-seller approach creates some risk of windfall profits, the potential for such profits is countered by the fact that fossil-fuel generators will face significant compliance costs under GHG regulation. For this reason, WPTF believes that allocation of allowances is warranted, particularly in the early years of the trading system.

**h. How could such a system prevent windfall profits?**

Gradual transition to auctioning over time would reduce the potential for windfall profits.

**Q24. With a deliverer/first seller point of regulation, should administrative allocations of emission allowances be made to retail providers for subsequent auctioning to deliverers/first sellers? If so, using what allocation method? Refer to your answers in Section 3.4.1., as appropriate.**

WPTF believes that the point of allocation should coincide with the point of regulation in a GHG trading system and opposes allocation of allowances to retail providers under a first-seller approach. Such an approach would competitively advantage utility-owned resources, and allow the larger utilities to exert market power over the allowance market.

**Q25. If you recommend allocation of emission allowances to retail providers followed by an auction to deliverers/first sellers, how would such an auction be administered? What kinds of issues would such a system raise? What would be the impact on market performance, prices, and costs to customers?**

WPTF opposes this approach.

**3.5. Natural Gas Sector**

WPTF has no response to the questions in this section.

**Q26. Answer each of the questions in Section 3.4.1 except Q16, but for the natural gas sector and with reference to natural gas distribution companies investor- or publicly-owned), interstate pipeline companies, or natural gas storage companies as appropriate. Explain if your answer differs among these types of natural gas entities. Explain any differences between your answers for the electricity sector and the natural gas sector.**

**Q27. Are there any other factors unique to the natural gas sector that have not been captured in the questions above? If so, describe the issues and your recommendations.**

### **3.6. Overall Recommendation**

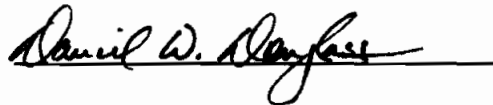
**Q28. Considering your responses above, summarize your primary recommendation for how the State should design a system whereby electricity and natural gas entities obtain emission allowances if a cap and trade system is adopted.**

WPTF recommends that administrative allocation should be the principal means of distributing emission allowances in the early years of the GHG trading system. WPTF is supportive of a transition to allowance auctioning over time, but believes this should be gradual so as not to overburden regulated entities.

### **Conclusion**

WPTF appreciates this opportunity to comment and the Commission's consideration of the comments listed herein.

Respectfully submitted,



Daniel W. Douglass  
DOUGLASS & LIDDELL  
21700 Oxnard Street, Suite 1030  
Woodland Hills, California 91367  
Telephone: (818) 961-3001  
Facsimile: (818) 961-3004  
Email: [douglass@energyattorney.com](mailto:douglass@energyattorney.com)

Attorneys for the  
**WESTERN POWER TRADING FORUM**

October 31, 2007

**CERTIFICATE OF SERVICE**

I hereby certify that I have this day served a copy of the Comments of the Western Power Trading Forum on Allowance Allocation Issues on all parties of record in R. 06-04-009 by serving an electronic copy on their email addresses of record and by mailing a properly addressed copy by first-class mail with postage prepaid to each party for whom an email address is not available.

Executed on October 31, 2007, at Woodland Hills, California.

  
\_\_\_\_\_  
Michelle Dangott

## SERVICE LIST

**R.06-04-009**

cadams@covantaenergy.com  
steven.schleimer@barclayscapital.com  
steven.huhman@morganstanley.com  
rick\_noger@praxair.com  
keith.mccrea@sablax.com  
ajkatz@mwe.com  
ckrupka@mwe.com  
lisa.decker@constellation.com  
cswoollums@midamerican.com  
kevin.boudreaux@calpine.com  
trdill@westernhubs.com  
ej\_wright@oxy.com  
pseby@mckennalong.com  
todil@mckennalong.com  
steve.koerner@elpaso.com  
jenine.schenk@apses.com  
jbw@slwplc.com  
kelly.barr@srpnet.com  
rrtaylor@srpnet.com  
smichel@westernresources.org  
roger.montgomery@swgas.com  
ron.deaton@ladwp.com  
snewsom@semprautilities.com  
dhuard@manatt.com  
curtis.kebler@gs.com  
dehling@klng.com  
gregory.koiser@constellation.com  
npedersen@hanmor.com  
mmazur@3phasesRenewables.com  
tiffany.rau@bp.com  
klatt@energyattorney.com  
rhelgeson@scppa.org  
douglass@energyattorney.com  
psed@adelphia.net  
akbar.jazayeri@sce.com  
annette.gilliam@sce.com  
cathy.karlstad@sce.com  
Laura.Genao@sce.com  
rkmoore@gswater.com  
dwood8@cox.net  
amsmith@sempra.com  
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  
bkc7@pge.com  
epoole@adplaw.com  
agrimaldi@mckennalong.com  
bcragg@goodinmacbride.com  
jsqueri@gmssr.com  
jarmstrong@goodinmacbride.com  
kbowen@winston.com  
lcottle@winston.com  
sbeatty@cwclaw.com  
vprabhakaran@goodinmacbride.com  
jkarp@winston.com  
jeffgray@dw.com  
cjh5@pge.com  
ssmyers@att.net  
lars@resource-solutions.org  
alho@pge.com  
aweller@sel.com  
jchamberlin@strategicenergy.com  
beth@beth411.com  
kerry.hattevik@mirant.com  
kowalewsia@calpine.com  
wbooth@booth-law.com  
hoerner@redefiningprogress.org  
janill.richards@doj.ca.gov  
cchen@ucsusa.org  
gmorris@emf.net  
tomb@crossborderenergy.com  
bmcc@mccarthyaw.com  
sberlin@mccarthyaw.com

anginc@goldrush.com  
joyw@mid.org  
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  
deb@a-klaw.com  
cynthia.schultz@pacificorp.com  
kyle.l.davis@pacificorp.com  
ryan.flynn@pacificorp.com  
carter@ieta.org  
jason.dubchak@riskags.com  
bjones@mjbbradley.com  
kcolburn@sympioticstrategies.com  
rapcowart@aol.com  
Kathryn.Wig@nrgenergy.com  
sasteriadis@apx.com  
george.hopley@barcap.com  
ez@pointcarbon.com  
burtraw@rff.org  
vb@pointcarbon.com  
kyle\_boudreaux@fpl.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  
tcarlson@reliant.com  
ghinners@reliant.com  
zaiontj@bp.com  
julie.martin@bp.com  
fiji.george@elpaso.com  
echiang@elementmarkets.com  
nenbar@energy-insights.com  
nlenssen@energy-insights.com

bbaker@summitblue.com  
william.tomlinson@elpaso.com  
kjsimonsen@ems-ca.com  
Sandra.ely@state.nm.us  
bmcquown@reliant.com  
dbrooks@nevpc.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  
tdillard@sierrapacific.com  
dsoyars@sppc.com  
fluchetti@ndep.nv.gov  
leilani.johnson@ladwp.com  
Lorraine.Paskett@ladwp.com  
randy.howard@ladwp.com  
robert.pettinato@ladwp.com  
HYao@SempraUtilities.com  
rprince@semprautilities.com  
rkeen@manatt.com  
nwhang@manatt.com  
pjazayeri@stroock.com  
derek@climaterestry.org  
david@nemtzow.com  
harveyederpspc.org@hotmail.com  
vitaly.lee@aes.com  
sendo@ci.pasadena.ca.us  
slins@ci.glendale.ca.us  
THAMILTON5@CHARTER.NET  
bjeider@ci.burbank.ca.us  
rmorillo@ci.burbank.ca.us  
roger.pelote@williams.com  
aimee.barnes@ecosecurities.com  
case.admin@sce.com  
tim.hemig@nrgenergy.com  
bjl@bry.com  
aldyn.hoekstra@paceglobal.com  
ygross@sempraglobal.com  
jlaun@apogee.net  
kunkiener@fox.net  
scottanders@sandiego.edu  
jkloberdanz@semprautilities.com  
andrew.mcallister@energycenter.org  
jack.burke@energycenter.org  
jennifer.porter@energycenter.org  
sephra.ninow@energycenter.org  
jleslie@luce.com  
ofoote@hkcflaw.com  
ekgrubaugh@iid.com  
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  
cbaskette@enernoc.com  
colin.petheram@att.com  
jwmctarnaghan@duanemorris.com  
kfox@wsgr.com  
kkhoja@thelenreid.com  
pvallen@thelen.com  
spauker@wsgr.com  
rreinhard@mofo.com  
cem@newsdata.com  
hgolub@nixonpeabody.com  
jscancarelli@flk.com  
jwiedman@goodinmacbride.com  
mmattes@nossaman.com  
jen@cnt.org  
lisa\_weinzimer@platts.com  
steven@moss.net  
sellis@fypower.org  
arno@recurrentenergy.com  
ELL5@pge.com  
gxl2@pge.com  
jxa2@pge.com  
JDF1@PGE.COM  
RHHJ@pge.com  
sscb@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@dynegey.com  
info@calseia.org  
gblue@enxco.com  
sbeserra@sbcglobal.net

monica.schwebs@bingham.com  
phanschen@mofo.com  
josephhenri@hotmail.com  
pthompson@summitblue.com  
dietrichlaw2@earthlink.net  
Betty.Seto@kema.com  
JerryL@abag.ca.gov  
jody\_london\_consulting@earthlink.net  
steve@schiller.com  
mrw@mrwassoc.com  
rschmidt@bartlells.com  
adamb@greenlining.org  
clyde.murley@comcast.net  
brenda.lemay@horizonwind.com  
carla.peterman@gmail.com  
elvine@lbl.gov  
rhwisner@lbl.gov  
C\_Marnay@lbl.gov  
philm@scedenergy.com  
rita@ritanortonconsulting.com  
cpechman@powereconomics.com  
emahlon@ecoact.org  
richards@mid.org  
rogerv@mid.org  
fwmonier@tid.org  
brbarkovich@earthlink.net  
johnredding@earthlink.net  
clark.bernier@rlw.com  
rmccann@umich.edu  
cinkehrin@ems-ca.com  
e-recipient@caiso.com  
groenblum@caiso.com  
rsmutny-jones@caiso.com  
saeed.farrokhpay@ferc.gov  
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@Dynegey.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  
wtasat@arb.ca.gov  
steven@iepa.com  
etiedemann@kmtg.com  
ltenhope@energy.state.ca.us  
bushinskyj@pewclimate.org  
lmh@eslawfirm.com  
obartho@smud.org  
bbeebe@smud.org  
bpurewal@water.ca.gov  
dmacmill@water.ca.gov  
kmills@cfbf.com  
karen@klinth.com  
ehadley@reupower.com  
Denise\_Hill@transalta.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  
mprior@energy.state.ca.us  
mgarcia@arb.ca.gov  
pduvair@energy.state.ca.us

dws@r-c-s-inc.com  
jesus.arredondo@nrgenergy.com  
charlie.blair@delta-ee.com  
karen.mcdonald@powerex.com  
clarence.binninger@doj.ca.gov  
david.zonana@doj.ca.gov  
agc@cpuc.ca.gov  
aeg@cpuc.ca.gov  
blm@cpuc.ca.gov  
cfl@cpuc.ca.gov  
cft@cpuc.ca.gov  
tam@cpuc.ca.gov  
dsh@cpuc.ca.gov  
edm@cpuc.ca.gov  
cpe@cpuc.ca.gov  
hym@cpuc.ca.gov  
hs1@cpuc.ca.gov  
jm3@cpuc.ca.gov  
jnm@cpuc.ca.gov  
jbf@cpuc.ca.gov  
jkl@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  
wsm@cpuc.ca.gov  
hurlock@water.ca.gov  
hcronin@water.ca.gov

lrm@cpuc.ca.gov  
ltt@cpuc.ca.gov  
mjd@cpuc.ca.gov  
ner@cpuc.ca.gov  
pwl@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  
bdicapo@caiso.com  
jsanders@caiso.com  
jgill@caiso.com  
ppetillingill@caiso.com  
mscheibl@arb.ca.gov  
epowers@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  
kggriffin@energy.state.ca.us  
ldecarlo@energy.state.ca.us