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**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.

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

Order Instituting Informational Proceeding –
AB-32

CEC Docket Number 07-OIIP-01

**REPLY COMMENTS OF KENNETH C. JOHNSON
PERTAINING TO ALLOWANCE ALLOCATION ISSUES**

Kenneth C. Johnson
2502 Robertson Rd
Santa Clara, CA 95051
408-244-4721
kjinnovation@earthlink.net

November 12, 2007

**REPLY COMMENTS OF KENNETH C. JOHNSON
PERTAINING TO ALLOWANCE ALLOCATION ISSUES**

Kenneth C. Johnson, an unaffiliated individual, U.S. citizen, and resident of California having a personal interest in and concern about climate change, respectfully submits the following reply comments in response to the *Administrative Law Judge’s Ruling Requesting Comments and Noticing Workshop on Allowance Allocation Issues* (10/15/2007).

1. Response to LADWP, SCPPA comments regarding auctioning and output-based allocation

The Los Angeles Department of Water and Power (LADWP¹) supports administrative allocation as “the least cost approach to reducing emissions” and opposes auctioned allocation on the grounds that auctioning would perversely increase costs and would not be authorized by AB 32. The underlying premise of these arguments is that there is a fundamental and intrinsic difference, both economic and legal, between auctioning and administrative allocation. However, a cap-and-trade system with administrative allocation, like an auction, would place no regulatory limit on any particular entity’s emissions. Each entity would be free to choose its preferred emission rate through emission trading, independently of its allotted quota. And an auction would be substantially equivalent to free allocation if auction proceeds are refunded according to an equivalent proportionate allocation formula. This type of auction would operate as a “monetary incentive” of the type envisaged by AB 32 (Sec. 38561(b)).

LADWP’s concerns, which are echoed by the Southern California Public Power Authority (SCPPA²), are related more to the allocation formula than to auctioning itself. SCPPA asserts that “In no event should emission allowances be allocated on the basis of retail sales, population, or any other factor that does not bear a direct one-to-one correlation to a retail provider’s actual historical emissions.” (Q13). Regarding output-based allocation in particular, LADWP states that “Output-Based Allocation ... would

¹ <http://docs.cpuc.ca.gov/efile//CM/74630.pdf>

² <http://docs.cpuc.ca.gov/efile//CM/74631.pdf>

cause significant harm to many retail service providers that would be net buyers of allowances ... There is no rational environmental, economic or consumer-based policy to support a retail based allocation approach ...” (Q10).

To the extent that the market determines generation output, output-based allocation would be “market-based” in the sense that detailed resource allocation decisions would be relegated to the market. (Under an output-based, refunded auction, the allocation of both allowances and auction revenue would be market-controlled.) Output-based allocation would have an advantage of administrative simplicity in comparison to administrative allocation methods such as, for example, Southern California Edison’s proposal, which would require ARB to “use historical emissions and portfolio data to determine economic harm on an entity-by-entity basis” and allocate allowances based on this “economic harm” metric.

Market-based instruments also have theoretical advantages of economic efficiency and cost effectiveness, but pragmatic considerations may necessitate some measure of administrative control over distributional impacts of GHG regulation. For instance, a pure output-based allocation would induce substantial cross-subsidies from coal to large hydro and nuclear, diverting resources that might otherwise be channeled toward non-hydro renewable energy and sequestration. The effect of the cross-subsidies would be to induce the market to try to substitute hydro and nuclear for coal, but this policy approach may not be cost-effective or feasible, particularly from the perspective of a global decarbonization strategy. There are limited natural resources available for hydro expansion, and hydro imposes environmental costs apart from GHG emissions. Large-scale expansion of nuclear in the time frame of AB 32 may not be feasible; there are significant health and safety risks associated with nuclear waste and proliferation; uranium reserves are limited; and mining of low-grade uranium ore generates significant GHG emissions.

For the above reasons, an effective regulatory policy may need to neutralize cross-subsidies to hydro and nuclear. An output-based allocation system can be adapted to provide administrative control over allowance or revenue allocation between major market sub-sectors (e.g., coal, hydro and nuclear), while still letting the allocation within

each sub-sector be market-determined. Administrative allocation would be applied at the sub-sector level, not at the individual entity level.

2. Response to SCE’s comments regarding “economic harm” and protectionism

The allocation method can be constructed to neutralize cross-subsidies from coal to hydro and nuclear, while still preserving the competitive advantage of other energy sources (e.g., non-hydro renewables) relative to coal. But Southern California Edison (SCE³) goes a step further, arguing that the allocation method should protect coal from competition with all low-GHG alternatives. Part of SCE’s argument justifying such protectionism is that the “economic harm” created by GHG regulation would result in disproportionately high costs for consumers of high-GHG power if the allocation method does not provide preferential accommodation of high-GHG producers. But under an output-based allocation system, any cross subsidy from high-GHG to low-GHG generators would be based on actual low-GHG generation output (not projected or potential output), which would compete with high-GHG generation; so the subsidy pass-through to consumers would tend to offset the cost pass-through from high-GHG generation.

At least some of the low-GHG subsidy would go toward higher generation costs of clean energy, resulting in overall price increases, but competition would tend to levelize retail prices and mitigate distributional inequities. (If consumers in a particular service area do not have equal access to low-GHG electricity, then they may incur disproportionate economic harm; and this might justify a compensatory policy to mitigate the inequity.) Furthermore, the low-GHG subsidy would induce expansion of low-GHG generation capacity, which would increase energy supplies without exceeding the GHG cap, resulting in lower energy prices for the benefit of consumers.

SCE argues that high-GHG generators, as well as consumers, should also be protected from economic harm, but AB 32 does not support this position. AB 32 authorizes a variety of market-based compliance mechanisms – not just cap and trade, but also monetary incentives, which are “market-based” in a broader sense. An essential characteristic of market-based instruments is that that they operate through competition.

³ <http://docs.cpuc.ca.gov/efile//CM/74610.pdf>

In a competitive market environment, there are winners and losers, and the losers suffer disproportionate economic harm. AB 32 does not afford protectionist status to generators who are uncompetitive in the emissions market. Coal energy, in particular, is unsustainable and will have to be either phased out or combined with large-scale sequestration if climate sustainability goals are to be achieved. Any economic harm from a phase-out of coal would be balanced by increased investment and employment opportunities from sustainable energy industries that displace coal.

SCE opposes output-based allocation on the grounds that allowance allocation is merely “a distribution of wealth,” which “does not have any impact on market performance, prices, or costs to customers” (Q10). The untenability of this argument can be best illustrated in the context of an auction, although the same principle applies to administrative allowance allocation.

Under an unrefunded auction, a high-GHG generator would incur allowance costs greater than a low-GHG generator, but the economic harm that the high-GHG generator suffers from its greater allowance cost would be balanced by the economic harm that the low-GHG generator incurs from the higher cost of clean energy generation relative to cheap coal. The market would tend to balance the two economic harms and equilibrate to an energy source mix that minimizes aggregate energy costs. However, “minimum cost” does not imply “low cost” because the industry would incur a substantial taxation burden from the auction in addition to GHG abatement costs.

The taxation cost can be offset by distributing the auction revenue to regulated entities in proportion to generation output. The advantage of this allocation method is that the dollars-per-MWh regulatory costs of low-GHG and high-GHG generators will be reduced equally, so the distribution will have no impact on their relative competitiveness and will not interfere with the market’s cost-minimization function. Energy costs will still be minimized, but at a lower level with the refund distribution.

Under SCE’s proposed discriminatory allocation method, coal generators would receive a substantially higher dollars-per-MWh distribution than low-GHG generators. This would not affect the balance of competition between coal generators, or between low-GHG generators, but any market incentive for switching from coal to low-GHG sources would be greatly diminished or even reversed by the distribution inequity. The

protectionist barrier created by the inequitable distribution may deter the market from making investments in either sequestration or sustainable generation sufficient to displace coal emissions. While some degree of discriminatory allocation may be justified by policy objectives, the allocation method should not be used simply to protect firms from economic harm caused by market competition.

3. Output-based allocation

The parties' responses to the questions in the ALJ ruling are, in some instances, framed from a limited perspective of how "output-based" allocation operates and what range of regulatory options are available with this method. The following comments are offered to try to clarify this issue. The method will be discussed in the context of a refunded auction, but the same approach could be used to determine allocation percentages for output-based allowance allocation.

Under an output-based refunded auction with uniform (nondiscriminatory) refunding, all auction revenue is refunded regulated entities in proportion to generation output, with a common proportionality factor determined to achieve revenue neutrality within the regulated sector. Each entity's net emission charge (auction cost minus refund) per unit output (i.e., net \$ per MWh) will be proportional to the difference between its emission intensity (ton-CO₂ per MWh) and the output-weighted average emission intensity of the entire regulated sector. Firms with better-than-average emission intensity accrue a net gain, while those with worse-than-average performance incur a net loss.

The scope of the auction need not be limited to the electricity sector. Under a multi-sector auction, the refund can either be distributed to achieve revenue neutrality within the electricity sector using a MWh-based output metric, or can be distributed uniformly across multiple sectors using a more generic output metric. The latter approach is used, for example, by the Swedish NO_x program, which applies to boilers, stationary combustion engines, and gas turbines, including not only the energy sector but also pulp and paper mills, food, metal and other manufacturing as well as waste incineration plants. The program distributes refunds in proportion to a "useful energy" metric that applies uniformly to all of these processes. In general, "output" can be defined to represent either the economic value derived in connection with emissions, or an equivalent substitute

(e.g., emission-free energy). For electricity, the MWh metric is deficient in that it takes no account of energy efficiency (e.g., one watt of fluorescent lighting is equivalent to about four watts of incandescent light), but this limitation can be overcome with complementary standards or incentives for energy efficiency.

The refunding method can be adapted to provide administrative control over distributional impacts and revenue flows between sub-sectors of the regulated industry. For the purpose of illustration, consider a policy that has the objective of mitigating the cross-subsidy from coal to natural gas, while maintaining incentives to substitute renewable sources for fossil-fuel energy. This policy would tend to reduce, rather than increase, the electricity industry's reliance on natural gas, while also reducing coal dependence. (The same approach could be used to neutralize cross subsidies to other sectors, such as hydro and nuclear, or between geographic regions; and a similar approach could also be used to incrementally phase in a cross subsidy over a period of time.)

In this example the regulated sector comprises three sub-sectors: Coal, NG, and Other. With uniform refunding, the revenue flows between the three sub-sectors comprise separate cross-subsidies between sub-sector pairs. For example, the revenue flow from Coal comprises a cross-subsidy from Coal to NG (which is proportional to the difference in emission intensity between Coal and NG) and a second cross-subsidy from Coal to Other (which is proportional to their emission intensity difference). The refund rates (\$ per MWh) for Coal and NG can be modified to eliminate the first of these cross-subsidies without affecting the cross-subsidies to or from Other.

Although the revenue flow between Coal and NG would be eliminated, this method does not entirely eliminate the regulatory incentive for fuel switching from Coal to NG. The reason for this is that the cross-subsidy from NG to Other is less than that from Coal to Other, so a Coal generator could reduce its regulatory cost by switching to NG. (If the refund rates were determined to eliminate the average fuel-switching incentive they would actually induce a cross-subsidy from NG to Coal.)

The process outlined above is discussed in greater detail in the Appendix.

4. Response to EPUC/CAC comments regarding risk potential of an auction program

The Energy Producers and Users Coalition and the Cogeneration Association of California (EPUC/CAC)⁴ recommend administrative allocation of allowances on the grounds that “California cannot turn to any significant experience – state, national or global -- with emission allowance auctions to inform a GHG auction program,” and that a “high potential thus exists for unintended consequences.” But following established regulatory precedent is not a safe or prudent policy approach when there is no evidence that established GHG regulatory frameworks are capable of achieving policy objectives of climate stabilization. Ten years after Kyoto, global GHG emissions are not abating, and the IEA’s recent projections⁵ indicate that even under its optimistic scenario CO₂-equivalent concentrations will not stabilize below 550 ppm, a level that could potentially initiate rapid and irreversible disintegration of the West Antarctic and Greenland ice sheets during this century⁶. An adequate regulatory response to this threat will likely require a fundamentally new and different policy approach that is grounded not on precedent, but rather on a more sound policy rationale.

There is no consensus yet on what type of regulatory approach will work best for climate policy. The two primary options are quantity instruments, such as caps and standards, or price instruments such as taxes and monetary incentives. The basic argument in favor of quantity instruments is that they provide “environmental certainty”. A counterargument is that GHG caps and standards are never set at sustainable levels.

Without a clear policy consensus, a conservative and prudent policy would not exclude either approach, but would rather provide California the flexibility to adopt elements of either approach in response to learning experience and new information. A cap-and-trade system employing allowance auctioning would provide this flexibility. California, and other states and nations who adopt a similar approach, would have the latitude to increase the stringency of caps to a level sufficient to ensure climate

⁴ <http://docs.cpuc.ca.gov/eFile//CM/74562.pdf>

⁵ World Energy Outlook 2007, published by the International Energy Agency. (Executive Summary, p. 50) <http://www.worldenergyoutlook.org/>

⁶ James Hansen et al. 2007. Climate change and trace gases. Philosophical Transactions of the Royal Society A 365, 1925–1954. (Sec. 8(d)) http://pubs.giss.nasa.gov/docs/2007/2007_Hansen_et_al_2.pdf

stabilization if that becomes the highest policy priority. Alternatively, if cost control takes precedence over environmental certainty, then a price floor could be instituted (with retirement of unsold allowances) to provide maximal economic incentives for further emission reductions. Marginal costs would be limited by the regulated emission price, and auction revenue could be used to mitigate distributional costs, e.g., by replicating the distributional characteristics of administrative allowance allocation. The combination of statutory requirements mandated by AB 32, and the variety of authorized policy instruments, provide a legislative framework for this type of flexible regulatory approach.

5. Health and Safety Code Section 38560

Sec. 38560 of AB 32 requires ARB to “adopt rules and regulations ... to achieve the maximum technologically feasible and cost-effective greenhouse gas emission reductions ...”. (This requirement is sometimes referred to informally as “maximum feasibility”, although this is a slight misnomer because the maximality condition applies to emission reductions – not feasibility, which is stipulated only as a constraint.) The parties’ responses to questions in the ALJ ruling do not appear to recognize the maximality condition of Sec. 38560 as a separate and distinct statutory requirement, independent of the cap requirement, and do not address this requirement in their proposals. The Commissions’ recommendations to ARB should recognize this requirement.

Respectfully submitted,

/s/ Kenneth C. Johnson

Kenneth C. Johnson
2502 Robertson Rd
Santa Clara, CA 95051
408-244-4721
kjinnovation@earthlink.net

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Appendix. Supplemental comments regarding output-based allocation

The methodology outlined in Sec. 3 can be formalized as follows: The regulated industry comprises GHG-emitting entities, wherein the i -th entity generates emissions e_i (tons-CO₂) in connection with generation output q_i (MWh) during a particular compliance period. For simplicity, it is initially assumed that all entities pay the same emission price p (\$/ton-CO₂) for their allowances, so that entity i effectively incurs an emission tax t_i (\$) of

$$t_i = p e_i$$

The tax is refunded in proportion to output at a uniform refund rate c (\$/MWh). Entity i accrues a refund r_i of

$$r_i = c q_i$$

Aggregate quantities are indicated by capital letters,

$$E = \sum_i e_i, \quad Q = \sum_i q_i, \quad T = \sum_i t_i, \quad R = \sum_i r_i$$

The aggregate tax and refund are

$$T = p E$$

$$R = c Q$$

The refund rate is determined to achieve revenue neutrality,

$$R = T \rightarrow c = p \frac{E}{Q}$$

An entity's net emission charge (tax minus refund) is denoted as f_i ,

$$f_i = t_i - r_i$$

It follows from the revenue neutrality condition that entity i 's net charge per unit output, f_i / q_i (\$/MWh), is proportional to the difference between its emission intensity (e_i / q_i) and the industry's output-weighted average emission intensity (E / Q), with a proportionality factor of p ,

$$\frac{f_i}{q_i} = p \left(\frac{e_i}{q_i} - \frac{E}{Q} \right)$$

This value can be either positive (a net loss) or negative (a net gain) depending on whether the entity's emission intensity is worse or better than average.

Considering the illustrative example discussed in Sec. 3 relating to a regulated sector comprising Coal, NG, and Other sub-sectors, entity-specific quantities for each sub-sector will be indicated by superscripts, e.g., $e_i^{[\text{Coal}]}$ for the emission level of the i -th Coal entity, etc. (A regulated entity such as an LSE may get energy from multiple fuel sources, so in this context an “entity” can represent the portion of a particular LSE’s load that originates from a particular fuel.) Aggregate quantities are disaggregated into sub-sector components,

$$\begin{aligned} E &= E^{[\text{Coal}]} + E^{[\text{NG}]} + E^{[\text{Other}]}, & Q &= Q^{[\text{Coal}]} + Q^{[\text{NG}]} + Q^{[\text{Other}]} \\ T &= T^{[\text{Coal}]} + T^{[\text{NG}]} + T^{[\text{Other}]}, & R &= R^{[\text{Coal}]} + R^{[\text{NG}]} + R^{[\text{Other}]} \end{aligned}$$

wherein superscripted capital letters indicate sub-sector aggregates, e.g.,

$$\begin{aligned} E^{[\text{Coal}]} &= \sum_i e_i^{[\text{Coal}]}, & Q^{[\text{Coal}]} &= \sum_i q_i^{[\text{Coal}]} \\ T^{[\text{Coal}]} &= \sum_i t_i^{[\text{Coal}]}, & R^{[\text{Coal}]} &= \sum_i r_i^{[\text{Coal}]} \end{aligned}$$

etc.

The total tax and refund within the sub-sectors are

$$T^{[\text{Coal}]} = p E^{[\text{Coal}]}$$

$$R^{[\text{Coal}]} = c Q^{[\text{Coal}]}$$

etc.

The aggregate net charges for Coal, NG, and Other are denoted as

$$F^{[\text{Coal}]} = T^{[\text{Coal}]} - R^{[\text{Coal}]} = p E^{[\text{Coal}]} - c Q^{[\text{Coal}]}$$

$$F^{[\text{NG}]} = T^{[\text{NG}]} - R^{[\text{NG}]} = p E^{[\text{NG}]} - c Q^{[\text{NG}]}$$

$$F^{[\text{Other}]} = T^{[\text{Other}]} - R^{[\text{Other}]} = p E^{[\text{Other}]} - c Q^{[\text{Other}]}$$

Based on the revenue-neutrality condition, these charges can be disaggregated into individual cross-subsidies, e.g. a cross-subsidy $F^{[\text{Coal} \rightarrow \text{NG}]}$ from Coal to NG, etc.:

$$F^{[\text{Coal}]} = F^{[\text{Coal} \rightarrow \text{NG}]} + F^{[\text{Coal} \rightarrow \text{Other}]}$$

$$F^{[\text{NG}]} = F^{[\text{NG} \rightarrow \text{Coal}]} + F^{[\text{NG} \rightarrow \text{Other}]}$$

$$F^{[\text{Other}]} = F^{[\text{Other} \rightarrow \text{Coal}]} + F^{[\text{Other} \rightarrow \text{NG}]}$$

wherein

$$F^{[\text{Coal} \rightarrow \text{NG}]} = -F^{[\text{NG} \rightarrow \text{Coal}]} = p \left(\frac{E^{[\text{Coal}]}}{Q^{[\text{Coal}]}} - \frac{E^{[\text{NG}]}}{Q^{[\text{NG}]}} \right) \frac{Q^{[\text{Coal}]} Q^{[\text{NG}]}}{Q}$$

$$F^{[\text{Coal} \rightarrow \text{Other}]} = -F^{[\text{Other} \rightarrow \text{Coal}]} = p \left(\frac{E^{[\text{Coal}]}}{Q^{[\text{Coal}]}} - \frac{E^{[\text{Other}]}}{Q^{[\text{Other}]}} \right) \frac{Q^{[\text{Coal}]} Q^{[\text{Other}]}}{Q}$$

$$F^{[\text{NG} \rightarrow \text{Other}]} = -F^{[\text{Other} \rightarrow \text{NG}]} = p \left(\frac{E^{[\text{NG}]}}{Q^{[\text{NG}]}} - \frac{E^{[\text{Other}]}}{Q^{[\text{Other}]}} \right) \frac{Q^{[\text{NG}]} Q^{[\text{Other}]}}{Q}$$

(Positive values indicate a loss, negative values a gain.)

The refund rates (c) for Coal and NG can be adjusted to selectively eliminate $F^{[\text{Coal} \rightarrow \text{NG}]}$ and $F^{[\text{NG} \rightarrow \text{Coal}]}$ without affecting either the refund rate for Other or the cross-subsidy revenue flows to or from Other. Denoting the adjusted refund rates as $c^{[\text{Coal}]}$ and $c^{[\text{NG}]}$, the defining conditions for these rates are

$$F^{[\text{Coal}]} = p E^{[\text{Coal}]} - c^{[\text{Coal}]} Q^{[\text{Coal}]} = F^{[\text{Coal} \rightarrow \text{Other}]} \quad (\text{Eliminate } F^{[\text{Coal} \rightarrow \text{NG}]} .)$$

$$F^{[\text{NG}]} = p E^{[\text{NG}]} - c^{[\text{NG}]} Q^{[\text{NG}]} = F^{[\text{NG} \rightarrow \text{Other}]} \quad (\text{Eliminate } F^{[\text{NG} \rightarrow \text{Coal}]} .)$$

These conditions imply the following,

$$c^{[\text{Coal}]} = p \left(\frac{E^{[\text{Coal}]}}{Q^{[\text{Coal}]}} - \left(\frac{E^{[\text{Coal}]} - E^{[\text{Other}]}}{Q^{[\text{Coal}]} - Q^{[\text{Other}]}} \right) \frac{Q^{[\text{Other}]}}{Q} \right)$$

$$c^{[\text{NG}]} = p \left(\frac{E^{[\text{NG}]} - E^{[\text{Other}]}}{Q^{[\text{NG}]} - Q^{[\text{Other}]}} \right) \frac{Q^{[\text{Other}]}}{Q}$$

This refunding method has the following properties: (1) Overall revenue neutrality is preserved. (2) The refund for Coal has no dependence on NG emission rates, and the NG refund similarly has no dependence on Coal emissions. (3) If the Other category were not present (i.e., $E^{[\text{Other}]} = 0$, $Q^{[\text{Other}]} = 0$) the system would be revenue neutral within each of the separate Coal and NG sub-sectors. (4) The refund for Other is the same as what it would be with uniform refunding.⁷

From a more general perspective, separate refund rates could be defined for all three sub-sectors, leading to sub-sectoral net emission charges of the form

$$F^{[\text{Coal}]} = p E^{[\text{Coal}]} - c^{[\text{Coal}]} Q^{[\text{Coal}]}$$

⁷ The following working paper (Nov., 2007 update, Appendix B) discusses this refunding method: “Refunded Emission Taxes: A Coherent Post-Kyoto Policy Framework for Greenhouse Gas Regulation,” <http://ssrn.com/abstract=934481>

$$F^{[\text{NG}]} = p E^{[\text{NG}]} - c^{[\text{NG}]} Q^{[\text{NG}]}$$

$$F^{[\text{Other}]} = p E^{[\text{Other}]} - c^{[\text{Other}]} Q^{[\text{Other}]}$$

With pure output-based refunding the refund rates $c^{[\text{Coal}]}$, $c^{[\text{NG}]}$, and $c^{[\text{Other}]}$ are all equal and are determined by revenue neutrality. Alternatively, the net emission charges $F^{[\text{Coal}]}$, $F^{[\text{NG}]}$, and $F^{[\text{Other}]}$ could be administratively determined, in which case the above relations would define the refund rates. The refunding method described above represents an intermediate policy approach that is primarily output-based, but allows for some selective and limited administrative control of the allocation.

The preceding discussion is premised on a uniform emission price, p . But depending on what type of auction is employed, entities might pay different prices according to their bids. With nonuniform pricing, the refund rate should be prorated to the price. Denoting the i -th entity's price as p_i , its effective emission tax is

$$t_i = p_i e_i$$

Its refund rate (with uniform refunding) is a constant, c' , times its price

$$r_i = (c' p_i) q_i$$

The prorating would tend to limit arbitrage in the trading system because the refund associated with each emission allowance will be proportionate to its purchase price. Also, because the tax-to-refund ratio t_i / r_i is independent of the price, this avoids the situation where one entity incurs a net loss while another entity with the same emission intensity accrues a net gain. (Methods for administratively managing cross-subsidies between sub-sectors can be adapted to work with nonuniform pricing.)

CERTIFICATE OF SERVICE

I hereby certify that I have this day served a copy of REPLY COMMENTS OF KENNETH C. JOHNSON PERTAINING TO ALLOWANCE ALLOCATION 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 November 12, 2007, at Santa Clara, California.

/s/ Kenneth C. Johnson

Kenneth C. Johnson
2502 Robertson Rd
Santa Clara, CA 95051
408-244-4721
kjinnovation@earthlink.net

CALIFORNIA PUBLIC UTILITIES COMMISSION

Service List

Proceeding: R0604009

Last changed: November 9, 2007

Parties

CINDY ADAMS
COVANTA ENERGY CORPORATION
40 LANE ROAD
FAIRFIELD, NJ 07004

STEVEN S. SCHLEIMER
DIRECTOR, COMPLIANCE & REGULATORY AFFAIRS
BARCLAYS BANK, PLC
200 PARK AVENUE, FIFTH FLOOR
NEW YORK, NY 10166

STEVEN HUHMAN
MORGAN STANLEY CAPITAL GROUP INC.
2000 WESTCHESTER AVENUE
PURCHASE, NY 10577

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

KEITH R. MCCREA
ATTORNEY AT LAW
SUTHERLAND, ASBILL & BRENNAN, LLP
1275 PENNSYLVANIA AVE., N.W.
WASHINGTON, DC 20004-2415

ADAM J. KATZ
MCDERMOTT WILL & EMERY LLP
600 13TH STREET, NW.
WASHINGTON, DC 20005

CATHERINE M. KRUPKA
MCDERMOTT WILL AND EMERY LLP
600 THIRTEEN STREEET, NW
WASHINGTON, DC 20005

LISA M. DECKER
CONSTELLATION ENERGY GROUP, INC.
111 MARKET PLACE, SUITE 500
BALTIMORE, MD 21202

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

KEVIN BOUDREAU
CALPINE POWER AMERICA-CA, LLC
717 TEXAS AVENUE, SUITE 1000
HOUSTON, TX 77002

THOMAS DILL
PRESIDENT
LODI GAS STORAGE, L.L.C.
1021 MAIN ST STE 1500
HOUSTON, TX 77002-6509

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

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

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

STEPHEN G. KOERNER, ESQ.
EL PASO CORPORATION
WESTERN PIPELINES
2 NORTH NEVADA AVENUE
COLORADO SPRINGS, CO 80903

JENINE SCHENK
APS ENERGY SERVICES
400 E. VAN BUREN STREET, SUITE 750
PHOENIX, AZ 85004

JOHN B. WELDON, JR.
SALMON, LEWIS & WELDON, P.L.C.
2850 EAST CAMELBACK ROAD, SUITE 200
PHOENIX, AZ 85016

KELLY BARR
MANAGER, REGULATORY AFFAIRS & CONTRACTS
SALT RIVER PROJECT
PO BOX 52025, PAB 221
PHOENIX, AZ 85072-2025

ROBERT R. TAYLOR
AGRICULTURAL IMPROVEMENT AND POWER DIST.
1600 NORTH PRIEST DRIVE, PAB221
TEMPE, AZ 85281

STEVEN S. MICHEL
WESTERN RESOURCE ADVOCATES
2025 SENDA DE ANDRES
SANTA FE, NM 87501

ROGER C. MONTGOMERY
VICE PRESIDENT, PRICING
SOUTHWEST GAS CORPORATION
PO BOX 98510
LAS VEGAS, NV 89193-8510

LORRAINE PASKETT
DIRECTOR, LEGISLATIVE AND REG. AFFAIRS
LA DEPT. OF WATER & POWER
PO BOX 51111
111 N. HOWARD ST., ROOM 1536
LOS ANGELES, CA 90012

RONALD F. DEATON
LOS ANGELES DEPARTMENT OF WATER & POWER
111 NORTH HOPE STREET, ROOM 1550
LOS ANGELES, CA 90012

SID NEWSOM
TARIFF MANAGER
SOUTHERN CALIFORNIA GAS COMPANY
GT 14 D6
555 WEST 5TH STREET
LOS ANGELES, CA 90051

DAVID L. HUARD
ATTORNEY AT LAW
MANATT, PHELPS & PHILLIPS, LLP
11355 WEST OLYMPIC BOULEVARD
LOS ANGELES, CA 90064

CURTIS L. KEBLER
J. ARON & COMPANY
SUITE 2600
2121 AVENUE OF THE STARS
LOS ANGELES, CA 90067

DENNIS M.P. EHLING
ATTORNEY AT LAW
KIRKPATRICK & LOCKHART NICHOLSON GRAHAM
10100 SANTA MONICA BLVD., 7TH FLOOR
LOS ANGELES, CA 90067

GREGORY KOISER
CONSTELLATION NEW ENERGY, INC.
350 SOUTH GRAND AVENUE, SUITE 3800
LOS ANGELES, CA 90071

NORMAN A. PEDERSEN
ATTORNEY AT LAW
HANNA AND MORTON, LLP
444 SOUTH FLOWER STREET, NO. 1500
LOS ANGELES, CA 90071

MICHAEL MAZUR
CHIEF TECHNICAL OFFICER
3 PHASES RENEWABLES, LLC
2100 SEPULVEDA BLVD., SUITE 37
MANHATTAN BEACH, CA 90266

VITALY LEE
AES ALAMITOS, LLC
690 N. STUDEBAKER ROAD
LONG BEACH, CA 90803

TIFFANY RAU
POLICY AND COMMUNICATIONS MANAGER
CARSON HYDROGEN POWER PROJECT LLC
ONE WORLD TRADE CENTER, SUITE 1600
LONG BEACH, CA 90831-1600

GREGORY KLATT
ATTORNEY AT LAW
DOUGLASS & LIDDELL
411 E. HUNTINGTON DRIVE, STE. 107-356

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

ARCADIA, CA 91006

DANIEL W. DOUGLASS
ATTORNEY AT LAW
DOUGLASS & LIDDELL
21700 OXNARD STREET, SUITE 1030
WOODLAND HILLS, CA 91367

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

AKBAR JAZAYEIRI
DIRECTOR OF REVENUE & TARRIFFS
SOUTHERN CALIFORNIA EDISON COMPANY
2244 WALNUT GROVE AVE. ROOM 390
ROSEMEAD, CA 91770

ANNETTE GILLIAM
ATTORNEY AT LAW
SOUTHERN CALIFORNIA EDISON COMPANY
2244 WALNUT GROVE AVENUE
ROSEMEAD, CA 91770

CATHY A. KARLSTAD
SOUTHERN CALIFORNIA EDISON COMPANY
2244 WALNUT GROVE AVE.
ROSEMEAD, CA 91770

LAURA I. GENAO
ATTORNEY
SOUTHERN CALIFORNIA EDISON
2244 WALNUT GROVE AVENUE
ROSEMEAD, CA 91770

RONALD MOORE
GOLDEN STATE WATER/BEAR VALLEY ELECTRIC
630 EAST FOOTHILL BOULEVARD
SAN DIMAS, CA 91773

DON WOOD
PACIFIC ENERGY POLICY CENTER
4539 LEE AVENUE
LA MESA, CA 91941

AIMEE M. SMITH
ATTORNEY AT LAW
SEMPRA ENERGY
101 ASH STREET HQ13
SAN DIEGO, CA 92101

ALLEN K. TRIAL
SAN DIEGO GAS & ELECTRIC COMPANY
HQ-13
101 ASH STREET
SAN DIEGO, CA 92101

ALVIN PAK
SEMPRA GLOBAL ENTERPRISES
101 ASH STREET
SAN DIEGO, CA 92101

DAN HECHT
SEMPRA ENERGY
101 ASH STREET
SAN DIEGO, CA 92101

DANIEL A. KING
SEMPRA ENERGY
101 ASH STREET, HQ 12
SAN DIEGO, CA 92101

SYMONE VONGDEUANE
SEMPRA ENERGY SOLUTIONS
101 ASH STREET, HQ09
SAN DIEGO, CA 92101-3017

THEODORE ROBERTS
ATTORNEY AT LAW
SEMPRA GLOBAL
101 ASH STREET, HQ 13D
SAN DIEGO, CA 92101-3017

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

MARCIE MILNER
DIRECTOR - REGULATORY AFFAIRS
SHELL TRADING GAS & POWER COMPANY

REID A. WINTHROP
PILOT POWER GROUP, INC.
8910 UNIVERSITY CENTER LANE, SUITE 520

4445 EASTGATE MALL, SUITE 100
SAN DIEGO, CA 92121

SAN DIEGO, CA 92122

THOMAS DARTON
PILOT POWER GROUP, INC.
SUITE 520
8910 UNIVERSITY CENTER LANE
SAN DIEGO, CA 92122

STEVE RAHON
DIRECTOR, TARIFF & REGULATORY ACCOUNTS
SAN DIEGO GAS & ELECTRIC COMPANY
8330 CENTURY PARK COURT, CP32C
SAN DIEGO, CA 92123-1548

GLORIA BRITTON
ANZA ELECTRIC COOPERATIVE, INC.
58470 HWY 371
PO BOX 391909
ANZA, CA 92539

LYNELE LUND
COMMERCE ENERGY, INC.
600 ANTON BLVD., SUITE 2000
COSTA MESA, CA 92626

TAMLYN M. HUNT
ENERGY PROGRAM DIRECTOR
COMMUNITY ENVIRONMENTAL COUNCIL
26 W. ANAPAMU ST., 2/F
SANTA BARBARA, CA 93101

DIANE I. FELLMAN
DIRECTOR, REGULATORY AFFAIRS
FPL ENERGY PROJECT MANAGEMENT, INC.
234 VAN NESS AVENUE
SAN FRANCISCO, CA 94102

JEANNE M. SOLE
DEPUTY CITY ATTORNEY
CITY AND COUNTY OF SAN FRANCISCO
1 DR. CARLTON B. GOODLETT PLACE, RM. 234
SAN FRANCISCO, CA 94102

JOHN P. HUGHES
MANAGER, REGULATORY AFFAIRS
SOUTHERN CALIFORNIA EDISON COMPANY
601 VAN NESS AVENUE, STE. 2040
SAN FRANCISCO, CA 94102

LAD LORENZ
V.P. REGULATORY AFFAIRS
SEMPRA UTILITIES
601 VAN NESS AVENUE, SUITE 2060
SAN FRANCISCO, CA 94102

MARCEL HAWIGER
THE UTILITY REFORM NETWORK
711 VAN NESS AVENUE, SUITE 350
SAN FRANCISCO, CA 94102

NINA SUETAKE
ATTORNEY AT LAW
THE UTILITY REFORM NETWORK
711 VAN NESS AVE., STE. 350
SAN FRANCISCO, CA 94102

DIANA L. LEE
CALIF PUBLIC UTILITIES COMMISSION
LEGAL DIVISION
ROOM 4300
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

F. JACKSON STODDARD
CALIF PUBLIC UTILITIES COMMISSION
EXECUTIVE DIVISION
ROOM 5125
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

AUDREY CHANG
STAFF SCIENTIST
NATURAL RESOURCES DEFENSE COUNCIL
111 SUTTER STREET, 20TH FLOOR
SAN FRANCISCO, CA 94104

DONALD BROOKHYSER
ATTORNEY AT LAW
ALCANTAR & KAHL
120 MONTGOMERY STREET
SAN FRANCISCO, CA 94104

EVELYN KAHL
ATTORNEY AT LAW
ALCANTAR & KAHL, LLP
120 MONTGOMERY STREET, SUITE 2200
SAN FRANCISCO, CA 94104

KRISTIN GRENFELL
PROJECT ATTORNEY, CALIF. ENERGY PROGRAM

MICHAEL P. ALCANTAR
ATTORNEY AT LAW

NATURAL RESOURCES DEFENSE COUNCIL
111 SUTTER STREET, 20TH FLOOR
SAN FRANCISCO, CA 94104

ALCANTAR & KAHL, LLP
120 MONTGOMERY STREET, SUITE 2200
SAN FRANCISCO, CA 94104

SEEMA SRINIVASAN
ATTORNEY AT LAW
ALCANTAR & KAHL, LLP
120 MONTGOMERY STREET, SUITE 2200
SAN FRANCISCO, CA 94104

WILLIAM H. CHEN
DIRECTOR, ENERGY POLICY WEST REGION
CONSTELLATION NEW ENERGY, INC.
SPEAR TOWER, 36TH FLOOR
ONE MARKET STREET
SAN FRANCISCO, CA 94105

BRIAN K. CHERRY
DIRECTOR REGULATORY RELATIONS
PACIFIC GAS AND ELECTRIC COMPANY
77 BEALE STREET, B10C
SAN FRANCISCO, CA 94106

EDWARD G POOLE
ANDERSON DONOVAN & POOLE
601 CALIFORNIA STREET SUITE 1300
SAN FRANCISCO, CA 94108

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

BRIAN T. CRAGG
ATTORNEY AT LAW
GOODIN, MACBRIDE, SQUERI, RITCHIE & DAY
505 SANSOME STREET, SUITE 900
SAN FRANCISCO, CA 94111

JAMES D. SQUERI
ATTORNEY AT LAW
GOODIN MACBRIDE SQUERI RITCHIE & DAY LLP
505 SANSOME STREET, STE 900
SAN FRANCISCO, CA 94111

JEANNE B. ARMSTRONG
ATTORNEY AT LAW
GOODIN MACBRIDE SQUERI DAY & LAMPREY
505 SANSOME STREET, SUITE 900
SAN FRANCISCO, CA 94111

KAREN BOWEN
ATTORNEY AT LAW
WINSTON & STRAWN LLP
101 CALIFORNIA STREET
SAN FRANCISCO, CA 94111

LISA A. COTTLE
ATTORNEY AT LAW
WINSTON & STRAWN LLP
101 CALIFORNIA STREET, 39TH FLOOR
SAN FRANCISCO, CA 94111

SEAN P. BEATTY
ATTORNEY AT LAW
COOPER, WHITE & COOPER, LLP
201 CALIFORNIA ST., 17TH FLOOR
SAN FRANCISCO, CA 94111

VIDHYA PRABHAKARAN
GOODIN, MACBRIDE, SQUERI, DAY, LAMPREY
505 SANSOME STREET, SUITE 900
SAN FRANCISCO, CA 94111

JOSEPH M. KARP
ATTORNEY AT LAW
WINSTON & STRAWN LLP
101 CALIFORNIA STREET
SAN FRANCISCO, CA 94111-5802

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

CHRISTOPHER J. WARNER
PACIFIC GAS AND ELECTRIC COMPANY
77 BEALE STREET, PO BOX 7442
SAN FRANCISCO, CA 94120-7442

SARA STECK MYERS
ATTORNEY AT LAW
122 28TH AVENUE
SAN FRANCISCO, CA 94121

LARS KVALE

ANDREW L. HARRIS

CENTER FOR RESOURCE SOLUTIONS
PRESIDIO BUILDING 97
PO BOX 39512
SAN FRANCISCO, CA 94129

PACIFIC GAS & ELECTRIC COMPANY
PO BOX 770000 MAIL CODE B9A
SAN FRANCISCO, CA 94177

ANDREA WELLER
STRATEGIC ENERGY
3130 D BALFOUR RD., SUITE 290
BRENTWOOD, CA 94513

JENNIFER CHAMBERLIN
STRATEGIC ENERGY, LLC
2633 WELLINGTON CT.
CLYDE, CA 94520

BETH VAUGHAN
CALIFORNIA COGENERATION COUNCIL
4391 N. MARSH ELDER COURT
CONCORD, CA 94521

KERRY HATTEVIK
MIRANT CORPORATION
696 WEST 10TH STREET
PITTSBURG, CA 94565

AVIS KOWALEWSKI
CALPINE CORPORATION
3875 HOPYARD ROAD, SUITE 345
PLEASANTON, CA 94588

WILLIAM H. BOOTH
ATTORNEY AT LAW
LAW OFFICES OF WILLIAM H. BOOTH
1500 NEWELL AVENUE, 5TH FLOOR
WALNUT CREEK, CA 94596

J. ANDREW HOERNER
REDEFINING PROGRESS
1904 FRANKLIN STREET
OAKLAND, CA 94612

JANILL RICHARDS
DEPUTY ATTORNEY GENERAL
CALIFORNIA ATTORNEY GENERAL'S OFFICE
1515 CLAY STREET, 20TH FLOOR
OAKLAND, CA 94702

CLIFF CHEN
UNION OF CONCERNED SCIENTIST
2397 SHATTUCK AVENUE, STE 203
BERKELEY, CA 94704

GREGG MORRIS
DIRECTOR
GREEN POWER INSTITUTE
2039 SHATTUCK AVENUE, STE 402
BERKELEY, CA 94704

R. THOMAS BEACH
CROSSBORDER ENERGY
2560 NINTH STREET, SUITE 213A
BERKELEY, CA 94710-2557

KENNETH C. JOHNSON
KENNETH CARLISLE JOHNSON
2502 ROBERTSON RD
SANTA CLARA, CA 95051

BARRY F. MCCARTHY
ATTORNEY AT LAW
MCCARTHY & BERLIN, LLP
100 PARK CENTER PLAZA, SUITE 501
SAN JOSE, CA 95113

C. SUSIE BERLIN
ATTORNEY AT LAW
MC CARTHY & BERLIN, LLP
100 PARK CENTER PLAZA, SUITE 501
SAN JOSE, CA 95113

MIKE LAMOND
ALPINE NATURAL GAS OPERATING CO. #1 LLC
PO BOX 550
VALLEY SPRINGS, CA 95252

JOY A. WARREN
ATTORNEY AT LAW
MODESTO IRRIGATION DISTRICT
1231 11TH STREET
MODESTO, CA 95354

UDI HELMAN
CALIFORNIA INDEPENDENT SYS. OPER. CORP
151 BLUE RAVINE ROAD
FOLSOM, CA 95630

JOHN JENSEN
PRESIDENT
MOUNTAIN UTILITIES
PO BOX 205
KIRKWOOD, CA 95646

MARY LYNCH
VP - REGULATORY AND LEGISLATIVE AFFAIRS
CONSTELLATION ENERGY COMMODITIES GROUP
2377 GOLD MEDAL WAY, SUITE 100
GOLD RIVER, CA 95670

LEONARD DEVANNA
EXECUTIVE VICE PRESIDENT
CLEAN ENERGY SYSTEMS, INC.
11330 SUNCO DRIVE, SUITE A
RANCHO CORDOVA, CA 95742

ANDREW BROWN
ATTORNEY AT LAW
ELLISON, SCHNEIDER & HARRIS, LLP
2015 H STREET
SACRAMENTO, CA 95811

BRUCE MCLAUGHLIN
BRAUN & BLAISING, P.C.
915 L STREET, SUITE 1270
SACRAMENTO, CA 95814

GREGGORY L. WHEATLAND
ATTORNEY AT LAW
ELLISON, SCHNEIDER & HARRIS, LLP
2015 H STREET
SACRAMENTO, CA 95814

JANE E. LUCKHARDT
ATTORNEY AT LAW
DOWNEY BRAND LLP
555 CAPITOL MALL, 10TH FLOOR
SACRAMENTO, CA 95814

JEFFERY D. HARRIS
ATTORNEY AT LAW
ELLISON, SCHNEIDER & HARRIS LLP
2015 H STREET
SACRAMENTO, CA 95814

VIRGIL WELCH
STAFF ATTORNEY
ENVIRONMENTAL DEFENSE
1107 9TH STREET, SUITE 540
SACRAMENTO, CA 95814

WILLIAM W. WESTERFIELD, 111
ATTORNEY AT LAW
ELLISON, SCHNEIDER & HARRIS L.L.P.
2015 H STREET
SACRAMENTO, CA 95814

DOWNEY BRAND
DOWNEY BRAND
555 CAPITOL MALL, 10TH FLOOR
SACRAMENTO, CA 95814-4686

RAYMOND J. CZAHAR, C.P.A.
CHIEF FINANCIAL OFFICER
WEST COAST GAS COMPANY
9203 BEATTY DRIVE
SACRAMENTO, CA 95826

STEVEN M. COHN
ASSISTANT GENERAL COUNSEL
SACRAMENTO MUNICIPAL UTILITY DISTRICT
PO BOX 15830
SACRAMENTO, CA 95852-1830

ANN L. TROWBRIDGE
ATTORNEY AT LAW
DAY CARTER & MURPHY, LLP
3620 AMERICAN RIVER DRIVE, SUITE 205
SACRAMENTO, CA 95864

DAN SILVERIA
SURPRISE VALLEY ELECTRIC CORPORATION
PO BOX 691
ALTURAS, CA 96101

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

DONALD BROOKHYSER
ALCANTAR & KAHL
1300 SW FIFTH AVE., SUITE 1750
PORTLAND, OR 97210

CYNTHIA SCHULTZ
REGULATORY FILING COORDINATOR
PACIFIC POWER AND LIGHT COMPANY
825 N.E. MULTNOMAH
PORTLAND, OR 97232

KYLE L. DAVIS
PACIFICORP
825 NE MULTNOMAH ST., SUITE 2000
PORTLAND, OR 97232

RYAN FLYNN
PACIFICORP
825 NE MULTNOMAH STREET, 18TH FLOOR
PORTLAND, OR 97232

IAN CARTER
POLICY COORDINATOR-NORTH AMERICA
INTERNATIONAL EMISSIONS TRADING ASSN.
350 SPARKS STREET, STE. 809
OTTAWA, ON K1R 7S8
CANADA

JASON DUBCHAK
ASSOCIATE GENERAL COUNSEL
WILD GOOSE STORAGE LLC
C/O NISKA GAS STORAGE, SUITE 400
607 8TH AVENUE S.W.
CALGARY, AB T2P OA7
CANADA

Information Only

BRIAN M. JONES
M. J. BRADLEY & ASSOCIATES, INC.
47 JUNCTION SQUARE DRIVE
CONCORD, MA 01742

MATTHEW MOST
EDISON MISSION MARKETING & TRADING, INC.
160 FEDERAL STREET
BOSTON, MA 02110-1776

KENNETH A. COLBURN
SYMBILITIC STRATEGIES, LLC
26 WINTON ROAD
MEREDITH, NH 03253

RICHARD COWART
REGULATORY ASSISTANCE PROJECT
50 STATE STREET, SUITE 3
MONTPELIER, VT 05602

KATHRYN WIG
PARALEGAL
NRG ENERGY, INC.
211 CARNEGIE CENTER
PRINCETON, NY 08540

SAKIS ASTERIADIS
APX INC
1270 FIFTH AVE., SUITE 15R
NEW YORK, NY 10029

GEORGE HOPLEY
BARCLAYS CAPITAL
200 PARK AVENUE
NEW YORK, NY 10166

ELIZABETH ZELLJADT
1725 I STREET, N.W. SUITE 300
WASHINGTON, DC 20006

DALLAS BURTRAW
1616 P STREET, NW
WASHINGTON, DC 20036

VERONIQUE BUGNION
POINT CARBON
205 SEVERN RIVER RD
SEVERNA PARK, MD 21146

KYLE D. BOUDREAU
FPL GROUP

ANDREW BRADFORD
SENIOR MARKET RESEARCH ASSOCIATE

700 UNIVERSE BLVD., JES/JB
JUNO BEACH, FL 33408

FELLON-MCCORD & ASSOCIATES
SUITE 2000
9960 CORPORATE CAMPUS DRIVE
LOUISVILLE, KY 40223

GARY BARCH
FELLON-MCCORD & ASSOCIATES, INC.
SUITE 2000
9960 CORPORATE CAMPUS DRIVE
LOUISVILLE, KY 40223

RALPH E. DENNIS
DIRECTOR, REGULATORY AFFAIRS
FELLON-MCCORD & ASSOCIATES
CONSTELLATION NEWENERGY-GAS DIVISION
9960 CORPORATE CAMPUS DRIVE, STE 2000
LOUISVILLE, KY 40223

SAMARA MINDEL
REGULATORY AFFAIRS ANALYST
FELLON-MCCORD & ASSOCIATES
9960 CORPORATE CAMPUS DRIVE, SUITE 2000
LOUISVILLE, KY 40223

BARRY RABE
1427 ROSS STREET
PLYMOUTH, MI 48170

BRIAN POTTS
FOLEY & LARDNER
PO BOX 1497
150 EAST GILMAN STREET
MADISON, WI 53701-1497

JAMES W. KEATING
BP AMERICA, INC.
MAIL CODE 603-1E
150 W. WARRENVILLE RD.
NAPERVILLE, IL 60563

CYNTHIA A. FONNER
SENIOR COUNSEL
CONSTELLATION ENERGY GROUP INC
550 W. WASHINGTON ST, STE 300
CHICAGO, IL 60661

JAMES ROSS
RCS, INC.
500 CHESTERFIELD CENTER, SUITE 320
CHESTERFIELD, MO 63017

TRENT A. CARLSON
RELIANT ENERGY
1000 MAIN STREET
HOUSTON, TX 77001

GARY HINNERS
RELIANT ENERGY, INC.
PO BOX 148
HOUSTON, TX 77001-0148

JEANNE ZAIONTZ
BP ENERGY COMPANY
501 WESTLAKE PARK BLVD, RM. 4328
HOUSTON, TX 77079

JULIE L. MARTIN
WEST ISO COORDINATOR
NORTH AMERICA GAS AND POWER
BP ENERGY COMPANY
501 WESTLAKE PARK BLVD.
HOUSTON, TX 77079

FIJI GEORGE
EL PASO CORPORATION
EL PASO BUILDING
PO BOX 2511
HOUSTON, TX 77252

ED CHIANG
ELEMENT MARKETS, LLC
ONE SUGAR CREEK CENTER BLVD., SUITE 250
SUGAR LAND, TX 77478

FRANK STERN
SUMMIT BLUE CONSULTING
1722 14TH STREET, SUITE 230
BOULDER, CO 80302

NADAV ENBAR
ENERGY INSIGHTS
1750 14TH STREET, SUITE 200
BOULDER, CO 80302

NICHOLAS LENSSEN

ELIZABETH BAKER

ENERGY INSIGHTS
1750 14TH STREET, SUITE 200
BOULDER, CO 80302

SUMMIT BLUE CONSULTING
1722 14TH STREET, SUITE 230
BOULDER, CO 80304

WAYNE TOMLINSON
EL PASO CORPORATION
WESTERN PIPELINES
2 NORTH NEVADA AVENUE
COLORADO SPRINGS, CO 80903

KEVIN J. SIMONSEN
ENERGY MANAGEMENT SERVICES
646 EAST THIRD AVENUE
DURANGO, CO 81301

SANDRA ELY
NEW MEXICO ENVIRONMENT DEPARTMENT
1190 ST FRANCIS DRIVE
SANTA FE, NM 87501

BRIAN MCQUOWN
RELIANT ENERGY
7251 AMIGO ST., SUITE 120
LAS VEGAS, NV 89119

DOUGLAS BROOKS
NEVADA POWER COMPANY
SIERRA PACIFIC POWER COMPANY
6226 WEST SAHARA AVENUE
LAS VEGAS, NV 89151

ANITA HART
SENIOR SPECIALIST/STATE REGULATORYAFFAIR
SOUTHWEST GAS CORPORATION
5241 SPRING MOUNTAIN ROAD
LAS VEGAS, NV 89193

RANDY SABLE
SOUTHWEST GAS CORPORATION
MAILSTOP: LVB-105
5241 SPRING MOUNTAIN ROAD
LAS VEGAS, NV 89193

BILL SCHRAND
SOUTHWEST GAS CORPORATON
PO BOX 98510
LAS VEGAS, NV 89193-8510

JJ PRUCNAL
SOUTHWEST GAS CORPORATION
PO BOX 98510
LAS VEGAS, NV 89193-8510

SANDRA CAROLINA
SOUTHWEST GAS CORPORATION
PO BOX 98510
LAS VEGAS, NV 89193-8510

CYNTHIA MITCHELL
ENERGY ECONOMICS, INC.
530 COLGATE COURT
RENO, NV 89503

CHRISTOPHER A. HILEN
ASSISTANT GENERAL COUNSEL
SIERRA PACIFIC POWER COMPANY
6100 NEIL ROAD
RENO, NV 89511

ELENA MELLO
SIERRA PACIFIC POWER COMPANY
6100 NEIL ROAD
RENO, NV 89520

TREVOR DILLARD
SIERRA PACIFIC POWER COMPANY
PO BOX 10100
6100 NEIL ROAD, MS S4A50
RENO, NV 89520

DARRELL SOYARS
MANAGER-RESOURCE PERMITTING&STRATEGIC
SIERRA PACIFIC RESOURCES
6100 NEIL ROAD
RENO, NV 89520-0024

JOSEPH GRECO
VICE PRESIDENT - WESTERN REGION
CAITHNESS ENERGY, LLC.
9590 PROTOTYPE COURT, SUITE 200
RENO, NV 89521

FRANK LUCHETTI
NEVADA DIV. OF ENVIRONMENTAL PROTECTION
901 S. STEWART ST., SUITE 4001
CARSON CITY, NV 89701

LEILANI JOHNSON KOWAL
LOS ANGELES DEPT. OF WATER AND POWER
111 N. HOPE STREET, ROOM 1050
LOS ANGELES, CA 90012

RANDY S. HOWARD
LOS ANGELES DEPT. OF WATER AND POWER
111 NORTH HOPE STREET, ROOM 921
LOS ANGELES, CA 90012

ROBERT K. ROZANSKI
LOS ANGELES DEPT OF WATER AND POWER
111 NORTH HOPE STREET, ROOM 1520
LOS ANGELES, CA 90012

ROBERT L. PETTINATO
LOS ANGELES DEPARTMENT OF WATER & POWER
111 NORTH HOPE STREET, SUITE 1151
LOS ANGELES, CA 90012

HUGH YAO
SOUTHERN CALIFORNIA GAS COMPANY
555 W. 5TH ST, GT22G2
LOS ANGELES, CA 90013

RASHA PRINCE
SOUTHERN CALIFORNIA GAS COMPANY
555 WEST 5TH STREET, GT14D6
LOS ANGELES, CA 90013

RANDALL W. KEEN
ATTORNEY AT LAW
MANATT PHELPS & PHILLIPS, LLP
11355 WEST OLYMPIC BLVD.
LOS ANGELES, CA 90064

S. NANCY WHANG
ATTORNEY AT LAW
MANATT, PHELPS & PHILLIPS, LLP
11355 WEST OLYMPIC BLVD.
LOS ANGELES, CA 90064

PETER JAZAYERI
STROOCK & STROOCK & LAVAN LLP
2029 CENTURY PARK EAST, SUITE 1800
LOS ANGELES, CA 90067

DEREK MARKOLF
CALIFORNIA CLIMATE ACTION REGISTRY
515 S. FLOWER STREET, SUITE 1640
LOS ANGELES, CA 90071

DAVID NEMTZOW
1254 9TH STREET, NO. 6
SANTA MONICA, CA 90401

HARVEY EDER
PUBLIC SOLAR POWER COALITION
1218 12TH ST., 25
SANTA MONICA, CA 90401

STEVE ENDO
PASADENA DEPARTMENT OF WATER & POWER
45 EAST GLENARM STREET
PASADENA, CA 91105

STEVEN G. LINS
GENERAL COUNSEL
GLENDALE WATER AND POWER
613 EAST BROADWAY, SUITE 220
GLENDALE, CA 91206-4394

TOM HAMILTON
MANAGING PARTNER
ENERGY CONCIERGE SERVICES
321 MESA LILA RD
GLENDALE, CA 91208

BRUNO JEIDER
BURBANK WATER & POWER
164 WEST MAGNOLIA BLVD.
BURBANK, CA 91502

RICHARD J. MORILLO
ASSISTANT CITY ATTORNEY
CITY OF BURBANK
215 E. OLIVE AVENUE
BURBANK, CA 91502

ROGER PELOTE
WILLIAMS POWER COMPANY
12736 CALIFA STREET
VALLEY VILLAGE, CA 91607

AIMEE BARNES
MANAGER REGULATORY AFFAIRS
ECOSECURITIES
HARVARD SQUARE
206 W. BONITA AVENUE
CLAREMONT, CA 91711

CASE ADMINISTRATION
SOUTHERN CALIFORNIA EDISON COMPANY
2244 WALNUT GROVE AVE., RM. 370
ROSEMEAD, CA 91770

TIM HEMIG
NRG ENERGY, INC.
1819 ASTON AVENUE, SUITE 105
CARLSBAD, CA 92008

BARRY LOVELL
15708 POMERADO RD., SUITE 203
POWAY, CA 92064

ALDYN HOEKSTRA
PACE GLOBAL ENERGY SERVICES
420 WEST BROADWAY, 4TH FLOOR
SAN DIEGO, CA 92101

YVONNE GROSS
REGULATORY POLICY MANAGER
SEMPRA ENERGY
HQ08C
101 ASH STREET
SAN DIEGO, CA 92103

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

KIM KIENER
504 CATALINA BLVD.
SAN DIEGO, CA 92106

SCOTT J. ANDERS
RESEARCH/ADMINISTRATIVE DIRECTOR
UNIVERSITY OF SAN DIEGO SCHOOL OF LAW
5998 ALCALA PARK
SAN DIEGO, CA 92110

JOSEPH R. KLOBERDANZ
SAN DIEGO GAS & ELECTRIC
PO BOX 1831
SAN DIEGO, CA 92112

ANDREW MCALLISTER
DIRECTOR OF OPERATIONS
CALIFORNIA CENTER FOR SUSTAINABLE ENERGY
8690 BALBOA AVE., SUITE 100
SAN DIEGO, CA 92123

JACK BURKE
LEGISLATIVE AFFAIRS MANAGER
CALIFORNIA CENTER FOR SUSTAINABLE ENERGY
8690 BALBOA AVE., SUITE 100
SAN DIEGO, CA 92123

JENNIFER PORTER
POLICY ANALYST
CALIFORNIA CENTER FOR SUSTAINABLE ENERGY
8690 BALBOA AVENUE, SUITE 100
SAN DIEGO, CA 92123

SEPHRA A. NINOW
POLICY ANALYST
CALIFORNIA CENTER FOR SUSTAINABLE ENERGY
8690 BALBOA AVENUE, SUITE 100
SAN DIEGO, CA 92123

DESPINA NIEHAUS
SAN DIEGO GAS AND ELECTRIC COMPANY
8330 CENTURY PARK COURT, CP32H
SAN DIEGO, CA 92123-1530

JOHN W. LESLIE
ATTORNEY AT LAW
LUCE, FORWARD, HAMILTON & SCRIPPS, LLP
11988 EL CAMINO REAL, SUITE 200
SAN DIEGO, CA 92130

ORLANDO B. FOOTE, III
ATTORNEY AT LAW
HORTON, KNOX, CARTER & FOOTE
895 BROADWAY, SUITE 101
EL CENTRO, CA 92243

ELSTON K. GRUBAUGH
IMPERIAL IRRIGATION DISTRICT
333 EAST BARIONI BLVD.
IMPERIAL, CA 92251

THOMAS MCCABE
EDISON MISSION ENERGY
18101 VON KARMAN AVE., SUITE 1700
IRVINE, CA 92612

JAN PEPPER
CLEAN POWER MARKETS, INC.
PO BOX 3206
418 BENVENUE AVENUE
LOS ALTOS, CA 94024

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

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

HAYLEY GOODSON
ATTORNEY AT LAW
THE UTILITY REFORM NETWORK
711 VAN NESS AVENUE, SUITE 350
SAN FRANCISCO, CA 94102

MICHEL FLORIO
ATTORNEYS AT LAW
711 VAN NESS AVE., STE. 350
SAN FRANCISCO, CA 94102

DAN ADLER
DIRECTOR, TECH AND POLICY DEVELOPMENT
CALIFORNIA CLEAN ENERGY FUND
5 THIRD STREET, SUITE 1125
SAN FRANCISCO, CA 94103

MICHAEL A. HYAMS
POWER ENTERPRISE-REGULATORY AFFAIRS
SAN FRANCISCO PUBLIC UTILITIES COMM
1155 MARKET ST., 4TH FLOOR
SAN FRANCISCO, CA 94103

THERESA BURKE
REGULATORY ANALYST
SAN FRANCISCO PUC
1155 MARKET STREET, 4TH FLOOR
SAN FRANCISCO, CA 94103

NORMAN J. FURUTA
ATTORNEY AT LAW
FEDERAL EXECUTIVE AGENCIES
1455 MARKET ST., SUITE 1744
SAN FRANCISCO, CA 94103-1399

AMBER MAHONE
ENERGY & ENVIRONMENTAL ECONOMICS, INC.
101 MONTGOMERY STREET, SUITE 1600
SAN FRANCISCO, CA 94104

ANNABELLE MALINS
CONSUL-SCIENCE AND TECHNOLOGY
BRITISH CONSULATE-GENERAL
ONE SANSOME STREET, SUITE 850
SAN FRANCISCO, CA 94104

DEVRA WANG
NATURAL RESOURCES DEFENSE COUNCIL
111 SUTTER STREET, 20TH FLOOR
SAN FRANCISCO, CA 94104

KAREN TERRANOVA
ALCANTAR & KAHL, LLP
120 MONTGOMERY STREET, STE 2200
SAN FRANCISCO, CA 94104

NORA SHERIFF
ATTORNEY AT LAW
ALCANTAR & KAHL, LLP
120 MONTGOMERY STREET, SUITE 2200
SAN FRANCISCO, CA 94104

OLOF BYSTROM
DIRECTOR, WESTERN ENERGY
CAMBRIDGE ENERGY RESEARCH ASSOCIATES
555 CALIFORNIA STREET, 3RD FLOOR
SAN FRANCISCO, CA 94104

SETH HILTON
ATTORNEY AT LAW
STOEL RIVES
111 SUTTER ST., SUITE 700
SAN FRANCISCO, CA 94104

SHERYL CARTER
NATURAL RESOURCES DEFENSE COUNCIL
111 SUTTER STREET, 20TH FLOOR
SAN FRANCISCO, CA 94104

ASHLEE M. BONDS
THELEN REID BROWN RAYSMAN&STEINER LLP
SUITE 1800
101 SECOND STREET
SAN FRANCISCO, CA 94105

CARMEN E. BASKETTE
CORPORATE DEVELOPMENT PRINCIPAL
ENERNOC
594 HOWARD ST., SUITE 400
SAN FRANCISCO, CA 94105

COLIN PETHERAM
DIRECTOR-REGULATORY
SBC CALIFORNIA
140 NEW MONTGOMERY ST., SUITE 1325
SAN FRANCISCO, CA 94105

JAMES W. TARNAGHAN
DUANE MORRIS LLP
SUITE 2000
ONE MARKET, SPEAR TOWER
SAN FRANCISCO, CA 94105

KEVIN FOX
WILSON SONSINI GOODRICH & ROSATI
ONE MARKET STREET, SPEAR TOWER, 3300
SAN FRANCISCO, CA 94105

KHURSHID KHOJA
ASSOCIATE
THELEN REID BROWN RAYSMAN & STEINER
101 SECOND STREET, SUITE 1800
SAN FRANCISCO, CA 94105

PETER V. ALLEN
THELEN REID BROWN RAYSMAN & STEINER
101 SECOND STREET, SUITE 1800
SAN FRANCISCO, CA 94105

SHERIDAN J. PAUKER
WILSON SONSINI GOODRICH & ROSATI
SPEAR TOWER, SUITE 3300
ONE MARKET ST
SAN FRANCISCO, CA 94105

ROBERT J. REINHARD
MORRISON AND FOERSTER
425 MARKET STREET
SAN FRANCISCO, CA 94105-2482

CALIFORNIA ENERGY MARKETS
517-B POTRERO AVENUE
SAN FRANCISCO, CA 94110

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

JANINE L. SCANCARELLI
ATTORNEY AT LAW
FOLGER, LEVIN & KAHN, LLP
275 BATTERY STREET, 23RD FLOOR
SAN FRANCISCO, CA 94111

JOSEPH F. WIEDMAN
ATTORNEY AT LAW
GOODIN MACBRIDE SQUERI DAY & LAMPREY LLP
505 SANSOME STREET, SUITE 900
SAN FRANCISCO, CA 94111

MARTIN A. MATTES
NOSSAMAN, GUTHNER, KNOX & ELLIOTT, LLP
50 CALIFORNIA STREET, SUITE 3400
SAN FRANCISCO, CA 94111

JEN MCGRAW
CENTER FOR NEIGHBORHOOD TECHNOLOGY
PO BOX 14322
SAN FRANCISCO, CA 94114

LISA WEINZIMER
ASSOCIATE EDITOR
PLATTS MCGRAW-HILL
695 NINTH AVENUE, NO. 2

STEVEN MOSS
SAN FRANCISCO COMMUNITY POWER COOP
2325 3RD STREET, SUITE 344
SAN FRANCISCO, CA 94120

SAN FRANCISCO, CA 94118

SHAUN ELLIS
2183 UNION STREET
SAN FRANCISCO, CA 94123

ARNO HARRIS
RECURRENT ENERGY, INC.
220 HALLECK ST., SUITE 220
SAN FRANCISCO, CA 94129

ED LUCHA
CASE COORDINATOR
PACIFIC GAS AND ELECTRIC COMPANY
PO BOX 770000, MAIL CODE B9A
SAN FRANCISCO, CA 94177

GRACE LIVINGSTON-NUNLEY
ASSISTANT PROJECT MANAGER
PACIFIC GAS AND ELECTRIC COMPANY
PO BOX 770000 MAIL CODE B9A
SAN FRANCISCO, CA 94177

JASMIN ANSAR
PG&E
MAIL CODE B24A
PO BOX 770000
SAN FRANCISCO, CA 94177

JONATHAN FORRESTER
PG&E
MAIL CODE N13C
PO BOX 770000
SAN FRANCISCO, CA 94177

RAYMOND HUNG
PG&E
PO BOX 770000 MAIL CODE B9A
SAN FRANCISCO, CA 94177

SEBASTIEN CSAPO
PROJECT MANAGER
PACIFIC GAS AND ELECTRIC COMPANY
MAIL CODE B9A
PO BOX 770000
SAN FRANCISCO, CA 94177

SOUMYA SASTRY
PACIFIC GAS AND ELECTRIC COMPANY
MAIL CODE B9A
PO BOX 770000
SAN FRANCISCO, CA 94177

STEPHANIE LA SHAWN
PACIFIC GAS AND ELECTRIC COMPANY
PO BOX 770000, MAIL CODE B9A
SAN FRANCISCO, CA 94177

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

KARLA DAILEY
CITY OF PALO ALTO
UTILITIES DEPARTMENT
BOX 10250
PALO ALTO, CA 94303

FARROKH ALBUYEH
VICE PRESIDENT
OPEN ACCESS TECHNOLOGY INTERNATIONAL INC
SUITE 910
1875 SOUTH GRANT STREET
SAN MATEO, CA 94402

DEAN R. TIBBS
PRESIDENT
ADVANCED ENERGY STRATEGIES, INC.
1390 WILLOW PASS ROAD, SUITE 610
CONCORD, CA 94520

JEFFREY L. HAHN
COVANTA ENERGY CORPORATION
876 MT. VIEW DRIVE
LAFAYETTE, CA 94549

ANDREW J. VAN HORN
VAN HORN CONSULTING
12 LIND COURT
ORINDA, CA 94563

JOSEPH M. PAUL
SENIOR CORPORATE COUNSEL
DYNEGY, INC.

SUE KATELEY
EXECUTIVE DIRECTOR
CALIFORNIA SOLAR ENERGY INDUSTRIES ASSN

4140 DUBLIN BLVD., STE. 100
DUBLIN, CA 94568

PO BOX 782
RIO VISTA, CA 94571

GREG BLUE
ENXCO DEVELOPMENT CORP
5000 EXECUTIVE PARKWAY, STE.140
SAN RAMON, CA 94583

SARAH BESERRA
CALIFORNIA REPORTS
39 CASTLE HILL COURT
VALLEJO, CA 94591

MONICA A. SCHWEBS, ESQ.
BINGHAM MCCUTCHEN LLP
PO BOX V
1333 N. CALIFORNIA BLVD., SUITE 210
WALNUT CREEK, CA 94596

PETER W. HANSCHEN
ATTORNEY AT LAW
MORRISON & FOERSTER, LLP
101 YGNACIO VALLEY ROAD, SUITE 450
WALNUT CREEK, CA 94596

JOSEPH HENRI
31 MIRAMONTE ROAD
WALNUT CREEK, CA 94597

PATRICIA THOMPSON
SUMMIT BLUE CONSULTING
2920 CAMINO DIABLO, SUITE 210
WALNUT CREEK, CA 94597

WILLIAM F. DIETRICH
ATTORNEY AT LAW
DIETRICH LAW
2977 YGNACIO VALLEY ROAD, 613
WALNUT CREEK, CA 94598-3535

BETTY SETO
POLICY ANALYST
KEMA, INC.
492 NINTH STREET, SUITE 220
OAKLAND, CA 94607

GERALD L. LAHR
ABAG POWER
101 EIGHTH STREET
OAKLAND, CA 94607

JODY S. LONDON
JODY LONDON CONSULTING
PO BOX 3629
OAKLAND, CA 94609

STEVEN SCHILLER
SCHILLER CONSULTING, INC.
111 HILLSIDE AVENUE
PIEDMONT, CA 94611

MRW & ASSOCIATES, INC.
1814 FRANKLIN STREET, SUITE 720
OAKLAND, CA 94612

REED V. SCHMIDT
VICE PRESIDENT
BARTLE WELLS ASSOCIATES
1889 ALCATRAZ AVENUE
BERKELEY, CA 94703

ADAM BRIONES
THE GREENLINING INSTITUTE
1918 UNIVERSITY AVENUE, 2ND FLOOR
BERKELEY, CA 94704

STEVE KROMER
3110 COLLEGE AVENUE, APT 12
BERKELEY, CA 94705

CLYDE MURLEY
1031 ORDWAY STREET
ALBANY, CA 94706

BRENDA LEMAY
DIRECTOR OF PROJECT DEVELOPMENT

CARLA PETERMAN
UCEI

HORIZON WIND ENERGY
1600 SHATTUCK, SUITE 222
BERKELEY, CA 94709

2547 CHANNING WAY
BERKELEY, CA 94720

EDWARD VINE
LAWRENCE BERKELEY NATIONAL LABORATORY
BUILDING 90R4000
BERKELEY, CA 94720

RYAN WISER
BERKELEY LAB
MS-90-4000
ONE CYCLOTRON ROAD
BERKELEY, CA 94720

CHRIS MARNAY
BERKELEY LAB
1 CYCLOTRON RD MS 90R4000
BERKELEY, CA 94720-8136

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

RITA NORTON
RITA NORTON AND ASSOCIATES, LLC
18700 BLYTHSWOOD DRIVE,
LOS GATOS, CA 95030

CARL PECHMAN
POWER ECONOMICS
901 CENTER STREET
SANTA CRUZ, CA 95060

MAHLON ALDRIDGE
ECOLOGY ACTION
PO BOX 1188
SANTA CRUZ, CA 95060

RICHARD SMITH
MODESTO IRRIGATION DISTRICT
1231 11TH STREET
MODESTO, CA 95352-4060

ROGER VAN HOY
MODESTO IRRIGATION DISTRICT
1231 11TH STREET
MODESTO, CA 95354

THOMAS S. KIMBALL
MODESTO IRRIGATION DISTRICT
1231 11TH STREET
MODESTO, CA 95354

WES MONIER
STRATEGIC ISSUES AND PLANNING MANAGER
TURLOCK IRRIGATION DISTRICT
333 EAST CANAL DRIVE, PO BOX 949
TURLOCK, CA 95381-0949

BARBARA R. BARKOVICH
BARKOVICH & YAP, INC.
44810 ROSEWOOD TERRACE
MENDOCINO, CA 95460

JOHN R. REDDING
ARCTURUS ENERGY CONSULTING
44810 ROSEWOOD TERRACE
MENDOCINO, CA 95460

CLARK BERNIER
RLW ANALYTICS
1055 BROADWAY, SUITE G
SONOMA, CA 95476

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

CAROLYN M. KEHREIN
ENERGY MANAGEMENT SERVICES
1505 DUNLAP COURT
DIXON, CA 95620-4208

GRANT ROSENBLUM, ESQ.

CALIFORNIA ISO
LEGAL AND REGULATORY DEPARTMENT
151 BLUE RAVINE ROAD
FOLSOM, CA 95630

CALIFORNIA ISO
LEGAL AND REGULATORY DEPARTMENT
151 BLUE RAVINE ROAD
FOLSOM, CA 95630

KAREN EDSON
151 BLUE RAVINE ROAD
FOLSOM, CA 95630

ROBIN SMUTNY-JONES
CALIFORNIA ISO
151 BLUE RAVINE ROAD
FOLSOM, CA 95630

SAEED FARROKHPAY
FEDERAL ENERGY REGULATORY COMMISSION
110 BLUE RAVINE RD., SUITE 107
FOLSOM, CA 95630

DAVID BRANCHCOMB
BRANCHCOMB ASSOCIATES, LLC
9360 OAKTREE LANE
ORANGEVILLE, CA 95662

KENNY SWAIN
NAVIGANT CONSULTING
3100 ZINFANDEL DRIVE, SUITE 600
RANCHO CORDOVA, CA 95670

KIRBY DUSEL
NAVIGANT CONSULTING, INC.
3100 ZINFANDEL DRIVE, SUITE 600
RANCHO CORDOVA, CA 95670

GORDON PICKERING
PRINCIPAL
NAVIGANT CONSULTING, INC.
3100 ZINFANDEL DRIVE, SUITE 600
RANCHO CORDOVA, CA 95670-6078

LAURIE PARK
NAVIGANT CONSULTING, INC.
3100 ZINFANDEL DRIVE, SUITE 600
RANCHO CORDOVA, CA 95670-6078

DAVID REYNOLDS
MEMBER SERVICES MANAGER
NORTHERN CALIFORNIA POWER AGENCY
180 CIRBY WAY
ROSEVILLE, CA 95678-6420

SCOTT TOMASHEFSKY
NORTHERN CALIFORNIA POWER AGENCY
180 CIRBY WAY
ROSEVILLE, CA 95678-6420

ELLEN WOLFE
RESERO CONSULTING
9289 SHADOW BROOK PL.
GRANITE BAY, CA 95746

AUDRA HARTMANN
DYNEGY INC.
980 NINTH STREET, SUITE 1420
SACRAMENTO, CA 95814

BOB LUCAS
LUCAS ADVOCATES
1121 L STREET, SUITE 407
SACRAMENTO, CA 95814

CURT BARRY
717 K STREET, SUITE 503
SACRAMENTO, CA 95814

DAN SKOPEC
CLIMATE & ENERGY CONSULTING
1201 K STREET SUITE 970
SACRAMENTO, CA 95814

DANIELLE MATTHEWS SEPERAS
CALPINE CORPORATION
1127 11TH STREET, SUITE 242
SACRAMENTO, CA 95814

DAVID L. MODISETTE
EXECUTIVE DIRECTOR
CALIFORNIA ELECTRIC TRANSP. COALITION
1015 K STREET, SUITE 200
SACRAMENTO, CA 95814

DOUGLAS K. KERNER
ATTORNEY AT LAW
ELLISON, SCHNEIDER & HARRIS, LLP
2015 H STREET
SACRAMENTO, CA 95814

JUSTIN C. WYNNE
BRAU & BLAISING, P.C.
915 L STREET, SUITE 1270
SACRAMENTO, CA 95814

KASSANDRA GOUGH
CALPINE CORPORATION
1127 11TH STREET, SUITE 242
SACRAMENTO, CA 95814

KELLIE SMITH
SENATE ENERGY/UTILITIES & COMMUNICATION
STATE CAPITOL, ROOM 4038
SACRAMENTO, CA 95814

KEVIN WOODRUFF
WOODRUFF EXPERT SERVICES
1100 K STREET, SUITE 204
SACRAMENTO, CA 95814

MICHAEL WAUGH
AIR RESOURCES BOARD
1001 10TH STREET
SACRAMENTO, CA 95814

PANAMA BARTHOLOMY
ADVISOR TO CHAIR PFANNENSTIEL
CALIFORNIA ENERGY COMMISSION
1516 9TH STREET
SACRAMENTO, CA 95814

PATRICK STONER
PROGRAM DIRECTOR
LOCAL GOVERNMENT COMMISSION
1303 J STREET, SUITE 250
SACRAMENTO, CA 95814

RACHEL MCMAHON
CEERT
1100 11TH STREET, SUITE 311
SACRAMENTO, CA 95814

RYAN BERNARDO
BRAUN & BLAISING, P.C.
915 L STREET, SUITE 1270
SACRAMENTO, CA 95814

STEVEN A. LIPMAN
STEVEN LIPMAN CONSULTING
500 N. STREET 1108
SACRAMENTO, CA 95814

STEVEN KELLY
INDEPENDENT ENERGY PRODUCERS
1215 K STREET, SUITE 900
SACRAMENTO, CA 95814

WEBSTER TASAT
AIR RESOURCES BOARD
1001 I STREET
SACRAMENTO, CA 95814

EDWARD J. TIEDEMANN
ATTORNEY AT LAW
KRONICK, MOSKOVITZ, TIEDEMANN & GIRARD
400 CAPITOL MALL, 27TH FLOOR
SACRAMENTO, CA 95814-4416

LAURIE TEN HOPE
ADVISOR TO COMMISSIONER BYRON
CALIFORNIA ENERGY COMMISSION
1516 9TH STREET, MS-32
SACRAMENTO, CA 95814-5512

JOSHUA BUSHINSKY
WESTERN POLICY COORDINATOR
PEW CENTER ON GLOBAL CLIMATE CHANGE
2101 WILSON BLVD., SUITE 550
ARLINGTON, VA 95816

LYNN HAUG
ELLISON, SCHNEIDER & HARRIS, LLP
2015 H STREET
SACRAMENTO, CA 95816

OBADIAH BARTHOLOMY
MECHANICAL ENGINEER
SACRAMENTO MUNICIPAL UTILITY DISTRICT
M.S. B257
6201 S. STREET
SACRAMENTO, CA 95817

BUD BEEBE
SACRAMENTO MUNICIPAL UTIL DIST
MS B257
6201 S STREET
SACRAMENTO, CA 95817-1899

BALWANT S. PUREWAL
DEPARTMENT OF WATER RESOURCES
3310 EL CAMINO AVE., LL-90
SACRAMENTO, CA 95821

DOUGLAS MACMULLEN
CHIEF, POWER PLANNING SECTION
CA DEPARTMENT OF WATER RESOURCES
3310 EL CAMINO AVE., ROOM 356
SACRAMENTO, CA 95821

KAREN NORENE MILLS
ATTORNEY AT LAW
CALIFORNIA FARM BUREAU FEDERATION
2300 RIVER PLAZA DRIVE
SACRAMENTO, CA 95833

KAREN LINDH
LINDH & ASSOCIATES
7909 WALERGA ROAD, NO. 112, PMB 119
ANTELOPE, CA 95843

ELIZABETH W. HADLEY
CITY OF REDDING
777 CYPRESS AVENUE
REDDING, CA 96001

DENISE HILL
DIRECTOR
4004 KRUSE WAY PLACE, SUITE 150
LAKE OSWEGO, OR 97035

ANNIE STANGE
ALCANTAR & KAHL
1300 SW FIFTH AVE., SUITE 1750
PORTLAND, OR 97201

ELIZABETH WESTBY
ALCANTAR & KAHL, LLP
1300 SW FIFTH AVENUE, SUITE 1750
PORTLAND, OR 97201

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

ALAN COMNES
WEST COAST POWER
3934 SE ASH STREET
PORTLAND, OR 97214

KYLE SILON
ECOSECURITIES CONSULTING LIMITED
529 SE GRAND AVENUE
PORTLAND, OR 97214

CATHIE ALLEN
CA STATE MGR.
PACIFICORP
825 NE MULTNOMAH STREET, SUITE 2000
PORTLAND, OR 97232

PHIL CARVER
OREGON DEPARTMENT OF ENERGY
625 MARION ST., NE
SALEM, OR 97301-3737

SAM SADLER
OREGON DEPARTMENT OF ENERGY
625 NE MARION STREET
SALEM, OR 97301-3737

LISA SCHWARTZ
SENIOR ANALYST
ORGEON PUBLIC UTILITY COMMISSION
PO BOX 2148
SALEM, OR 97308-2148

CLARE BREIDENICH
224 1/2 24TH AVENUE EAST
SEATTLE, WA 98112

DONALD SCHOENBECK
RCS, INC.
900 WASHINGTON STREET, SUITE 780
VANCOUVER, WA 98660

JESUS ARREDONDO
NRG ENERGY INC.
4600 CARLSBAD BLVD.
CARLSBAD, CA 92008

CHARLIE BLAIR
DELTA ENERGY & ENVIRONMENT
15 GREAT STUART STREET
EDINBURGH, UK EH2 7TP
UNITED KINGDOM

KAREN MCDONALD
POWEREX CORPORATION
1400,
666 BURRAND STREET
VANCOUVER, BC V6C 2X8
CANADA

State Service

CLARENCE BINNINGER
DEPUTY ATTORNEY GENERAL
DEPARTMENT OF JUSTICE
455 GOLDEN GATE AVENUE, SUITE 11000
SAN FRANCISCO, CA 94102

DAVID ZONANA
DEPUTY ATTORNEY GENERAL
CALIFORNIA ATTORNEY GENERAL'S OFFICE
455 GOLDEN GATE AVENUE, SUITE 11000
SAN FRANCISCO, CA 94102

ANDREW CAMPBELL
CALIF PUBLIC UTILITIES COMMISSION
EXECUTIVE DIVISION
ROOM 5203
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

ANNE GILLETTE
CALIF PUBLIC UTILITIES COMMISSION
ENERGY RESOURCES BRANCH
AREA 4-A
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

BETH MOORE
CALIF PUBLIC UTILITIES COMMISSION
ELECTRICITY RESOURCES & PRICING BRANCH
ROOM 4103
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

CATHLEEN A. FOGEL
CALIF PUBLIC UTILITIES COMMISSION
ENERGY RESOURCES BRANCH
AREA 4-A
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

CHARLOTTE TERKEURST
CALIF PUBLIC UTILITIES COMMISSION
DIVISION OF ADMINISTRATIVE LAW JUDGES
ROOM 5117
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

CHRISTINE S. TAM
CALIF PUBLIC UTILITIES COMMISSION
ELECTRICITY RESOURCES & PRICING BRANCH
ROOM 4209
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

DONALD R. SMITH
CALIF PUBLIC UTILITIES COMMISSION
ELECTRICITY RESOURCES & PRICING BRANCH
ROOM 4209
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

ED MOLDAVSKY
CALIF PUBLIC UTILITIES COMMISSION
LEGAL DIVISION
ROOM 5037
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

EUGENE CADENASSO
CALIF PUBLIC UTILITIES COMMISSION
RATEMAKING BRANCH
AREA 4-A
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

HARVEY Y. MORRIS
CALIF PUBLIC UTILITIES COMMISSION
LEGAL DIVISION
ROOM 5036
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

HENRY STERN

JACLYN MARKS

CALIF PUBLIC UTILITIES COMMISSION
DIVISION OF ADMINISTRATIVE LAW JUDGES
ROOM 2106
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

CALIF PUBLIC UTILITIES COMMISSION
EXECUTIVE DIVISION
ROOM 5306
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

JACQUELINE GREIG
CALIF PUBLIC UTILITIES COMMISSION
ENERGY COST OF SERVICE & NATURAL GAS BRA
ROOM 4102
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

JAMIE FORDYCE
CALIF PUBLIC UTILITIES COMMISSION
DIVISION OF STRATEGIC PLANNING
AREA 5-B
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

JASON R. SALMI KLOTZ
CALIF PUBLIC UTILITIES COMMISSION
ENERGY RESOURCES BRANCH
AREA 4-A
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

GEORGE S. TAGNIPES
CALIF PUBLIC UTILITIES COMMISSION
ENERGY RESOURCES BRANCH
AREA 4-A
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

JOEL T. PERLSTEIN
CALIF PUBLIC UTILITIES COMMISSION
LEGAL DIVISION
ROOM 5133
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

JONATHAN LAKRITZ
CALIF PUBLIC UTILITIES COMMISSION
DIVISION OF ADMINISTRATIVE LAW JUDGES
ROOM 5020
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

JUDITH IKLE
CALIF PUBLIC UTILITIES COMMISSION
ENERGY RESOURCES BRANCH
ROOM 4012
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

JULIE A. FITCH
CALIF PUBLIC UTILITIES COMMISSION
DIVISION OF STRATEGIC PLANNING
ROOM 5119
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

KRISTIN RALFF DOUGLAS
CALIF PUBLIC UTILITIES COMMISSION
DIVISION OF STRATEGIC PLANNING
ROOM 5119
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

LAINIE MOTAMEDI
CALIF PUBLIC UTILITIES COMMISSION
DIVISION OF STRATEGIC PLANNING
ROOM 5119
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

LANA TRAN
CALIF PUBLIC UTILITIES COMMISSION
ELECTRIC GENERATION PERFORMANCE BRANCH
AREA 2-D
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

MATTHEW DEAL
CALIF PUBLIC UTILITIES COMMISSION
EXECUTIVE DIVISION
ROOM 5215
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

NANCY RYAN
CALIF PUBLIC UTILITIES COMMISSION
EXECUTIVE DIVISION
ROOM 5217
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

PAMELA WELLNER
CALIF PUBLIC UTILITIES COMMISSION
ENERGY RESOURCES BRANCH
AREA 4-A
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

PAUL S. PHILLIPS
CALIF PUBLIC UTILITIES COMMISSION
ELECTRICITY RESOURCES & PRICING BRANCH
ROOM 4101
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

PEARLIE SABINO
CALIF PUBLIC UTILITIES COMMISSION
ENERGY COST OF SERVICE & NATURAL GAS BRA
ROOM 4209
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

RAHMON MOMOH
CALIF PUBLIC UTILITIES COMMISSION
ELECTRICITY RESOURCES & PRICING BRANCH
ROOM 4205
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

RICHARD A. MYERS
CALIF PUBLIC UTILITIES COMMISSION
RATEMAKING BRANCH
AREA 4-A
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

SARA M. KAMINS
CALIF PUBLIC UTILITIES COMMISSION
ENERGY RESOURCES BRANCH
AREA 4-A
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

SCOTT MURTISHAW
CALIF PUBLIC UTILITIES COMMISSION
ENERGY DIVISION
AREA 4-A
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

SEAN A. SIMON
CALIF PUBLIC UTILITIES COMMISSION
ENERGY RESOURCES BRANCH
AREA 4-A
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

STEVE ROSCOW
CALIF PUBLIC UTILITIES COMMISSION
RATEMAKING BRANCH
AREA 4-A
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

THERESA CHO
CALIF PUBLIC UTILITIES COMMISSION
EXECUTIVE DIVISION
ROOM 5207
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214

BILL LOCKYER
STATE ATTORNEY GENERAL
STATE OF CALIFORNIA, DEPT OF JUSTICE
PO BOX 944255
SACRAMENTO, CA 94244-2550

KEN ALEX
PO BOX 944255
1300 I STREET, SUITE 125
SACRAMENTO, CA 94244-2550

BALDASSARO DI CAPO
151 BLUE RAVINE ROAD
FOLSOM, CA 95630

JUDITH B. SANDERS
ATTORNEY AT LAW
CALIFORNIA INDEPENDENT SYSTEM OPERATOR
151 BLUE RAVINE ROAD
FOLSOM, CA 95630

JULIE GILL
EXTERNAL AFFAIRS MANAGER
CALIFORNIA INDEPENDENT SYSTEM OPERATOR
151 BLUE RAVINE ROAD
FOLSOM, CA 95630

MARY MCDONALD
DIRECTOR OF STATE AFFAIRS
CALIFORNIA INDEPENDENT SYSTEM OPERATOR
151 BLUE RAVINE ROAD
FOLSOM, CA 95630

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

MICHAEL SCHEIBLE
DEPUTY EXECUTIVE OFFICER
CALIFORNIA AIR RESOURCES BOARD
1001 I STREET
SACRAMENTO, CA 95677

EVAN POWERS
CALIFORNIA AIR RESOURCES BOARD
1001 I ST, PO BOX 2815
SACRAMENTO, CA 95812

JEFFREY DOLL
CALIFORNIA AIR RESOURCES BOARD
PO BOX 2815 1001 I STREET
SACRAMENTO, CA 95812

PAM BURMICH
AIR RESOURCES BOARD
1001 I STREET, BOX 2815
SACRAMENTO, CA 95812

B. B. BLEVINS
EXECUTIVE DIRECTOR
CALIFORNIA ENERGY COMMISSION
1516 9TH STREET, MS-39
SACRAMENTO, CA 95814

DARYL METZ
CALIFORNIA ENERGY COMMISSION
1516 9TH ST., MS-20
SACRAMENTO, CA 95814

DEBORAH SLON
DEPUTY ATTORNEY GENERAL, ENVIRONMENT
OFFICE OF THE ATTORNEY GENERAL
1300 I STREET, 15TH FLOOR
SACRAMENTO, CA 95814

DON SCHULTZ
CALIF PUBLIC UTILITIES COMMISSION
ELECTRICITY RESOURCES & PRICING BRANCH
770 L STREET, SUITE 1050
SACRAMENTO, CA 95814

KAREN GRIFFIN
EXECUTIVE OFFICE
CALIFORNIA ENERGY COMMISSION
1516 9TH STREET, MS 39
SACRAMENTO, CA 95814

LISA DECARLO
STAFF COUNSEL
CALIFORNIA ENERGY COMMISSION
1516 9TH STREET MS-14
SACRAMENTO, CA 95814

MARC PRYOR
CALIFORNIA ENERGY COMMISSION
1516 9TH ST., MS-20
SACRAMENTO, CA 95814

MICHELLE GARCIA
AIR RESOURCES BOARD
1001 I STREET
SACRAMENTO, CA 95814

PIERRE H. DUVAIR
CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET, MS-41
SACRAMENTO, CA 95814

WADE MCCARTNEY
CALIF PUBLIC UTILITIES COMMISSION
DIVISION OF STRATEGIC PLANNING
770 L STREET, SUITE 1050
SACRAMENTO, CA 95814

CAROL J. HURLOCK
CALIFORNIA DEPT. OF WATER RESOURCES
JOINT OPERATIONS CENTER
3310 EL CAMINO AVE. RM 300
SACRAMENTO, CA 95821

HOLLY B. CRONIN
STATE WATER PROJECT OPERATIONS DIV
CALIFORNIA DEPARTMENT OF WATER RESOURCES
3310 EL CAMINO AVE., LL-90
SACRAMENTO, CA 95821