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# BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

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| 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) |

# ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION OF THE STATE OF CALIFORNIA

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| In the Matter of<br><br>AB 32 Implementation: Greenhouse Gases. | ) | Docket 07-OIIP-01 |

## SACRAMENTO MUNICIPAL UTILITY DISTRICT'S COMMENTS ON THE PROPOSED REPORTING AND TRACKING PROTOCOL


Jane E. Luckhardt
Downey Brand LLP
555 Capitol Mall, Tenth Floor
Sacramento, CA 95814
Tel: (916) 444-1000
Fax: (916) 444-2100
Email: jluckhardt@downeybrand.com

*Attorneys for the*
*Sacramento Municipal Utility District*


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# SACRAMENTO MUNICIPAL UTILITY DISTRICT'S COMMENTS ON THE PROPOSED REPORTING AND TRACKING PROTOCOL

In accordance with the California Energy Commission's (CEC) regulations and the Rules of Practice and Procedure of the California Public Utilities Commission (CPUC) the Sacramento Municipal Utility District (SMUD) provides the following comments on the Interim Opinion on Reporting and Tracking of Greenhouse Gas Emissions in the Electricity Sector ("Proposed Decision"). These comments are being provided to both the CEC and the CPUC. The comments are organized to follow the structure of both the Proposed Decision and Attachment A, Proposed Electricity Sector Greenhouse Gas Reporting and Tracking Protocol ("Protocol").

## 1. The Default Emission Factors should be Coordinated with Surrounding States (Proposed Decision -- I)

Section I of the Proposed Decision includes default emission factors for unspecified power purchased from defined areas. SMUD repeats its concern about using a consistent methodology for determining the emissions from Northwest imports from 1990, the baseline period of 2004 to 2006, and the future[1]. Unless appropriate, defensible and consistent methods are used, increases or decreases in carbon values for Northwest imports could be simply the result of a change in calculation method instead of any actual increase or decrease in the carbon content of the energy.

The Proposed Decision modifies the value used for the Northwest[2]. This value is inconsistent with the values provided by Washington and Oregon. SMUD is concerned about the differences in values used by neighboring states and those used by California for power from these locations. If different states use different carbon values for the same energy, it will be more difficult to link California's program with programs adopted in other states. Ultimately, a regional tracking system will be necessary to improve the accuracy of carbon emissions for imported energy. SMUD remains concerned that

[1] Reply comments of the Sacramento Municipal Utility District on the Joint California Public Utilities Commission and California Energy Commission Staff Proposal for an Electricity Retail Provider GHG Reporting Protocol, at 3, 07-OIIP-01 and R.06-04-009, dated July 10, 2007.

[2] Proposed Decision at 4, Table 1.

different carbon numbers will create unnecessary barriers to a regional tracking system.

## 2. The Protocol should Expand the Categories of Sources to Allow Calculation of Emission Rates for Out-of-State System Purchases (Proposed Decision -- V, Protocol – 2.1)

The Proposed Decision defines two categories of sources of power. SMUD believes the accuracy of the reporting can be further improved by providing a subset of the general unspecified category. As further discussed below, SMUD uses system contracts to obtain power. In order to improve the accuracy of the "unspecified" energy calculation, entities need to be able to provide carbon content for systems. For example, in the information SMUD has provided to the California Climate Action Registry (CCAR), SMUD has worked with out-of-state system resource owners to develop an emission rate consistent with the CCAR power utilities protocol certified value for power purchases from individual systems. SMUD uses this number to calculate the carbon content of the energy supplied under a system contract. The Proposed Decision and Protocol should include a method as robust as the method proposed for multi-jurisdictional control areas. Robust system specific calculations would create a more accurate carbon content number for long-term system contracts than a general Northwest mix number. Wherever possible, SMUD recommends that system carbon numbers be used to improve the accuracy of the carbon content assigned to power purchases in place of general area averages.

The Proposed Decision presents a definition for native load and a calculation method for determining the net carbon contained in a load serving entity's (LSE) system. The Protocol in Sections 3.1 and 3.11 allow low carbon and other resources to be claimed by the LSE when they meet the conditions to be classified as to "serve native load".

> In determining emission related to sales from unspecified sources (see Section 3.11), ARB excludes generation from plants used to serve native load from the calculation of resources deemed to be available for wholesale sales.

(Protocol at A-6.) An out-of-state system could either use a number calculated in accordance with the requirements of their state or use the method ultimately adopted by CARB. As opposed to using a general geographic area mix that includes various states

and regions in other countries, an LSE could determine the carbon content of system sales from an identified system. A geographic area default would only be used where specific system information is not available.

### 3. Attempts to Obtain Emissions Reductions Through Reporting Requirements Create Confusing and Complicated Reporting Regulations (Proposed Decision --V.3, Protocol – 3.8 )

SMUD has reviewed the confusing and complex method proposed to address issues variously described as "contract shuffling", "leakage" or reductions that are not "real, permanent, quantifiable, verifiable, and enforceable." While the goals of these efforts may be noble, the resulting protocol is complicated, confusing and rife with unintended consequences. In reality, contracts and markets supplying out-of-state power to Californians have only a partial, virtual connection to the to the flow of power on the western grid. Power flows at any moment are determined by all generators and loads on the western grid at that moment. This quality of commercial and physical connection with power supplies in other states has helped to serve the needs of California but places limits upon the ability of California to control those assets. Unfortunately, this situation does not provide simple solutions to California regulators. Nonetheless, creating a difficult and confusing reporting mechanism is not a satisfactory solution. The Proposed Decision and the Protocol attempt to assure emissions reductions through the reporting and tracking regulations, but in SMUD's opinion, over constrains existing multi-state commercial relationships and introduces confusing and complicated reporting exclusively aimed at out-of-state commerce. As justification for using these elaborate reporting requirements, the Proposed Decision looks to the portion of Assembly Bill (AB) 32 that relates to adopting emission limits and reduction strategies in California Health and Safety Code Section 38652 (d)(1). Section 38652 addresses rules and regulations to be adopted by CARB by 2011 for the express purpose of setting GhG limits and reduction measures. Furthermore, those provisions included in (d)(1) relate only to Parts 4 and 5 of the statute.

> Any regulations adopted by the state board pursuant to this part [4] or Part 5 (commencing with Section 38570) shall ensure all of the following: (1) The greenhouse gas emission reductions achieved are real, permanent, quantifiable, verifiable, and enforceable by the state board.

(Cal. Health & Safety Code Section 38652[d][1].) Part 4 addresses emission reductions including adoption of rules to achieve GhG reductions, early action measures, scoping plan and emission limits. Part 5 is focused on market-based compliance mechanisms. Reporting requirements are included in Part 2.

SMUD continues to advocate for accuracy in all aspects of the GhG regulations however, the Proposed Decision creates an unnecessarily complicated reporting scheme. The reporting regulations should focus on reporting without unnecessarily complicating the reporting structure.

Section 3.8 of the Protocol contains the discussion of how to address wholesale sales of energy and whether the emissions associated with those sales can move with the energy. SMUD supports the comments of the Northern California Power Agency, Los Angeles Department of Water and Power and Southern California Public Power Authority that any carbon associated with LSE owned assets should be attributable to the LSE only to the level of the energy taken by the LSE. SMUD assumes this complicated calculation method is proposed to address "contract shuffling". SMUD is concerned that these regulations will have unintended consequences.

SMUD does not own or have power plant specific contracts with coal plants. Nonetheless, SMUD sells excess energy from its natural gas fired generation. When reporting GhG emissions under CCAR, SMUD has attributed the carbon associated with its natural gas fired generation to the entity purchasing that energy or when selling system power has used its residual system mix to determine the carbon content of the energy sold. SMUD fills a vital role in serving the needs of the region when selling excess power from its natural gas units or its system. SMUD has attempted to understand the calculation method described and is concerned that it may attribute additional carbon to SMUD when SMUD makes system or natural gas unit wholesale sales under the calculation method included in Section 3.8. One of the criteria used to determine whether

a LSE is able to transfer the carbon associated with a sale of energy is whether "the specified plant was the marginal plant during the hours in which the power was sold." How is the marginal plant defined? Is the marginal plant based solely upon the price charged for the energy? If so, SMUD could not take higher priced renewable resources and sell natural gas because of the higher price of the renewable resource. If the marginal resource takes into account the loading order to take renewable resources first, then the energy sold in conjunction with the increased operation would be natural gas. Nonetheless, in order to determine the marginal price, SMUD would have to reveal proprietary and confidential pricing information from its and its contracted resources. Therefore, this method could be impossible to implement. We are hard pressed to understand this regulation and why it makes sense to include it in the Protocol.

### 4. Reporting Emissions from Owned Power Plants Should Not Adversely Impact Wholesale Sales to Out-of-State Buyers (Proposed Decision -- Footnote 3, Protocol -- 3.2, 3.6, 3.7, 3.8, 3.9, 3.10, 3.11)

SMUD is concerned that western states looking to adopt consistent protocols to California will find it is impossible. The Protocol essentially has set up a California only electric sector carbon cap. The Proposed Decision and Protocol count all of the carbon produced in-state as well as all of the carbon from purchases but fail to deduct from that total the carbon associated with wholesale power sales. Failure to deduct carbon from exported power will limit the effectiveness of any future California participation in the Western Climate Initiative, and will prevent states such as Oregon and Washington, should they decide to proceed with a load based cap, from implementing a consistent load based cap. In effect, California is claiming the carbon that would flow to load in Oregon and Washington.

AB32 does not require the state to cap the emissions from all electricity generated in the state and all imported to serve California's load, it requires the state to account for the emissions associated with all electricity consumed in the state, as is made clear in AB 32.

> Account for greenhouse gas emissions from **all electricity consumed in the state**, including transmission and distribution line losses from electricity generated within the state or imported from outside the state. . .

(Cal. Health & Safety Code Section 38530[b][2] [emphasis added].) Unlike other industries, AB 32 focuses on emissions from electricity consumed in the state. Regulation of other industries focus on the source of the emissions, "require the monitoring and annual reporting of greenhouse gas emission from greenhouse gas **emission sources**". (Section 38530[b][1] [emphasis added].) When California takes into account all electricity produced and consumed in the state, California is in a sense double counting its greenhouse gas emissions. By double counting, California makes it impossible to link to other states, which is a principle specifically required by AB 32.

> The state board shall do **both of the following:**
>
> . . .
>
> Review existing and proposed international, federal, and state greenhouse gas emission reporting programs and **make reasonable efforts to promote consistency among the programs established pursuant to this part and other programs**. . .

(Section 38530[c] [emphasis added].) Therefore, it is imperative that the Proposed Decision and Protocol create a system that can be linked with others in surrounding states.

SMUD has no objection to reporting all generation and associated emissions with its owned or owned through joint powers entities power plants. However, SMUD is concerned about attributing the carbon content of energy sold by SMUD in wholesale transactions in addition to the emissions from all of the energy produced and purchased to serve native load. Under the California Climate Action Registry (CCAR), SMUD subtracted wholesale sales from its greenhouse gas (GhG) profile submitted to CCAR. SMUD subtracted from its load based greenhouse gas emission total sales from swaps and exchange agreements as well as wholesale sales. SMUD did not differentiate between sales to in-state entities or out-of-state entities.

Protocol Section 3.9 differentiates between sales to entities within California and sales to entities located outside of California. Energy sold to counterparties within California is deducted from an LSE's total emissions. Energy sold to counterparties outside of California is not. This difference becomes an incentive for LSE's to sell

energy to in-state entities. SMUD is concerned that such an incentive may create an impediment to wholesale sales to out-of-state entities potentially in violation of the dormant Commerce Clause and/or the Federal Power Act.

Furthermore, once the energy is sold, SMUD is not always able to tell whether the energy is used directly by the original purchasers or resold and sent to a different location. SMUD has two concerns about the construct of the Protocol regarding the attribution of carbon from wholesale sales to the retail service providers. First, SMUD is concerned with the presumption in the regulations that an entity selling power wholesale will be able to accurately determine the ultimate location where the energy is used. Many parties to this proceeding have delineated the downside of using NERC e-tags for tracking energy purchases or sales. SMUD has no control of the energy or resale of that energy once the initial transaction is completed. SMUD is concerned about creating a false sense of accuracy of reporting based upon information that may not be accessible to the selling party or in the case of NERC e-tags, potentially inaccurate for carbon content use. Second, including the carbon content of wholesale sales as a responsibility of an LSE or including these sales in a hard cap will impact SMUD's and others' ability to continue to sell energy from its generation facilities to out-of-state entities. SMUD is concerned this may reduce the volume of wholesales sales from LSE's with impacts on the broader power market that could very well be undesirable. In addition, the Protocol treats in-state and out-of-state sales differently potentially creating conflicts with the dormant Commerce Clause. Also, these policies may impact the liquidity of the wholesale energy market and run afoul of the Federal Power Act. Lastly, these policies may punish neighboring states whose energy supplies are vital to providing sufficient energy to meet California's demand.

Furthermore, SMUD is concerned about the apparent treatment in the Protocol and the Proposed Decision to count the carbon associated with both the power delivered and received under an exchange agreement. Footnote 3 of the Proposed Decision refers to treatment of energy delivered under an exchange agreement "as a purchase or sale, respectively, for purposes of GHG accounting." The Protocol states "ARB sums the quantities of purchases and exchanges". (Protocol – 3.6.) Protocol Section 3.10 requires

LSE's to report "aggregated sales and power deliveries". SMUD is concerned about the potential unintended consequences of this requirement. An entity involved in an exchange agreement would in effect be responsible for the carbon of both sides of the transaction. By placing a double carbon burden upon the LSE's involved in these transactions, the regulations will discourage the use of exchange or swap agreements. These agreements take advantage of the physical assets located in different regions so that extra power available in one season can be sent to another region when that region is short of desirable resources and replaced when the opposite is true. These arrangements conserve natural resources by limiting the number of power generation assets to be located in each region. SMUD queries whether the environment is improved by creating a disincentive for these transactions and thereby, creating a need to obtain additional assets in each region.

Particularly troubling is the required summing of all emission from owned resources and all purchases as described in the Protocol in section 3.7:

> ARB sums the total metric tons of emission from owned power plants, purchases from specified sources, and purchases from unspecified sources as described in the above sections. ARB then converts the GHG emission to $CO_2$ equivalents and calculates the total.

At the very least the values for energy generated by LSE owned assets and sold at wholesale should be reported separately and not summed with the energy produced and purchased to serve an LSE's load. Summing these values implies a higher carbon loading to an LSE than is associated with serving its load. Summing these values will create an inaccurate representation of the GhG impacts of serving the needs of California. These values should be reported separately as distinct values and not summed.

SMUD does not agree with the Proposed Decision's reliance upon Section 38505(m) to require inclusion of all of the energy produced in the state as well as all of the energy consumed in the state. Should the CPUC and CEC decide to accept the premise in the Proposed Decision, SMUD feels it is imperative that the CPUC and the CEC evaluate the impacts on the wholesale power market from your proposed Protocol. CARB is looking to the CPUC and the CEC to provide support on electric industry

issues. It is imperative that the CPUC and CEC explain in detail potential impacts to the wholesale power market from the adoption of these regulations.

### 5. The Proposed Treatment of Null Power is Correct (Proposed Decision – V.B.2.b, Protocol – 3.3)

The Proposed Decision attributes a geographic emission factor to null energy. Because null energy has been stripped of its renewable or low carbon attributes, it is correct to apply an average carbon emission factor to this power. To maintain the low carbon attributes of the original energy source in the null energy would reduce and undermine the value of the credits sold by the renewable or low carbon source. SMUD supports the treatment of null energy in the Proposed Decision and the Protocol.

### 6. The Proposed Treatment of Substitute Energy and Firming for Intermittent Renewables is Correct (Proposed Decision – V.B.2.c & d, Protocol – 3.3)

Both the Proposed Decision and the Protocol allow firming to 15 percent of the energy received under a plant specific purchase agreement with the firming energy being counted at the carbon emission rate of the underling specified power plant carbon emission rate. Both documents recognize the need to allow firming of plant specific agreements for the orderly operation of the electric grid. SMUD supports this concept and recommends its inclusion in the CPUC and CEC recommendations to CARB.

SMUD supports the recommendation included in the Proposed Decision in Section V.B.2.c to allow firming of intermittent renewable resources. Firming is important to continue the level of support for these renewable resources in the market and to allow the orderly function of the transmission grid. Although the Protocol in Section 3.3 explicitly specifies whether the energy is from a renewable resource, the protocol does not specifically mention the treatment of firming energy. The Protocol in Section 3.3 should be expanded to describe firming as permitted in the Proposed Decision.

### 7. New Contracts with Existing Renewable Resources should Carry their Low Carbon Attributes (Protocol – 3.3)

SMUD supports the comments of the California Municipal Utilities Association regarding the limitations placed upon new purchases from existing renewable resources.

Consistent with SMUD's earlier comments, the Protocol should not place any barriers to contracting with renewable or low carbon resources. using the economic might of California to contract with sustainable renewable resources is the high road to low carbon leadership. Refusing to accept the low carbon attributes of an existing renewable resource makes contracting with that resource difficult for California LSE's. SMUD sees only downside to this prohibition. In effect, existing renewables are punished by these regulations whose entire purpose is to encourage low carbon generation. In light of the existing challenges to attaining the goals set by the renewable portfolio standard, attributing carbon emissions to some of these non-carbon emitting sources would create additional unnecessary barriers to achieving and exceeding these goals.

8. **The Regulations Should Allow Reporting and Calculating Emissions for Systems Located Outside of California (Proposed Decision – V.C.2.c, Protocol – 3.4 and 3.5)**

The Proposed Decision allows for the calculation of system power in Section V.C.2.c. SMUD supports this addition to the regulations as an opportunity to increase the accuracy of the emission factors used for the general category of unspecified power. SMUD has existing long-term contracts with systems located outside of California for which more accurate emissions information is available and should be applied to these contracts. SMUD suggests that if such a value is available from the system providing the energy based upon a calculation method used by another state or is calculated consistent with the method proposed for in-state system power sales, those values should be used in place of the general geographic area average.

Although additional system power emission factors are addressed in the Proposed Decision, SMUD does not see a similar provision included in the Protocol. Therefore, SMUD recommends inclusion of a similar provision in the protocol for calculating emissions from systems located in other states.

9. **Calculation Methods and Amounts for Transmission Losses Need to be Determined (Protocol – 3.6)**

The Protocol in Section 3.6 simply states "ARB calculates default emission factors, and accounts for transmission losses." Nowhere does the Protocol specify how

these transmission losses are to be calculated. Since transmission losses amount to a significant percentage of an LSE's total load, the method and percentage applied as transmission losses needs to be a known, stable and transparent value prior to commercial contracting. That value also need to be equitable relative to utility and California baseline emissions. Some transmission contracts use seasonal averages to estimate losses, reflecting the increased losses that occur during the high-load, high-temperature summer season. The CPUC and CEC should survey various transmission owning entities to determine a basis for a reasonable loss factor or factors that can be applied on a consistent basis for California LSE's.

## 10. Reporting for Publicly Owned Utilities should be Limited to CARB and the CEC

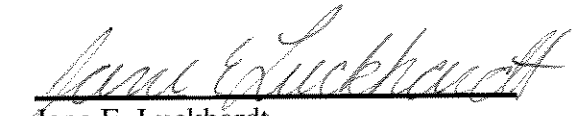
CARB is the agency responsible for tracking and monitoring as well as enforcement of state GhG limits and requirements. Publicly owned utilities are not jurisdictional to the CPUC. Publicly owned utilities should report only to CARB. If reporting forms are combined with reporting requirements to the CEC, SMUD will provide the GhG reporting information also to the CEC. Reporting beyond two state agencies is excessive and unnecessary.

## 11. Conclusion

SMUD respectfully requests the CPUC and the CEC take these comments into account in finalizing the Proposed Decision and Protocol.

Dated: August 24, 2007

Respectfully submitted,



Jane E. Luckhardt
Downey Brand LLP
555 Capitol Mall, Tenth Floor
Sacramento, CA 95814
Tel: (916) 444-1000
Fax: (916) 444-2100
Email: jluckhardt@downeybrand.com

*Attorneys for the*
*Sacramento Municipal Utility District*

## CERTIFICATE OF SERVICE

I hereby certify that I have this day served a copy of the attached:

**SACRAMENTO MUNICIPAL UTILITY DISTRICT'S COMMENTS ON THE PROPOSED REPORTING AND TRACKING PROTOCOL**

on all known parties to R. 06-04-009 and CEC Docket No. 07-OIIP-01 by transmitting an e-mail message with the document attached to each party named in the official service list. I served a copy of the document on those without e-mail addresses by mailing the document by first-class mail addressed as follows:

See attached service list

Executed this 24th day of August 2007, at Sacramento, California.

Lois Navarrot

Lois Navarrot

docket@energy.state.ca.us; kgriffin@energy.state.ca.us; cadams@covantaenergy.com; steven.schleimer@barclayscapital.com; steven.huhman@morganstanley.com; rick_noger@praxair.com; keith.mccrea@sablaw.com; ajkatz@mwe.com; ckrupka@mwe.com; 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; maureen@lennonassociates.com; rhelgeson@scppa.org; douglass@energyattorney.com; pssed@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; 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@dwt.com; cjw5@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; kowalewskia@calpine.com; wbooth@booth-law.com; hoerner@redefiningprogress.org; janill.richards@doj.ca.gov; cchen@ucsusa.org; gmorris@emf.net; tomb@crossborderenergy.com; bmcc@mccarthylaw.com; sberlin@mccarthylaw.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@niskags.com; bjones@mjbradley.com; kcolburn@symbioticstrategies.com; rapcowart@aol.com; Kathryn.Wig@nrgenergy.com; sasteriadis@apx.com; george.hopley@barcap.com; ez@pointcarbon.com;

burtraw@rff.org; vb@pointcarbon.com; 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; plusk@wecc.biz; Sandra.ely@state.nm.us; bmcquown@reliant.com; dbrooks@nevp.com; anita.hart@swgas.com; randy.sable@swgas.com; bill.schrand@swgas.com; jj.prucnal@swgas.com; meridith.strand@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@climateregistry.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.branes@ecosecurities.com; case.admin@sce.com; tim.hemig@nrgenergy.com; bjl@bry.com; aldyn.hoekstra@paceglobal.com; ygross@sempraglobal.com; jlaun@apogee.net; kmkiener@fox.net; scottanders@sandiego.edu; jkloberdanz@semprautilities.com; andrew.mcallister@energycenter.org; jack.burke@energycenter.org; jennifer.porter@energycenter.org; sephra.ninow@energycenter.org; jleslie@luce.com; ofoote@hkcf-law.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; 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; sscb@pge.com; svs6@pge.com; S1L7@pge.com; vjw3@pge.com; karla.dailey@cityofpaloalto.org; farrokh.albuyeh@oati.net; greg.blue@sbcglobal.net; dtibbs@aes4u.com; jhahn@covantaenergy.com; andy.vanhorn@vhcenergy.com; info@calseia.org; Joe.paul@dynegy.com; 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@bartlewells.com; adamb@greenlining.org; clyde.murley@comcast.net; brenda.lemay@horizonwind.com; carla.peterman@gmail.com; elvine@lbl.gov;

rhwiser@lbl.gov; C_Marnay@lbl.gov; philm@scdenergy.com; rita@ritanortonconsulting.com; cpechman@powereconomics.com; emahlon@ecoact.org; richards@mid.org; chrism@mid.org; rogerv@mid.org; fwmonier@tid.org; brbarkovich@earthlink.net; johnrredding@earthlink.net; clark.bernier@rlw.com; rmccann@umich.edu; cmkehrein@ems-ca.com; e-recipient@caiso.com; grosenblum@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@Dynegy.com; Bob.lucas@calobby.com; curt.barry@iwpnews.com; dave@ppallc.com; kellie.smith@sen.ca.gov; mwaugh@arb.ca.gov; pstoner@lgc.org; rachel@ceert.org; wtasat@arb.ca.gov; steven@iepa.com; etiedemann@kmtg.com; bushinskyj@pewclimate.org; lmh@eslawfirm.com; obartho@smud.org; bbeebe@smud.org; bpurewal@water.ca.gov; dmacmll@water.ca.gov; kmills@cfbf.com; karen@klindh.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; dws@r-c-s-inc.com; jesus.arredondo@nrgenergy.com; charlie.blair@delta-ee.com; karen.mcdonald@powerex.com; loe@cpuc.ca.gov; clarence.binninger@doj.ca.gov; david.zonana@doj.ca.gov; agc@cpuc.ca.gov; aeg@cpuc.ca.gov; blm@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; jk1@cpuc.ca.gov; jst@cpuc.ca.gov; jtp@cpuc.ca.gov; jol@cpuc.ca.gov; jci@cpuc.ca.gov; jf2@cpuc.ca.gov; krd@cpuc.ca.gov; lrm@cpuc.ca.gov; mjd@cpuc.ca.gov; meg@cpuc.ca.gov; ner@cpuc.ca.gov; pw1@cpuc.ca.gov; psp@cpuc.ca.gov; pzs@cpuc.ca.gov; rmm@cpuc.ca.gov; ram@cpuc.ca.gov; smk@cpuc.ca.gov; sgm@cpuc.ca.gov; svn@cpuc.ca.gov; scr@cpuc.ca.gov; tcx@cpuc.ca.gov; ken.alex@doj.ca.gov; ken.alex@doj.ca.gov; bdicapo@caiso.com; jsanders@caiso.com; jgill@caiso.com; ppettingill@caiso.com; mscheibl@arb.ca.gov; gottstein@volcano.net; pburmich@arb.ca.gov; bblevins@energy.state.ca.us; dmetz@energy.state.ca.us; deborah.slon@doj.ca.gov; dks@cpuc.ca.gov; kgriffin@energy.state.ca.us; ldecarlo@energy.state.ca.us; mpryor@energy.state.ca.us; mgarcia@arb.ca.gov; pduvair@energy.state.ca.us; wsm@cpuc.ca.gov; hurlock@water.ca.gov; hcronin@water.ca.gov

TARA KNOX
AVISTA CORPORATION
PO BOX 3727
SPOKANE, WA 99220

KAREN EDSON
151 BLUE RAVINE ROAD
FOLSOM, CA 95630

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