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VIA E-MAIL AND OVERNIGHT DELIVERY

California Energy Commission
Docket Office, MS-4
1516 Ninth Street
Sacramento, CA 95814-5504

Re: Docket No. 07-OIIP-01; Reply Comments

Dear Sir or Madam:

Attached for filing in the above-referenced matter are the following documents:

1. Reply Comments of the Solar Alliance on Allocation Methodologies and Other Issues; and

2. Reply Comments of the California Retailers Association on Allowance Allocation Methodologies and Other Matters.

Simultaneously with this mailing, electronic copies of the above-referenced reply comments were e-mailed to the Energy Commission's Docket Unit.

Should you have any question with regard to the referenced filing, please contact the undersigned.

Very truly yours,

GOODIN, MACBRIDE,
SQUERI, DAY & LAMPREY, LLP

By

Joseph F. Wiedman

Enclosures
cc: Karen Griffin (kgriffin@energy.state.ca.us)

3326/003/X100518.v1

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)
[*Also filed at the California Energy Commission*]	CEC Docket 07-OIIP-01

REPLY COMMENTS OF THE SOLAR ALLIANCE ON ALLOWANCE ALLOCATION METHODOLOGIES AND OTHER MATTERS

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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)
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REPLY COMMENTS OF THE SOLAR ALLIANCE ON ALLOWANCE ALLOCATION METHODOLOGIES AND OTHER MATTERS

Pursuant to the Administrative Law Judge's Ruling Modifying Schedule and Correcting Suggested Outline for Comments and Reply Comments, the Solar Alliance submits these Reply Comments on allowance allocation methodologies and other matters.[1] These comments are also being filed in Docket 07-OIIP-01 of the California Energy Commission (CEC).

I. COMMENTS

The Solar Alliance appreciates the opportunity to provide reply comments in response to the many thoughtful comments on allowance allocation methodologies and other

[1] The Solar Alliance is a state-focused alliance of solar photovoltaic (PV) manufacturers, integrators, installers and financiers dedicated to accelerating the deployment of solar electric power in the United States. Our members have a strong interest in the adoption and implementation of far-reaching policies and programs that will accelerate the movement toward a low-carbon economy and stimulate the development and use of zero-carbon, renewable energy technologies such as solar PV. Current members of the Solar Alliance include American Solar Electric, Applied Materials, Borrego Solar, BP Solar, Conergy, Dow-Corning, Energy Innovations, Evergreen Solar, First Solar, Kyocera, Mitsubishi Electric, MMA Renewable Ventures, Oerlikon Solar, PPM Energy, REC Solar, Sanyo, Schott Solar, Sharp Solar, SolarCity, Solaria, Solar Power Partners, SolarWorld, SPG Solar, SunEdison, SunPower, Suntech, Tioga Solar, Trinity Solar, Uni-Solar and Xantrex.

matters related to the Commission's continued investigation of greenhouse gas (GHG) emission reduction measures submitted by parties on June 2, 2008.

II. AB 32 MANDATES NEED TO BE ESTABLISHED IN A MANNER WHICH PROMOTES CALIFORNIA'S COST-EFFECTIVE TRANSITION TO A LOW CARBON ECONOMY

Despite sharp differences on a few topics, the Solar Alliance was pleased to see many parties agree on so many issues including the need for AB 32 to be implemented in a manner that ensures carbon reductions are meaningful and can be verified,[2] the need for any cap and trade program be implemented as a multi-sector, liquid program, and the need for flexibility within the cap and trade program to provide entities participating in the market with opportunities to reduce their GHG emissions in a cost-effective, timely manner.[3] The Solar Alliance was also pleased to see many parties support energy efficiency and a 33% Renewables Portfolio Standard as "core programmatic measures" within the AB 32 compliance framework.[4] A 33% RPS recognizes the foundational role renewables can and should play in helping California meet its ambitious carbon reduction goals by providing zero carbon energy. The Solar Alliance reiterates its support for a 33% RPS as part of core programmatic measures

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[2] See, e.g., WPTF comments at p. 5; IEP comments, Appendix A, at pp. 12 ("There is NO point in creating a CT market or any other regulatory mechanism unless it actually results in lowering GHG emissions.")

[3] See, e.g., IEP comments at p. 4, 15-18 (noting a cap and trade program can be beneficial if it is multi-sector and liquid); Morgan Stanley comments at pp. 5-6 (discussing the benefits of a cap and trade market with diverse participants), at pp. 14-16 (supporting offsets); AReM comments at pp. 5-7 (supporting a diversity of market participants and flexible compliance mechanisms); WPTF comments at p. 5-6, 11-12, 14 (supporting broad sectoral coverage and participation in the GHG allowance market, flexible compliance mechanisms and offsets); CMUA comments at p. 4 (supporting the general principle of flexible compliance mechanisms); Powerex comments at pp. 10, 16.

[4] See CEERT comments at p. 10, CalWEA/Large-scale Solar Association Comments at pp. 5-8 (arguing an express 33% target is necessary for renewables project development and transmission upgrades); NRDC/UCS comments at p. 31 ("California should adopt a 33% Renewables Portfolio Standard ("RPS") as soon as possible.").

implemented within the context of AB 32.

However, GHG reductions from renewable power generation should not be limited to participation in the RPS program as the sole means of helping California achieve its AB 32 goals. Renewable generation offers many other opportunities for helping Californians reduce their carbon footprint and AB 32 needs to be implemented in a way which promotes and builds upon the voluntary GHG reduction efforts already being made and paid for by many individuals, businesses, religious organizations, and government entities. These efforts are substantial – fully 50% of new renewable generation going into the ground in the United States in 2007 was driven by voluntary, non-utility purchases of Renewable Energy Credits (RECs) and on-site renewable generation occurring outside of California's RPS and compliance driven utility procurement programs.[5] These voluntary efforts are stimulating demand for renewables, increasing investments in technological innovation and driving down the price of renewable generation to the benefit of all Californians. Voluntary efforts are so successful because the ability to purchase renewable energy harnesses the desire of corporate citizens, cities and counties, community leaders, and every day citizens to make a meaningful difference in mitigating global climate change. The Solar Alliance was pleased to see IEP recognize that behavioral changes will be part of the answer in achieving GHG reductions.[6] While IEP focuses on price signals from electric rates as a means to induce behavioral changes, the Solar Alliance agrees with IEP's conclusion and notes that in the absence of a fully-designed and implemented GHG reduction program either at the state or federal level, voluntary efforts are already reducing

[5] See REMA comments at pp. 3-4.

[6] See IEP comments at p. 5 ("Meeting the goals of AB 32 will require the transformation of the California economy that in turn will require significant technological innovation coupled with behavioral changes.").

GHG emissions within the electric sector. Direct evidence of global climate change and its associated risks to California are becoming more pronounced with every passing day and will only increase private and public sector motivation to mitigate the risks of climate change through their own actions.

The Solar Alliance agrees with SMUD that public confidence in AB 32 implementation measures is an important consideration in choosing between different program designs. To this end, the Solar Alliance believes a cap and trade program needs be designed in a way that credits voluntary actions to reduce GHG emissions because a primary motivation for private actors is the knowledge that the GHG reduction occurring as a result of their investment in new renewable generation is real, verifiable, and their own (not double counted). To be successful, AB 32 needs be implemented in a way that does no harm to these efforts and, in fact, encourages voluntary efforts as a low-cost, immediate means of reducing GHG emissions.[7] These efforts should be viewed as positive trends which can provide additional flexibility in meeting AB 32's goals at least cost and can increase the public's confidence that AB 32 efforts are working as planned. Designing AB 32 regulations in a manner which supports voluntary early actions is also the law.[8] It is with this fundamental understanding in mind that the Solar Alliance supports an output based approach for allocating GHG allowances to new renewable generation.[9]

[7] See REMA comments at p. 7.

[8] See Cal. Health and Safety Code Sec. 38562(b)(1) and (3) (requiring encouragement of early action and credit for early voluntary reductions).

[9] See REMA comments at p. 7; see also SMUD comments at p. 15 (supporting allowances to new renewable generation built after the passage of AB 32 to "reward early action and incentivize entities to more rapidly achieve and go beyond any statewide RPS targets.")

A. An Output-based Allocation Scheme Which Grants Allowances to New Renewable Generation is Necessary to Ensure New Renewable Generation is Able to Participate Fully in Helping Meet AB 32 GHG Reduction Goals.

An output-based allocation scheme in which cap and trade program administrators allocate allowances to new renewable generation directly is essential to ensuring new renewable generation is able to participate fully in helping meet AB 32's GHG reduction goals.[10] SMUD points out that "such an approach would be equitable, inexpensive, and would promote the right decision making in the electric sector to achieve the maximum amount of reductions as quickly as possible."[11] Allocation of allowances to new renewable generation in an output-based allocation cap and trade design is important to ensure that carbon-intensive first deliverers do not obtain a "freeride" on the GHG reductions resulting from private investment in renewable generation. Freeridership by carbon-intensive first deliverers would occur under an allocation scheme in which only carbon-intensive generators are eligible to receive allowances because no direct reduction in allowances will result from the MWs actually delivered to the grid by new renewable generation.

This outcome has several negative consequences. First, the cost of compliance to the carbon-intensive generators is lowered because the compliance market does not recognize the addition of new renewable generation in the supply/demand framework for allowances. Additionally, while the carbon intensity per MWh should decline over time due to the delivery of clean energy to the grid, the entity helping achieve the reduction (clean generation) would not be the entity recognized within the cap and trade system with the reduction, this results in emitting

[10] See REMA comments at pp. 9-14; see also IEP comments at p 9-10 (noting that a competitive level paying field is necessary to ensure private investment in clean renewable technologies).
[11] SMUD comments at p. 15.

entities avoiding having to reduce their carbon emissions in the near term and being allowed to continue to operate high GHG emitting generation longer then they otherwise would have been able. If the cap is not tightened to account for delivery of MWs to the grid from investments in new renewable generation, carbon emitting generation could also increase their emissions under the cap.[12] This freeridership by carbon intensive generators on the GHG reduction value of new renewable generation is a direct result of new renewable generation not having its carbon reduction value recognized based on the MWs actually delivered to the grid.

These problems cannot be overcome simply by directing additional public funding toward renewables because, unless renewable generation purchased outside the RPS reduces the cap via the retirement of an allowance, new zero-emission generation will not result in real, verifiable GHG emission reduction, and, therefore, cannot support a voluntary market for carbon-free power. Without the ability to make that claim, renewable generation will be restricted to the RPS and the growing and potentially large voluntary market for renewables will collapse.

Allocation of allowances to new renewable generation is also necessary to allow nonelectric sector entities with GHG compliance obligations to use renewable generation to meet those obligations. This flexibility is at the heart of a multi-sector cap and trade program so many parties embraced in their comments.[13] However, the rationale underpinning parties desire to institute a multi-sector cap and trade program – the ability to seek out cost-effective means of

[12] See Joint California Public Utilities Commission and California Energy Commission Staff Paper on Options for Allocation of GHG Allowances in the Electricity Sector, April 16, 2008, pp. 28-30 (recognizing an increased incentive for deliveries from natural gas and disadvantaging renewable generation).
[13] See, e.g., IEP comments at p. 4, 15-18; Morgan Stanley comments at pp. 5-6; Powerex comments at pp. 10, 16.

reducing carbon emissions through a wide variety of measures in a liquid allowance market – does not just flow from the electric sector to other capped sectors. Rather, allocating allowances to new renewable generation will enable other sectors to use renewable generation as a cost-effective means meeting their GHG compliance obligations. The Solar Alliance agrees with other parties that a multi-sector cap and trade program needs to be liquid and flexible in order to allow cost-effective solutions for GHG reductions to present themselves.[14] This liquidity and flexibility should not be undermined at the onset by preventing new renewable generation from receiving allowances.

B. Counting Voluntary Emissions Reduction Efforts for New Renewable Generation as Offsets is Not Appropriate.

Many parties supported the use of "voluntary GHG offset" markets as a flexible compliance mechanism to meet the AB32 GHG reduction goals within the electric sector.[15] However, "voluntary renewable power" markets that reduce GHG emissions are not synonymous with "voluntary GHG offsets". In fact, quite the opposite is the case since "offsets" are by definition voluntary efforts taken outside of sectors with compliance obligations. Renewable generation, on the other hand, operates within the capped electrical sector and produces electricity with low- to zero carbon emissions to reduce GHG emission which otherwise would have occurred within that sector.[16] For this foundational reason, approaching recognition of voluntary emissions reduction efforts achieved through investment in new renewable generation as an offset is inappropriate. Because new renewable generation directly operates as part of a

[14] See WPTF comments at p. 4 (noting that GHG allowance market will allow participants to find cost-effective GHG reduction opportunities).

[15] See, e.g., Climate Trust comments at p. 3; SDG&E and SCG comments at p. 24; WPTF comments at pp. 5-6.

[16] See CalWEA/Large-scale Solar Association Comments at p. 4 (noting that renewables, unlike other carbon emissions reduction strategies, produce energy).

capped sector, it should be dealt with in the mechanism designed for that sector. Accordingly, the emissions reductions resulting from the production of electricity by renewable generators within the capped electrical sector should result in new renewable generation receiving allowances for the reasons discussed above.

C. Renewable Energy Credits and Allowances are Regulatory Compliance Accounting Tools which Do Not Change the Underlying Nature of the Electricity Produced.

Contrary to the claims of DRA, the Commission's determination of whether a REC will contain avoided carbon should not impact whether the renewable energy generation should receive allowances because it is considered null power.[17] Renewable energy credits (RECs) and allowances are regulatory compliance accounting tools which do not change the nature of the underlying electricity produced. This concept is important to understanding the true function of RECs and allowances which is to capture the external cost and benefits associated with the production of that energy – including reduced emissions and increased fuel diversity associated with the production of electricity from renewable resources – in order to participate in regulatory compliance mechanisms. In this sense, consideration of whether or not the State should deem renewable energy which has transferred RECs or allowances associated with its production to an entity other than the facility owner of null power - while holding a certain intellectual appeal - is a red herring. The actual energy produced and utilized on-site or sent to the grid has not changed – all that possession or transfer of the REC or allowance does is determine who can make claims for regulatory compliance purposes regarding that energy. The Commission recognized this fact in Decision no. 07-01-059 in the context of the emissions performance standard stating that "[t]he emissions of a renewable facility will not change if or

[17] See DRA comments at p. 3.

when it sells RECs under a future regulatory REC market."[18] The Solar Alliance believes the Commission made the right determination in D.07-01-059 and supports the Commission making that same determination here – emissions from a renewable facility will not change if or when the renewable facility owner sells RECs under a regulatory REC market or allowances within a GHG cap and trade compliance market. Therefore, consumption of the energy on-site by the generation owner should not require the owner to obtain allowances for that generation. To require such an outcome as part of AB 32 compliance would impose a new penalty on renewable generation providers, the very same providers making the GHG emissions reduction claims of the IOUs, other AB 32 obligated entities, and voluntary participants possible.

D. Windfall Profits will Not Accrue to Renewable Power Facilities if Those Facilities Receive Allowances Along Side a RPS Compliance Framework that Has RECs Containing Avoided Carbon.

The Solar Alliance also disagrees with DRA's claim that windfall profits could accrue to renewable power facility if they receive allowances along side a RPS compliance framework that separates carbon reduction values from the REC.[19] While not explicit, it appears DRA believes renewables will only be allowed to participate in helping California meet its AB 32 goals through the RPS utility procurement requirement. However, as explained in our opening comments, this should not be the case. Renewables can help California meet its GHG reduction goals by requiring utilities to purchase renewable power and by simultaneously allowing citizens, private businesses, government institutions, non-profits, and religious institutions to voluntarily purchase renewable power to reduce their carbon emissions. In addition, renewables can play a role in helping non-electric sectors of the economy with compliance obligations under a GHG cap meet their carbon emission reduction mandates by

[18] D.07-01-059 at p. 125.

purchasing allowances, which is already contemplated, including allowances produced through new renewable power generation. These outcomes do not result in windfall profits to renewable generators but rather each outcome is one which allows renewable generation to participate in helping achieve AB 32 GHG reduction goals.

Under our proposal, new renewable generation would either sell RECs (or RECs plus electricity) for RPS purposes, which is proposed to be treated a core programmatic measure under AB 32, or new renewable generation would receive allowances as part of the cap and trade program to retire or sell to another entity to meet their GHG reduction goals or mandates. This outcome preserves the opportunities new renewable generation currently has to facilitate voluntary efforts to reduce GHG emissions, ensures new GHG compliance mechanism do no harm to this current ability, and ensures that other entities under GHG compliance do not obtain a free-ride off of these voluntary efforts. These allowances would not create a "windfall" profit for renewable, but rather fairly recognize the voluntary investment in new renewable generation by ensuring this zero-emission electricity contributes to real, verifiable AB 32 GHG emission reductions. It also ensures voluntary renewable power purchases do not subsidize continued GHG emissions by other regulated entities that would otherwise need to pay for their own GHG reductions within the sector.

E. Determinations Regarding RECs and GHG Allowances are Interconnected and Should be Carefully Considered in Order to Avoid Double Counting.

The Solar Alliance agrees with DRA that determinations regarding RECs and GHG allowances are interconnected and should be carefully considered.[20] However, the primary

[19] See DRA comments at p. 3.

[20] See DRA comments at pp. 2-3; see, also, AReM comments at p. 4 ("Renewable energy and [RECs] and any credits that are created for reducing green house gas emissions from renewable

(footnote continued)

risk to renewable generation from decisions regarding GHG allowance allocation or RECs is not whether renewable generation owners would receive a windfall profit from selling RECs or allowances, but rather that these accounting mechanisms could allow double counting between compliance measures if not properly designed. Double counting of the environmental attributes associated with renewable power would undermine the credibility of both the RPS program and the GHG program and needs to be avoided. If RECs are allowed for RPS compliance purposes and the RPS is counted as a programmatic measure for reducing GHG emissions under AB 32, then RECs need to contain carbon and be retired upon the IOUs RPS compliance claim to prevent double counting. To do otherwise, would mean the IOU has purchased a REC for RPS compliance which does not contain the right to make a carbon reduction claim, even though the State of California would treat the RPS program as a programmatic measure designed to reduce GHG emissions. Under this scenario, the renewable facilities owner would not transfer the GHG reduction claim with the transfer of the REC and thereby enable other parties to make a GHG reduction claim in addition to the RPS program for the same MWh of renewable power used to meet the RPS compliance. This outcome is the essence of double counting.

While one might be tempted to argue that problems with double counting can be avoided by restricting renewables to participate in GHG reduction efforts via the utility RPS procurement program, this outcome has a number of serious problems. First, it freezes renewables out of the helping to achieve AB 32's ambitious GHG reduction goals through voluntary efforts. It also prevents other capped sectors from using renewables to meet their AB

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generating facilities may have multiple impacts in a compliance market, as well as the voluntary markets, for renewable energy and greenhouse gas/carbon reductions.").

32 which undermines the rationale of a multi-sector cap and trade program. Finally, this outcome also locks renewables into a supplier path at odds with many Commission programs designed to bring alternative means of supplying energy to meet growing California demand, such as the CSI.[21] For these reasons, the Solar Alliance believes restricting renewables to participation in utility RPS programs to reduce GHG emissions is unreasonable, unnecessary, and should not be the outcome of the establishment of AB 32.

The way to avoid double counting between the RPS program and the cap and trade program, while still allowing renewable generation to fully participate in achieving AB 32 GHG reduction goals, is to ensure compliance markets are well designed by being able to supporting voluntary renewable purchases through linkage to the California cap and trade program and also supporting mandatory utility procurement requirements under the RPS. This outcome can be accomplished by ensuring accounting "credits" – be they RECs or GHG allowances – created for compliance purposes are made available to renewable facilities. Stated another way, if a renewable generation owner decides that green energy claims associated with their facility should be sold to an IOU for RPS compliance, the facility owner could elect for the RECs associated with their output to be sold to the IOU. Those RECs which contain avoided carbon would be retired to avoid double counting. If the facility owner decides the facility's output will be available for GHG compliance under the cap and trade program, then the allowances allocated for the facility would be retired to avoid double counting when the buyers use the allowance to meet their GHG compliance mandates or, if the buyer is taking voluntary actions, it is retired when the buyer whishes to make a GHG reduction claim as part of their

[21] See also. Cal. Health and Safety Code Sec. 38562(b)(6) (requiring consideration of diversification of energy sources in the distribution of allowances).

voluntary contribution to meeting California's AB 32 goals. .

F. The E3 Model Needs to be Reformed to Address Parties Concerns and More Accurately Value Renewables.

The Solar Alliance greatly appreciates the efforts E3 has made to date to produce a model for use in discussing the relative cost-effectiveness of various GHG reduction measures and the overall cost impacts of various GHG reduction targets. However, numerous parties raised concerns that unrealistic assumptions or input values within the model severely skew the relative results of the model in a way that makes renewable power look more costly than it truly is or have produced a model which has no value in determining the true cost impacts of various proposals.[22] In fact, correcting for these problems shows renewables can be an extremely cost-effective means of achieving GHG reduction goals across economic sectors.[23] Many parties also agreed that the E3 model should not be used for resource planning purposes.[24] E3's model must also be reformed to accurately account for voluntary efforts to reduce GHG efforts taking place within the electric sector including modeling the CSI and renewable energy market transformation accurately.[25] The Solar Alliance believes parties' concerns need to be addressed

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[22] See, e.g., CalWEA/Large-scale Solar Association Comments at p. 8-12 (natural gas price assumptions are unrealistic, too-low heat rates and electric market prices were used, avoided capacity costs do not consider the longevity of renewables, and transmission costs are not properly allocated and are too high); CEERT comments at p. 15-22 (noting natural gas price forecast assumptions are unrealistic and too low and technology cost assumptions should be based on RETI process); WPTF comments at p. 26-28 (due to flaws in the E3 model, it does not assess the overall costs and rate impacts of a multi-sector cap and trade program, the cost-effectiveness of allowance trading relative to regulatory approaches, and the impacts on independent power producers); IEP comments, Appendix A, at pp. 43-51.

[23] See CalWEA/Large-scale Solar Association Comments at p. 11 (noting that negative costs for renewables used for carbon reductions emerge after correcting the model's erroneous assumptions).

[24] See CalWEA/Large-scale Solar Association Comments at p. 11; IEP comments, Appendix A at pp. 45.

[25] See NRDC/UCS comments at, pp.44-45 ("As PV technology is brought to scale on a global basis, module costs will decline. Balance-of-system costs will also decrease with increased

(footnote continued)

before the model can be used as an assessment tool in discussing the impacts of various allowance allocation proposals under cap and trade.

III. CONCLUSION

For the reasons stated in our opening comments and these reply comments, the Solar Alliance believes new renewable generation supports an output-based allocation approach which directly grants allowances to new renewable generation. This allocation approach meets the requirements of Cal. Health and Safety Code Sec. 38562 by taking account of early voluntary actions to reduce GHG emissions. An output-based allocation approach also allows new renewable generation to fully participate in compliance mechanisms established pursuant to AB 32.

Respectfully submitted this June 16, 2008 at San Francisco, California.

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3326/003/X100534.v1

installations…E3 model's assumption that costs remain the same between 2008 and 2020 is inconsistent with these expectations, and should be revised); see also SMUD comments at p. 38 (noting the size of SMUD's solar PV program under SB 1 is 125 MW while the E3 model only accounts for 9 MW installed).

CERTIFICATE OF SERVICE

I, Lisa Vieland, certify that I have on this 16th day of June 2008 caused a copy of the foregoing

REPLY COMMENTS OF THE SOLAR ALLIANCE ON ALLOWANCE ALLOCATION METHODOLOGIES AND OTHER MATTERS

to be served on all known parties to R.06-04-009 listed on the most recently updated service list available on the California Public Utilities Commission website, via email to those listed with email and via U.S. mail to those without email service. I also caused courtesy copies to be mailed as follows:

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I declare under penalty of perjury that the foregoing is true and correct.

Executed this 16th day of June 2008 at San Francisco, California.

/s/ Lisa Vieland
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3326/003/X100519.v1

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