



**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA**

**FILED**

10-19-09  
04:59 PM

Order Instituting Rulemaking to Continue  
Implementation and Administration of California  
Renewables Portfolio Standard Program

Rulemaking 08-08-009

(Filed August 21, 2008)

**COMMENTS OF THE VOTE SOLAR INITIATIVE ON  
ADMINISTRATIVE LAW JUDGE'S RULING REGARDING  
PRICING APPROACHES AND STRUCTURES FOR A FEED-IN  
TARIFF**

KEYES & FOX, LLP

Kevin T. Fox  
5727 Keith Avenue  
Oakland, CA 94618  
Telephone: (510) 381-3052  
Facsimile: (510) 225-3848  
Email: [kfox@keyesandfox.com](mailto:kfox@keyesandfox.com)

Date: October 19, 2009

Attorneys for The Vote Solar Initiative

**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Continue  
Implementation and Administration of California  
Renewables Portfolio Standard Program

Rulemaking 08-08-009  
(Filed August 21, 2008)

**COMMENTS OF THE VOTE SOLAR INITIATIVE ON  
ADMINISTRATIVE LAW JUDGE’S RULING REGARDING  
PRICING APPROACHES AND STRUCTURES FOR A FEED-IN  
TARIFF**

In accordance with the August 27, 2009 Administrative Law Judge’s Ruling Regarding Pricing Approaches and Structures for a Feed-in Tariff (“Ruling”) in the above captioned proceeding, the Vote Solar Initiative (“Vote Solar”) hereby submits the following comments.

**I. INTRODUCTION**

For the reasons set forth herein, Vote Solar respectfully recommends that the Renewable Auction Mechanism (“RAM”) proposed by Commission Staff be approved and implemented as swiftly as possible. Importantly, Vote Solar would like to stress that it believes Senate Bill 32 (“SB 32”), which was recently passed by the Legislature and signed by the Governor, should have no bearing on the decision to move forward with Staff’s RAM proposal. SB 32 requires the Commission to establish a fixed-price feed-in tariff based on the value of specifically enumerated categories of avoided costs for eligible renewable technologies up to 3 MW in size.

Vote Solar has several suggestions to make with regard to SB 32 implementation. First, we encourage the Commission to consider SB 32 as additional to, not a replacement for, the Staff RAM proposal. The Governor's signing statement for SB 32 included the following:

"The PUC is also currently exploring an expanded FIT for small to medium scale renewable generation using a market-based pricing approach. In addition to implementing the provisions of this bill, I encourage the PUC to continue their work so that we can take advantage of the new renewable electricity capacity that a robust FIT program can provide."

Clearly, the state has a long way to go towards reaching its renewable and climate goals, and both the SB 32 and RAM programs can contribute towards reaching these goals without exceeding technical, fiscal, political or legal limits.

Second, Vote Solar encourages the Commission to implement the proposed market-based feed-in tariff as quickly as possible and then take up implementation of SB 32 in a subsequent proceeding. The rulemaking in regards to the proposed RAM has been underway for over a year, is entering its final phase, and has a sufficiently-developed evidentiary record to result in an active program by the first part of 2010. In contrast, SB 32 requires an investigation into a list of specifically enumerated avoided-cost factors, a process that we fear could delay SB 32 program implementation, perhaps as much as 18 months. In short, implementing the RAM first would not interfere with SB 32's development schedule, but the same cannot be said of the reverse. As we will elaborate later in these comments, there is reason for urgency. One of the central rationales for the Commission's development of the RAM is to accelerate compliance with the state's climate and renewable goals; further delay would be counter-productive to the program's premise and utility.

Third, the specific pricing factors required by SB 32 may or may not result in a price sufficient to deploy projects. The RAM process, in contrast, takes a different approach. Instead of guaranteeing a price, it guarantees a market. As developers submit firm bids at levels sufficient to result in steel in the ground, and utilities are required to accept qualified bids,

successful project development is much more certain. Again, a primary motivation behind the Commission's investigation in this proceeding is to accelerate compliance with the state's climate and renewable goals. Thus, it makes sense to not let a program with a speculative outcome supersede one that guarantees success.

Fourth, while SB 32 requires a fixed-price feed-in tariff for systems up to 3 MW, we recommend that the Commission continue to allow systems sized between 1-3 MW to be able to participate in the proposed market-based program. Systems under 3 MW have reduced permitting, financing, and siting hurdles, and as such, might be considered priority contributors to goals 3, 4, 7, 12, and 13 of Attachment C of the ALJ Ruling. While we do not think there is a conflict in allowing the two programs to simultaneously apply to the same 1-3 MW market segment, in the event that the Commission feels differently, at the very least we urge the Commission to allow systems under 3 MW to participate in the RAM until the SB 32 feed-in tariff comes into effect.

## **II. DISCUSSION**

### **A. PRICING APPROACH**

Vote Solar is supportive of the RAM methodology proposed by the Energy Division for several reasons. First, we believe the Commission has clear authority to establish a RAM for procuring resources. On May 28, 2009, parties to this proceeding were asked to file legal briefs addressing the Commission's jurisdiction in regards to establishing pricing under an expanded feed-in tariff. We believe the market-based RAM proposed by the Energy Division satisfactorily responds to the questions raised by several of the parties regarding the Commission's jurisdiction. As discussed by the Joint Solar Parties in their June 18, 2009 Brief on Jurisdiction in the Setting of Prices for a Feed-in Tarff, federal law has no preemptive effect with respect to

setting resource specific procurement goals for regulated utilities.<sup>1</sup> Thus, the Commission acts squarely within its jurisdiction when it establishes procurement targets for jurisdictional utilities, including procurement from specified generation resources such as is contemplated under the RAM.<sup>2</sup> Over 26 states currently have RPS statutes that impose such requirements,<sup>3</sup> some of which include specific procurement targets for solar and distributed generation.<sup>4</sup> California state law also provides the Commission wide latitude to establish resource procurement goals and require utilities to purchase renewable generation.<sup>5</sup> Given the urgency of meeting our climate and renewable energy goals, our preference is for a program that avoids second-guessing of the Commission's jurisdiction.

Second, we believe that this approach will guarantee a successful market, and do so in a way that best satisfies the interests of the widest group of stakeholders. Because developers bid their own prices and utilities are required to award contracts to qualifying projects, the RAM will result in steel in the ground. At the same time, the RAM ensures ratepayers are protected by selecting contracts through competitive solicitations.

Third, we believe solar resources will play a significant role in the proposed program, and a market-based mechanism is the most rational – and helpful – response to the rapidly-changing

---

<sup>1</sup> *Midwest Power Systems, Inc.*, 78 FERC ¶ 61,067, 1997 FERC LEXIS 123 at \*16-17 (1997).

<sup>2</sup> Docket Nos. A.08-03-015 (SCE), A.08-07-017 (SDG&E) and A.09-02-019 (PG&E).

<sup>3</sup> See DSIRE database of state renewable energy incentives, current as of June 2009, and available at [http://www.dsireusa.org/documents/SummaryMaps/RPS\\_map.ppt](http://www.dsireusa.org/documents/SummaryMaps/RPS_map.ppt)

<sup>4</sup> New Jersey requires a minimum percentage of solar generation in its RPS. N.J.A.C. § 14:8-2.3. Arizona's RPS has a requirement that 30% of the portfolio target be derived from distributed generation sources by 2012, AAC R-14-2-1805. Colorado also has a carve-out. 4 Code of Colorado Regulations 723-3-3654(d).

<sup>5</sup> CA Public Utilities Code §§ 399.14 - 399.15.

solar market. Prices for photovoltaic modules and for silicon are rapidly decreasing, and with the right market signals, will continue to do so. A competitive market is the best way of capturing the price reductions and passing the benefits on to ratepayers. A competitive market also sends the right market signal to encourage rationalization of costs throughout the supply chain, thereby continuing and accelerating further price reductions.

## **B. ENERGY DIVISION PRICING PROPOSAL**

Vote Solar's responses to the questions posed in Attachment A are as follows:

- 1. Do you agree with the program's goals and guiding principles (see Attachment C for a list of the Guiding Principles)? If you do not agree, please explain.**

Yes, we agree with the program's goals and guiding principles as listed in Attachment C.

To those, we would add: "To the extent possible, assist developing industries mature by bringing down costs and enhancing expertise."

- 2. Please comment on the strengths and weaknesses of Staff's proposed market-based pricing mechanism, including auction design details, using the guiding principles.**

Some of the strengths are as follows:

Legal/Jurisdictional Issues. As discussed above, we believe the RAM approach fits squarely within the Commission's jurisdiction.

Guaranteed to Put Steel in the Ground. One of the benefits of this approach is that it guarantees a market, as project developers bid in firm prices (and are on the hook for development security) and utilities must take winning responses.<sup>6</sup>

---

<sup>6</sup> See goals 2, 7, 10, 11.

Makes all Steps in the Value Chain a Partner in Accelerating Cost Reduction. While the RAM is open to all eligible renewable energy technologies, we believe that solar has the potential to play a large role, and a discussion of recent developments in the solar industry is relevant. From 2004 to the latter part of 2008, the German feed-in tariff program effectively set the global clearing price of photovoltaic modules. During that approximately four year period, prices for PV modules and silicon (the main raw material feedstock of the most prevalent photovoltaic technologies) largely trended up, as each link in the manufacturing chain engineered their prices to maximize their margin under the fixed price. In the last quarter of 2008, everything changed. Global manufacturing capacity finally exceeded demand, and with competition re-introduced to the market, the average selling price (“ASP”) of photovoltaic modules has since decreased 40-50% in the past nine months alone. According to a recent Reuters article:

“After peaking at \$4.20 a watt in 2008, prices for solar panels have dived as much as 50 percent to about \$2.40 a watt for European and U.S. companies that make silicon-based panels and \$2.00 a watt for Chinese suppliers...Prices on lower-cost thin film panels are between \$1.00 and \$2.00 a watt... Barclays Capital analyst Vishal Shah expects prices to fall to \$1.40 a watt by the end of 2010 and \$1.00 per watt in 2011.”<sup>7</sup>

In 2008, Photon Consulting performed an industry-wide in-depth analysis of the actual cost of manufacturing a photovoltaic module. They examined each step in the process, from sand to module, and found that the sum of the average costs for each step added up to \$1.89/W, and the sum of the best-practices added up to \$1.38/W.<sup>8</sup> To be clear, no one company actually

---

<sup>7</sup> Inslee, Laura. *Solar panel prices to slide into next year*. Reuters, August 21, 2009. <http://www.reuters.com/article/GCA-GreenBusiness/idUSTRE57K46Y20090821>

<sup>8</sup> Song, Joonki, Ryan Boas, Chris Bolman, Mark Farber, Hilary Flynn, Martin Myers, Michael Rogol. Photon Consulting. *The True Cost of Solar Power: Race to \$1/W*.

had that exact cost structure. The point, rather, is that module prices – which peaked at around \$4.20 in 2008 – have been disassociated from cost of production, and cost structures are now in a dynamic period of normalization.

Similar dynamics are happening in the silicon market. Solar-grade silicon used to trade for around \$25/kilogram in 2003 and then rose dramatically. Photon Consulting reports that in 2008, the average cost of producing solar-grade silicon was under \$40/kg, but the average cost of silicon to solar companies in the same year was over \$130/kg.<sup>9</sup> The price of silicon on the spot market decreased from a high of \$400/kg to around \$55/kg to \$60/kg now, and even more importantly, many of the high-priced long-term silicon contracts are being re-negotiated. Not only are prices coming down, but actual cost structures are too.

We suggest that the appropriate action of policymakers in this dynamic time is to accelerate and continue this trend. A guaranteed but competitive market encourages all steps of the value chain to work together to deliver the lowest cost to ratepayers – or lose out on participating. This is the appropriate market signal for this moment in time. Industry analysts and solar manufacturers both agree that solar has the technical capacity to continue to reduce costs quite dramatically, vastly expanding market opportunities around the world. Whether these reductions in costs are reflected in the prices consumers pay is a function of market design. We believe that the RAM proposal can play a healthy role in this regard.

---

Executive Summary, p. 2.  
[http://www.photonconsulting.com/files/true\\_cost\\_exec\\_sum.pdf](http://www.photonconsulting.com/files/true_cost_exec_sum.pdf)

<sup>9</sup> Ibid, Executive Summary, pg 3.

We note that material costs are only a portion of the total installed costs. According to *Tracking the Sun: The Installed Costs of Photovoltaics in the U.S. from 1998-2007*, a report published by researchers at the Lawrence Berkeley National Lab, total installed costs are lowest in the largest and the most mature solar markets.<sup>10</sup> Germany, which is the world's largest solar market, has lower installed costs than the US. Japan, which began its aggressive solar rebate program for residential installations in 1994, has the lowest residential installation costs in the world (a chart from *Tracking the Sun* to this effect is attached to the filing as Attachment B). *Tracking the Sun* also reported that systems above 750 kW in the United States have approximately 25% lower installed costs than smaller systems. By targeting a market segment where economies of scale can be harnessed to reduce costs, and by guaranteeing market development over at least four years, Staff's proposed 1 GW pilot program is well targeted to deliver low cost installations in the state.

Prevention of Daisy-chaining. Goal number 9 of the Staff proposal proposes that the new FiT: "Complement, but not impede or duplicate, existing programs, especially the California Solar Initiative and the existing Renewable Portfolio Standard..." Vote Solar believes the RAM approach is particularly well suited to achieving this goal. For example, the competitive auction process will help ensure that a developer of a hypothetical 100 MW solar system will stay in the broader RPS solicitation and not be tempted to chop a 100 MW project into 10 co-located projects, each 10 MW in size, in order to gain access to an additional market.

Administrative Burden. The RAM proposal is relatively easy to administer. We recognize that Energy Division Staff has resource limitations. Developing pricing under the

---

<sup>10</sup> Wisner, Ryan, et al. *Tracking the Sun*. Lawrence Berkeley National Lab, February, 2009. <http://eetd.lbl.gov/ea/EMS/reports/lbnl-1516e.pdf>

RAM proposal imposes little administrative burden on Staff, as project developers themselves do the work to determine the necessary level of revenue and bid firm prices.

Quick Implementation. Because the RAM proposal does not require lengthy price-setting or cost-determination investigations by the Commission and is easy to administer, it can be implemented quickly, and there is reason for urgency. First, the federal government has made available, as part of its stimulus efforts, several helpful programs that have a small window of availability. Section 1603 of the American Recovery and Reinvestment Act provides cash grants for qualifying renewable energy projects in lieu of the federal investment tax credit. The cash grants would be extremely helpful for the market segment targeted by the feed-in tariff program, and are only available to projects that begin construction by December 31, 2010. Secondly, the clock is ticking on our climate change and renewable goals and legal mandates. Timely action is important and the RAM can deliver that.

**3. If you have specific modifications to the Staff proposal, please provide a rationale for the modifications pursuant to the guiding principles.**

Amount of Renewable Product Determination. The Staff proposal says that auctions will procure pre-determined amounts of renewable products (baseload, peaking 'as-available,' and non-peaking 'as-available') based on the need of each utility, as set through the annual RPS procurement plans and the Long Term Planning Process ("LTPP").

Vote Solar would like to suggest a modification. We believe that the FiT program should not be viewed as a mini-RPS, but rather as an insurance program for RPS compliance. While we are confident that solar, a peaking 'as-available' resource, can meet the criteria of the RAM (1-10 MW, on-line in 18 months, etc.) and is easily scalable to deliver at least 1000 MW over 4 years to California utilities, we are less knowledgeable of the practical ability for baseload and non-

peaking 'as-available' resources to do the same. Thus, we can envision a potential scenario where a utility's preference might weight RAM solicitations towards a product that might not be available in sufficient quantities, and the program would not be successful. To remedy this hypothetical problem, we suggest the following: if, in any solicitation, a utility receives insufficient bids in any category of renewable product, the utility shall make up the difference by increasing the revenue requirement for the remaining renewable product categories in the same solicitation.

Program Review. We believe that the program should be reviewed periodically to determine the need for adjustments and improvements. We suggest that the Commission formalize an annual program review to judge progress in accordance with the goals enumerated in Attachment C, and make adjustments as necessary.

Transparency and Public Disclosure. To the extent possible, we urge the Commission to make publically available as much information on the pricing of bids as possible. The Energy Division proposal suggests that Staff will release auction bid information on an aggregated basis. Our specific suggestion is that data regarding the high, low, median, and average bids be released for each product category.

- 4. If RAM is not your preferred pricing mechanism, please provide an alternative proposal that addresses the guiding principles and how your proposal results in the procurement of viable and low-cost projects within a capped program.**

For the identified target market, we believe that the RAM is the appropriate mechanism at this moment in time.

- 5. Staff has proposed a soft 1000 MW interim target over the next four years, which needs to be converted into a revenue requirement. Please propose a**

**methodology to calculate the revenue requirement based on the 1000 MW interim target. Parties should address, at a minimum:**

- **Definition of renewable products (e.g. peaking “as-available”, non-peaking “as available,” and baseload).**
  - **Preferred resource mix of the renewable DG portfolio. The preferred resource mix should be broken down by megawatts of specific renewable products and then by commercialized technologies that conform with the renewable product definitions identified above.**
  - **Cost and capacity factor for different renewable technologies that were identified above in the preferred resource mix**
- In addition, please provide documentation and a rationale for all suggested inputs and assumptions. Parties should also submit a revenue requirement calculation (Excel format) that utilizes the suggested methodology, inputs, and assumptions.**

We believe that these details are best worked out at a Staff-level workshop. To calculate the revenue requirement, we suggest that Staff identify a proxy technology for each renewable product category. The proxy technology should be selected by using the following criteria: it is commercialized, it is least-cost in the category, and it is scalable (i.e. a resource with potential to meet the demands of the program). For the initial solicitation, the Commission should use publically available resources such as those developed by Black and Veatch for the Renewable Energy Transmission Initiative,<sup>11</sup> or by KEMA for the California Energy Commission’s investigation into the cost of generation.<sup>12</sup> Once the RAM program is up and running, the proxy cost data may be replaced by actual cost data.

Staff has proposed that the mix of renewable resources be set by RPS procurement plans and the LTPP. Until the details for public participation are worked out, we propose that the

---

<sup>11</sup> RETI Phase 1 B Final Report, January 2009.  
<http://www.energy.ca.gov/2008publications/RETI-1000-2008-003/RETI-1000-2008-003-F.PDF>

<sup>12</sup> Renewable Energy Cost of Generation Update, August 2009.  
<http://www.energy.ca.gov/2009publications/CEC-500-2009-084/CEC-500-2009-084.PDF>

initial solicitation allocate at least one half of the revenue requirement to peaking ‘as-available’ as this category best matches load and is most needed. The rest should be allocated to non-peaking ‘as-available’ and baseload. As discussed above, if a utility receives insufficient bids in any category of renewable product, we suggest that the utility be required to make up the difference by increasing the purchased amount of the remaining renewable product categories in the same solicitation.

## **C. PRICING STRUCTURE**

### **Attachment B Questions:**

#### **1. Who are the stakeholders with respect to the FIT.**

- **For example: buyers (ratepayers, utilities, load serving entities), sellers (project developers, venture capitalists, equity holders, debt holders), society.**

Vote Solar believes this is a reasonably conclusive list.

#### **2. What are the interests of those stakeholders relative to the FIT.**

- **For example: least cost/best fit, just and reasonable rates for safe and reliable electricity that is available when demanded by the customer, reasonable project performance, performance that aligns with demand now and over time, assurance of project cost recovery, profit maximization with a high degree of risk (e.g., venture capitalist), profit maximization with medium degree of risk (e.g., equity holder), revenue security to ensure interest payments (e.g., debt holder), never overpaying relative to the current market (e.g., ratepayer), never receiving revenues less than justified by current market prices (e.g., project), conservation, efficiency, equity, transparency, simplicity, equitable allocation of risk between stakeholders, certainty/stability.**
- **In your response, please align interests with stakeholders.**

Each of the enumerated stakeholders may have a large list of interests, and we do not believe each stakeholder category to be homogeneous in its interests. We believe the goals of the program, as enumerated in Attachment C, provide a good guide to balancing the interests of stakeholders.

**3. What price components may be used in various pricing approaches and structures, and what are the advantages and disadvantages relative to each price component.**

• For example: components may be energy rate (cents/kWh), demand rate (dollars/kW/year), fixed payment (dollars per month, dollars for installed capacity, dollars for resource adequacy, dollars per customer), adjustments (e.g., time of delivery factors; energy rate, demand rate and/or fixed payment tied to an index to periodically adjust to market).

• For example: an advantage of energy rates may be that they pay for performance; an advantage of adjustment mechanisms may be that they track some or all payments with changes in the project's variable costs (to the extent those costs move with the market); an advantage of fixed payments (dollars per customer per month) may be that they track a project's fixed costs; a disadvantage of fixed payments may be that they do not align with performance.

In keeping with prevailing utility procurement practices, we believe pricing should be based entirely on an energy rate (cents/kWh) that is tied to the output of a facility. We do not believe it is necessary to re-invent common renewable energy contracting practice. Per-kWh energy payments are the simplest and most effective way of incentivizing performance. Similarly, time-of-delivery factors are a practical way of rewarding performance that is of most value to ratepayers. We do not believe additional changes are warranted or necessary, and could prove unproductive.

**4. What is the best combination of price components to meet stakeholder interests.**

• Please identify the price components that apply, or should apply, to FIT prices, and the best combination of components.

We believe that the FiT pricing should be for delivered energy, as adjusted by TOD factors.

**5. If there are competing stakeholder interests, what is the best combination of price components to reasonably balance competing interests.**

There are always competing stakeholder interests. We believe that the FiT pricing should be for delivered energy only, as adjusted by TOD factors.

- 6. Discuss whether or not the Commission should state a preference for certain price components and price structures to be used in a Commission-adopted FIT. If so, identify and discuss which components and structures should be preferred by the Commission.**

We believe that in order to have a successful program, the Commission should require a specific structure. We assume that having a preference is a precursor.

- 7. Discuss whether or not the Commission should require certain price components and price structures to be used in a Commission-adopted FIT. If so, identify and discuss which components should be required by the Commission.**

We believe that the FiT pricing should be for delivered energy only, as adjusted by TOD factors.

- 8. State anything else that is material and relevant to the issue of pricing structure (rate design) for a Commission-adopted FIT. In addition, please comment on the following specific examples for a twenty year contract. Each example applies to any FIT pricing approach (e.g., price based on seller's cost, buyer's avoided cost, auction, bi-lateral negotiation, other).**
- 9. Example A: If the sole or primary interest is to ensure cost recovery for the project, the optimal payment may be a lump sum at the commercial operation date. Please comment.**

Vote Solar does not support the approach outlined in Example A. A lump sum payment at the commercial operation date may be desirable from the standpoint of a seller's cost recovery, but it does not comport with well-established procurement practices for the purchaser and it provides no incentive for a seller to maintain facilities and maximize production. In contrast, paying for the project on a kWh basis for delivered energy over the term of the contract will

incentivize the seller to operate and maintain a facility in a manner that maximizes ratepayer benefits.

- 10. Example B: If the project has both fixed and variable costs and the sole or primary interest is to ensure cost recovery for the project, the optimal payment may be a lump sum at the commercial operation for the fixed costs and payment of variable costs as incurred over time. Please comment.**

Vote Solar does not support the approach outlined in Example B. For most eligible renewable technologies that might realistically participate in this program, the majority of costs are up-front capital costs for equipment, installation, and site-control. Variable costs are mainly operation and maintenance, and as such, should be predictable, and may easily be incorporated into an energy rate. Fuel costs for most renewable technologies will be zero (e.g. wind, solar, geothermal, hydro), or at least well-defined and not subject to market whims (i.e. landfill gas). In fact, a central value of renewable resources is that they can provide a hedge against the volatility of fossil fuel alternatives (an exception might be biomass where there are potentially other commercial uses for the fuel, and the costs might fluctuate based on external market forces). Accordingly, Vote Solar does not believe it is necessary or desirable to separate payment for fixed and variable costs with fixed costs paid up front and variable costs paid as incurred over time. Rather, Vote Solar believes ratepayers, buyers, and sellers are best served by an approach that rewards performance through an energy payment for delivered energy, as modified by time-of-delivery factors.

- 11. Example C: Assume that the primary interests are revenue certainty for the seller, conservation (i.e., optimal use of resources), efficiency and equity. Assume that the selected payment structure is a combination of fixed (e.g., dollars per month) along with demand and energy prices; the demand price (dollars/kW per month) is at a fixed level (dollar amount) in the contract for the life of the contract and paid upon performance (delivery); the initial energy price (cents/kWh) is fixed in the contract, payment varies by time of delivery (TOD) based on TOD factors, is paid based upon performance**

**(delivery), and the energy rate is adjusted to the market once every 5 years. Under this price structure, perhaps the fixed payment provides revenue security for the project; the demand and energy rates provide an incentive for performance; and the periodic adjustment to the market provides assurance to both the project and ratepayers that prices never vary too drastically from current market realities while the seller's variable costs (to the extent they vary with the market) are recovered without over- or under-payment, thereby promoting efficiency and equity. Is this an optimal price structure? Please comment.**

Vote Solar does not support the approach outlined in Example C. In fact, we are unsure what exactly the initial fixed payment – which seems to be separate from demand or energy payments – is supposed to compensate the seller for providing and what the amount would be based on. If the fixed payment is to cover upfront capital costs (which are the near-totality of costs for most renewable energy projects), then there would be little or no additional costs to recover through energy or demand payments. In addition, we do not believe that it is necessary or desirable to adjust the energy rate every 5 years. For renewable energy projects, energy payments are essentially viewed by a seller as amortized upfront capital cost recovery, and since the upfront capital costs are fixed and do not vary after project completion, uncertainty as to future energy payments would likely result in an unfinanceable contract. Accordingly, we do not believe that Example C provides a viable price structure. As previously stated, we believe that purchasing renewable energy through energy payments is the most practical and equitable way of incentivizing performance and delivering value to ratepayers.

- 12. Example D: Assume the price structure is an energy payment only, and the initial average overall price is \$0.25/kWh to be paid by TOD factors set in the standard contract. To balance competing interests (e.g., revenue security, conservation, efficiency, equity), assume the payment is 80% fixed and 20% variable. That is, \$0.20/kWh is paid for each delivered kWh over the life of the contract. The remainder, \$0.05/kWh, is paid the first 5 years, and is then subject to adjustment to reflect the current market (e.g., formula in the contract that based on an index to model seller's variable costs), and is adjusted again at years 10 and 15. The TOD factors are updated once at year 10 to align with the current TOD profile of the buyer. This price structure**

**might satisfy several interests including (a) simplicity (i.e., based only on energy price), (b) providing some certainty to the seller of the payment type (energy only) and amount (with 80% fixed and 20% subject to adjustment), (c) payment upon performance (to provide the incentive to produce), (d) payment based on TOD (to provide the incentive to provide the product when needed), (e) an update to a portion of the price (to align with the market), (f) an update to TOD factors periodically (to align TOD factors with current market needs in order to give the seller an incentive to shift production, if possible, to the times the electricity is needed), and (g) revenue certainty for the majority (80%) of the payment (perhaps a benefit to the project) while aligning a portion (20%) of the total payment with the current “market” (a potential benefit to the project if the project has variable costs that vary with market conditions, and a potential benefit to ratepayers so the total payment does not get too far out of alignment with market realities). Please comment.**

Vote Solar does not support the approach outlined in Example D. As we have previously commented, for the vast majority of eligible renewable energy technologies, we do not believe variable costs are a large enough component of total costs to justify the introduction of a variable cost payment element. In addition, energy payments are usually viewed by the seller as amortized upfront capital cost recovery, and since the upfront capital costs are fixed and do not vary after project completion, uncertainty as to future energy payments would likely result in an unfinanceable contract. This concern also applies to the proposal to periodically adjust TOD factors in Example D. For the majority of technologies, adding this uncertainty would make the contracts significantly more difficult to finance.

- 13. Other examples. Please provide other reasonable examples and explain whether or not the Commission should consider or adopt elements of those examples.**

We have no additional comments at this time.

- 14. Based on a consideration of the range of stakeholder interests, various candidate price components and examples, please state the specific price structure (rate design), if any, you recommend be adopted by the Commission.**

For all of the reasons discussed above, Vote Solar believes the FiT pricing should be for delivered energy only, as adjusted by TOD factors.

**D. GOALS**

Vote Solar has no additional comments at this time.

**E. OFFICIAL NOTICE**

Vote Solar has no additional comments at this time.

**F. ASSESSMENT**

To the extent possible, Vote Solar participated in the meetings and discussions organized by respondents to coordinate positions. We found that parties had different opinions about the best way forward and determined that our position was best expressed by filing comments on our own behalf.

**F. CONCLUSION**

Vote Solar appreciates the opportunity to provide these comments. Vote Solar believes that the Staff RAM proposal is a strong complement to the state's other renewable energy programs and recommends that it be approved and implemented as soon as possible.

Respectfully submitted this October 19, 2009 at San Francisco, California.

KEYES & FOX LLP

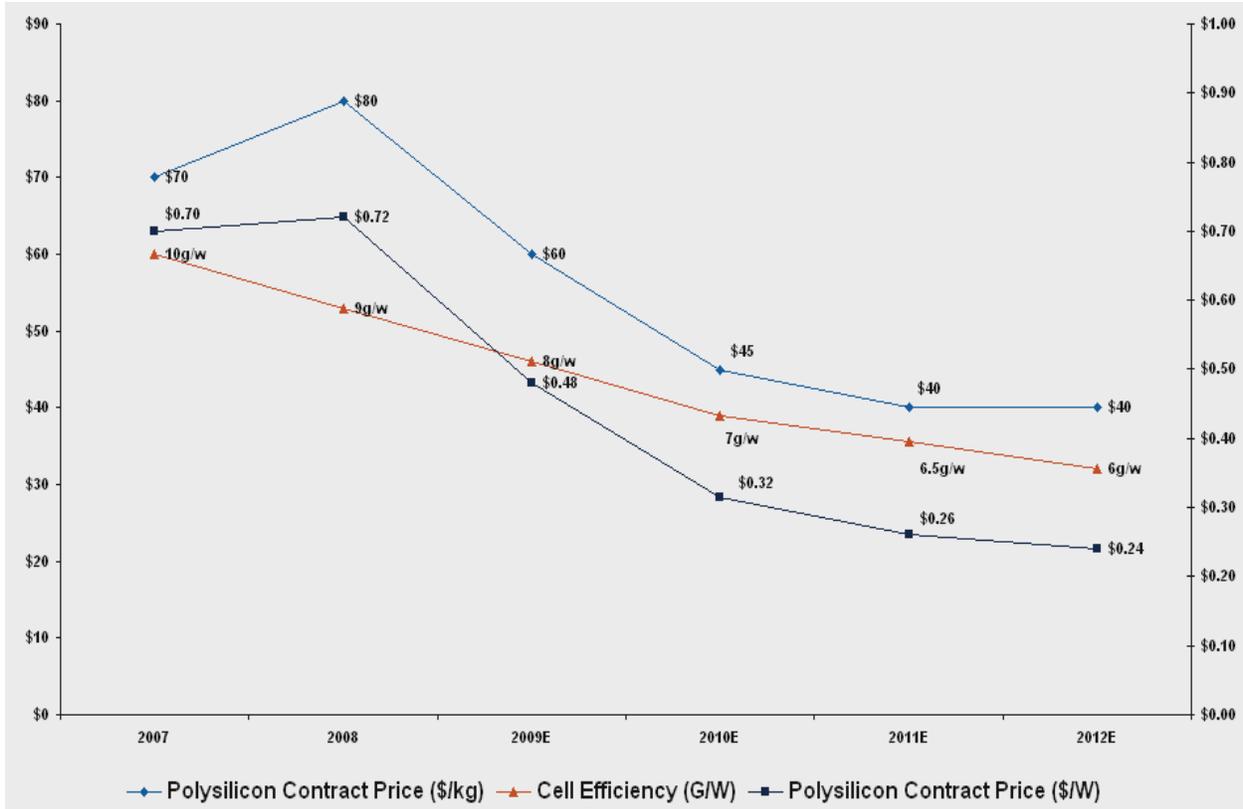
Kevin T. Fox  
5727 Keith Avenue  
Oakland, CA 94618  
Telephone: (510) 381-3052  
Email: kfox@keyesandfox.com

/s/ Kevin T. Fox

Kevin T. Fox, Attorney for the Vote Solar Initiative

## ATTACHMENT A

Barclays Capital Research: Polysilicon Contract Price History and Projections:<sup>13</sup>



<sup>13</sup> Barclays Capital Research, Vishal Shah

## ATTACHMENT B

Cost of Installations Decreases in Mature Markets<sup>14</sup>

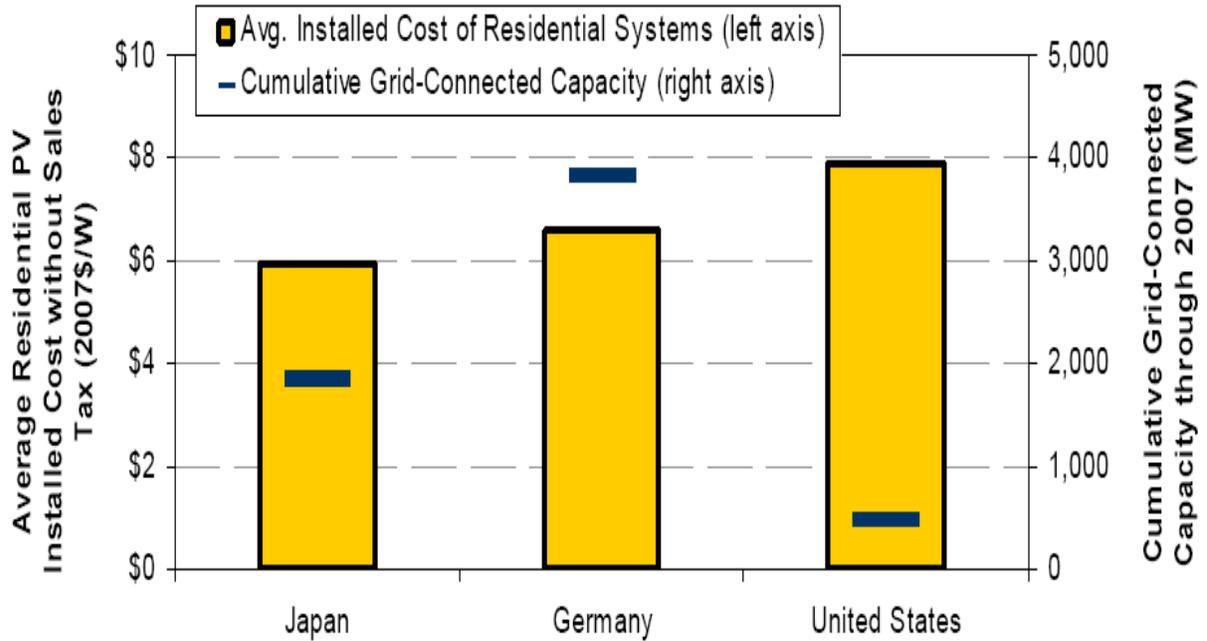


Figure 11. Comparison of Average Installed Costs in Japan, Germany, and the U.S. (Residential Systems Completed in 2007)<sup>19</sup>

<sup>14</sup> Wisner, Ryan, et al. *Tracking the Sun*. Lawrence Berkeley National Lab, February, 2009. pg 14. <http://eetd.lbl.gov/ea/EMS/reports/lbnl-1516e.pdf>

## VERIFICATION

I am the attorney for the Vote Solar Initiative (Vote Solar); Vote Solar is absent from the County of Alameda, California, where I have my office, and I make this verification for Vote Solar for that reason; the statements in the foregoing document are true of my own knowledge, except as to matters which are therein stated on information or belief, and as to those matters I believe them to be true. I declare under penalty of perjury that the foregoing is true and correct.

Executed on October 19, 2009 at Silver Spring, Maryland.

/s/ Kevin T. Fox

Kevin T. Fox, Attorney for the Vote Solar Initiative

## CERTIFICATE OF SERVICE

I certify that I have this day served a copy of these **COMMENTS OF THE VOTE SOLAR INITIATIVE ON ADMINISTRATIVE LAW JUDGE'S RULING REGARDING PRICING APPROACHES AND STRUCTURES FOR A FEED-IN TARIFF** upon all known parties of record in this proceeding by delivering a copy via electronic mail to all parties who have provided an electronic mail address. First class mail will be used if electronic service cannot be effectuated. I have also sent a hard copy by U.S First Class mail postage pre-paid to Administrative Law Judge Burton Mattson and Andrew Schwartz, Advisor to Commissioner Michael Peevey.

Executed on October 19, 2009, at Silver Spring, Maryland.

/s/ Kevin T. Fox

Kevin T. Fox

KEYES & FOX, LLP

5727 Keith Avenue

Oakland, CA 94618

Phone: (510) 381-3052

E-mail: [kfox@keyesandfox.com](mailto:kfox@keyesandfox.com)

## Parties

---

DANIEL V. GULINO  
RIDGEWOOD POWER MANAGEMENT, LLC  
947 LINWOOD AVENUE  
RIDGEWOOD, NJ 07450  
FOR: RIDGEWOOD POWER MANAGEMENT, LLC  
ASSN.

KEITH MCCREA  
ATTORNEY AT LAW  
SUTHERLAND, ASBILL & BRENNAN  
1275 PENNSYLVANIA AVENUE, NW  
WASHINGTON, DC 20004-2415  
FOR: CA MANUFACTURERS & TECHNOLOGY

RHONE RESCH  
SOLAR ENERGY INDUSTRIES ASSOCIATION  
805 FIFTEENTH STREET, N.W., SUITE 510  
WASHINGTON, DC 20005

GARSON KNAPP  
FPL ENERGY, LLC  
770 UNIVERSE BLVD.  
JUNO BEACH, FL 33408

KEVIN BOUDREAUX  
MANAGER-RETAIL OPERATIONS  
CALPINE POWERAMERICA CA, LLC  
200  
717 TEXAS AVENUE, SUITE 1000  
HOUSTON, TX 77002  
FOR: CALPINE

DAVID SAUL  
PACIFIC SOLAR & POWER CORPORATION  
2850 W. HORIZON RIDGE PKWY, SUITE  
HENDERSON, NV 89052  
FOR: SOLEL, INC.

RASHA PRINCE  
REGULATORY MANAGER  
SOUTHERN CALIFORNIA GAS COMPANY  
DISTRICT  
555 WEST 5TH STREET, GT14D6  
LOS ANGELES, CA 90013  
FOR: SAN DIEGO GAS & ELECTRIC

CAMILLE A. GOULET  
GENERAL COUNSEL  
LOS ANGELES COMMUNITY COLLEGE  
770 WILSHIRE BOULEVARD  
LOS ANGELES, CA 90017  
FOR: LOS ANGELES COMMUNITY COLLEGE  
DISTRICT

KELLY CAUVEL  
BUILD-LACCD  
915 WILSHIRE BOULEVARD  
DISTRICT  
LOS ANGELES, CA 90017  
FOR: LOS ANGELES COMMUNITY COLLEGE  
DISTRICT

LARRY EISENBERG  
EXEC. DIR.-FACILITIES PLANNING  
LOS ANGELES COMMUNITY COLLEGE  
770 WILSHIRE BOULEVARD  
LOS ANGELES, CA 90017  
FOR: LOS ANGELES COMMUNITY COLLEGE  
DISTRICT

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

NORMAN A. PEDERSEN  
HANNA AND MORTON LLP  
444 S FLOWER ST., SUITE 1500  
LOS ANGELES, CA 90071-2916  
FOR: SOUTHERN CALIFORNIA GENERATION  
COALITION

MICHAEL MAZUR  
3 PHASES RENEWABLES, LLC  
2100 SEPULVEDA BLVD, SUITE 37  
MANHATTAN BEACH, CA 90266  
FOR: 3 PHASES RENEWABLES

3 PHASES RENEWABLES LLC  
2100 SEPULVEDA BLVD, SUITE 37  
MANHATTAN BEACH, CA 90266

SUSAN MUNVES  
ENERGY AND GREEN BLDG. PROG. ADMIN.  
CITY OF SANTA MONICA  
1212 5TH STREET, FIRST FLOOR  
SANTA MONICA, CA 90401

ELIZABETH WRIGHT  
OCCIDENTAL POWER SERVICES, INC.  
111 WEST OCEAN BOULEVARD  
LONG BEACH, CA 90802

GREGORY S. G. KLATT  
DOUGLASS & LIDDELL  
411 E. HUNTINGTON DRIVE, NO 107-356  
ARCADIA, CA 91006-8102  
FOR: ALLIANCE FOR RETAIL ENERGY MARKETS

DANIEL W. DOUGLASS  
ATTORNEY AT LAW  
DOUGLASS & LIDDELL  
21700 OXNARD STREET, SUITE 1030  
WOODLAND HILLS, CA 91367  
FOR: ALLIANCE FOR RETAIL ENERGY  
MARKETS/ DIRECT ACCESS/WESTERN

POWER

TRADING FORUM/DIRECT ACCESS

CUSTOMER

COALITION

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

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

MICHAEL D. MONTOYA  
ATTORNEY AT LAW  
SOUTHERN CALIFORNIA EDISON COMPANY  
2244 WALNUT GROVE AVENUE, PO BOX 800  
ROSEMEAD, CA 91770  
FOR: SOUTHERN CALIFORNIA EDISON COMPANY

WILLIAM V. WALSH  
ATTORNEY AT LAW  
SOUTHERN CALIFORNIA EDISON COMPANY  
2244 WALNUT GROVE AVE.  
ROSEMEAD, CA 91770  
FOR: SOUTHERN CALIFORNIA EDISON

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

SOCAL WATER/BEAR VALLEY ELECTRIC  
630 EAST FOOTHILL BLVD.  
SAN DIMAS, CA 91773

CHERYL PONDS  
OFFICE OF THE CITY ATTORNEY  
276 FOURTH AVENUE  
CHULA VISTA, CA 91910  
FOR: THE CITY OF CHULA VISTA

MICHAEL MEACHAM  
ENVIRONMENTAL RESOURCE MANAGER  
CITY OF CHULA VISTA  
276 FOURTH AVENUE  
CHULA VISTA, CA 91910



MARY C. HOFFMAN  
SOLUTIONS FOR UTILITIES, INC.  
1192 SUNSET DRIVE  
VISTA, CA 92081  
FOR: SOLUTIONS FOR UTILITIES, INC.

AIMEE M. SMITH  
ATTORNEY AT LAW  
SEMPRA ENERGY  
101 ASH STREET, HQ12  
SAN DIEGO, CA 92101  
FOR: SAN DIEGO GAS AND ELECTRIC CO.

FREDERICK M. ORTLIEB  
OFFICE OF CITY ATTORNEY  
CITY OF SAN DIEGO  
1200 THIRD AVENUE, SUITE 1200  
SAN DIEGO, CA 92101  
FOR: CITY OF SAN DIEGO

KIM F. HASSAN  
ATTORNEY AT LAW  
SAN DIEGO GAS & ELECTRIC COMPANY  
101 ASH STREET, HQ-12  
SAN DIEGO, CA 92101  
FOR: SAN DIEGO GAS & ELECTRIC

THEODORE E. ROBERTS  
SENIOR REGULATORY COUNSEL  
SEMPRA GENERATION / SEMPRA BROADBAND  
101 ASH STREET, HQ 12B  
SAN DIEGO, CA 92101-3017  
FOR: SEMPRA ENERGY SOLUTIONS

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

CARRIE DOWNEY  
LAW OFFICES OF CARRIE ANNE DOWNEY  
1313 YNEZ PLACE  
CORONADO, CA 92118  
FOR: IMPERIAL IRRIGATION DISTRICT

MARCIE MILNER  
4445 EASTGATE MALL, SUITE 100  
SAN DIEGO, CA 92121

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

THOMAS R. DARTON  
PILOT POWER SERVICES, INC.  
8910 UNIVERSITY CENTER LANE, SUITE  
SAN DIEGO, CA 92122  
FOR: PILOT POWER GROUP, INC.

JOHN W. LESLIE  
ATTORNEY AT LAW  
LUCE, FORWARD, HAMILTON & SCRIPPS, LLP  
11988 EL CAMINO REAL, SUITE 200  
SAN DIEGO, CA 92130-2592  
FOR: SHELL ENERGY NORTH AMERICA (US),  
L.P.

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

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

WILL PLAXICO  
HELIOS ENERGY, LLC  
31897 DEL OBISPO ST. SUITE 270  
SAN JUAN CAPISTRANO, CA 92675-3243

KERRY EDEN  
ASST. GENERAL MGR.  
CONSULTANTS,  
CITY OF CORONA DEPT. OF WATER & POWER  
730 CORPORATION YARD WAY  
CORONA, CA 92880

PHILLIP REESE  
C/O REESE-CHAMBERS SYSTEMS  
  
PO BOX 8  
3379 SOMIS ROAD  
SOMIS, CA 93066  
FOR: THE CALIFORNIA BIOMASS ENERGY  
ALLIANCE

TAM HUNT  
HUNT CONSULTING  
4344 MODOC ROAD, 15  
SANTA BARBARA, CA 93110  
FOR: COMMUNITY ENVIRONMENTAL COUNCIL

JOSEPH LANGENBERG  
CENTRAL CALIFORNIA POWER  
5125 NORTH MARTY AVENUE, NO.324  
FRESNO, CA 93711

DAVID ORTH  
GENERAL MANAGER  
SAN JOAQUIN VALLEY POWER AUTHORITY  
4886 EAST JENSEN AVENUE  
1850  
FRESNO, CA 93725  
FOR: SAN JOAQUIN VALLEY POWER  
AUTHORITY/KING'S RIVER CONSERVATION  
DISTRICT

EVELYN KAHL  
ATTORNEY AT LAW  
ALCANTAR & KAHL, LLP  
33 NEW MONTGOMERY STREET, SUITE  
  
SAN FRANCISCO, CA 94015  
FOR: OCCIDENTAL POWER SERVICES,  
INC./FIRST SOLAR, INC., ENERGY  
PRODUCERS AND USERS COALITION.

ROD AOKI  
ATTORNEY AT LAW  
ALCANTAR & KAHL, LLP  
33 NEW MONTGOMERY STREET, SUITE 1850  
SAN FRANCISCO, CA 94015  
FOR: CAC

JANIS C. PEPPER  
CLEAN POWER MARKETS, INC.  
PO BOX 3206  
LOS ALTOS, CA 94024  
FOR: CLEAN POWER MARKETS, INC.

BRUCE FOSTER  
SENIOR VICE PRESIDENT  
SOUTHERN CALIFORNIA EDISON COMPANY  
601 VAN NESS AVENUE, STE. 2040  
SAN FRANCISCO, CA 94102

ELAINE M. DUNCAN  
ATTORNEY AT LAW  
VERIZON CALIFORNIA INC.  
711 VAN NESS AVENUE, SUITE 300  
SAN FRANCISCO, CA 94102  
FOR: VERIZON CALIFORNIA, INC.

CHRISTOPHER CLAY  
CALIF PUBLIC UTILITIES COMMISSION  
LEGAL DIVISION  
ROOM 4300  
505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3214  
FOR: DRA

NOEL OBIORA  
CALIF PUBLIC UTILITIES COMMISSION  
LEGAL DIVISION  
ROOM 4107  
505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3214  
FOR: DRA

JEANNE M. SOLE  
DEPUTY CITY ATTORNEY  
CITY AND COUNTY OF SAN FRANCISCO  
1 DR. CARLTON B. GOODLETT PLACE, RM. 375  
SAN FRANCISCO, CA 94102-4682  
FOR: CITY AND COUNTY OF SAN FRANCISCO

MARCEL HAWIGER  
ATTORNEY AT LAW  
THE UTILITY REFORM NETWORK  
115 SANSOME STREET, SUITE 900  
SAN FRANCISCO, CA 94104  
FOR: THE UTILITY REFORM NETWORK

MATTHEW FREEDMAN  
ATTORNEY AT LAW  
THE UTILITY REFORM NETWORK  
115 SANSOME STREET, SUITE 900  
SAN FRANCISCO, CA 94104  
FOR: THE UTILITY REFORM NETWORK  
COMPANY

EDWARD V. KURZ  
ATTORNEY AT LAW  
PACIFIC GAS AND ELECTRIC COMPANY  
77 BEALE ST., B30A  
SAN FRANCISCO, CA 94105  
FOR: PACIFIC GAS AND ELECTRIC

EVELYN C. LEE  
ATTORNEY AT LAW  
PACIFIC GAS AND ELECTRIC COMPANY  
1850  
77 BEALE STREET, MC B30A  
SAN FRANCISCO, CA 94105  
AND  
FOR: PACIFIC GAS AND ELECTRIC COMPANY

NORA SHERIFF  
ALCANTAR & KAHL  
33 NEW MONTGOMERY STREET, SUITE  
SAN FRANCISCO, CA 94105  
FOR: FIRST SOLAR, ENERGY PRODUCERS  
USERS COALITION.

RICHARD W. RAUSHENBUSH  
GENERAL COUNSEL  
GREENVOLTS, INC.  
50 1ST STREET, SUITE 507  
SAN FRANCISCO, CA 94105  
FOR: GREENVOLTS, INC.

ADAM BROWNING  
THE VOTE SOLAR INITIATIVE  
300 BRANNAN STREET, SUITE 609  
SAN FRANCISCO, CA 94107  
FOR: THE VOTE SOLAR INITIATIVE

ARNO HARRIS  
RECURRENT ENERGY, INC.  
1700 MONTGOMERY ST., SUITE 251  
LAMPREY  
SAN FRANCISCO, CA 94111

BRIAN T. CRAGG  
ATTORNEY AT LAW  
GOODIN, MACBRIDE, SQUERI, DAY &  
505 SANSOME STREET, SUITE 900  
SAN FRANCISCO, CA 94111  
FOR: INDEPENDENT ENERGY PRODUCERS  
ASSOCIATION (IEPA)/CAITHNESS

CORPORATION

JAMES D. SQUERI  
ATTORNEY AT LAW  
GOODIN, MACBRIDE, SQUERI, DAY & LAMPREY  
LAMPREY LLP  
505 SANSOME STREET, SUITE 900  
SAN FRANCISCO, CA 94111  
FOR: CALIFORNIA RETAILERS ASSOCIATION

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

MICHAEL DAY  
GOODIN MACBRIDE SQUERI DAY & LAMPREY LLP  
505 SANSOME STREET, STE. 900  
SAN FRANCISCO, CA 94111  
FOR: THE VOTE SOLAR INITIATIVE AND  
RECURRENT ENERGY, INC.  
(SES)

TODD EDMISTER  
ATTORNEY AT LAW  
BINGHAM MCCUTCHEN  
THREE EMBARCADERO CENTER  
SAN FRANCISCO, CA 94111  
FOR: STIRLING ENERGY SYSTEMS, INC.

DAVID L. HUARD  
ATTORNEY AT LAW  
MANATT, PHELPS & PHILLIPS, LLP  
ONE EMBARCADERO CENTER, STE 2900  
SAN FRANCISCO, CA 94111-3736  
FOR: MANATT, PHELPS & PHILLIPS, LLP

JOSEPH M. KARP  
ATTORNEY AT LAW  
WINSTON & STRAWN LLP  
101 CALIFORNIA STREET, 39TH FLOOR  
SAN FRANCISCO, CA 94111-5894  
FOR: CALIFORNIA WIND ENERGY  
ASSN./ABENGOA SOLAR INC./AUSRA INC

AND

BRIGHTSOURCE ENERGY INC.

EDWARD W. O'NEILL  
ATTORNEY AT LAW  
DAVIS WRIGHT TREMAINE LLP  
505 MONTGOMERY STREET, SUITE 800  
SAN FRANCISCO, CA 94111-6533  
FOR: CALIFORNIA LARGE ENERGY CONSUMERS  
ASSOCIATION

JEFFREY P. GRAY  
ATTORNEY AT LAW  
DAVIS WRIGHT TREMAINE, LLP  
505 MONTGOMERY STREET, SUITE 800  
SAN FRANCISCO, CA 94111-6533  
FOR: CALPINE POWER AMERICA-CA, LLC

TED KO  
ASSOCIATE EXECUTIVE DIRECTOR  
FIT COALITION  
1640 WALLER STREET  
SAN FRANCISCO, CA 94117  
FOR: FIT COALITION  
COMPANY

CHARLES MIDDLEKAUFF  
ATTORNEY AT LAW  
PACIFIC GAS AND ELECTRIC COMPANY  
PO BOX 7442  
SAN FRANCISCO, CA 94120  
FOR: PACIFIC GAS AND ELECTRIC

SARA STECK MYERS  
ATTORNEY AT LAW  
122 28TH AVE.  
SAN FRANCISCO, CA 94121  
FOR: CENTER FOR ENERGY EFFICIENCY AND  
RENEWABLE TECHNOLOGIES

GABE PETLIN  
3DEGREES  
PRESIDIO OF SAN FRANCISCO  
6 FUNSTON AVENUE  
SAN FRANCISCO, CA 94129

JANICE G. HAMRIN  
CENTER FOR RESOURCE SOLUTIONS  
PRESIDIO BUILDING 97  
PO BOX 29512  
SAN FRANCISCO, CA 94129  
FOR: CENTER FOR RESOURCE SOLUTIONS  
COMPANY

MARK HUFFMAN  
ATTORNEY AT LAW  
PACIFIC GAS AND ELECTRIC COMPANY  
MC B30A PO BOX 770000  
SAN FRANCISCO, CA 94177  
FOR: PACIFIC GAS AND ELECTRIC

JENNIFER CHAMBERLIN  
MGR. OF REG. AND GOV. AFFAIRS  
DIRECT ENERGY  
2633 WELLINGTON CT  
CLYDE, CA 94520  
FOR: STRATEGIC ENERGY

WILLIAM S. KAMMERER  
FIT COALITION  
2092 MOHAWK DRIVE  
PLEASANT HILL, CA 94523  
FOR: FIT COALITION

JOHN DUTCHER  
VICE PRESIDENT - REGULATORY AFFAIRS  
MOUNTAIN UTILITIES  
3210 CORTE VALENCIA  
FAIRFIELD, CA 94534-7875  
FOR: MOUNTAIN UTILITIES

AVIS KOWALEWSKI  
CALPINE CORPORATION  
4160 DUBLIN BLVD., SUITE 100  
DUBLIN, CA 94568  
FOR: CALPINEPOWERAMERICA-CA,LLC

SUE KATELEY  
EXECUTIVE DIRECTOR  
CALIFORNIA SOLAR ENERGY INDUSTRIES ASSN  
PO BOX 782  
RIO VISTA, CA 94571  
FOR: CALIFORNIA SOLAR ENERGY INDUSTRIES  
ASSOCIATION

RICK C. NOGER  
PRAXAIR, INC.  
2430 CAMINO RAMON DRIVE, STE. 300  
SAN RAMON, CA 94583

WILLIAM H. BOOTH  
ATTORNEY AT LAW  
LAW OFFICE OF WILLIAM H. BOOTH  
67 CARR DRIVE  
MORAGA, CA 94596  
RCM  
FOR: RIDGEWOOD RENEWABLE POWER, LLC AND  
RIDGEWOOD OLINDA, LLC

JODY LONDON  
JODY LONDON CONSULTING  
PO BOX 3629  
OAKLAND, CA 94609  
FOR: SUSTAINABLE CONSERVATION AND  
INTERNATIONAL

GREGG MORRIS  
GREEN POWER INSTITUTE  
2039 SHATTUCK AVE., SUITE 402  
BERKELEY, CA 94704  
FOR: GREEN POWER INSTITUTE

LAURA WISLAND  
UNION OF CONCERNED SCIENTISTS  
2397 SHATTUCK AVE., SUITE 203  
BERKELEY, CA 94704  
FOR: UNION OF CONCERNED SCIENTISTS

NEAL DE SNOO  
CITY OF BERKELEY  
2180 MILVIA STREET, 2ND FLOOR  
BERKELEY, CA 94704  
FOR: EAST BAY POWER AUTHORITY/CITY OF  
OF  
BERKELEY

CLYDE MURLEY  
CONSULTANT TO NRDC  
1031 ORDWAY STREET  
ALBANY, CA 94706  
FOR: THE COMMUNITY COLLEGE LEAGUE  
CALIFORNIA

JP ROSS  
VP STRATEGOC RELATIONSHIPS  
SUNGEVITY  
1625 SHATTUCK AVE., STE 210  
BERKELEY, CA 94709  
FOR: THE VOTE SOLAR INITIATIVE  
ASSOCIATION

NANCY RADER  
EXECUTIVE DIRECTOR  
CALIFORNIA WIND ENERGY ASSOCIATION  
2560 NINTH STREET, SUITE 213A  
BERKELEY, CA 94710  
FOR: CALIFORNIA WIND ENERGY

R. THOMAS BEACH  
PRINCIPAL CONSULTANT  
CROSSBORDER ENERGY  
2560 NINTH STREET, SUITE 213A  
BERKELEY, CA 94710-2557  
FOR: THE CALIFORNIA COGENERATION  
COUNCIL/SOLAR ALLIANCE

L. JAN REID  
COAST ECONOMIC CONSULTING  
3185 GROSS ROAD  
SANTA CRUZ, CA 95062  
FOR: L. JAN REID

MICHAEL E. BOYD  
PRESIDENT  
CALIFORNIANS FOR RENEWABLE ENERGY, INC.  
5439 SOQUEL DRIVE  
SOQUEL, CA 95073  
GROUP  
FOR: CALIFORNIANS FOR RENEWABLE  
ENERGY, INC.

JOHN R. REDDING  
ARCTURUS ENERGY CONSULTING  
44810 ROSEWOOD TERRACE  
MENDOCINO, CA 95460  
FOR: SILICON VALLEY MANUFACTURERS

JAMES WEIL  
DIRECTOR  
AGLET CONSUMER ALLIANCE  
PO BOX 1916  
SEBASTOPOL, CA 95473  
FOR: AGLET CONSUMER ALLIANCE

MARTIN HOMECEC  
REDWOOD RENEWABLES  
PO BOX 4471  
DAVIS, CA 95617  
FOR: REDWOOD RENEWABLES

JUDITH SANDERS  
CALIFORNIA ISO  
151 BLUE RAVINE ROAD  
FOLSOM, CA 95630

MOUNTAIN UTILITIES  
PO BOX 1  
KIRKWOOD, CA 95646

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

JOHN DALESSI  
NAVIGANT CONSULTING, INC.  
3100 ZINFANDEL DRIVE, SUITE 600  
RANCHO CORDOVA, CA 95670-6078  
FOR: SOUTH SAN JOAQUIN VALLEY/KINGS  
RIVER CONSERVATION DISTRICT

CAROLYN KEHREIN  
ENERGY MANAGEMENT SERVICES  
2602 CELEBRATION WAY  
WOODLAND, CA 95776  
FOR: ENERGY USERS FORUM

DAN GEIS  
THE DOLPHIN GROUP  
925 L STREET, SUITE 800  
SACRAMENTO, CA 95814  
FOR: INLAND EMPIRE UTILITIES AGENCY

DAN L. CARROLL  
ATTORNEY AT LAW  
DOWNEY BRAND, LLP  
621 CAPITOL MALL, 18TH FLOOR  
SACRAMENTO, CA 95814  
FOR: MOUNTAIN UTILITIES  
ASSOCIATION

DAVID A. BISCHEL  
PRESIDENT  
CALIFORNIA FORESTRY ASSOCIATION  
1215 K STREET, SUITE 1830  
SACRAMENTO, CA 95814  
FOR: CALIFORNIA FORESTRY

JAN MCFARLAND  
CAEATFA  
915 CAPITOL MALL, RM. 468  
SACRAMENTO, CA 95814  
FOR: AMERICANS FOR SOLAR POWER

JIM METROPULOS  
SIERRA CLUB CALIFORNIA  
801 K STREET, SUITE 2700  
SACRAMENTO, CA 95814  
FOR: SIERRA CLUB CALIFORNIA

ANDREW B. BROWN  
ATTORNEY AT LAW  
ELLISON SCHNEIDER & HARRIS, LLP  
2600 CAPITOL AVENUE, SUITE 400  
SACRAMENTO, CA 95816-5905  
FOR: SIERRA PACIFIC POWER  
COMPANY/CONSTELLATION NEW ENERGY, INC.

LYNN M. HAUG  
ATTORNEY AT LAW  
ELLISON, SCHNEIDER & HARRIS, LLP  
2600 CAPITOL AVENUE, SUITE 400  
SACRAMENTO, CA 95816-5905  
FOR: CORONA DEPARTMENT OF WATER AND  
POWER/SIERRA PACIFIC POWER  
COMPANY/FUELCELL ENERGY, INC.

CHRISTINE HENNING  
LARGE-SCALE SOLAR ASSOCIATION  
3572 HUNTSMAN DRIVE  
SACRAMENTO, CA 95826  
FOR: LARGE-SCALE SOLAR ASSOCIATION

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

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

JORDAN WHITE  
SENIOR ATTORNEY  
PACIFICORP  
825 NE MULTNOMAH STREET, SUITE 1800  
PORTLAND, OR 97232  
FOR: PACIFICORP

THOMAS ELGIE  
POWEREX CORPORATION  
1400, 666 BURRAND ST  
VANCOUVER, BC V6C 2X8  
CANADA  
FOR: POWEREX CORPORATION

## Information Only

---

EDWARD VINE  
LAWRENCE BERKELEY NATIONAL LABORATORY  
EMAIL ONLY  
EMAIL ONLY, CA 00000

JANICE LIN  
MANAGING PARTNER  
STRATEGEN CONSULTING LLC  
EMAIL ONLY  
EMAIL ONLY, CA 00000

JOE GORBERG  
LS POWER  
AFFAIRS  
1700 BROADWAY 35TH FLOOR  
NEW YORK, NY 10019

STEVEN S. SCHLEIMER  
DIRECTOR, COMPLIANCE & REGULATORY

BARCLAYS BANK, PLC  
200 PARK AVENUE, FIFTH FLOOR  
NEW YORK, NY 10166

NICHOLE FABRI ZANDOLI  
PRESIDENT  
CLEAR ENERGY BROKERAGE & CONSULTING LLC  
403 PARKSIDE AVENUE  
BROOKLYN, NY 11226  
FOR: CLEAR ENERGY BROKERAGE &  
CONSULTING LLC

RONALD M. CERNIGLIA  
DIRECTOR- NATIONAL ADVOCACY  
DIRECT ENERGY SERVICES, LLC  
40 COLUMBINE DRIVE  
GLENMONT, NY 12077-2966  
FOR: DIRECT ENERGY SERVICES, LLC

VENKAT SURAVARAPU  
ASSOCIATES DIRECTOR  
CAMBRIDGE ENERGY RESEARCH ASSOCIATES  
1150 CONNECTICUT AVENUE NW, STE. 201  
WASHINGTON, DC 20036  
FOR: CAMBRIDGE ENERGY RESEARCH  
ASSOCIATES

KEVIN PORTER  
SENIOR ANALYST  
EXETER ASSOCIATES, INC.  
5565 STERRETT PLACE, SUITE 310  
COLUMBIA, MD 21044

TODD JAFFE  
ENERGY BUSINESS BROKERS AND CONSULTANTS  
3420 KEYSER ROAD  
BALTIMORE, MD 21208

RICHARD F. CHANDLER  
BP SOLAR  
630 SOLAREX COURT  
FREDERICK, MA 21703

SAMARA M. RASSI  
REGULATORY AFFAIRS ANALYST  
FELLON-MCCORD & ASSOCIATES  
9960 CORPORATE CAMPUS DR., SUITE 2500  
LOUISVILLE, KY 40223

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

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

JASON ABIECUNAS  
BLACK & BEATCH GLOBAL RENEWABLE  
RENEWABLE ENERGY CONSULTANT  
11401 LAMAR  
OVERLAND PARK, KS 66211  
FOR: RENEWABLE ENERGY CONSULTANT

ROSS BUCKENHAM  
CALIFORNIA BIOENERGY LLC  
2828 ROUTH STREET, SUITE 500  
DALLAS, TX 75201

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

ED CHIANG  
ELEMENT MARKETS, LLC  
3555 TIMMONS LANE, STE. 900  
HOUSTON, TX 77027-6453

JONATHAN JACOBS  
PA CONSULTING GROUP  
1700 LINCOLN ST STE 4600  
DENVER, CO 80203-4509

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

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

JENINE SCHENK  
APS ENERGY SERVICES  
400 E. VAN BUREN STREET, SUITE 750  
5500  
PHOENIX, AZ 85004

NICK CHASET  
TESSERA SOLAR NORTH AMERICA  
4800 NORTH SCOTTDALE RD., SUITE  
SCOTTSDALE, AZ 85251

LORRAINE A. PASKETT  
VICE PRES., POLICY & MARKET DEVELOPMENT  
FIRST SOLAR, INC.  
350 WEST WASHINGTON STREET, SUITE 600  
TEMPE, AZ 85281

AMY FREES  
THIRD PLANET WINDPOWER, LLC  
940 SOUTHWOOD BLVD., SUITE 201  
INCLINE VILLAGE, NV 89451

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 89520-0024

JOE GRECO  
TERRA-GEN POWER LLC  
9590 PROTOTYPE COURT, SUITE 200  
RENO, NV 89521

MARLA DICKERSON  
LOS ANGELES TIMES  
BUSINESS EDITORIAL, 3RD FLOOR  
202 W. FIRST ST.  
LOS ANGELES, CA 90012

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

CLAIRE E. TORCHIA  
CHADBOURNE & PARKE LLP  
350 SOUTH GRAND AVE., STE 3300  
LOS ANGELES, CA 90071

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

DOUGLAS MCPHERSON  
130 W. UNION STREET  
PASADENA, CA 91103

FREEMAN S. HALL  
SOLAR ELECTRIC SOLUTIONS, LLC  
5353 TOPANGA CANYON BLVD, STE 300  
WOODLAND HILLS, CA 91364  
FOR: SOLAR ELECTRIC SOLUTIONS, LLC

JACK MCNAMARA  
ATTORNEY AT LAW  
MACK ENERGY COMPANY  
PO BOX 1380  
AGOURA HILLS, CA 91376-1380

CASE ADMINISTRATION  
SOUTHERN CALIFORNIA EDISON COMPANY  
2244 WALNUT GROVE AVENUE  
ROSEMEAD, CA 91770  
FOR: SOUTHERN CALIFORNIA EDISON COMPANY

GARY L. ALLEN  
SOUTHERN CALIFORNIA EDISON  
2244 WALNUT GROVE AVENUE  
ROSEMEAD, CA 91770

GEORGE WILTSEE  
SOUTHERN CALIFORNIA EDISON COMPANY  
2244 WALNUT GROVE AVENUE  
800  
ROSEMEAD, CA 91770

JONI A. TEMPLETON  
SOUTHERN CALIFORNIA EDISON COMPANY  
2244 WALNUT GROVE AVENUE, PO BOX

COMPANY

ROSEMEAD, CA 91770  
FOR: SOUTHERN CALIFORNIA EDISON

KEITH SWITZER  
VP REGULATORY AFFAIRS  
GOLDEN STATE WATER COMPANY  
630 EAST FOOTHILL BLVD.  
SAN DIMAS, CA 91773-9016

CHAD CHAHBAZI  
BAP POWER CORPORATION D/B/A CENERGY  
2784 GATEWAY ROAD, SUITE 102  
CARLSBAD, CA 92009

ROBERT J. GILLESKIE  
LIGHTPOINT CONSULTING SERVICES  
2570 PINWOOD STREET  
DEL MAR, CA 92014

JEFF COX  
FUELCELL ENERGY  
1557 MANDEVILLE PLACE  
ESCONDIDO, CA 92029

CURTIS KEBLER  
DIRECTOR-ORINATION  
SEMPRA GENERATION  
101 ASH STREET, HQ14D  
SAN DIEGO, CA 92101

THOMAS P. CORR  
SEMPRA ENERGY GLOBAL ENTERPRISES  
101 ASH STREET, HQ16C  
SAN DIEGO, CA 92101

YVONNE GROSS  
SEMPRA GLOBAL  
101 ASH STREET, HQ08C  
SAN DIEGO, CA 92101

DON LIDDELL  
ATTORNEY AT LAW  
DOUGLASS & LIDDELL  
2928 2ND AVENUE  
SAN DIEGO, CA 92103

TERRY FARRELLY  
269 G AVENUE  
CORONADO, CA 92118

CENTRAL FILES  
SAN DIEGO GAS & ELECTRIC CO.  
8330 CENTURY PARK COURT, CP31-E  
SAN DIEGO, CA 92123  
FOR: SAN DIEGO GAS & ELELCTRIC

HANNON RASOOL  
SAN DIEGO GAS & ELECTRIC  
8330 CENTURY PARK CT.  
SAN DIEGO, CA 92123

COMPANY

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

NATE FRANKLIN  
EDISON MISSION ENERGY  
AFFAIRS  
18101 VON KARMAN AVE, SUITE 1700  
INC.  
IRVINE, CA 92612

CARL STEEN  
BAKER & HOSTETLER LLP  
600 ANTON BLVD., SUITE 900  
COSTA MESA, CA 92626  
FOR: BAKER & HOSTETLER LLP

LEONARD LEICHNITZ  
LUMOS POWER LP  
1280 BISON B9-37  
NEWPORT BEACH, CA 92660

KELLIE M. HANIGAN  
ENCO UTILITY SERVICES  
8141 E. KAISER BLVD., STE. 212  
ANAHEIM, CA 92808

JEFF HIRSCH  
JAMES J. HIRSCH & ASSOCIATES  
12185 PRESILLA ROAD  
CAMARILLO, CA 93012-9243

JENNIFER WRIGHT  
CALIFORNIA REGULATORY AFFAIRS  
SAN DIEGO GAS & ELECTRIC CO.  
8330 CENTURY PARK CT  
SAN DIEGO, CA 92123  
FOR: SAN DIEGO GAS & ELECTRIC

PETER T. PEARSON  
ENERGY SUPPLY SPECIALIST  
BEAR VALLEY ELECTRIC SERVICE  
42020 GARSTIN DRIVE, PO BOX 1547  
BIG BEAR LAKE, CA 92315-1547

STEPHEN HESS  
DIRECTOR, MARKET POLICY & REG.  
EDISON MISSION MARKETING & TRADING  
18101 VON KARMAN AVE, STE. 1700  
IRVINE, CA 92612-1046

ROGER LEE  
BAKER & HOSTETLER LLP  
600 ANTON BLVD., SUITE 900  
COSTA MESA, CA 92626  
FOR: BAKER & HOSTETLER LLP

MICHAEL J. GILMORE  
INLAND ENERGY  
SOUTH TOWER SUITE 606  
3501 JAMBOREE RD  
NEWPORT BEACH, CA 92660

PETER MORITZBURKE  
3 ECHO AVENUE  
CORTE MADERA, CA 92925

HAROLD M. ROMANOWITZ  
OAK CREEK ENERGY SYSTEMS, INC.  
14633 WILLOW SPRINGS ROAD  
MOJAVE, CA 93501  
FOR: OAK CREEK ENERGY SYSTEMS, INC.

MARK STOUT  
CLEANTECH AMERICA, INC.  
1416 BROADWAY ST. SUITE B  
FRESNO, CA 93721

RENEE H. GUILD  
CEO  
GLOBAL ENERGY MARKETS  
2481 PORTERFIELD COURT  
MOUNTAIN VIEW, CA 94040

MARC D. JOSEPH  
ATTORNEY AT LAW  
ADAMS, BROADWELL, JOSEPH & CARDOZO  
601 GATEWAY BLVD., STE. 1000  
SOUTH SAN FRANCISCO, CA 94080  
FOR: ADAMS BROADWELL JOSEPH & CARDOZO

BILLY BLATTNER  
MANAGER REGULATORY RELATIONS  
SAN DIEGO GAS & ELECTRIC COMPANY  
601 VAN NESS AVENUE, SUITE 2060  
SAN FRANCISCO, CA 94102  
FOR: SDG&E/SOCAL GAS

DIANE I. FELLMAN  
NEXTERA ENERGY RESOURCES, LLC.  
234 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102

PAUL FENN  
LOCAL POWER  
35 GROVE STREET  
SAN FRANCISCO, CA 94102

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

MANUEL RAMIREZ  
SAN FRANCISCO PUC  
1155 MARKET STREET, 4TH FLOOR  
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

SANDRA ROVETTI  
REGULATORY AFFAIRS MANAGER  
SAN FRANCISCO PUC  
1155 MARKET STREET, 4TH FLOOR  
SAN FRANCISCO, CA 94103

THERESA BURKE  
REGULATORY AFFAIRS ANALYST  
SAN FRANCISCO PUC  
1155 MARKET STREET, 4TH FLOOR  
SAN FRANCISCO, CA 94103  
FOR: SAN FRANCISCO PUBLIC UTILITIES  
COMMISSION

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

BILL GOLOVE  
CHEVRON ENERGY SOLUTIONS  
345 CALIFORNIA STREET, 18TH FLOOR  
SAN FRANCISCO, CA 94104

DOUGLAS E. COVER  
ENVIRONMENTAL SCIENCE ASSOCIATES  
225 BUSH STREET, SUITE 1700  
SAN FRANCISCO, CA 94104

JIM HOWELL  
RECURRENT ENERGY  
300 CALIFORNIA ST., 8TH FLOOR  
SAN FRANCISCO, CA 94104

MICHAEL E. CARBOY  
MANAGING DIRECTOR-EQUITY RESEARCH  
SIGNAL HILL CAPITAL LLC  
343 SANSOME STREET, SUITE 950  
SAN FRANCISCO, CA 94104

NICK ALLEN  
MORGAN STANLEY RESEARCH  
555 CALIFORNIA STREET STE 2200 21ST FLR  
SAN FRANCISCO, CA 94104

NINA SUETAKE  
ATTORNEY AT LAW  
THE UTILITY REFORM NETWORK  
115 SANSOME STREET, SUITE 900  
SAN FRANCISCO, CA 94104

SEAN HAZLETT  
MORGAN STANLEY  
555 CALIFORNIA ST., SUITE 2200  
SAN FRANCISCO, CA 94104

SNULLER PRICE  
ENERGY AND ENVIRONMENTAL ECONOMICS  
101 MONTGOMERY, SUITE 1600  
SAN FRANCISCO, CA 94104  
FOR: ENERGY AND ENBIRONMENTAL

ECONOMICS

CRAIG LEWIS  
VP OF GOV. RELATIONS  
GREENVOLTS  
50 FIRST STREET, SUITE 507  
SAN FRANCISCO, CA 94105  
FOR: GREENVOLTS

ED LUCHA  
PACIFIC GAS AND ELECTRIC COMPANY  
77 BEALE STREET, MC B9A, ROOM 991  
SAN FRANCISCO, CA 94105

GARRETT HERING  
PHOTON INTERNATIONAL  
55 NEW MONTGOMERY, SUITE 204-205  
SAN FRANCISCO, CA 94105

JASON YAN  
PACIFIC GAS AND ELECTRIC COMPANY  
77 BEALE STREET, MAIL CODE B13L  
SAN FRANCISCO, CA 94105  
FOR: PACIFIC GAS AND ELECTRIC

COMPANY

JOHN PAPPAS  
UTILITY ELECTRIC PORTFOLIO MANAGEMENT  
PACIFIC GAS AND ELECTRIC COMPANY  
1850  
77 BEALE STREET, N12E  
SAN FRANCISCO, CA 94105

KAREN TERRANOVA  
ALCANTAR & KAHL, LLP  
33 NEW MONTGOMERY STREET, SUITE  
SAN FRANCISCO, CA 94105  
FOR: COGENERATION ASSOCIATION OF  
CALIFORNIA

LAW DEPARTMENT FILE ROOM  
PACIFIC GAS AND ELECTRIC COMPANY  
77 BEALE STREET, B30A  
SAN FRANCISCO, CA 94105

POLLY SHAW  
SUNTECH AMERICA, INC.  
71 STEVENSON STREET, 10TH FLOOR  
SAN FRANCISCO, CA 94105  
FOR: SUNTECH AMERICA, INC.

SEEMA SRINIVASAN  
ALCANTAR & KAHL, LLP  
33 NEW MONTGOMERY STREET, SUITE 1850  
SAN FRANCISCO, CA 94105

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

CORY M. MASON  
ATTORNEY AT LAW  
PACIFIC GAS AND ELECTRIC COMPANY  
77 BEALE STREET, MC B30A  
SAN FRANCISCO, CA 94105-1814  
FOR: PACIFIC GAS AND ELECTRIC COMPANY

NIELS KJELLUND  
PACIFIC GAS AND ELECTRIC COMPANY  
77 BEALE STREET, MAIL CODE B9A  
SAN FRANCISCO, CA 94105-1814

HANS ISERN  
RECURRENT ENERGY  
1700 MONTGOMERY, STE 251  
SAN FRANCISCO, CA 94111

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

MARK CHEDIAK  
BLOOMBERG NEWS  
3 PIER 101  
SAN FRANCISCO, CA 94111

RAFI HASSAN  
SENIOR RESEARCH ASSOCIATE  
FBR CAPITAL MARKETS  
1950 EMBARACADERO FOUR  
SAN FRANCISCO, CA 94111

SETH D. HILTON  
STOEL RIVES, LLP  
555 MONTGOMERY ST., SUITE 1288  
SAN FRANCISCO, CA 94111

DEREK DENNISTON  
DIRECTOR  
RENEWABLE ENERGY MARKETS  
101 CALIFORNIA STREET, STE 2750  
SAN FRANCISCO, CA 94111-5802

THOMAS W. SOLOMON  
WINSTON & STRAWN LLP  
101 CALIFORNIA STREET, 39TH FLOOR  
SAN FRANCISCO, CA 94111-5894

JUDY PAU  
DAVIS WRIGHT TREMAINE LLP  
505 MONTGOMERY STREET, SUITE 800  
SAN FRANCISCO, CA 94111-6533

ROBERT B. GEX  
ATTORNEY AT LAW,  
DAVIS WRIGHT TREMAINE LLP  
505 MONTGOMERY STREET, SUITE 800  
SAN FRANCISCO, CA 94111-6533

CALIFORNIA ENERGY MARKETS  
425 DIVISADERO ST., STE 303  
SAN FRANCISCO, CA 94117

HILARY CORRIGAN  
CALIFORNIA ENERGY MARKETS  
425 DIVISADERO ST. SUITE 303  
SAN FRANCISCO, CA 94117-2242  
FOR: CALIFORNIA ENERGY MARKETS

STANDISH O'GRADY  
FRIENDS OF KIRKWOOD ASSOCIATION  
31 PARKER AVENUE  
SAN FRANCISCO, CA 94118

SARA BIRMINGHAM  
DIRECTOR, WESTERN POLICY  
SOLAR ALLIANCE  
646 19TH AVE  
SAN FRANCISCO, CA 94121

LEIGH FAVRET  
3DEGREES  
6 FUNSTON AVENUE  
SAN FRANCISCO, CA 94129



BROOKE REILLY  
PG & E  
PO BOX 770000, MAIL CODE B9A  
SAN FRANCISCO, CA 94177

CASE COORDINATION  
PACIFIC GAS AND ELECTRIC COMPANY  
PO BOX 770000 MC 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

MAGGIE CHAN  
PG&E  
MAILCODE B9A  
PO BOX 770000  
SAN FRANCISCO, CA 94177

SHAUN HALVERSON  
PACIFIC GAS AND ELECTRIC COMPANY  
PG&E MAIL CODE B9A  
PO BOX 770000  
SAN FRANCISCO, CA 94177  
FOR: PACIFIC GAS AND ELECTRIC COMPANY

VALERIE WINN  
PACIFIC GAS AND ELECTRIC COMPANY  
PO BOX 770000, MAIL CODE 12G  
SAN FRANCISCO, CA 94177

VALERIE J. WINN  
PACIFIC GAS AND ELECTRIC COMPANY  
PO BOX 770000, PG&E MAIL CODE N12G  
SAN FRANCISCO, CA 94177-0001

JIM STACK, PH.D.  
RESOURCE PLANNER  
CITY OF PALO ALTO UTILITIES  
250 HAMILTON AVE.  
PALO ALTO, CA 94301

ROBIN J. WALTHER  
1380 OAK CREEK DRIVE, NO. 316  
PALO ALTO, CA 94304-2016

BRAD WETSTONE  
ALAMEDA POWER AND TELECOM  
2000 GRANT STREET, PO BOX H  
ALAMEDA, CA 94501-0263  
FOR: ALAMEDA POWER AND TELECOM

BETH VAUGHAN  
CALIFORNIA COGENERATION COUNCIL  
4391 NORTH MARSH ELDER CT.  
CONCORD, CA 94521

KERRY HATTEVIK  
DIRECTOR OF REG. AND MARKET AFFAIRS  
NRG ENERGY  
829 ARLINGTON BLVD.  
EL CERRITO, CA 94530

COOL EARTH SOLAR  
4659 LAS POSITAS RD., SUITE C  
LIVERMORE, CA 94551  
FOR: COOL EARTH SOLAR

TONY CHEN  
SR. MANGER, BUSINESS DEVEL.  
COOL EARTH SOLAR  
4659 LAS POSITAS RD., STE. A  
LIVERMORE, CA 94551-8861  
FOR: COOL EARTH SOLAR

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

SEAN P. BEATTY  
SR. MGR. EXTERNAL & REGULATORY  
MIRANT CALIFORNIA, LLC  
696 WEST 10TH ST., PO BOX 192  
PITTSBURG, CA 94565

AUDRA HARTMANN  
DIRECTOR, GOVERNMENT & REG. AFFAIRS  
DYNEGY, INC.  
300B  
4140 DUBLIN BLVD., STE. 100  
DUBLIN, CA 94568

ROBERT T. BOYD  
GE WIND ENERGY  
6130 STONERIDGE MAIL ROAD, SUITE  
PLEASANTON, CA 94588-3287  
FOR: GE WIND ENERGY

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

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

JENNIFER BARNES  
SUMMIT BLUE CONSULTING, LLC  
2920 CAMINO DIABLO, SUITE 210  
WALNUT CREEK, CA 94597

RYAN PLETKA  
RENEWABLE ENERGY PROJECT MANAGER  
BLACK & VEATCH  
2999 OAK ROAD, SUITE 490  
WALNUT CREEK, CA 94597  
FOR: BLACK & VEATCH

TIM MASON  
BLACK & VEATCH CORP.  
2999 OAK ROAD, SUITE 490  
WALNUT CREEK, CA 94597

TIMEA ZENTAI  
SUMMIT BLUE CONSULTING, LLC  
2920 CAMINO DIABLO, SUITE 210  
WALNUT CREEK, CA 94597

WILLIAM F. DIETRICH  
ATTORNEY AT LAW  
DIETRICH LAW  
2977 YGNACIO VALLEY ROAD, NO. 613  
WALNUT CREEK, CA 94598-3535

ALEX KANG  
ITRON, INC.  
1111 BROADWAY, STE. 1800  
OAKLAND, CA 94607

NELLIE TONG  
SENIOR ANALYST  
KEMA, INC.  
492 NINTH STREET, SUITE 220  
OAKLAND, CA 94607

RAMONA GONZALEZ  
EAST BAY MUNICIPAL UTILITY DISTRICT  
375 ELEVENTH STREET, M/S NO. 205  
OAKLAND, CA 94607

BARRY H. EPSTEIN  
FITZGERALD, ABBOTT & BEARDSLEY, LLP  
1221 BROADWAY, 21ST FLOOR  
OAKLAND, CA 94612  
FOR: FITZGERLAND, ABBOTT & BEARDSLEY,  
LLP

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

KEN ALEX  
OFFICE OF THE ATTORNEY GENERAL  
PO BOX 70550  
OAKLAND, CA 94612-0550

DOCKET COORDINATOR  
5727 KEITH ST.  
OAKLAND, CA 94618

KEVIN FOX  
KEYES & FOX LLP  
5727 KEITH AVENUE  
OAKLAND, CA 94618

CYNTHIA WOOTEN  
LUMENX CONSULTING, INC.  
1126 DELAWARE STREET  
BERKELEY, CA 94702

REED V. SCHMIDT  
BARTLE WELLS ASSOCIATES  
1889 ALCATRAZ AVENUE  
BERKELEY, CA 94703-2714

GEOFF TEIGEN  
RCM INTERNATIONAL, LLC  
PO BOX 4716  
BERKELEY, CA 94704

STEPHANIE CHEN  
LEGAL FELLOW  
THE GREENLINING INSTITUTE  
1918 UNIVERSITY AVENUE, 2ND FLOOR  
BERKELEY, CA 94704

RACHEL MCMAHON  
DIRECTOR, GOV. AFFAIRS-PROJECT DEV.  
SOLAR MILLENNIUM, LLC  
1625 SHATTUCK AVE, SUITE 270  
BERKELEY, CA 94709-1161

SEAN GALLAGHER  
VP, MARKET STRATEGY & REG. AFFAIRS  
STIRLING ENERGY SYSTEMS  
2600 10TH STREET, SUITE 635  
BERKELEY, CA 94710

ED SMELOFF  
SENIOR MANAGER  
SUNPOWER CORPORATION  
1414 HARBOUR WAY SOUTH  
RICHMOND, CA 94804

JULIETTE ANTHONY  
CALIFORNIANS FOR RENEWABLE ENERGY  
678 BLACKBERRY LANE  
SAN RAFAEL, CA 94903

LYNN M. ALEXANDER  
LMA CONSULTING  
129 REDWOOD AVENUE  
CORTE MADERA, CA 94925

TOM FAUST  
REDWOOD RENEWABLES LLC  
6 ENDEAVOR DRIVE  
CORTE MADERA, CA 94925

JOHN NIMMONS  
PRESIDENT  
JOHN NIMMONS & ASSOCIATES, INC.  
175 ELINOR AVE., SUITE G  
MILL VALLEY, CA 94941  
FOR: RECURRENT ENERGY

TIM ROSENFELD  
MARIN ENERGY MANAGEMENT TEAM  
131 CAMINO ALTO, SUITE D  
MILL VALLEY, CA 94941

EDWARD A. MAINLAND  
CNRCC SIERRA CLUB CALIFORNIA  
1017 BEL MARIN KEYS BLVD.  
NOVATO, CA 94949

KEITH WHITE  
312 KELLER ST  
PETALUMA, CA 94952

BARBARA GEORGE  
WOMEN'S ENERGY MATTERS  
PO BOX 548  
FAIRFAX, CA 94978-0548  
FOR: WOMEN'S ENERGY MATTERS

ERIC CHERNISS  
SOLARGEN ENERGY  
20400 STEVENS CREEK BLVD, SUITE 700  
CUPERTINO, CA 95014

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

THOMAS J. VICTORINE  
SAN JOSE WATER COMPANY  
1221 S. BASCOM AVENUE  
SAN JOSE, CA 95128

JASON PAYNE  
5450 MAYME AVE 23  
SAN JOSE, CA 95129

DAVID OLIVARES  
ELECTRIC RESOURCE  
MODESTO IRRIGATION DISTRICT  
PO BOX 4060  
MODESTO, CA 95352  
FOR: ELECTRIC RESOURCE PLANNING AND  
DEVELOPMENT MODESTO IRRIGATION DISTRICT

JOY A. WARREN  
REGULATORY ADMINISTRATOR  
MODESTO IRRIGATION DISTRICT  
1231 11TH STREET  
MODESTO, CA 95354

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

DOUGLAS M. GRANDY, P.E.  
DG TECHNOLOGIES  
1220 MACAULAY CIRCLE  
CARMICHAEL, CA 95608  
FOR: CALIFORNIA ONSITE GENERATION

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

DAVID MORSE  
1411 W, COVELL BLVD., SUITE 106-292  
DAVIS, CA 95616-5934

MARTIN HOMECH  
ATTORNEY AT LAW  
CALIFORNIANS FOR RENEWABLE ENERGY, INC.  
PO BOX 4471  
DAVIS, CA 95617

TOBIN RICHARDSON  
RICHARDSON GROUP  
1416 VIGO COURT  
DAVIS, CA 95618

BALDASSARO DI CAPO  
COUNSEL  
COMMISSION  
CALIFORNIA INDEPENDENT SYSTEM OPERATOR  
151 BLUE RAVINE ROAD  
FOLSOM, CA 95630

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

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

DENNIS W. DE CUIR  
ATTY AT LAW  
A LAW CORPORATION  
2999 DOUGLAS BLVD., SUITE 325  
ROSEVILLE, CA 95661  
FOR: GOLDEN STATE WATER COMPANY

RICK A. LIND  
SIERRA ECOSYSTEM ASSOCIATES  
PO BOX 2260  
PLACERVILLE, CA 95667

DAVID OLIVER  
NAVIGANT CONSULTING  
3100 ZINFANDEL DRIVE, SUITE 600  
RANCHO CORDOVA, CA 95670

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

ERIN RANSLOW  
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  
FOR: NAVIGANT CONSULTING, INC.

PAUL D. MAXWELL  
NAVIGANT CONSULTING, INC.  
3100 ZINFANDEL DRIVE, SUITE 600  
RANCHO CORDOVA, CA 95670-6078

KARLY MCCRORY  
SOLAR DEVELOPMENT INC.  
5420 DOUGLAS BLVD. STE. F  
GRANITE BAY, CA 95746-6253

TOM POMALES  
CALIFORNIA AIR RESOURCES BOARD  
1001 I STREET  
SACRAMENTO, CA 95812

AMBER RIESENHUBER  
ENERGY ANALYST  
INDEPENDENT ENERGY PRODUCERS ASSOC.  
1215 K STREET, SUITE 900  
SACRAMENTO, CA 95814

BRUCE MCLAUGHLIN  
ATTORNEY AT LAW  
BRAUN & BLAISING P.C.  
915 L STREET, SUITE 1270  
SACRAMENTO, CA 95814  
FOR: BRAUN & BLAISING P.C.

DANIELLE OSBORN-MILLS  
REGULATORY AFFAIRS COORDINATOR  
CEERT  
1100 11TH STREET, SUITE 311  
SACRAMENTO, CA 95814

EMILIO E. VARANINI, III  
GREENBERG TRAUIG, LLP  
1201 K STREET, SUITE 1100  
SACRAMENTO, CA 95814

ERIN GRIZARD  
THE DEWEY SQUARE GROUP  
921 11TH STREET, 10TH FLOOR  
SACRAMENTO, CA 95814

JANE E. LUCKHARDT  
ATTORNEY AT LAW  
DOWNEY BRAND LLP  
621CAPITOL MALL, 18TH FLOOR  
SACRAMENTO, CA 95814

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

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

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

SCOTT BLAISING  
ATTORNEY AT LAW  
BRAUN & BLAISING MCLAUGHLIN, P.C.  
915 L STREET, SUITE 1270  
SACRAMENTO, CA 95814

STEVE BRINK  
CALIFORNIA FORESTRY ASSOCIATION  
1215 K STREET, SUITE 1830  
SACRAMENTO, CA 95814  
FOR: CALIFORNIA FORESTRY ASSOCIATION

STEVEN KELLY  
POLICY DIRECTOR  
INDEPENDENT ENERGY PRODUCERS  
1215 K STREET, SUITE 900  
SACRAMENTO, CA 95814  
FOR: INDEPENDENT ENERGY PRODUCERS

ASSN

DANIELLE MATTHEWS SEPERAS  
CALPINE CORPORATION  
1215 K STREET, SUITE 2210  
SACRAMENTO, CA 95814-3978

BRIAN S. BIERING  
ELLISON SCHNEIDER & HARRIS, LLP  
2600 CAPITOL AVENUE, SUITE 400  
SACRAMENTO, CA 95816-5905  
FOR: LARGE-SCALE SOLAR ASSOCIATION

CHRISTOPHER T. ELLISON  
ATTORNEY AT LAW  
ELLISON, SCHNEIDER & HARRIS, LLP  
2600 CAPITOL AVENUE, SUITE 400  
SACRAMENTO, CA 95816-5905

DOUGLAS K. KERNER  
ATTORNEY AT LAW  
ELLISON, SCHNEIDER & HARRIS, LLP  
2600 CAPITOL AVENUE, SUITE 400  
SACRAMENTO, CA 95816-5905  
FOR: ELLISON, SCHNEIDER & HARRIS

LLP

JEDEDIAH J. GIBSON  
ATTORNEY AT LAW  
DISTRICT  
ELLISON SCHNEIDER & HARRIS LLP  
2600 CAPITOL AVENUE, SUITE 400  
SACRAMENTO, CA 95816-5905  
FOR: SIERRA PACIFIC POWER COMPANY

ROB ROTH  
SACRAMENTO MUNICIPAL UTILITY  
  
6201 S STREET MS 75  
SACRAMENTO, CA 95817  
FOR: SACRAMENTO MUNICIPAL UTILITY  
DISTRICT

MICHAEL DEANGELIS  
SACRAMENTO MUNICIPAL UTILITY DISTRICT  
DISTRICT  
6201 S STREET  
SACRAMENTO, CA 95817-1899  
FOR: SACRAMENTO MUNICIPAL UTILITY  
DISTRICT

TIMOTHY N. TUTT  
SACRAMENTO MUNICIPAL UTILITIES  
  
6201 S. STREET, M.S. B404  
SACRAMENTO, CA 95817-1899

VIKKI WOOD  
SACRAMENTO MUNICIPAL UTILITY DISTRICT  
6301 S STREET, MS A204  
SACRAMENTO, CA 95817-1899

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

LEE TERRY  
CALIFORNIA DEPARTMENT OF WATER RESOURCES  
3310 EL CAMINO AVENUE  
SACRAMENTO, CA 95821

MOHAN NIROULA  
CALIF DEPT OF WATER RESOURCES  
RESOURCE ADEQUACY SECTION  
3310 EL CAMINO AVENUE, STE 256  
SACRAMENTO, CA 95821

ART RIVERA  
RENEWABLE TECHCOM  
10243 ELLENWOOD AVE  
SACRAMENTO, CA 95827

RICH LAUCKHART  
GLOBAL ENERGY  
SUITE 200  
2379 GATEWAY OAKS DR.  
SACRAMENTO, CA 95833

RONALD LIEBERT  
ATTORNEY AT LAW  
CALIFORNIA FARM BUREAU FEDERATION  
119  
2300 RIVER PLAZA DRIVE  
SACRAMENTO, CA 95833

KAREN LINDH  
CALIFORNIA ONSITE GENERATION  
7909 WALERGA ROAD, NO. 112, PMB  
ANTELOPE, CA 95843

WILLIAM W. WESTERFIELD III  
SR. ATTORNEY  
SACRAMENTO MUNICIPAL UTILITY DISTRICT  
6201 S STREET, M.S. B406, PO BOX 15830  
205  
SACRAMENTO, CA 95852-1830  
FOR: SACRAMENTO MUNICIPAL UTILITY  
DISTRICT

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

JAMES L. BYARD PH.D.  
206 SACRAMENTO STREET, SUITE 206  
NEVADA CITY, CA 95959

CHRISTIAN MENTZEL  
CEM LLC  
619 KUPULAU DR  
KIHEI, HI 96753

ANNIE STANGE  
ALCANTAR & KAHL LLP  
1300 SW FIFTH AVENUE, SUITE 1750  
PORTLAND, OR 97201

MICHAEL ALCANTAR  
ATTORNEY AT LAW  
ALCANTAR & KAHL LLP  
1300 SW 5TH AVE., STE 1750  
PORTLAND, OR 97201

KYLE DAVIS  
DIR., ENVIRONMENTAL POLICY & STRATEGY  
PACIFICORP  
825 NE MULTNOMAH, SUITE 2000  
PORTLAND, OR 97232

MARK TUCKER  
PACIFICORP  
825 NE MULTNOMAH, SUITE 2000  
PORTLAND, OR 97232

TASHIANA WANGLER  
PACIFICORP  
825 NE MULTNOMAH SREET, SUITE 2000  
PORTLAND, OR 97232

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

TIMOTHY CASTILLE  
LANDS ENERGY CONSULTING, INC.  
18109 SE 42ND STREET  
VANCOUVER, WA 98683

INFINIA CORPORATION  
6811 WEST OKANOGAN PLACE  
KENNEWICK, WA 99336

MONIQUE STEVENSON  
SEA BREEZE PACIFIC REGIONAL TRANSMISSION  
LOBBY BOX 91  
333 SEYMOUR ST., SUITE 1400  
VANCOUVER, BC V5B 5A6  
CANADA

## State Service

---

JAMES MCMAHON  
CRA INTERNATIONAL  
50 CHURCH ST.  
CAMBRIDGE, MA 02138  
FOR: CALIFORNIA DEPARTMENT OF WATER  
RESOURCES

AMY C. BAKER  
CALIF PUBLIC UTILITIES COMMISSION  
ENERGY DIVISION  
AREA 4-A  
505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3214

ANDREW SCHWARTZ  
CALIF PUBLIC UTILITIES COMMISSION  
EXECUTIVE DIVISION  
BRANCH  
ROOM 5217  
505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3214

ANIANA M. SCHWANKL  
CALIF PUBLIC UTILITIES COMMISSION  
ELECTRICITY PLANNING & POLICY  
ROOM 4209  
505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3214

ANNE E. SIMON  
CALIF PUBLIC UTILITIES COMMISSION  
DIVISION OF ADMINISTRATIVE LAW JUDGES  
ROOM 5107  
505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3214

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

BURTON MATTSON  
CALIF PUBLIC UTILITIES COMMISSION  
DIVISION OF ADMINISTRATIVE LAW JUDGES  
ROOM 5104  
505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3214

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

CHRISTOPHER DANFORTH  
CALIF PUBLIC UTILITIES COMMISSION  
ENERGY PRICING AND CUSTOMER PROGRAMS BRA  
ROOM 4209  
505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3214

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

CYNTHIA WALKER  
CALIF PUBLIC UTILITIES COMMISSION  
DRA - ADMINISTRATIVE BRANCH  
BRANCH  
ROOM 4102  
505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3214

DAVID PECK  
CALIF PUBLIC UTILITIES COMMISSION  
ELECTRICITY PLANNING & POLICY  
ROOM 4103  
505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3214

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

DOROTHY DUDA  
CALIF PUBLIC UTILITIES COMMISSION  
DIVISION OF ADMINISTRATIVE LAW  
ROOM 5109  
505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3214

EDWARD HOWARD  
CALIF PUBLIC UTILITIES COMMISSION  
POLICY & PLANNING DIVISION  
ROOM 5119  
505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3214

ELIZABETH STOLTZFUS  
CALIF PUBLIC UTILITIES COMMISSION  
ENERGY DIVISION  
AREA 4-A  
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

GRETCHEN T. DUMAS  
CALIF PUBLIC UTILITIES COMMISSION  
LEGAL DIVISION  
ROOM 4300  
505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3214

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

JANE WHANG  
CALIF PUBLIC UTILITIES COMMISSION  
EXECUTIVE DIVISION  
ROOM 5029  
505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3214

JULIE A. FITCH  
CALIF PUBLIC UTILITIES COMMISSION  
ENERGY DIVISION  
DIVISION  
ROOM 4004  
505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3214

JULIE HALLIGAN  
CALIF PUBLIC UTILITIES COMMISSION  
CONSUMER PROTECTION AND SAFETY  
ROOM 2203  
505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3214

KARIN M. HIETA  
CALIF PUBLIC UTILITIES COMMISSION  
ENERGY PRICING AND CUSTOMER PROGRAMS BRA  
ROOM 4102  
505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3214

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

LAURENCE CHASET  
CALIF PUBLIC UTILITIES COMMISSION  
LEGAL DIVISION  
ROOM 5131  
505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3214

MARCELO POIRIER  
CALIF PUBLIC UTILITIES COMMISSION  
LEGAL DIVISION  
ROOM 5025  
505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3214

MARK R. LOY  
CALIF PUBLIC UTILITIES COMMISSION  
ENERGY COST OF SERVICE & NATURAL GAS BRA  
BRANCH  
ROOM 4205  
505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3214

MARY JO STUEVE  
CALIF PUBLIC UTILITIES COMMISSION  
ELECTRICITY PLANNING & POLICY  
ROOM 4101  
505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3214

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

MATTHEW TISDALE  
CALIF PUBLIC UTILITIES COMMISSION  
ELECTRICITY PLANNING & POLICY  
ROOM 4104  
505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3214

MERI LEVY  
CALIF PUBLIC UTILITIES COMMISSION  
ELECTRICITY PLANNING & POLICY BRANCH  
ROOM 4102  
505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3214

MICHAEL COLVIN  
CALIF PUBLIC UTILITIES COMMISSION  
POLICY & PLANNING DIVISION  
ROOM 5119  
505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3214

MITCHELL SHAPSON  
CALIF PUBLIC UTILITIES COMMISSION  
LEGAL DIVISION  
BRANCH  
ROOM 4107  
505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3214

NIKA ROGERS  
CALIF PUBLIC UTILITIES COMMISSION  
ELECTRICITY PLANNING & POLICY  
ROOM 4101  
505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3214

NILGUN ATAMTURK  
CALIF PUBLIC UTILITIES COMMISSION  
POLICY & PLANNING DIVISION  
ROOM 5119  
505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3214

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

RAHMON MOMOH  
CALIF PUBLIC UTILITIES COMMISSION  
ELECTRICITY PLANNING & POLICY BRANCH  
ROOM 4102  
505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3214

RAJ NAIDU  
CALIF PUBLIC UTILITIES COMMISSION  
DIVISION OF WATER AND AUDITS  
AREA 3-B  
505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3214

SARA M. KAMINS  
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 DIVISION  
AREA 4-A  
505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3214

SUDHEER GOKHALE  
CALIF PUBLIC UTILITIES COMMISSION  
ELECTRICITY PLANNING & POLICY BRANCH  
ROOM 4102  
505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3214

TRACI BONE  
CALIF PUBLIC UTILITIES COMMISSION  
LEGAL DIVISION  
ROOM 5031  
505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3214

WILLAIM N. BRIEGER  
DEPARTMENT OF JUSTICE  
CALIFORNIA ATTORNEY GENERAL'S OFFICE  
1300 I ST., STE. 125/ PO BOX 944255  
SACRAMENTO, CA 94244-2550  
FOR: CALIFORNIA DEPARTMENT OF JUSTICE

CLARE LAUFENBER GALLARDO  
CALIFORNIA ENERGY COMMISSION  
1516 NINTH STREET, MS-46  
SACRAMENTO, CA 95814

CONSTANCE LENI  
CALIFORNIA ENERGY COMMISSION  
MS-20  
1516 NINTH STREET  
SACRAMENTO, CA 95814

HEATHER RAITT  
CALIFORNIA ENERGY COMMISSION  
1516 9TH STREET, MS 45  
SACRAMENTO, CA 95814  
FOR: CALIFORNIA ENERGY COMMISSION

JOSEPH FLESHMAN  
CALIFORNIA ENERGY COMMISSION  
1516 9TH STREET, MS-45  
SACRAMENTO, CA 95814  
FOR: CALIFORNIA ENERGY COMMISSION

KATE ZOCCHETTI  
CALIFORNIA ENERGY COMMISSION  
1516 9TH STREET, MS-45  
SACRAMENTO, CA 95814

LORRAINE GONZALES  
CALIFORNIA ENERGY COMMISSION  
1516 9TH STREET MS-45  
SACRAMENTO, CA 95814  
FOR: CALIFORNIA ENERGY COMMISSION

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

PAMELA DOUGHMAN  
CALIFORNIA ENERGY COMMISSION  
TECHNOLOGY SYSTEMS DIVISION  
1516 9TH STREET, MS 45  
SACRAMENTO, CA 95814

SUSANNAH CHURCHILL  
CALIFORNIA ENERGY COMMISSION  
1516 NINTH ST.  
SACRAMENTO, CA 95814  
FOR: CALIFORNIA ENERGY COMMISSION

THOMAS FLYNN  
CALIF PUBLIC UTILITIES COMMISSION  
ENERGY DIVISION  
770 L STREET, SUITE 1050  
SACRAMENTO, CA 95814

CONNIE LENI  
CALIFORNIA ENERGY COMMISSION  
1516 9TH STREET MS-20  
SACRAMENTO, CA 95814-5512

DAVID VIDAVER  
CALIFORNIA ENERGY COMMISSION  
1516 NINTH STREET, MS-20  
SACRAMENTO, CA 95814-5512

JIM WOODWARD  
CALIFORNIA ENERGY COMMISSION  
1516 NINTH STREET, MS 20  
SACRAMENTO, CA 95814-5512

HEATHER LOUIE  
CALIFORNIA ENERGY COMMISSION  
1516 9TH STREET, MS-45  
RESOURCES  
SACRAMENTO, CA 95818  
FOR: CALIFORNIA ENERGY COMMISSION

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

ROSS A. MILLER  
ELECTRICITY ANALYSIS OFFICE  
CALIFORNIA ENERGY COMMISSION  
1516 9TH STREET MS 20  
SACRAMENTO, CA 96814-5512