BEFORE THE PUBLIC UTILITIES COMMISSION OF THE
STATE OF CALIFORNIA

Order Instituting Rulemaking to Integrate and Refine Procurement Policies Underlying Long-Term Procurement Plans.

) Rulemaking 08-02-007
) (Filed February 14, 2008)

SOUTHERN CALIFORNIA EDISON COMPANY'S (U 338-E) PROPOSAL REGARDING CONGESTION REVENUE RIGHTS AND VIRTUAL BIDDING AND ADDITIONAL ISSUES RELATED TO THE CALIFORNIA INDEPENDENT SERVICE OPERATOR MARKET REDESIGN AND TECHNOLOGY UPGRADE

MICHAEL MONTOYA
DEANA M. WHITE
AMBER DEAN

Attorneys for
SOUTHERN CALIFORNIA EDISON COMPANY

2244 Walnut Grove Avenue
Post Office Box 800
Rosemead, California 91770
Telephone: (626) 302-1936
Facsimile: (626) 302-1935
E-mail: Deana.White@SCE.com

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In accordance with the August 28, 2008 Assigned Commissioner’s Ruling and Scoping
Memo on the 2008 Long Term Procurement Proceeding, Phase 1 (the Phase 1 Ruling), Southern
California Edison Company (SCE) submits the following Proposal Regarding Congestion
Revenue Rights (CRRs), Virtual Bidding (VB) and additional issues related to the California
Independent Service Operator (CAISO) Market Redesign and Technology Upgrade (MRTU).

I.

INTRODUCTION

Under its current schedule, the CAISO will launch MRTU by February 1, 2009. Upon
implementation of MRTU, the IOUs will no longer be able to obtain Firm Transmission Rights
(FTRs) to hedge congestion charges. Instead, the IOUs will hedge transmission congestion
charges with purely financial instruments referred to as CRRs. A CRR will entitle its owner to
receive payment of an amount equal to the difference between the price of energy at the source
(generation) and sink (load) nodes. Thus, CRRs are designed to give the owner a hedge against congestion costs caused by price differences between generation resources and load. \footnote{1}

CRRs are currently offered for durations of one month, one quarter for a single year (known as annual CRRs, but distinguished by calendar quarter), and ten years (long-term CRRs or LT-CRRs, again distinguished by calendar quarter) for both on-peak and off-peak periods. Pursuant to its Tariff, the CAISO has the authority to make CRRs available to entities through an allocation and auction process. The CAISO has already issued CRRs for the year 2008 and is in the process of making CRRs available for 2009. As stated in the Phase 1 Ruling, PG&E, SCE and SDG&E have already sought and obtained initial authority to acquire CRRs and that procurement authority has been included in their respective 2006 Procurement Plans.\footnote{2} As discussed in Section II below, SCE proposes that the current upfront and achievable standards for CRR acquisition and retention remain in effect.

Also as part of its implementation of MRTU, in accordance with a Federal Energy Regulatory Commission (FERC) mandate, the CAISO must implement VB within one year of the launch of MRTU (go-live).\footnote{3} Virtual Bids will enable a market participant to buy (or sell) electricity in the Day-ahead market and to simultaneously assume an opposite obligation to sell (or buy) an identical amount of electricity in the Real-time market. The CAISO will treat Virtual bids just like physical bids in the Day-ahead market. That is, the optimization will allow VB to influence energy prices, congestion and in turn, to the change the commitment and dispatch of physical generation and modeled electrical flows on the transmission system. VB will also influence market uplift charges and Residual Unit Commitment (RUC) prices in that the CAISO will have to replace Virtual supply with physical supply in the RUC market.

\footnote{1}{For additional background on CRRs, see SCE’s Advice Letter 2141-E and Section 36 of the CAISO’s MRTU Tariff.}
\footnote{2}{Phase 1 Ruling at pp. 15-16. SCE’s current CRR procurement authority is codified in Resolution E-4117, Resolution E-4134 and SCE’s Conformed 2006 LTPP.}
\footnote{3}{Given the current MRTU scheduled start date of February 1, 2009, VB should be implemented no later than February 1, 2010. Note that the CAISO refers to VB as “convergence bidding.”}
Virtual Bids are distinct from non-Virtual bids in that the power from Virtual bids will not physically flow. Rather, Virtual bids are for a purely financial commitment. Thus, for example, a bidder submitting a Virtual supply bid for one MWh would receive the Day-ahead market price for one MWh, and would have an obligation to pay the Real-time market price for the one MWh since it would never actually produce the one MWh of energy. Given that VB is going to be implemented and other creditworthy market participants will undoubtedly submit Virtual bids where determined profitable to do so, SCE believes that it is critical for the IOUs to also have the authority to participate in VB. Otherwise, the IOUs will be unable to transact on a level playing field with other market participants, which could ultimately lead to higher prices for IOU customers. Although SCE believes it is premature to establish upfront and achievable standards for VB at this time, SCE describes circumstances under which IOU participation in VB would be beneficial to utility customers in Section III below.

II.

SCE’S PROPOSED UPFRONT AND ACHIEVABLE STANDARDS FOR THE ACQUISITION AND RETENTION OF CCRS.

A. The IOUs’ Current Upfront Standards for the Acquisition of CRRs Should Be Affirmed in this LTPP Proceeding

The Phase 1 Ruling directs the IOUs to file proposals for interim upfront and achievable standards regarding how to acquire and retain CRRs, and otherwise comply with the strictures of Public Utilities Code section 454.5 with respect to CRR ownership. The fundamental structure of the CRR product itself and the CAISO’s process for distributing CRRs remain unchanged from what was in effect at the time the Commission approved the upfront and achievable standards for CRR acquisition and retention of CRRs in the IOUs’ current procurement plans.4

4 Indeed, SCE believes it is premature to conclude that new upfront standards will be necessary in order for the IOUs to have procurement authority to conduct VB transactions.
Therefore, SCE recommends that the Commission affirm the upfront achievable standards currently included in the IOUs’ procurement plans as the *interim* upfront and achievable standards for this 2008 LTPP Proceeding. Those upfront and achievable standards include the following requirements:

- SCE is authorized to obtain CRRs that are valuable as hedges against congestion costs SCE may face, subject to risk assessment regarding the specific source/sink combinations. SCE should not obtain CRRs that are unrelated to SCE’s sources of power.
- CRRs are not to be used as tools for financial speculation in the congestion market.
- SCE is authorized to take reasonable actions to dispose of CRRs when it has more CRRs than it needs. These reasonable actions may include bidding into the CRR auction or offering the CRR for trades in the secondary market.
- There is no express volume limit for CRR transactions. The volume of CRRs procured by SCE is limited by CAISO rules and SCE’s expected grid use.
- Prior to participating in the annual and monthly CRR allocation/auction process, SCE should identify candidate CRRs for consideration based on the location and magnitude of its resources and loads (existing and potential), and may also identify additional candidate CRRs that are potentially positively correlated in value with other CRRs of interest, so long as the correlation is a reflection of the physical realities of the grid. SCE will limit candidate CRRs to those CRRs with a source at which SCE reasonably expects to procure power.
- For the overall portfolio and for each of the candidate CRRs, SCE should estimate the expected value for the relevant time period. SCE should make enhancements over time to its valuation methodologies.

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5 While the CAISO has made changes to the schedule for allocation and auctioning CRRs due to a revised MRTU start date, the process for allocation and auctioning CRRs has not changed.
• Similarly, prior to participating in the annual and monthly CRR allocation/auction process, or prior to converting awarded CRRs to LT-CRRs, SCE should evaluate the risks of obtaining CRRs or not obtaining CRRs for the candidate CRR paths.

• All SCE auction awards that are in compliance with the upfront standards established by the Commission are *per se* reasonable.

• SCE may use the same transaction processes that its Procurement Plan authorizes SCE to use for energy transactions – *e.g.*, transact using brokers or exchanges, bilaterally subject to providing a “strong showing” in the Quarterly Procurement Plan Compliance filing, through an RFO (if feasible), etc. Among valid, competing offers for the same CRR, SCE will select based on the better price (all else being equal). Particular locational spreads may also be purchased if related CRRs are not available.

In addition, SCE’s procurement activities with respect to CRRs are subject to the following reporting and PRG consultation requirements:

• SCE is to record a credit or debit entry equal to any expense associated with its CRR procurement transactions in a separate tracking account associated with CRR transactions only. All entries recorded into SCE’s ERRA balancing account, including CRR entries, are to be examined by the Commission in its review of SCE’s Quarterly Compliance Reports and annually in a review of the ERRA balancing account.

• SCE shall report all CRR transactions in its Quarterly Compliance Report (QCR). The QCRs should contain, at a minimum, for each CRR, source, sink, MW quantity, term, expected value, past performance (if applicable), bid price (for CRR auctions or secondary market transactions), and a description the underlying energy supply arrangement that the CRR will hedge.

• SCE must consult with its PRG prior to transacting for any CRR having a term greater than one calendar quarter, which by definition applies to all LT-CRRs.
• SCE must consult with the PRG prior to making CRR nominations for any of the tiers in the annual allocation process, even though CRRs awarded in the annual CAISO allocation/auction process only have a term of one calendar quarter.

• SCE must consult with its PRG prior to participating in the annual CRR auction. The Commission directs SCE to provide the PRG participants, prior to the PRG meeting, a list of proposed annual and long term CRR nominations for allocation and auction, showing source, sink, MW quantity, term, expected value, past performance (if applicable), bid price, and a description the underlying arrangement that the CRR will hedge.

• SCE is not required to consult with the PRG prior to each monthly CRR allocation/auction process. Rather, SCE must review its CRR position with the PRG in its periodic position update discussions, including the review of quarterly compliance reports.

• SCE must provide to its PRG participants, within three business days of each monthly CRR allocation or auction tier, a listing of proposed monthly CRR nominations for allocation and auction, showing source, sink, MW quantity, term, expected value, past performance (if applicable), bid price and a description the underlying arrangement that the CRR will hedge.

• SCE must provide the PRG with the following information regarding secondary market transactions involving quarterly and monthly CRRs: source, sink, MW quantity, term, expected value, past performance (if applicable), bid price, and a description the underlying arrangement that the CRR will hedge. This information may be submitted in one of two ways: 1. SCE may report secondary trades in a weekly report, submitted within two business days of the end of the reporting period (for example, a report from Thursday through Wednesday would need to be submitted by the following Friday), or 2. SCE may report secondary trades within two business days of the trade date, reporting each trade separately.
• If a PRG participant requests a discussion of a secondary transaction regarding a CRR, SCE should discuss that transaction at the next appropriate PRG meeting.

• SCE must report any secondary market transactions for a one year segment of a LTCRR in the same manner as it would report a secondary market transaction for an annual CRR.

• SCE must review its CRR valuation and risk analysis and methodologies with its PRG (prospectively for the annual CRR auction/allocation process).

1. **Authorization for Procurement of CRR Products With Durations of Greater Than Five Years (LT-CRRs)**

Because LT-CRRs have a duration of greater than five years, IOUs would ordinarily be required to file a formal application with the Commission requesting authority to obtain LT-CRRs. However, the CAISO’s LT-CRR allocation process presents unique timing challenges that make filing such a formal request unworkable. The CAISO allows load serving entities (LSEs) to convert a portion of their short-term CRRs obtained from its allocation process into LT-CRRs. The time between the release of allocation results and the start of the LT-CRR request window is very limited (four business days in the 2009 CRR allocation process). Thus, there is simply not a sufficient amount for time for the IOUs to seek and obtain Commission approval through a formal application process in order to nominate short-term CRRs for conversion into LT-CRRs under the CAISO’s timeline.

SCE raised this timing issue with the Commission in Advice Letter 2142-E, and requested that the Commission exempt LT-CRRs from the formal application process. In granting SCE’s request for an exemption in Resolution E-4117, “The Commission determined that SCE is correct in its assessment that there will not be enough time for a formal approval of

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6 Pursuant to D.07-12-052 Ordering Paragraph 19, as a general rule, the IOUs are required to file a formal application with the Commission seeking authority to procure energy-related products with durations of five years or greater.
SCE’s LTCRR nominations following SCE’s Tier One and Tier Two CRR awards made by the CAISO.” The CAISO’s process for allocating LT-CRRs has not changed since Resolution E-4117 was issued. Therefore, SCE requests that the Commission adopt, for purposes of obtaining LT-CRRs, a continuing exemption from the requirement to file a formal application.

SCE also recommends that the Commission affirm the upfront and achievable standards for IOU acquisition of LT-CRRs set forth in E-4117. In addition to the upfront and achievable standards applicable to the procurement of all CRRs, Resolution E-4117 contains the following requirements:

- SCE may obtain LT-CRRs that are valuable as hedges against congestion costs SCE may face, subject to risk assessment regarding the specific source/sink combinations. SCE may not obtain LT-CRRs that are unrelated to SCE’s sources of power.
- SCE may only acquire LT-CRRs that closely resemble its expected grid usage both in the choice of source/sink combinations and in the duration of the CRR with respect to the length of its energy supply contracts.

Because the CAISO’s short timeline for the acquisition of LT-CRRs has not changed, and because the upfront standards previously established by the Commission provide sufficient assurance that the IOUs will nominate only those LT-CRRs that match their needs both in terms of resources and length of expected congestion exposure, the Commission’s previously adopted upfront standards for LT-CRRs should be affirmed in this proceeding.

B. Responses to the Specific CRR-Related Questions Posed in the Phase 1 Ruling

SCE provides the following responses to the questions included in the Phase 1 Ruling:
1. **What types of existing analytical tools are currently available to inform such interim standards to be applied in the absence of real-life MRTU experience?**

SCE is aware of the following analytical tools that may be used to evaluate CRRs: ABB-Gridview, ECCO-ProMaxLT, Ventyx-ProMod, and Plexos Solutions-Plexos. SCE currently uses a combination of some of these tools as well as internally developed ad-hoc analytics to assist in the development of CRR requests. In addition to the use of analytical tools, SCE gathers information using other methods described in CPUC Resolution E-4134 to develop its CRR requests. SCE supports the continued use of analytical tools to inform CRR requests as described in E-4134.

2. **Whether existing tools are adequate to serve as an interim standard, or conversely whether new tools are called for.**

While appropriate analytical tool(s) should be used by the IOUs to help them develop their CRR nominations, the models currently available are not robust enough to serve as the basis for an upfront and achievable procurement “standard.” These load-flow and locational marginal pricing (LMP) models use mathematical algorithms that are very sensitive to congestion constraints. The tools currently available today mimic the model the CAISO will use for determining LMP and congestion prices, which also has the same issue of sensitivity. SCE does not believe that these tools could be modified and implemented to be robust enough to serve as a standard, and especially not before MRTU start up. Moreover, SCE cautions against the simple and blind use of any analytical tool as a sufficient interim standard. Expertise in the tool at hand as well as professional judgment must be concomitant with the use of the analytical tool itself. Use of such tools may be a necessary element of a standard, but should not be the complete standard.
3. **The advantages and/or disadvantages of varying degrees and types of CRR hedging strategies.**

Under the CAISO’s CRR acquisition process, LSEs can obtain both short-term and LT-CRRs. Like energy and gas hedges, both short-term and LT-CRRs are necessary components of a sound CRR acquisition strategy. The IOUs are authorized to obtain LT-CRRs to protect against congestion risks associated with long-term supply resources. Short-term CRRs are important to ensure that near-term adjustments can be made as an IOU’s owned and contracted supply portfolio changes. This is also advantageous for responding to changes in direct access levels, demand response, and energy efficiency (e.g., increased DR or EE would reduce the need for CRRs). Further, the CAISO only releases 75% of the CAISO’s eligible CRRs in the annual acquisition process and the remaining amount (i.e., up to 100%) during the monthly acquisition process.

SCE does not support Commission establishment of IOU-specific position volume limits for CRRs for the same reason the Commission elected not to establish IOU-specific position volume limits for CRRs or Firm Transmission Rights (FTRs) in the IOUs’ current procurement plans. First, limiting the use of a CAISO product for IOUs where the same restrictions do not exist for other market participants puts IOU customers at a risk of not being able to obtain hedges that are in their economic interest. Second, the CAISO tariff requirements include volume limits in the allocation process that address position limits for all CRR-eligible entities. For example, the CAISO’s Tariff limits an LSE’s eligible quantity to less than its previous year’s peak load. Only through participation in the CAISO’s CRR auction can an IOU acquire more CRRs than its previous year’s load, and only if the IOU has met the upfront and achievable standard of “expected use of the grid.” If an IOU acquires CRRs in the auction that cannot be reasonably defended as “expected use,” then that acquisition is not compliant with the upfront and achievable standard.

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2 Resolution E-4134 at p. 6
4. **Methods for estimating increases/decreases to CRR values arising from changes in ordinary grid flows arising from changes in load, resources and transmission infrastructure, etc.**

Based on publicly available information provided by the CAISO, SCE uses models to estimate LMPs and congestion costs under various conditions (e.g., high/low hydro, load, etc). While SCE can provide the Commission with additional information on the methods and techniques available for use, SCE does not believe this information should be part of an upfront and achievable standard. SCE considers the ability to use new and improved models as they are developed to be a necessary element of continuous improvement. For this reason, while SCE believes that the same modeling techniques used to develop an IOU’s participation in the CRR release process can be used to estimate changes in CRR value, it is important to ensure that a single method of estimating changes in CRR value is not codified as “the” method. To do so would severely limit the IOUs’ ability to incorporate enhancements in software, technology, expertise, market information, and experience.

5. **Whether the utilities should use identical analytical tools, or whether there are reasons for using different analytical tools between the IOUs.**

There should not be a requirement for the IOUs to use the same analytical tools. IOU employees have different levels of expertise in diverse areas, different market information, different supply resource portfolios, different data structures, and different hedging needs. There is no reason to burden the IOUs with a “one-size fits all” requirement that would likely result in the imposition of unnecessary costs on IOU customers.

6. **How to incorporate real-life experiences with CRRs after MRTU startup, within such analysis prior to development of long-term standards.**

After MRTU start-up, if the Commission desires information from the IOUs to help determine if changes to the interim upfront and achievable standards for CRRs are necessary,
SCE will provide that information. SCE has had only limited “real-life” experience with MRTU through the 2008 CRR allocation/auction process and does not believe it is necessary, nor prudent, to pre-judge possible real-life impacts of MRTU at this time.

III.

WHILE IT IS PREMATURE FOR THE COMMISSION TO ADOPT UPFRONT AND ACHIEVABLE STANDARDS FOR VB, THE COMMISSION SHOULD AUTHORIZE THE IOUS TO PARTICIPATE IN VB WHEN THE TIME IS RIPE

FERC has mandated the CAISO to implement VB within one year of its implementation of MRTU. SCE expects that the CAISO will allow participation in the VB market from any entity that satisfies the CAISO’s credit requirements. Given that VB will be in place and that a host of market participants will be submitting Virtual bids, SCE believes that it is critical for the IOUs to have the ability to participate in VB as well. As a general rule, the IOUs should have access to all of the CAISO’s market mechanisms afforded to other participants, because IOU customers are entitled to have the procurement undertaken on their behalf to take place on a level playing field. Even the CAISO’s Market Surveillance Committee (MSC) recognizes the importance of allowing IOU participation in the Virtual markets, and the necessity of ensuring that the Commission develop clear rules for IOU participation.8 IOU participation ensures that utility customers have the ability to address market risks under a variety of scenarios, as discussed in greater detail below.

It is important to note that the CAISO has not yet developed rules for how it will implement VB, so the IOUs do not yet know the parameters under which VB will potentially take place. Therefore, while SCE appreciates that the Commission is taking an early look at potential VB issues, it would be premature for the IOUs to recommend specific upfront and achievable standards at this time. The CAISO is expected to file a detailed proposal regarding

8See August 10, 2007 Meeting Minutes of the CAISO MSC at p. 2 (“Another issue raised was the importance of clear rules from the CPUC on how the utilities can use convergence bidding”).
VB with FERC about six months after MRTU go-live, which under the current schedule would be around September 2009. Once the CAISO’s detailed rules are developed and approved by the CAISO Board, SCE will be in a much better position to offer proposed upfront and achievable standards. SCE proposes that the Commission establish an expedited schedule for consideration of the possible upfront and achievable standards for VB once the CAISO Board has approved the CAISO’s VB proposal and authorized the CAISO to file that proposal with FERC. The Commission’s schedule should time the process so that the IOUs’ upfront and achievable standards are not adopted until after FERC has first adopted the CAISO rules.

Until that time, based on the general framework for VB that the CAISO has discussed thus far, SCE believes that its participation in VB markets could benefit its customers under the following types of circumstances:

- **Hedging the price of generation outages to mitigate the risk of high real-time replacement costs.** Virtual demand bids can be used in conjunction with physical generation bids to hedge against the price risks associated with a physical generator tripping or being derated between the close of the Day-ahead market and Real-time.

- **Hedging the price risk associated with the performance of intermittent resources.** Virtual demand bids can be used to mitigate the uncertainty associated with Day-ahead schedules for intermittent resources by ensuring that an intermittent resource settles against the Real-time price based on actual performance.

- **Hedging the price risk of load forecast errors that might otherwise result in high-priced real-time replacement purchases, or low-priced real-time sales of excess energy.** Depending on the hourly concerns of possible forecast errors, Virtual supply or Virtual demand bids can hedge physical demand purchases against the associated real-time price risk.

- **Hedging power deliveries so that associated CRRs settle based on the congestion prices in the same market (either Day-ahead or Real-time) in which deliveries occur.** CRRs are settled against the Day-ahead congestion price. Virtual bids can be used to shift the CRR
hedge into the Real-time market to match power delivery in Real-time. While the full ability to do this will depend on final rules, Virtual bids may be used to change the settlement of a CRR from the Day-ahead market to the Real-time market.

- **Diversify purchase and sales exposure between Day-ahead and Real-time market prices.** Virtual bids can be used to allow physical generation and load to be scheduled in the day-ahead market, but to settle at the real-time price. This permits purchase/sale price diversification while still clearing physical load and generation in the day-ahead market.

- **Hedging the value of financial contracts.** Virtual bids can be used to effectively change the settlement of a financial energy contract to either the Day-ahead or Real-time price. The added flexibility increases the risk management benefits of financial contracts.

- **To protect against market distortions resulting from market design issues or the bidding (physical or Virtual) of third parties.** Under some possible implementations of VB, Virtual transactions may create market outcomes that cannot be readily addressed with physical supply bids. For example, physical load bids can only be submitted at the service territory level (the LAP) and physical generation bids can only be submitted at the physical interconnection of the generator. In contrast, parties may be permitted to submit VB at any location on the grid. Thus, if a party submits a large amount of Virtual demand bids at a particular node, this might cause dramatic price increases in the vicinity of the node. Physical bids have no direct mechanism for providing additional supply or removing physical load from a node. Therefore, to address the high prices, the most direct response would be to submit Virtual supply in the vicinity of the high price in order to mitigate the market distortion.

Utilizing VB to address these types of market issues would provide the benefit of risk mitigation and flexibility to IOU customers. SCE notes that the applicability of specific strategies will largely depend upon the VB rules that will ultimately be developed by the CAISO. SCE recommends that the Commission defer consideration of what actual VB options will be available to the IOUs until after the CAISO finalizes its VB rules.
A. Benefits and/or Risks of Virtual Bidding.

Although the CAISO’s VB proposal has not been finalized, SCE recognizes that there will be both potential benefits and potential risks associated with participation in VB under MRTU. Potential benefits of VB include: (1) the elimination of concerns from parties that LSEs might underschedule load in the Day-ahead market and in turn, inappropriately influence market prices; (2) the addition of flexible bids to the Day-ahead market which may help the market software find “feasible” solutions; (3) the availability of a legitimate tool for hedging physical and/or financial market transactions; and (4) an increase in competition in the CAISO’s Day-ahead market, which could lead to better overall market results.

Along with these benefits, VB introduces potential risks to the CAISO market. Potential risks identified by SCE include: (1) increased complexity of the CAISO market in areas such as Day-ahead optimization, market power mitigation rules, market settlements, and credit standards; (2) creation of a mechanism for participants to potentially distort market results to the detriment of the California ratepayers, and (3) without appropriate oversight and migration rules, the potential for market manipulation by undermining the CAISO market power mitigation process, manipulating energy and ancillary service prices, manipulating congestion prices and values for CRRs, exploiting shortfalls in the CAISO software, increasing and/or shifting market uplift costs, and increasing the risk of participant defaults.

SCE believes the best way for SCE to both obtain the potential benefits from VB and protect its customers from the potential risks is for SCE to have the authority to participate in VB.

B. Percentage of Day-Ahead market the IOUs should dedicate to VB.

As indicated above, IOUs need the ability to participate in VB to protect the interests of their customers. As to the question of what percentage of an IOU’s Day-ahead activities should be dedicated to VB, it is premature to answer this question at this time, because the CAISO has
not finalized the market design rules for VB. Outstanding issues associated with the development of a VB design include:

1. Whether to allow VB at the Nodal or Zonal level.
2. Under a Nodal VB market structure, whether the CAISO should place limits on the amount of Virtual activity on a particular node or if there should be aggregate limits placed on participants.
3. Finalization of the credit requirement for participation in VB.
4. The rules for the allocation of uplift to Virtual bidders.

SCE notes that the issue of “position limits” is under active discussion at the CAISO. Thus, the Commission will be in a better place to evaluate this question after the CAISO proposes rules to the FERC.

C. Speculation in VB Markets Can Help or Harm Ratepayers.

Like other energy-related hedges, VB should be part of an overall strategy to procure power at reasonable prices for IOU customers. SCE does not anticipate that the IOUs would participate in VB purely to “speculate.”

SCE foresees, however, it is very likely other market participants will participate in the Virtual market solely for speculative purposes. Speculation by other market participants has the potential to impact energy prices, which could potentially help or hurt ratepayers in the short run. In the long run, prices that do not reflect competitive and efficient outcomes, either too high or too low, are unlikely to help customers.

D. What upfront risk analysis may prevent undue speculation by IOUs?

It is premature to determine risk analysis metrics for VB. As previously stated, SCE does not anticipate that the IOUs will participate in VB purely to “speculate.” Rather, the IOUs should be authorized to use VB as a means to protect the physical/financial positions of their customers and as a tool to more efficiently manage their operations and market participation.
While other market participants may participate in VB for the benefit of their shareholders, SCE will participate in VB activities solely for the benefit of its customers. In other words, SCE will not request authority to speculate with VB, and will not seek authorization to pass any of the benefits resulting from its VB participation to its shareholders. This structure provides a strong framework to ensure the IOUs have no fiscal incentive to use VB for speculative purposes.

E. **Whether IOU participation in VB may result in higher LMP pricing for energy.**

IOU participation in VB could result in higher or lower LMP prices in the CAISO’s Day-ahead or Real-time energy markets. In addition, the lack of participation of IOUs in VB could affect Day-ahead and Real-time energy prices. Given the expectation that the CAISO’s VB will be open to any creditworthy entity, it is anticipated that many entities will have the ability to impact Day-ahead and Real-time energy prices by participating in VB. To the extent an IOU or any other market participant submits and clears Virtual demand bids into the Day-ahead market SCE would expect, *in isolation*, to see energy prices increase due to the additional amount of total load clearing in the day-ahead market. If the CAISO allows VB on a nodal level, given the host of constraints that must be honored in an LMP market, under some circumstances, even relatively small amounts of Virtual demand bids can materially increase prices.

On the other hand, if an IOU or any other participant submits and clears Virtual supply bids in the Day-ahead market, SCE would expect prices to decrease. Similarly, if allowed, even small amounts of nodal Virtual supply can materially decrease prices under some circumstances.

The Commission must not ignore the fact that participation in the VB market will not be restricted to the IOUs. SCE anticipates that many other parties, including trading firms, banks, hedge funds, and load serving entities will also submit Virtual bids. If there is robust participation by all market segments, including the IOUs, the CAISO market (both Virtual and physical) will be deep and liquid, and therefore the behavior of any individual participant, IOU or otherwise, should not have a sustained material impact on aggregate market prices. If on the
other hand, the Commission were to preclude the IOUs from participating in the VB market, other Virtual market participants could materially impact market prices to the detriment of IOU customers, and without a response by the IOUs, it is possible that the detrimental prices could persist for an extended period of time.

**F. Impacts IOU VB participation may have on CRR hedging.**

A potential benefit of VB is that, under some proposed rules, it can be used as a hedging tool to move the settlement of a CRR contract from the Day-ahead to the Real-time market. IOUs holding CRRs can utilize VB to hedge price risk if the underlying delivery of power requiring a congestion hedge shifts from the Day-ahead market to the Real-time market.

A potential concern is that without proper monitoring and mitigation rules, VB, in conjunction with holding CRRs, can have a negative impact on utility customers. Specifically, entities holding CRRs (positive or negative) can use VB to artificially increase the value of their CRRs by inflating or deflating the value of congestion associated with their CRRs. One of the CAISO’s counterparts, PJM Interconnection, developed specific rules to help address this issue after it observed parties actually distorting markets to increase the value of their CRRs. SCE expects the CAISO to develop similar rules and monitoring methods that will impose limitations on a CRR holder’s ability to submit Virtual bids at pricing nodes at or near its CRR holdings contract points. Such rules have not yet been developed by the CAISO, however, and therefore it is unclear what restrictions will ultimately be placed on VB in California.

**G. Tools and framework needed by the IOUs to measure and analyze overall portfolio risk management as well as risks from participating in VB markets.**

To estimate the potential impact of Virtual bids, parties should have tools that will allow them to identify potential distortions in the market, and to perform analysis of the potential

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9 PJM Interconnection is a regional transmission organization that coordinates the movement of wholesale electricity in all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and the District of Columbia.
impact Virtual bids may have on market results (e.g. prices and physical dispatch of their portfolio).

With respect to portfolio management tools, it is premature to offer specifics at this time since the CAISO has not finalized the market design rules for VB.

H. Whether the IOUs prefer monthly, quarterly, or bi-annual or any other time interval for periodic Commission review and approval of the IOU position on VB and why.

Because it is premature to adopt upfront and achievable standards for IOU participation in the VB market, it is similarly premature to develop a framework for review of IOU compliance with those potential standards. Therefore, SCE requests that the Commission refrain from establishing its compliance review process until such time as the CAISO’s VB rules are filed and the IOUs’ upfront and achievable standards for VB procurement activities are adopted. At this time, SCE does not believe it will be necessary for the Commission to create a new process for review of IOU VB activity.

I. What market power and manipulation issues result from IOU participation in the CAISO VB market?

SCE fully anticipates the CAISO VB proposal filed with FERC will include robust rules to address potential market power and manipulation issues. The CAISO’s tariff will address market power and market manipulation from a market-wide perspective (i.e. each IOU will be but one of many market participants). It is by no means a certainty that the IOUs will be the largest participants in the CAISO’s VB market.

While the CAISO is tasked by FERC to monitor its markets for abuse and to recommend rules and structures that will limit the potential for abuse, the Commission could work closely with the CAISO to see that such safeguards are in place, and to the extent possible, stay informed regarding any concerns over manipulation or design issues identified by CAISO.
J. Confidentiality.

Once IOU participation in VB is fully considered, there may be sensitive strategic information sought by the Commission. SCE requests that any market-sensitive information, including potential strategies, be kept confidential in the interest of IOU customers.

IV. ADDITIONAL MRTU CONCERNS

SCE believes that the 2008 LTPP proceeding is the appropriate venue for the Commission to review and ultimately find that its Resource Adequacy (RA) program and the operation of MRTU sufficiently address locational reliability needs of the CAISO grid. Because the CAISO’s locational reliability needs will be satisfied through RA and MRTU, IOUs should no longer be subject to the obligations under Decision 04-07-028 to address local reliability needs. As described below, the conditions that led to the Commission issuing Decision 04-07-028 and direct the IOUs to modify their procurement and scheduling practices to meet local area reliability needs are no longer applicable.

As background, by a letter dated June 10, 2004 to the CPUC’s Director of the Energy Division, the CAISO raised certain concerns regarding grid reliability. These concerns were driven by two market conditions at the time. First, under the CAISO’s zonal (pre-MRTU) model, the CAISO was unable to take action in the Day-ahead scheduling process to address certain locational grid reliability needs and thus had to rely upon Scheduling Coordinators to address reliability needs through the submission of their balanced (generation equals load) schedules. Second, the least-cost dispatch directive for IOUs did not take into account the locational reliability needs of the CAISO. Finally, the Commission’s RA program had not yet been implemented.

In response to the CAISO’s request, the Commission investigated this issue and, on July 8, 2004, issued Decision 04-07-028 which found that it is a utility’s responsibility to procure all the resources necessary to meet its load, not only service area wide but also locally. In doing so,
the Commission directed the utilities to take into account not only cost but also transmission congestion and reliability.

Following the issuance of Decision 04-07-028, the CAISO developed operating procedures that allow the IOUs to schedule resources to meet local reliability needs under certain conditions. In addition, through advice letter filings, SCE sought and received authority to procure and schedule resources in a manner that minimizes total cost and clarification that taking reliability into account means incorporating all known and reasonably anticipated CAISO-related costs (including congestion, re-dispatch costs and must-offer costs). SCE continues to operate under that authority today. With the implementation of MRTU and the Commissions’ RA program, however, the concerns that led the Commission to issue D.04-07-028 are no longer relevant. Under MRTU, Scheduling Coordinators, including the IOUs, will no longer be required to submit “balanced” schedules. The CAISO will have a Day-ahead market that will be able to address local reliability needs through the incorporation of a full network model of the CAISO’s grid (as opposed to today’s zonal model).

If, for some reason, the CAISO still has locational reliability needs that have not been met through the day-ahead market, the CAISO will be able to commit resources through the Residual Unit Commitment (RUC) process to meet local reliability needs. Operating procedures such as M-438 will no longer be needed, as they will have been replaced by a more robust and efficient market mechanism. Finally, the Commission’s RA program has developed to now include a Local Reliability Requirement and a Path 26 counting rule to ensure that Commission jurisdiction Load Serving Entities procure resources in locations that allow the CAISO to operate the grid reliably.

While SCE’s authority under Advice Letter 2183 to satisfy D.04-07-028 expires with the implementation of MRTU, the obligations created under D.04-07-028 do not. Therefore, for the

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10 For example, see CAISO Operating Procedure M-438 for SCE’s service area.
reasons stated above, SCE urges the Commission to find that its RA program and the operation of MRTU sufficiently address the locational reliability needs of the CAISO.

V. CONCLUSION

The Commission has already adopted appropriate upfront and achievable standards for the acquisition and retention of CRRs. Since the adoption of those standards, the CAISO’s rules with respect to CRR acquisition and retention have not changed. And because MRTU has not yet been implemented, the IOUs have little experience with the existing rules. Thus, there is no reason to modify the existing standards at this time, and SCE asks the Commission to affirm those upfront and achievable standards again in this proceeding.
While SCE believes the Commission should begin to develop upfront and achievable standards to govern IOU participation in VB prior to the CAISO’s implementation of VB, it is premature to develop those standards at this time. The CAISO has not yet developed the rules that will govern participation in VB, and without those rules, the IOUs have know way of predicting the framework within which they will potentially participate in VB. Therefore, SCE proposes that the Commission set an expedited schedule for the consideration of upfront and achievable standards for IOU participation in VB that begins after the CAISO Board has approved the CAISO’s proposed rules and concludes after those CAISO rules have been approved by FERC.

Respectfully submitted,

MICHAEL MONTOYA
DEANA M. WHITE
AMBER DEAN

/s/ Deana M. White
By: Deana M. White

Attorneys for
SOUTHERN CALIFORNIA EDISON COMPANY

2244 Walnut Grove Avenue
Post Office Box 800
Rosemead, California 91770
Telephone: (626) 302-1936
Facsimile: (626) 302-1935
E-mail: Deana.White@SCE.com

October 3, 2008
CERTIFICATE OF SERVICE

I hereby certify that, pursuant to the Commissioner’s Rules of Practice and Procedure, I have this day served a true copy of Southern California Edison Company's (U 338-E) Proposal Regarding Congestion Revenue Rights and Virtual Bidding and Additional Issues Related to the California Independent Service Operator Market Redesign and Technology Upgrade on all parties identified in the attached service list(s).

Transmitting the copies via e-mail to all parties who have provided an e-mail address. First class mail will be used if electronic service cannot be effectuated.

Executed this 3rd day of October, 2008, at Rosemead, California.

/s/ Raquel Ippoliti
Raquel Ippoliti
Project Analyst
SOUTHERN CALIFORNIA EDISON COMPANY

2244 Walnut Grove Ave.
Post Office Box 800
Rosemead, California 91770
# Parties

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Company/Association</th>
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<tr>
<td>RICK C. NOGER</td>
<td>KEITH MCCREA</td>
<td>SUTHERLAND ASHILL &amp; BRENNAN</td>
</tr>
<tr>
<td>PRAXAIR PLAINFIELD, INC</td>
<td>ATTY. AT LAW</td>
<td>WILMINGTON, DE 19808</td>
</tr>
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<td>FOR: PRAXAIR PLAINFIELD INC</td>
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<tr>
<td>KEVIN BOUDREAUX</td>
<td>E.J. WRIGHT</td>
<td>OCCIDENTAL POWER SERVICES, INC.</td>
</tr>
<tr>
<td>CALPINE POWER AMERICA-CA LLC</td>
<td></td>
<td>HOUSTON, CA 77002</td>
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<td>FOR: CALPINE POWER AMERICA-CA LLC</td>
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<tr>
<td>MICHAEL MAZUR</td>
<td>FRANK ANNUNZIATO</td>
<td>AMERICAN UTILITY NETWORK INC.</td>
</tr>
<tr>
<td>8333 ZITOLA TER</td>
<td>PRESIDENT</td>
<td>ALTA LOMA, CA 91737-2483</td>
</tr>
<tr>
<td>FOR: 3PHASES ENERGY SERVICES</td>
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<tr>
<td>DANIEL W. DOUGLASS</td>
<td></td>
<td>AMERICAN UTILITY NETWORK INC.</td>
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<tr>
<td>ATTORNEY AT LAW</td>
<td></td>
<td>ALTA LOMA, CA 91737-2483</td>
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<tr>
<td>DOUGLASS &amp; LIDDELL</td>
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<tr>
<td>WOODLAND HILLS, CA 91367</td>
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<tr>
<td>FOR: WESTERN POWER TRADING</td>
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<td>FOR: retail markets</td>
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<tr>
<td>DEANA M. WHITE</td>
<td>MICHAEL D. MONTOYA</td>
<td>SOUTHERN CALIFORNIA EDISON COMPANY</td>
</tr>
<tr>
<td>ATTORNEY AT LAW</td>
<td>ATTY. AT LAW</td>
<td>WILMINGTON, DE 19808</td>
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<tr>
<td>SOUTHERN CALIFORNIA EDISON COMPANY</td>
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ROSEMEAD, CA  91770                       ROSEMEAD, CA  91770  
FOR: SOUTHERN CALIFORNIA EDISON COMPANY   FOR: SOUTHERN CALIFORNIA EDISON COMPANY  
ROBERT KEELER                             RONALD MOORE  
SR. ATTORNEY                              SR. REGULATORY ANALYST  
SOUTHERN CALIFORNIA EDISON COMPANY        GOLDEN STATE WATER CO/BEAR VALLEY  
2244 WALNUT GROVE AVENUE                  630 EAST FOOTHILL BLVD.  
ROSEMEAD, CA  91770                       SAN DIMAS, CA  91773  
FOR: SOUTHERN CALIFORNIA EDISON COMPANY   FOR: SOUTHERN CALIFORNIA WATER COMPANY  
DON GARBER                                 JOHN PACHECO  
ATTORNEY AT LAW                           ATTORNEY AT LAW  
SEMPRA ENERGY                             SAN DIEGO GAS & ELECTRIC  
101 ASH STREET, HQ 12                     101 ASH STREET  
SAN DIEGO, CA  92101                      SAN DIEGO, CA  92101  
FOR: SAN DIEGO GAS & ELECTRIC COMPANY     FOR: SDG&E  
LISA G. URICK                              MEGAN SAUNDERS  
ATTORNEY AT LAW                           SEMPRA ENERGY SOLUTIONS  
SAN DIEGO GAS & ELECTRIC COMPANY          101 ASH STREET, HQ09  
101 ASH STREET, HQ-12                     SAN DIEGO, CA  92101-3017  
SAN DIEGO, CA  92101                      FOR: SEMPRA ENERGY SOLUTIONS  
FOR: SAN DIEGO GAS & ELECTRIC             
THOMAS DARTON                              WENDY KEILANI  
PILOT POWER GROUP, INC.                   REGULATORY CASE MANAGER  
8910 UNIVERSITY CENTER LANE, STE 520      SAN DIEGO GAS & ELECTRIC  
SAN DIEGO, CA  92122                      8330 CENTURY PARK COURT, CP32B  
FOR: PILOT POWER GROUP INC                SAN DIEGO, CA  92123  
FOR: SAN DIEGO GAS & ELECTRIC             
STEVE RAHON                                DAVID J. COYLE  
DIRECTOR, TARIFF & REG. ACCOUNTS           GENERAL MANAGER  
SAN DIEGO GAS & ELECTRIC COMPANY (902)    ANZA ELECTRIC CO-OPERATIVE, INC (909)  
8330 CENTURY PARK COURT, CP32C            PO BOX 391908  
SAN DIEGO, CA  92123                      ANZA, CA  92539-1909  
FOR: SAN DIEGO GAS & ELECTRIC             FOR: ANZA ELECTRIC CO-OPERATIVE INC  
INGER GOODMAN                             LILI SHAHRIARI  
COMMERCE ENERGY INC                       AOL UTILITY CORP  
600 ANTON AVE., SUITE 2000                12752 BARRETT LANE  
COSTA MESA, CA  92626                     SANTA ANA, CA  92705  
FOR: COMMERCE ENERGY INC                  FOR: AOL UTILITY CORP  
GEORGE HANSON                              TAMLYN M. HUNT  
DEPARTMENT OF WATER AND POWER              ENERGY PROGRAM DIRECTOR  
CITY OF CORONA                            COMMUNITY ENVIRONMENTAL COUNCIL  
730 CORPORATION YARD WAY                  26 W. ANAPAMU ST., 2ND FLOOR  
cORONA, CA  92880                          SANTA BARBARA, CA  93101  
FOR: CITY OF CORONA                       FOR: COMMUNITY ENVIRONMENTAL COUNCIL  
SUE MARA                                  MICHEL PETER FLORIO  
RTO ADVISORS, LLC.                        ATTORNEY AT LAW  
164 SPRINGDALE WAY                        THE UTILITY REFORM NETWORK  
REDWOOD CITY, CA  94062                   711 VAN NESS AVE., SUITE 350  
FOR: ALLIANCE FOR RETAIL ENERGY MARKETS   SAN FRANCISCO, CA  94102  
FOR: TURN  
KAREN P. PAULL                            NOEL OBIORA  
CALIF PUBLIC UTILITIES COMMISSION          CALIF PUBLIC UTILITIES COMMISSION  
LEGAL DIVISION                            LEGAL DIVISION  
ROOM 4300                                 ROOM 4107  
505 VAN NESS AVENUE                       505 VAN NESS AVENUE  
SAN FRANCISCO, CA  94102-3214             SAN FRANCISCO, CA  94102-3214  
FOR: DRA
FOR: GREEN POWER INSTITUTE

CLYDE S. MURLEY
INDEPENDENT CONSULTANT
1031 ORDWAY STREET
ALBANY, CA 94706
FOR: UNION OF CONCERNED SCIENTISTS

CLIFF CHEN
UNION OF CONCERNED SCIENTISTS
2397 SHATTUCK AVENUE, STE 203
BERKELEY, CA 94708
FOR: UNION OF CONCERNED SCIENTISTS

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

Baldassaro Di Capo
COUNSEL
CALIFORNIA INDEPENDENT SYSTEM OPERATOR
151 BLUE RAVINE ROAD
FOLSOM, CA 95630
FOR: CALIFORNIA INDEPENDENT SYSTEM OPERATOR

MELANIE GILLETTE
WESTERN REGULATORY AFFAIRS
115 HAZELMERE DRIVE
FOLSOM, CA 95630
FOR: WESTERN REGULATORY AFFAIRS

Chief Operating Officer
MOUNTAIN UTILITIES
PO BOX 205
KIRKWOOD, CA 95646
FOR: MOUNTAIN UTILITIES

CAROLYN M. KEHREIN
ENERGY MANAGEMENT SERVICES
2602 CELEBRATION WAY
WOODLAND, CA 95776
FOR: ENERGY MANAGEMENT SERVICES

ANDREW B. BROWN
ATTORNEY AT LAW
ELLISON SCHNEIDER & HARRIS, LLP
2015 H STREET
SACRAMENTO, CA 95811
FOR: CONSTELLATION COMMODITIES GROUP
AND CONSTELLATION NEW ENERGY, INC.

JEDEDIAH J. GIBSON
ATTORNEY AT LAW
ELLISON SCHNEIDER & HARRIS LLP
2015 H STREET
SACRAMENTO, CA 95811
FOR: SIERRA PACIFIC POWER CORP.

MAY D. DOUGHTON
SENIOR STAFF COUNSEL
CALIFORNIA ENERGY COMMISSION
1516 9TH STREET, MS-14
SACRAMENTO, CA 95814
FOR: CALIFORNIA ENERGY COMMISSION

SCOTT BLAISING
ATTORNEY AT LAW
BRAUN BLAISING MCLAUGHLIN P.C.
915 L STREET, STE. 1270
SACRAMENTO, CA 95814
FOR: CALIFORNIA MUNICIPAL UTILITIES ASSOCIATION

ANN L. TROWBRIDGE
ATTORNEY AT LAW
DAY CARTER & MURPHY, LLP
3620 AMERICAN RIVER DRIVE, SUITE 205
SACRAMENTO, CA 95864
FOR: MERCEDE IRRIGATION DISTRICT/MODESTO IRRIGATION DISTRICT

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

JESSICA NELSON
ENERGY SERVICES MANAGER
PLUMAS SIERRA RURAL ELECTRIC COOP. (908)
73233 STATE ROUTE 70
PORTOLA, CA 96122-7069
FOR: PLUMAS SIERRA RURAL ELECTRIC COOP.

Information Only

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

RALPH E. DENNIS
DENNIS CONSULTING
2805 BITTERSWEET LANE
LA GRANGE, KY 40031

JIM ROSS
RCS, INC.
500 CHESTERFIELD CENTER, SUITE 320

GRETCHEN SCHOTT
SENIOR COUNSEL
RELIANT ENERGY, INC.
<table>
<thead>
<tr>
<th>Name</th>
<th>Organization</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evelyn Kahl</td>
<td>Attorney at Law</td>
<td>Alcantar &amp; Kahl, LLP 120 Montgomery Street, Suite 2200 San Francisco, CA 94104</td>
</tr>
<tr>
<td>Karen Terranova</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Michael Alcantar</td>
<td>Attorney at Law</td>
<td>Alcantar &amp; Kahl, LLP 120 Montgomery Street, Suite 2200 San Francisco, CA 94104</td>
</tr>
<tr>
<td>Ronald Aoki</td>
<td></td>
<td></td>
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<tr>
<td>Seema Srinivasan</td>
<td></td>
<td>Alcantar &amp; Kahl, LLP 120 Montgomery Street, Suite 2200 San Francisco, CA 94104</td>
</tr>
<tr>
<td>Alice Gong</td>
<td></td>
<td>Pacific Gas and Electric Company 77 Beale St, MC B9A San Francisco, CA 94105</td>
</tr>
<tr>
<td>George Zahariudakis</td>
<td></td>
<td>Alcantar &amp; Kahl, LLP 120 Montgomery Street, Suite 2200 San Francisco, CA 94104</td>
</tr>
<tr>
<td>J. Joshua Davidson</td>
<td>Attorney at Law</td>
<td>Davis Wright Tremaine LLP 505 Montgomery Street, Suite 800 San Francisco, CA 94111</td>
</tr>
<tr>
<td>James B. Woodruff</td>
<td>Vice President Regulatory and Govt Affai</td>
<td>Nextlight Renewable Power, LLC 101 California Street, Ste 2450 San Francisco, CA 94111</td>
</tr>
<tr>
<td>Julie L. Fieber</td>
<td></td>
<td>Folsom Levin &amp; Kahn LLP 275 Battery Street, 23rd Floor San Francisco, CA 94111</td>
</tr>
<tr>
<td>Robert Gex</td>
<td></td>
<td>Davis Wright Tremaine LLP 505 Montgomery Street, Suite 800 San Francisco, CA 94111</td>
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<tr>
<td>Trina D. McAlister</td>
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<tr>
<td>Vidhya Prabhakaran</td>
<td></td>
<td>Goodin MacBride Squier Day &amp; Lamprey LLP 505 Sansome Street, Suite 900 San Francisco, CA 94111</td>
</tr>
<tr>
<td>California Energy Markets</td>
<td></td>
<td>425 Divisadero Street, Ste 303 San Francisco, CA 94117</td>
</tr>
<tr>
<td>Edward C. Remedios</td>
<td></td>
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<tr>
<td>Case Coordination</td>
<td></td>
<td>Pacific Gas and Electric Company PO Box 770000; MC B9A San Francisco, CA 94117</td>
</tr>
<tr>
<td>Alexis K. Wodtke</td>
<td>Staff Attorney</td>
<td>Consumer Federation of California 520 S. El Camino Real, Ste. 340 San Mateo, CA 94402</td>
</tr>
<tr>
<td>Beth Vaughan</td>
<td></td>
<td>California Cogeneration Council 4391 N. Marsh Elder Ct. Concord, CA 94521</td>
</tr>
<tr>
<td>Kerry Hattevik</td>
<td>Director of Reg. and Market Affairs</td>
<td>NRG Energy 829 Arlington Blvd. El Cerrito, CA 94530</td>
</tr>
<tr>
<td>John Kotowski</td>
<td></td>
<td>Van Horn Consulting 12 Lind Court Orinda, CA 94563</td>
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<td>Aris Kowaleski</td>
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<td>DOUG DAVIE</td>
<td>DIRECTOR OF ADVOCACY</td>
<td>WELLHEAD ELECTRIC COMPANY</td>
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<td>JOSE CARMONA</td>
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<td>CEERT</td>
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<tr>
<td>KEVIN WOODRUFF</td>
<td>DIRECTOR, REGULATORY AFFAIRS</td>
<td>WOODRUFF EXPERT SERVICES, INC.</td>
</tr>
<tr>
<td>RACHEL E. MCMAHON</td>
<td></td>
<td>CEERT</td>
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<tr>
<td>RYAN BERNARDO</td>
<td>POLICY DIRECTOR</td>
<td>BRAUN BLAISING MCLAUGHLIN, P.C.</td>
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<td>STEVEN KELLY</td>
<td>INDEPENDENT ENERGY PRODUCERS ASSOCIATION</td>
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<td>VICKI FERGUSON</td>
<td></td>
<td>BRAUN &amp; BLAISING, PC</td>
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<tr>
<td>SHANNON EDDY</td>
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<td>CEERT</td>
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<td>KAREN NORENE MILLS</td>
<td>ATTORNEY AT LAW</td>
<td>CALIFORNIA FARM BUREAU FEDERATION</td>
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<tr>
<td>KAREN LINDH</td>
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<td>CATHIE ALLEN</td>
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<tr>
<td>ANITA GILLETTE</td>
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<td>CALIF PUBLIC UTILITIES COMMISSION</td>
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<td>AMANDA C. BAKER</td>
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<td>JACLYN MARKS</td>
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<td>CALIF PUBLIC UTILITIES COMMISSION</td>
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<td>CALIF PUBLIC UTILITIES COMMISSION</td>
<td>505 Van Ness Avenue</td>
<td>SAN FRANCISCO, CA 94102-3214</td>
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<td>ANITA GILLETTE</td>
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<td>CALIF PUBLIC UTILITIES COMMISSION</td>
<td>505 Van Ness Avenue</td>
<td>SAN FRANCISCO, CA 94102-3214</td>
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<td>SAN FRANCISCO, CA 94102-3214</td>
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<td>505 Van Ness Avenue</td>
<td>SAN FRANCISCO, CA 94102-3214</td>
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<tr>
<td>JACLYN MARKS</td>
<td></td>
<td>CALIF PUBLIC UTILITIES COMMISSION</td>
<td>505 Van Ness Avenue</td>
<td>SAN FRANCISCO, CA 94102-3214</td>
</tr>
</tbody>
</table>
ENERGY DIVISION
AREA 4-A
505 VAN NESS AVENUE
SAN FRANCISCO, CA  94102-3214

JULIE A. FITCH
CALIF PUBLIC UTILITIES COMMISSION
POLICY & PLANNING DIVISION
ROOM 5119
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

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

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

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

MATTHEW TISDALE
CALIF PUBLIC UTILITIES COMMISSION
ENERGY PRICING AND CUSTOMER PROGRAMS BRA
ROOM 4104
505 VAN NESS AVENUE
SAN FRANCISCO, CA  94102-3214

MELISSA SEMCER
CALIF PUBLIC UTILITIES COMMISSION
ENERGY DIVISION
AREA 4-A
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

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

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

ROBERT L. STRAUSS
CALIF PUBLIC UTILITIES COMMISSION
ENERGY DIVISION
AREA 4-A
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

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

DENNIS L. BECK JR.
SENIOR STAFF COUNSEL
CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET, MS 14
SACRAMENTO, CA  95814
FOR: ENERGY