

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

Order Instituting Rulemaking Regarding
Policies and Protocols for Demand Response,
Load Impact Estimates, Cost-Effectiveness
Methodologies, Megawatt Goals and
Alignment with California Independent System
Operator Market Design Protocols

Rulemaking 07-01-041
(January 25, 2007)

**PHASE 3 PREHEARING CONFERENCE STATEMENT OF
THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR**

Dated: August 15, 2008

CALIFORNIA INDEPENDENT SYSTEM
OPERATOR CORPORATION

Baldassaro "Bill" Di Capo, Esq., Counsel
CALIFORNIA INDEPENDENT SYSTEM
OPERATOR CORPORATION
151 Blue Ravine Road
Folsom, CA 95630
Tel. (916) 608-7157
Fax (916) 608-7222
E-mail bdicapo@caiso.com

TABLE OF CONTENTS

	Page
I. Introduction.....	1
II. Analysis and Discussion of the questions posed in the phase 3 scoping memo	3
1. Can any of the existing emergency-triggered programs be used prior to a CAISO-declared Stage 1 or Stage 2 Emergency?.....	3
2. How are emergency-triggered programs useful for resource adequacy purposes? 3	
3. What is the effect and usefulness of the emergency-triggered DR programs to mitigate scarcity pricing under MRTU?	5
4. Should the emergency-triggered DR programs, as currently configured, be counted toward the Commission’s Planning Reserve Margin? Why? Or Why not?.....	7
5. Should the Commission direct the utilities to close existing Resource Adequacy (RA)-qualifying emergency-triggered DR programs to new entrants? Why or Why not? 9	
6. Should the Commission direct the utilities to transition customers on these emergency programs to price-responsive DR programs? In what time period should this happen?	9
7. Should there be an option for existing and new customers to provide non-RA qualifying emergency responsive DR? What would the attributes be for such a product?	10
8. How should the current IOU emergency-triggered DR programs be changed, if at all, to integrate better with MRTU? What changes might be appropriate	11
9. How should utility emergency-triggered DR programs be changed, if at all, to help with the integration of intermittent renewable resources?	12

The California Independent System Operator Corporation (“CAISO”) submits this Prehearing Conference Statement for Phase 3 of the proceeding, pursuant to the Assigned Commissioner’s and Administrative Law Judge’s Amended Scoping Memo and Ruling dated July 18, 2008 (“Phase 3 Scoping Memo”).

In the Phase 3 Scoping Memo, Commissioner Chong and ALJ Timothy J. Sullivan (the ALJ assigned to this phase of the proceeding) have noted that:

In Phase 3 of this OIR, we will build a record to address the operation of the investor-owned utilities' emergency triggered DR programs in the future electricity wholesale market. (Phase 3 Scoping Memo at p.1);

and

The original scoping ruling for this proceeding also noted the need to ensure that DR programs adapt to function within the day-ahead market that will be implemented with the CAISO Market Redesign and Technology Upgrade (MRTU). The CAISO plans to implement MRTU before the summer of 2009. The Commission has recommended that the CAISO account for existing DR in a way that does not promote procurement of redundant supply-side resources. A key to resolving this issue is identifying where there are disconnects or gaps between existing retail DR programs and the CAISO’s operational needs for the wholesale market, both at this time and when MRTU will be implemented. (Phase 3 Scoping Memo at p. 2, citing OIR at p. 8..)

I. INTRODUCTION

The CAISO appreciates that the Commission has implemented this phase to address the important policy issues pertaining to the treatment and benefit of emergency-triggered demand response programs¹ and how these programs affect both reliability and the wholesale electricity market. In this proceeding, the CAISO has consistently argued that emergency-triggered DR programs are not useful in the context of *planning* or *the operation of the system on a day-to-day basis*, nor do these programs add depth or

¹ The CAISO considers both BIP and Stage 2 triggered direct load control programs, like A/C cycling, as Emergency-triggered demand response programs.

liquidity to the wholesale electricity markets. This is *not* to say that emergency-triggered demand response programs have *no* system benefits; indeed they do provide some benefits to the system, and, perhaps more significantly, benefits to end-use electricity consumers, but we must note that these benefits take the form of

- protection against involuntary firm-load shedding and
- enhancement of service reliability;

after the system is has degraded to a stage of *crisis* and/or the underlying assumptions of the resource adequacy program *have already been violated*. The primary efforts of this phase should build DR programs and products that are useful for normal, albeit stressed system conditions—the conditions that, if we plan correctly, should represent the vast majority of the time.

The CAISO has been working cooperatively with the three IOUs, as well as representatives from CLECA and CMTA, to consider possible modifications to the Base Interruptible Programs operated by the IOUs, in order to address the CAISO's concerns arising from the current approach of counting these programs as resource adequacy capacity. The CAISO is optimistic that these discussions and proposals, along with the output of Phase 3 of this proceeding, will help to inform the stakeholders and the Commission, and will yield long-term solutions to the treatment of emergency-triggered DR programs, solutions which are mutually acceptable to the Commission and to the CAISO.

II. ANALYSIS AND DISCUSSION OF THE QUESTIONS POSED IN THE PHASE 3 SCOPING MEMO

1. Can any of the existing emergency-triggered programs be used prior to a CAISO-declared Stage 1 or Stage 2 Emergency?

In our June 25, 2007 Comments re: ALJ Ruling Requesting Information on Emergency-Triggered Demand Response, the CAISO drew a *distinction between*:

- i) issues pertaining to the subject of determining a level of desired service reliability for Utility Distribution Company (“UDC”) end use customers; and
- ii) issues pertaining to maintaining systems operation for the bulk power grid, which is the core mission of the CAISO².

We submit that this Question No. 1 is a question related to the first subject, that being the desired reliability of customer service that the IOUs want to establish for their customers, within their service territories. In this regard, we note that the Phase 3 Scoping Memo makes mention of non-CAISO system related use of DR, commenting that:

Some IOUs may be using emergency triggered DR to address local transmission/distribution system issues as well. We will also need to determine how many megawatts of these programs are needed to maintain local system reliability.³

Accordingly, the CAISO defers to the IOUs to provide information to the Commission as to the potential uses and benefits of these non-dispatchable DR resources, to support or enhance customer distribution service within the IOU service territory.

2. How are emergency-triggered programs useful for resource adequacy purposes?

The CAISO has argued strenuously before the Commission that emergency-triggered demand response programs are *not useful* for resource adequacy purposes and

² See CAISO Comments re ALJ Ruling Requesting Information on Emergency-Triggered Demand Response, filed June 25, 2008, at pp. 3-5.

³ Phase 3 Scoping Memo at p.4, fn 9.

should not count as Resource Adequacy capacity⁴. Instead emergency-triggered demand response programs should either: 1) be transitioned and reformulated into products that align with and can participate in the CAISO's day-ahead and real-time markets or 2) serve as tool for the IOUs to hedge against involuntary firm load shedding, a level of protection which is above and beyond the Planning Reserve Margin level, and for use

⁴ See, e.g., CAISO Comments re ALJ Ruling Requesting Information on Emergency-Triggered Demand Response, filed June 25, 2008, at pp. 3-5, wherein we stated:

It is from the perspective of the power grid operator that CAISO has repeatedly stated, as the ALJ has noted in her ruling, that:

These emergency triggered DR programs are useful to mitigate the emergency (i.e. as an alternative to load shedding), but [are] not useful in the forward or real time markets to reduce demand or operate as a generation resource substitute for the provision of ancillary services.

Once an emergency situation occurs on the grid, systems operations will be managed and grid reliability maintained by instructing firm load shedding, after all available generation resources and inter-control area options are utilized, and should no other load curtailment options or load management schemes exist. The CAISO's core reliability function is to ensure the efficient use and reliable operation of the transmission grid, consistent with the achievement of planning and operating reserve criteria no less stringent than those established by the Western Electricity Coordinating Council ("WECC") and the North American Reliability Corporation ("NERC"). In contrast, serving end-use load and providing for service reliability is a core function of the UDC.

Accordingly, we focus on generation and non-generation resources from the standpoint of Resource Adequacy ("RA"). The Commission's prior articulation of the concept bears repeating:

Resource procurement traditionally involves the Commission developing appropriate frameworks so that the entities it regulates will provide reliable service at least cost. This involves determining an appropriate demand forecast and then ensuring that the utility either controls, or can reasonably be expected to acquire, the resources necessary to meet that demand, even under stressed conditions such as hot weather [footnote omitted] or unexpected plant outages. 'Resource adequacy' seeks to address these same issues. In developing our policies to guide resource procurement, the Commission is providing a framework to ensure resource adequacy by laying a foundation for the required infrastructure investment and assuring that capacity is available when and where it is needed." (D.04-01-050, pp. 10-11.)

From the CAISO's systems operations perspective, we consider the primary value of emergency DR programs to lie in their ability to provide an ex ante order of priority to load shedding, when grid reliability is threatened. This mechanism substitutes for the less socially desirable approach of implementing a series of immediate geographic rotating outages, in which all loads on electric circuits are disconnected. Such load prioritization is not a core function of the CAISO, even though such emergency response capability, if available, is useful to the grid operator for managing system conditions. A prioritized system that can incrementally reduce loads will help the grid operator prevent more broad-ranging, involuntary firm load shedding, by preserving the capacity of the resources that are providing the CAISO's minimum required levels of operating reserves.

when the system is in a critical state, or when the underlying resource adequacy program assumptions have otherwise, *already been violated*.

The fundamental dilemma is this: Emergency-triggered programs, as currently configured, count as Resource Adequacy capacity and, therefore, count as part of the Planning Reserve Margin, yet the CAISO *cannot* plan around and *does not* have access (availability) to these DR resources until *after* the CAISO declares a Stage 2 or Stage 3 Emergency. The thrust of the CAISO's argument has consistently been that emergency-triggered demand response programs should not qualify as "resource adequacy" resources, since, on a day-to-day basis, WECC and NERC reliability standards require that the CAISO *must plan to serve all the load* (including the load that these resources might ultimately curtail), and so we *must* have sufficient operating reserves to prevent an emergency *in the first instance*. Accordingly, ironically, to have access to the emergency-triggered DR resources as currently configured, the CAISO would have to plan to *be in an emergency*, rather than plan to *avoid* one. Thus, emergency-triggered DR programs are not useful as resource adequacy capacity.

3. What is the effect and usefulness of the emergency-triggered DR programs to mitigate scarcity pricing under MRTU?

Scarcity Pricing is a mechanism that lets the CAISO's wholesale energy and Ancillary Services ("A/S") market prices rise, potentially, beyond any applicable bid cap, when there is a shortage of supply in the market⁵. Emergency-triggered DR programs will not mitigate scarcity pricing because, by their nature, they are *not in the market* and

⁵ In the Phase 3 Scoping Memo, Commissioner Chong and ALJ Sullivan have noted that:

Following the general practice in other ISO markets, shortage is defined as the inability of the CAISO to procure sufficient regulation or operating reserves through market mechanisms. For purposes of this question parties should refer to the CAISO's Final Reserve Scarcity Pricing Proposal, dated July 11, 2008, which can be found at: <http://www.caiso.com/2001/2001dfbd6bcd0.pdf> (Phase 3 Scoping Memo at p. 6 fn 12.)

are only activated after the CAISO is in a reserve shortage (i.e. Stage 1 or Stage 2), or to address a local transmission emergency.

Some might argue that, under the following scenario, emergency-triggered DR resources could mitigate a scarcity pricing mechanism:

- If the CAISO were simultaneously to be in a scarcity pricing condition and under a Stage 2 Emergency declaration, and
- During such conditions, there were a dispatch of enough emergency-triggered DR resources to induce substantial load reduction, then
- The result could be a mitigation of scarcity pricing in the hours immediately subsequent to the dispatch of the emergency DR.

This result does not necessarily follow in actuality, however. In actuality, a direct load reduction (represented by the dispatch of an emergency-triggered demand response program) would only reduce the CAISO's operating reserve requirement by 7% of the "nameplate" MW level of the DR resource—because the emergency DR is only being utilized as unspecified general load reduction rather than as a targeted injection of A/S into the system, all of which is a function of timing for call of the resource. Accordingly, the dispatch of even a large MW amount of demand curtailment (say, for example, 500 MWs, representing the dispatch of an emergency-triggered demand response program) would only produce a correspondingly small reduction (approximately 35 MW) in the CAISO's operating reserve requirement. Thus, under a typical scenario, wherein the CAISO load level was 45,000 MW, the operating reserve requirement would be approximately 7% of that amount, or 3,150 MW. If, for example, the DR resource were called, and load were reduced to 44,500 MW (the load drop caused by the large [500 MW] emergency-triggered demand response program), then the operating reserve requirement would only change to 7% of 44,500 MW = 3,115 MW or, as described above, *only 35 MW lower than before the program was triggered—so five hundred MWs of load curtailment yielded only 35 MW of operating reserves, an approximate fourteen -*

to-one benefit.⁶ Accordingly ability of the DR resource to mitigate the scarcity price of A/S resources would appear to be relatively small.

In contrast, however, if a DR program could offer its resource *directly into the CAISO's operating reserves market*, for example, to sell non-spinning reserves, then the DR resource could provide a *one--to-one benefit*, to relieve a scarcity pricing condition. To illustrate using the above example, then, instead of merely causing a 35 MW reduction of the operating reserve, the direct offer to the CAISO of 500 MW in non-spinning reserves (from a large Participating Load DR resource), if awarded, would meet 500 MW of the CAISO's total 3,150 MW operating reserve requirement; this application (direct into the CAISO market) would be *approximately 14 times more effective* than if the DR resource were merely to provide a simple load reduction. Were DR resources employed in this way, the ability of the resource to affect scarcity pricing would be much more significant.

4. Should the emergency-triggered DR programs, as currently configured, be counted toward the Commission's Planning Reserve Margin? Why? Or Why not?

The CAISO urges that the Commission *not count* emergency-triggered demand response programs toward the Planning Reserve Margin. Quite simply, these resources are not suitable as planning resources—in fact, they stand the concept of planning reserves on its head. To access the resources, the system condition must degrade beyond stressed condition. We must be in emergency condition. Prudent planning does not incorporate the regularized calling of emergencies in order to access those resources needed to run the system.

⁶ In the example, it took 14.29 MWs of load curtailment to obtain each MW of operating reserves. (500 MW [the DR program nameplate level and curtailed load] divided by 35 [the 7% of operating reserves achieved from the 500 MW load reduction] = approx 14.29) When one considers the average cost per MW when DR is procured, the cost of achieving these 35 MWs of operating reserves is especially poignant.

One could argue that the current policy of qualifying close to 2,000 MW of emergency-triggered demand response as RA qualifying capacity potentially jeopardizes reliability, because it provides the systems operator (CAISO) *with only 11% effective PRM* to operate the system under normal but stressed conditions. In order to have access to the full 15% PRM, the CAISO, as the responsible Balancing Authority, would have to be in violation of WECC reliability standards and declare a Stage 2 Emergency (which is recognition of an existing/impending operating reserve shortage) to access the additional 3% to 4% PRM that is tied up in these emergency-triggered demand response programs. We submit that this is a policy so unsustainable as to warrant a Commission determination putting an immediate end to adding new participants to current RA-qualifying emergency-triggered DR programs (including BIP and direct load control programs, like A/C cycling programs).

The CAISO respectfully submits that the Commission must establish a clear plan that either 1) transitions these programs to price-responsive structures that are available to the CAISO before a Stage 1 Emergency, or 2) treats these emergency-triggered demand response programs as some type of capacity *that is separate and distinct from RA capacity*, should the Commission find that these programs should be maintained, to serve as a form of insurance, to protect against unexpected events that would otherwise be resolved through the involuntary shedding of firm load.

In our Comments Re: ALJ Ruling Requesting Information on Emergency-Triggered Demand Response, the CAISO offered the conclusion that a MW range of 500 to 1,000 MW, corresponding to a range of 1 to 2 percent of peak system load, is an appropriate quantity of emergency-triggered DR that is useful to the system during such serious system emergencies, to protect against involuntary firm load shedding. As we stated in our Comments, our conclusion carried with it the express corollary that these emergency DR resources would be *accompanied by the full 15% of resources that qualify*

as satisfying the PRM and are available to the CAISO in advance of any emergency. We wrote that:

These Megawatts Should Not Be Counted For Resource Adequacy

The CAISO's comments carry with them CAISO's express and oft-repeated caveat that any emergency-triggered DR programs should not "count" as Resource Adequacy ("RA") capacity. As the Commission has previously recognized, to the extent the CAISO must commit non-RA resources to serve the forecasted demand, there will be a cost consequence to the current treatment of these resources as resource adequacy resources. Indeed, the CAISO submits that cost consequence may offset the purported economic justification for counting emergency-triggered DR programs as a RA resource in the first instance.

Accordingly, the CAISO urges the Commission to articulate that its going-forward policy will be to work toward excluding emergency-triggered DR programs from the RA program, and that it will continue to pursue efforts to ensure DR program characteristics that align with the Commission's RA and DR objectives. The Commission must then consider the economics of this type of resource.⁷

5. Should the Commission direct the utilities to close existing Resource Adequacy (RA)-qualifying emergency-triggered DR programs to new entrants? Why or Why not?

Yes, the Commission *should close* existing RA-qualifying emergency-triggered DR programs to new entrants. Please see our response to Question No. 4, above, for our discussion of this subject.

6. Should the Commission direct the utilities to transition customers on these emergency programs to price-responsive DR programs? In what time period should this happen?

Yes, the Commission *should direct the utilities to transition customers* on these emergency programs to price-responsive DR programs, where appropriate. It is the

⁷ CAISO Comments re ALJ Ruling Requesting Information on Emergency-Triggered Demand Response, filed June 25, 2008, at p. 16.

Commission's prerogative to establish the level of service reliability that the Commission desires for Utility Distribution Company end-use consumers. As for the appropriate timeframe, the Commission should transition these programs over this next three-year program cycle (i.e. by or before 2012).

7. Should there be an option for existing and new customers to provide non-RA qualifying emergency responsive DR? What would the attributes be for such a product?

The CAISO would support a Commission determination that provided an option for new and existing customers to offer non-RA qualifying emergency responsive DR. As the CAISO states in our response to Question No. 4, above, the CAISO concluded, in its Comments Re: ALJ Ruling Requesting Information on Emergency-Triggered Demand Response, that a MW range of 500 to 1,000 MW, corresponding to a range of 1 to 2 percent of peak system load, is an appropriate quantity of emergency-triggered DR that would be useful and could be maintained, like an insurance policy, to protect against unexpected events that would result in involuntary firm load shedding.

We submit that such a product should be structured as a performance-based, energy-only product, that would likely be paid a relatively high energy price, when called upon, and predicated upon the emergency resource delivering the load reduction and meeting its performance requirements/standards. Such a product could maintain a Stage 2 Emergency and local-transmission emergency trigger, and should deliver the expected response within a period of 15 minutes to no-longer- than 30 minutes, in order to satisfy the North American Electric Reliability Corporation's (NERC) Disturbance Control Standard and the Transmission Operating Procedures.

8. How should the current IOU emergency-triggered DR programs be changed, if at all, to integrate better with MRTU? What changes might be appropriate

The three critical attributes that a resource must have to participate in the wholesale electricity markets under MRTU is a *strike price*, a dispatchable/callable *quantity* and a geographic *location*. To better integrate with MRTU, emergency-triggered DR programs, like all DR resources, must possess, at minimum, these three attributes.

With a clear *strike price*, a DR program can be offered and cleared in the Day-ahead Market (DAM), and, if configured appropriately, participate in the CAISO's ancillary service and/or real-time energy markets. DR resources participating in the wholesale energy and ancillary service markets add depth and liquidity, and, therefore, enhance the efficacy of these markets, benefiting *all loads* that clear in these markets.

Changing emergency-triggered DR programs to be able to bid and clear a reliable *quantity* of load curtailment capability, particularly on peak load days, can reduce or slow peak load growth overall, and, therefore, decrease California's need to build additional peaking capacity. For instance, in 2007, the CAISO's peak load was 48,491 MW. If DR resources could have lowered the peak load by 5% to 46,066 MW or by 2,425 MW, such DR resources would have only been needed for approximately 15 hours. In other words, in 2007, the CAISO system exceeded 46,066 MW only 15 hours out of 8,760 hours in the year. For perspective, in 2007, SCE's I-6/BIP program cost approximately \$53 million dollars and was *never* triggered.⁸ Thus, changing emergency-triggered DR programs to integrate into MRTU is essential to ensure that ratepayers are getting the highest value and receiving appropriate system benefits from the curtailment capability of these DR programs.

⁸ Report of Southern California Edison Company (U338-3) on Interruptible Load Programs and Demand Response Programs, January 22, 2008.

Further, emergency-triggered DR programs should be changed so that they can be dispatched or called by *location*, or, at minimum, by the CAISO's defined local capacity areas.⁹ Under MRTU, geographic specificity is essential to the value of a resource given there is benefit under MRTU of dispatching resources nodally to resolve local congestion problems and, in the context of resource adequacy, there is higher value placed on resources that are located and developed in areas that are either capacity deficient and/or are heavily dependent on local generation resources to satisfy the demand in that particular load pocket.

Finally, the CAISO has produced a Guidance Document¹⁰ on MRTU provisions that support demand response programs, which will be useful when considering changes to emergency-triggered DR programs. The objective of the Guidance Document is to summarize the CAISO market's capability that is available upon the start of MRTU to:

1. Support demand response programs, using Non-Participating Load functionality;
2. Introduce a planned enhancement of the Non-Participating Load functionality, called Proxy Demand Resource; and
3. Provide guidance on ways Participating Load functionality may be used in conjunction with demand response programs.

9. How should utility emergency-triggered DR programs be changed, if at all, to help with the integration of intermittent renewable resources?

To maintain system stability and operability for a system with increased amounts of intermittent renewable resources, like wind and solar, the CAISO will need more fast-ramping and regulating resources, greater imbalance energy capability, and increased

⁹ For details on local capacity areas, see the CAISO's 2009 Local Capacity Technical Analysis Report and Study Results at: <http://www.caiso.com/1fba/1fbace9b2d170.pdf>

¹⁰ This document will be published on the CAISO web site shortly and will be located at: <http://www.caiso.com/1893/1893e350393b0.html>

energy-storage, to enhance the load-following capability and frequency responsiveness of the existing power system. For instance, to meet the 20% Renewable Portfolio Standard by 2010, the CAISO will likely need an additional 50 to 100 MW of regulation capability and an additional +/- 1,000 MW of incremental and decremental-load-following capability per hour.¹¹ DR resources, like emergency-triggered DR programs, will be useful in helping with the integration of intermittent renewable resources, to the extent that such DR resources can be configured to participate in the CAISO's real-time energy market and, therefore, be dispatched economically by the CAISO or, in the future, to participate, as frequency-responsive regulating reserves, in the CAISO's ancillary services market.

¹¹ Regulation is the minute-to-minute frequency control of the system that is automatically performed by the CAISO's Energy Management System's Automatic Generation Control. The CAISO's current regulation requirement is approximately 600 to 700 MW of regulation per hour (± 350 MW). Wind generation will increase regulation by 50 to 100 MW (± 400 MW).

Load following capability is handled through the dispatch of imbalance energy dispatched through the market based on economic resource redispatch every 5 minutes and security constrained dispatch every 15 minutes. Current levels of imbalance energy dispatched per hour is approximately ± 1000 to ± 3000 MW per hour of both incremental and decremental energy. With increased intermittent resources, future imbalance energy dispatch may increase by ± 1000 MW or more depending on the season and the hour of the day.

The CAISO produced a detailed study on the transmission and operating issues and recommendations for integrating renewable resources on the California ISO-controlled Grid. This study is titled *Integrating Renewable Resources* issued November 2007 and can be found at:
<http://www.caiso.com/1ca5/1ca5a7a026270.pdf>

Dated: August 15, 2008

Respectfully submitted,

CALIFORNIA INDEPENDENT
SYSTEM OPERATOR CORPORATION

By: /s/ **Baldassaro “Bill” Di Capo**

Baldassaro “Bill” Di Capo, Esq., Counsel
CALIFORNIA INDEPENDENT SYSTEM
OPERATOR CORPORATION

151 Blue Ravine Road

Folsom, CA 95630

Tel. (916) 608-7157

Fax (916) 608-7222

E-mail bdicapo@caiso.com

CERTIFICATE OF SERVICE

I hereby certify that on August 15, 2008. I served, on the Service List for Proceeding R.07-01-041, by electronic mail, a copy of the foregoing Prehearing Conference Statement of the California Independent System Operator for Proceeding Phase 3 .

Executed on August 15, 2008 at Folsom,
California

/s/ Anna Pascuzzo

Anna Pascuzzo,
An employee of the California Independent
System Operator

ANDREW B. BROWN
ELLISON SCHNEIDER & HARRIS, LLP
2015 H STREET
SACRAMENTO, CA 95811
abb@eslawfirm.com

Aloke Gupta
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
AREA 4-A
SAN FRANCISCO, CA 94102-3214
ag2@cpuc.ca.gov

AHMAD FARUQUI
THE BRATTLE GROUP
353 SACRAMENTO STREET, SUITE 1140
SAN FRANCISCO, CA 94111
ahmad.faruqui@brattle.com

ANDREA HORWATT
SOUTHERN CALIFORNIA EDISON COMPANY
2244 WALNUT GROVE AVENUE
ROSEMEAD, CA 91770
andrea.horwatt@sce.com

BRIAN T. CRAGG
GOODIN, MACBRIDE, SQUERI, DAY &
LAMPREY
505 SANSOME STREET, SUITE 900
SAN FRANCISCO, CA 94111
bcragg@goodinmacbride.com

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

Bruce Kaneshiro
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
AREA 4-A
SAN FRANCISCO, CA 94102-3214
bsk@cpuc.ca.gov

CARMEN BASKETTE
ENERNOC, INC.
594 HOWARD STREET, SUITE 400
SAN FRANCISCO, CA 94105
cbaskette@enernoc.com

CENTRAL FILES
SAN DIEGO GAS & ELECTRIC CO.
8330 CENTURY PARK COURT-CP31E
SAN DIEGO, CA 92123-1530
CentralFiles@semprautilities.com

CLARK BERNIER
RLW ANALYTICS
1055 BROADWAY, SUITE G
SONOMA, CA 95476
clark.bernier@rlw.com

ASHLEE M. BONDS
THELEN REID BROWN RAYSMAN&STEINER
LLP
101 SECOND STREET
SAN FRANCISCO, CA 94105
abonds@thelen.com

ALAN GARTNER
ENERGYCONNECT, INC.
51 E. CAMPBELL AVEUNE, 145
CAMPBELL, CA 95008
agartner@energyconnectinc.com

ALEX KANG
ITRON, INC.
1111 BROADWAY, STE. 1800
OAKLAND, CA 94607
alex.kang@itron.com

LARRY B. BARRETT
CONSULTING ASSOCIATES, INC.
PO BOX 60429
COLORADO SPRINGS, CO 80960
barrettlarry@comcast.net

BALDASSARO DI CAPO, ESQ.
CALIFORNIA ISO
151 BLUE RAVINE ROAD
FOLSOM, CA 95630
bdicapo@caiso.com

BOB HINES
SILICON VALLEY LEADERSHIP GROUP
224 AIRPORT PARKWAY, SUITE 620
SAN JOSE, CA 95110
bhines@svlg.net

CARL SILSBEE
SOUTHERN CALIFORNIA EDISON
2244 WALNUT GROVE AVENUE
ROSEMEAD, CA 91770
carl.silsbee@sce.com

CLINTON COLE
CURRENT GROUP, LLC
20420 CENTURY BOULEVARD
GERMANTOWN, MD 20874
CCole@currentgroup.com

CARLOS F. PENA
SEMPRA ENERGY
101 ASH STREET, HQ12
SAN DIEGO, CA 92101
cfpena@sempra.com

CLARK E. PIERCE
LANDIS & GYR
246 WINDING WAY
STRATFORD, NJ 8084
clark.pierce@us.landisgyr.com

ADAM BRIONES
THE GREENLINING INSTITUTE
1918 UNIVERSITY AVENUE, 2ND FLOOR
BERKELEY, CA 94704
adamb@greenlining.org

Andrew Campbell
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
ROOM 5203
SAN FRANCISCO, CA 94102-3214
agc@cpuc.ca.gov

DOUGLAS A. AMES
TRANSPHASE SYSTEMS, INC.
4971 LOS PATOS AVENUE
HUNTINGTON BEACH, CA 92649
ames_doug@yahoo.com

BARB BOICE
4309 NORWOOD AVENUE, APT. 160
SACRAMENTO, CA 95838
bboice02@yahoo.com

DI CAPO BALDASSARO
CALIFORNIA ISO
151 BLUE RAVINE ROAD
FOLSOM, CA 95630
bdicapo@caiso.com

BARBARA R. BARKOVICH
BARKOVICH & YAP, INC.
44810 ROSEWOOD TERRACE
MENDOCINO, CA 95460
brbarkovich@earthlink.net

CASE ADMINISTRATION
SOUTHERN CALIFORNIA EDISON COMPANY
2244 WALNUT GROVE AVENUE
ROSEMEAD, CA 91770
Case.Admin@sce.com

Christopher Clay
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
ROOM 4300
SAN FRANCISCO, CA 94102-3214
cec@cpuc.ca.gov

CHRIS KING
EMETER CORPORATION
ONE TWIN DOLPHIN DRIVE
REDWOOD CITY, CA 94065
chris@emeter.com

CLARE LAUFENBERG
CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET, MS 46
SACRAMENTO, CA 95814
claufenb@energy.state.ca.us

JOE PRIJYANONDA
GLOBAL ENERGY PARTNERS, LLC
3569 MT. DIABLE BLVD., SUITE 200
LAFAYETTE, CA 94549
cpjoe@gepllc.com

Christopher R Villarreal
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
ROOM 5119
SAN FRANCISCO, CA 94102-3214
crv@cpsc.ca.gov

DAVID NEMTZOW
NEMTZOW & ASSOCIATES
1254 9TH STREET, NO. 6
SANTA MONICA, CA 90401
david@nemtzw.com

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

DANIEL W. DOUGLASS
DOUGLASS & LIDDELL
21700 OXNARD STREET, SUITE 1030
WOODLAND HILLS, CA 91367
douglass@energyattorney.com

DAVID M. WYLIE, PE
ASW ENGINEERING
2512 CHAMBERS ROAD, SUITE 103
TUSTIN, CA 92780
dwylie@aswengineering.com

EDWARD VINE
LAWRENCE BERKELEY NATIONAL
LABORATORY
BUILDING 90R4000
BERKELEY, CA 94720
elvine@lbl.gov

ERIC C. WOYCHIK
STRATEGY INTEGRATION LLC
9901 CALODEN LANE
OAKLAND, CA 94605
eric@strategyi.com

RUSS GARWACRD
SOUTHERN CALIFORNIA EDISON COMPANY
2244 WALNUT GROVE
ROSEMEAD, CA 91770
garwacrd@sce.com

GLEN E. SMITH
ENERGY CURTAILMENT SPECIALISTS, INC.
3735 GENESEE STREET
BUFFALO, NY 14225
gesmith@ecsny.com

LAW DEPARTMENT FILE ROOM
PACIFIC GAS AND ELECTRIC COMPANY
PO BOX 7442
SAN FRANCISCO, CA 94120-7442
cpuccases@pge.com

DAVE HANNA
ITRON INC
11236 EL CAMINO REAL
SAN DEIGO, CA 92130-2650
Dave.Hanna@itron.com

DAVID BARKER
SAN DIEGO GAS & ELECTRIC COMPANY
8306 CENTURY PARK COURT
SAN DIEGO, CA 92123
dbarker@semprautilities.com

DAVID HUNGERFORD
CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET, MS-22
SACRAMENTO, CA 95814
dhungerf@energy.state.ca.us

DANIEL M. VIOLETTE
SUMMIT BLUE CONSULTING
1722 14TH STREET, SUITE 230
BOULDER, CO 80302
dviolette@summitblue.com

EDWARD W. O'NEILL
DAVIS WRIGHT TREMAINE LLP
505 MONTGOMERY STREET, SUITE 800
SAN FRANCISCO, CA 94111-6533
edwardoneill@dwt.com

EDWARD G. POOLE
ANDERSON & POOLE
601 CALIFORNIA STREET, SUITE 1300
SAN FRANCISCO, CA 94108-2818
epoole@adplaw.com

EDWARD V. KURZ
PACIFIC GAS AND ELECTRIC COMPANY
77 BEALE STREET
SAN FRANCISCO, CA 94105
evk1@pge.com

GAYATRI SCHILBERG
JBS ENERGY
311 D STREET, SUITE A
WEST SACRAMENTO, CA 95605
gayatri@jbsenergy.com

GALEN BARBOSE
LAWRENCE BERKELEY NATIONAL LAB
1 CYCLOTRON RD.
BERKELEY, CA 94720
glbarbose@lbl.gov

CHARLES MIDDLEKAUFF
PACIFIC GAS AND ELECTRIC COMPANY
PO BOX 7442
SAN FRANCISCO, CA 94120
crmd@pge.com

DAVID REED
SOUTHERN CALIFORNIA EDISON
6060 IRWINDALE AVE., STE. J
IRWINDALE, CA 91702
david.reed@sce.com

DANIEL C. ENGEL
FREEMAN, SULLIVAN & CO.
101 MONTGOMERY STREET, 15TH FLOOR
SAN FRANCISCO, CA 94104
dcengel@fscgroup.com

Dorris Lam
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
AREA 4-A
SAN FRANCISCO, CA 94102-3214
dnl@cpsc.ca.gov

DON WOOD
PACIFIC ENERGY POLICY CENTER
4539 LEE AVENUE
LA MESA, CA 91941
dwood8@cox.net

ELAINE S. KWEI
PIPER JAFFRAY & CO
345 CALIFORNIA ST. SUITE 2300
SAN FRANCISCO, CA 94104
elaine.s.kwei@pjc.com

CALIFORNIA ISO
151 BLUE RAVINE ROAD
FOLSON, CA 95630
e-recipient@caiso.com

KAREN TERRANOVA
ALCANTAR & KAHL, LLP
120 MONTGOMERY STREET, STE 2200
SAN FRANCISCO, CA 94104
filings@a-klaw.com

GEOFF AYRES
THE ENERGY COALITION
15615 ALTON PARKWAY, SUITE 245
IRVINE, CA 92618
gayres@energycoalition.org

JOEL M. HVIDSTEN
KINDER MORGAN ENERGY PARTNERS
1100 TOWN & COUNTRY ROAD, SUITE 700
ORANGE, CA 92868
hvidstenj@kindermorgan.com

HELEN ARRICK
BUSINESS ENERGY COALITION
PO BOX 770000
SAN FRANCISCO, CA 94177-0001
hxag@pge.com

L. JAN REID
COAST ECONOMIC CONSULTING
3185 GROSS ROAD
SANTA CRUZ, CA 95062
janreid@coastecon.com

JEFF NAHIGIAN
JBS ENERGY, INC.
311 D STREET
WEST SACRAMENTO, CA 95605
jeff@jbsenergy.com

JENNIFER SHIGEKAWA
SOUTHERN CALIFORNIA EDISON COMPANY
2244 WALNUT GROVE AVENUE
ROSEMEAD, CA 91770
Jennifer.Shigekawa@sce.com

JENNIFER HOLMES
ENERGY MARKET INNOVATIONS INC.
83 COLUMBIA STREET, SUITE 303
SEATTLE, WA 98104
jholmes@emi1.com

Joe Como
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
ROOM 5033
SAN FRANCISCO, CA 94102-3214
joc@cpuc.ca.gov

JOYCE LEUNG
SOUTHERN CALIFORNIA EDISON COMPANY
6060 J IRWINDALE AVE.
IRWINDALE, CA 91702
joyce.leung@sce.com

JAMES WEIL
AGLET CONSUMER ALLIANCE
PO BOX 37
COOL, CA 95614
jweil@aglet.org

JOY YAMAGATA
SAN DIEGO GAS & ELECTRIC/SOCALGAS
8330 CENTURY PARK COURT
SAN DIEGO, CA 92123
jyamagata@semprautilities.com

KA-WING MAGGIE POON
2244 WALNUT GROVE AVE.
ROSEMEAD, CA 91770
ka-wing.poon@sce.com

JAMES BOOTHE
THE ENERGY COALITION
9 REBELO LANE
NOVATO, CA 94947
ja_boothe@yahoo.com

Jennifer Caron
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
AREA 4-A
SAN FRANCISCO, CA 94102-3214
jc8@cpuc.ca.gov

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

JOHN GOODIN
CALIFORNIA ISO
151 BLUE RAVINE RD.
FOLSOM, CA 95630
jgoodin@caiso.com

Jason R. Salmi Klotz
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
AREA 4-A
SAN FRANCISCO, CA 94102-3214
jk1@cpuc.ca.gov

JODY S. LONDON
JODY LONDON CONSULTING
PO BOX 3629
OAKLAND, CA 94609
jody_london_consulting@earthlink.net

JOY A. WARREN
MODESTO IRRIGATION DISTRICT
1231 11TH STREET
MODESTO, CA 95354
joyw@mid.org

JOSEPH F. WIEDMAN
GOODIN MACBRIDE SQUERI DAY LAMPREY,
LLP
505 SANSOME STREET. SUITE 900
SAN FRANCISCO, CA 94111
jwiedman@goodinmacbride.com

Joy Morgenstern
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
AREA 4-A
SAN FRANCISCO, CA 94102-3214
jym@cpuc.ca.gov

KEVIN COONEY
SUMMIT BLUE CORPORATION
1722 14TH STREET
BOULDER, CO 80302
kcooney@summitblue.com

JANET COMBS
SOUTHERN CALIFORNIA EDISON COMPANY
2244 WALNUT GROVE AVENUE
ROSEMEAD, CA 91770
janet.combs@sce.com

JAY LUBOFF
JAY LUBOFF CONSULTING SERVICES
7 ANNIE LANE
MILL VALLEY, CA 94941
jcluboff@lmi.net

JACK ELLIS
RESERO CONSULTING
490 RAQUEL COURT
LOS ALTOS, CA 94022
jellis@resero.com

Jessica T. Hecht
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
ROOM 5113
SAN FRANCISCO, CA 94102-3214
jhe@cpuc.ca.gov

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

J. JOSHUA DAVIDSON
DAVIS WRIGHT TREMAINE LLP
505 MONTGOMERY STREET, SUITE 800
SAN FRANCISCO, CA 94111
joshdavidson@dwt.com

JEFF SHIELDS
SOUTH SAN JOAQUIN IRRIGATION DISTRICT
11011 E. HWY 120
MANTECA, CA 95336
jshields@ssjid.com

JOSEPHINE WU
PACIFIC GAS AND ELECTRIC COMPANY
PO BOX 770000, MAIL CODE B9A
SAN FRANCISCO, CA 94177
jwwd@pge.com

KAREN LINDH
CALIFORNIA ONSITE GENERATION
7909 WALERGA ROAD, NO. 112, PMB 119
ANTELOPE, CA 95843
karen@klindh.com

KEN ABREN
245 MARKET STREET
SAN FRANCISCO, CA 94105
kea3@pge.com

KEITH R. MCCREA
SUTHERLAND, ASBILL & BRENNAN, LLP
1275 PENNSYLVANIA AVE., N.W.
WASHINGTON, DC 20004-2415
keith.mccrea@sablaw.com

KATHRYN SMITH
SAN DIEGO GAS AND ELECTRIC COMPANY
8306 CENTURY PARK COURT
SAN DIEGO, CA 92123
ksmith2@semprautilities.com

LISA TAKEUCHI
PACIFIC GAS AND ELECTRIC COMPANY
77 BEALE STREET
SAN FRANCISCO, CA 94105
latd@pge.com

LINDA Y. SHERIF
CALPINE CORPORATION
3875 HOPYARD ROAD, SUITE 345
PLEASANTON, CA 94588
linda.sherif@calpine.com

LINDA WRAZEN
SAN DIEGO GAS & ELECTRIC COMPANY
8330 CENTURY PARK COURT, CP32D
SAN DIEGO, CA 92123
LWrazen@semprautilities.com

MARIAN BROWN
SOUTHERN CALIFORNIA EDISON
6040A IRWINDALE AVE.
IRWINDALE, CA 91702
marian.brown@sce.com

MICHEL PETER FLORIO
THE UTILITY REFORM NETWORK
711 VAN NESS AVENUE, SUITE 350
SAN FRANCISCO, CA 94102
mflorio@turn.org

Matthew Deal
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
ROOM 5215
SAN FRANCISCO, CA 94102-3214
mjd@cpuc.ca.gov

MARGARET SHERIDAN
CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET, MS-22
SACRAMENTO, CA 95814
msherida@energy.state.ca.us

PATRICIA R. THOMPSON
SUMMIT BLUE CONSULTING
2752 DOS RIOS DR.
SAN RAMON, CA 94583
Patricia.R.Thompson@gmail.com

GREGORY KLATT
DOUGLASS & LIDDELL
411 E. HUNTINGTON DRIVE, STE. 107-356
ARCADIA, CA 91006
klatt@energyattorney.com

LYNNE BROWN
CALIFORNIANS FOR RENEWABLE ENERGY,
INC.
24 HARBOR ROAD
SAN FRANCISCO, CA 94124
l_brown369@yahoo.com

LAURA ROOKE
PORTLAND GENERAL ELECTRIC
121 SW SALMON ST.,
PORTLAND, OR 97204
laura.rooke@pgn.com

Lisa-Marie Salvacion
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
ROOM 4107
SAN FRANCISCO, CA 94102-3214
lms@cpuc.ca.gov

MARY GANDESBERY
PACIFIC GAS AND ELECTRIC COMPANY
77 BEALE STREET B30A
SAN FRANCISCO, CA 94105
MAGq@pge.com

MARK S. MARTINEZ
SOUTHERN CALIFORNIA EDISON
6060J IRWINDALE AVE., SUITE J
IRWINDALE, CA 91702
mark.s.martinez@sce.com

MELANIE GILLETTE
ENERNOC, INC.
115 HAZELMERE DRIVE
FOLSOM, CA 95630
mgillette@enernoc.com

MARK HUFFMAN
PACIFIC GAS AND ELECTRIC COMPANY
MC B30A PO BOX 770000
SAN FRANCISCO, CA 94177
mrh2@pge.com

NORA SHERIFF
ALCANTAR & KAHL, LLP
120 MONTGOMERY STREET, SUITE 2200
SAN FRANCISCO, CA 94104
nes@a-klaw.com

PAUL KARR
TRILLIANT NETWORKS, INC.
1100 ISLAND DRIVE, SUITE 103
REDWOOD CITY, CA 94065
Paul.karr@trilliantnetworks.com

KAREN N. MILLS
CALIFORNIA FARM BUREAU FEDERATION
2300 RIVER PLAZA DRIVE
SACRAMENTO, CA 95833
kmills@cfbf.com

LARRY R. COPE
SOUTHERN CALIFORNIA EDISON
PO BOX 800, 2244 WALNUT GROVE AVENUE
ROSEMEAD, CA 91770
larry.cope@sce.com

DONALD C. LIDDELL
DOUGLASS & LIDDELL
2928 2ND AVENUE
SAN DIEGO, CA 92103
liddell@energyattorney.com

LESLIE WILLOUGHBY
SAN DIEGO GAS AND ELECTRIC COMPANY
8305 CENTURY PARK CT.
SAN DIEGO, CA 92123
lwilloughby@semprautilities.com

MARCEL HAWIGER
THE UTILITY REFORM NETWORK
711 VAN NESS AVENUE, SUITE 350
SAN FRANCISCO, CA 94102
marcel@turn.org

MARY LYNCH
CONSTELLATION ENERGY COMMODITIES
GRP
2377 GOLD MEDAL WAY, SUITE 100
GOLD RIVER, CA 95670
mary.lynch@constellation.com

Massis Galestan
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
AREA 4-A
SAN FRANCISCO, CA 94102-3214
mgm@cpuc.ca.gov

MRW & ASSOCIATES, INC.
1814 FRANKLIN STREET, SUITE 720
OAKLAND, CA 94612
mrw@mrwassoc.com

NICHOLAS J. PLANSON
CONSUMER POWERLINE
17 STATE STREET, SUITE 1910
NEW YORK, NY 10004
nplanson@consumerpowerline.com

PHILIPPE AUCLAIR
11 RUSSELL COURT
WALNUT CREEK, CA 94598
philha@astound.net

PAUL KERKORIAN
UTILITY COST MANAGEMENT LLC
6475 N. PALM AVENUE, SUITE 105
FRESNO, CA 93704
pk@utilitycostmanagement.com

RICHARD MCCANN
M.CUBED
2655 PORTAGE BAY ROAD, SUITE 3
DAVIS, CA 95616
rmccann@umich.edu

ROGER VAN HOY
MODESTO IRRIGATION DISTRICT
1231 11TH STREET
MODESTO, CA 95354
rogerv@mid.org

ROBIN J. WALTHER, PH.D.
1380 OAK CREEK DRIVE., 316
PALO ALTO, CA 94305
rwalth@pacbell.net

SCOTT H. DEBROFF
SMIGEL, ANDERSON & SACKS
4431 NORTH FRONT STREET
HARRISBURG, PA 17110
sdeb@sasllp.com

SHARON TALBOTT
EMETER CORPORATION
ONE TWIN DOLPHIN DRIVE
REDWOOD CITY, CA 94065
sharon@emeter.com

STEVEN D. PATRICK
SAN DIEGO GAS & ELECTRIC COMPANY
555 WEST FIFTH STREET, STE 1400
LOS ANGELES, CA 90013-1011
spatrick@sempra.com

SANDRA ROVETTI
SAN FRANCISCO PUC
1155 MARKET STREET, 4TH FLOOR
SAN FRANCISCO, CA 94103
srovetti@sfgwater.org

STACIE SCHAFFER
SOUTHERN CALIFORNIA EDISON
2244 WALNUT GROVE AVE.
ROSEMEAD, CA 91770
Stacie.Schaffer@sce.com

STEVEN MOSS
SAN FRANCISCO COMMUNITY POWER
2325 THIRD STREET, STE 344
SAN FRANCISCO, CA 94107
steven@moss.net

PATRICIA THOMPSON
SUMMIT BLUE CONSULTING
2920 CAMINO DIABLO, SUITE 210
WALNUT CREEK, CA 94597
pthompson@summitblue.com

RICH METTLING
BLUE POINT ENERGY
1190 SUNCAST LANE, STE 2
EL DORADO HILLS, CA 95762
rmettling@bluepointenergy.com

RICH QUATTRINI
ENERGYCONNECT, INC.
51 E. CAMPBELL AVENUE, SUITE 145
CAMPBELL, CA 95008
rquattrini@energyconnectinc.com

ANNIE STANGE
ALCANTAR & KAHL
1300 SW FIFTH AVE., SUITE 1750
PORTLAND, OR 97201
sas@a-klaw.com

SUSAN MCNEILL
PACIFIC GAS AND ELECTRIC COMPANY
PO BOX 770000, B8M
SAN FRANCISCO, CA 94177-0001
sem4@pge.com

Sudheer Gokhale
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
ROOM 4209
SAN FRANCISCO, CA 94102-3214
skg@cpuc.ca.gov

STEVEN R. HAERTLE
PACIFIC GAS AND ELECTRIC COMPANY
77 BEALE STREET, MC B9A
SAN FRANCISCO, CA 94105
SRH1@pge.com

STUART SCHARE
SUMMIT BLUE CONSULTING
1722, 14TH STEET, SUITE 230
BOULDER, CO 80302
sschare@summitblue.com

STEPHEN D. BAKER
SR REG ANALYST, FELLON-MCCORD & ASS.
9960 CORPORATE CAMPUS DRIVE,# 2000
LOUISVILLE, KY 40223
stephen.baker@constellation.com

THERESA BURKE
SAN FRANCISCO PUC
1155 MARKET STREET, 4TH FLOOR
SAN FRANCISCO, CA 94103
tburke@sfgwater.org

RICHARD H. COUNIHAN
ENERNOC, INC.
594 HOWARD STREET, STE 400
SAN FRANCISCO, CA 94105
rcounihan@enernoc.com

ROGER LEVY
LEVY AND ASSOCIATES
2805 HUNTINGTON ROAD
SACRAMENTO, CA 95864
rogerl47@aol.com

REED V. SCHMIDT
BARTLE WELLS ASSOCIATES
1889 ALCATRAZ AVENUE
BERKELEY, CA 94703
rschmidt@bartlewells.com

SHIRLEY WOO
PACIFIC GAS AND ELECTRIC COMPANY
77 BEALE STREET, B30A
SAN FRANCISCO, CA 94105
saw0@pge.com

MICHAEL ROCHMAN
SPURR
1430 WILLOW PASS ROAD, SUITE 240
CONCORD, CA 94520
Service@spurr.org

SNULLER PRICE
ENERGY AND ENVIRONMENTAL
ECONOMICS
101 MONTGOMERY, SUITE 1600
SAN FRANCISCO, CA 94104
snuller@ethree.com

STEPHEN J. ROMEO
SMIGEL, ANDERSON & SACKS, LLP
4431 NORTH FRONT STREET
HARRISBURG, PA 17110
sromeo@sasllp.com

SARA STECK MYERS
122 28TH AVENUE
SAN FRANCISCO, CA 94121
ssmyers@att.net

STEVE KROMER
3110 COLLEGE AVENUE, APT 12
BERKELEY, CA 94705
stevek@kromer.com

TRENT A. CARLSON
RELIANT ENERGY
1000 MAIN STREET
HOUSTON, TX 77001
tcarlson@reliant.com

Thomas Roberts
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
ROOM 4104
SAN FRANCISCO, CA 94102-3214
tcr@cpuc.ca.gov

THOMAS S. KIMBALL
MODESTO IRRIGATION DISTRICT
1231 11TH STREET
MODESTO, CA 95354
tomk@mid.org

WILLIAM H. BOOTH
LAW OFFICES OF WILLIAM H. BOOTH
67 CARR DRIVE
MORAGA, CA 94596
wbooth@booth-law.com

Yuliya Shmidt
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
ROOM 4104
SAN FRANCISCO, CA 94102-3214
ys2@cpuc.ca.gov

WARREN MITCHELL
THE ENERGY COALITION
15615 ALTON PARKWAY, SUITE 245
IRVINE, CA 92618

BRAD MANUILOW
AMERICAN TECHNOLOGY RESEARCH
450 SANSOME ST., SUITE 1000
SAN FRANCISCO, CA 94111

TED POPE
ENERGY SOLUTIONS
1610 HARRISON STREET
OAKLAND, CA 94612
ted@energy-solution.com

TERRY RICH
ANCILLARY SERVICES COALITION
547 APOLLO STREET, SUITE F
BREA, CA 92821
trich@ascoalition.com

WILLIAM D. ROSS
CONSTELLATION NEW ENERGY
520 SO. GRAND AVENUE SUITE 3800
LOS ANGELES, CA 90071-2610
william.ross@constellation.com

KEN SKINNER
INTEGRAL ANALYTICS, INC
312 WALNUT STREET, SUITE 1600
CINCINNATI, OH 45202

STEVE GEORGE
GSC GROUP
101 MONTGOMERY STREET, 15TH FLOOR
SAN FRANCISCO, CA 94104

CALIFORNIA ISO
151 BLUE RAVINE ROAD
FOLSOM, CA 95630

Timothy J. Sullivan
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
ROOM 2106
SAN FRANCISCO, CA 94102-3214
tjs@cpuc.ca.gov

VIKKI WOOD
SACRAMENTO MUNICIPAL UTILITY DISTRICT
6301 S STREET, MS A204
SACRAMENTO, CA 95817-1899
vwood@smud.org

Rebecca Tsai-Wei Lee
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
ROOM 4209
SAN FRANCISCO, CA 94102-3214
wtr@cpuc.ca.gov

GRAYSON HEFFNER
15525 AMBIANCE DRIVE
N. POTOMAC, MD 20878

BRUCE PERLSTEIN
PACIFIC GAS AND ELECTRIC COMPANY
245 MARKET STREET
SAN FRANCISCO, CA 94105