

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

Order Instituting Rulemaking to Consider)	Rulemaking No. 08-01-025
Annual Revisions to Local Procurement)	(Filed January 21, 2008)
Obligations and Refinements to the Resource)	
Adequacy Program)	
<hr/>		

**APPLICATION OF
THE UTILITY REFORM NETWORK,
THE CALIFORNIA WIND ENERGY ASSOCIATION,
THE AMERICAN WIND ENERGY ASSOCIATION,
AND
THE SOLAR ALLIANCE
FOR REHEARING OF D. 09-06-028**

R. Thomas Beach
Crossborder Energy
2560 Ninth Street, Suite 213A
Berkeley, California 94710
Telephone: 510-549-6922
Facsimile: 510-649-9793
E-mail: tomb@crossborderenergy.com

July 22, 2009

Table of Contents

THE DECISION FAILS TO MAKE FINDINGS ON ALL MATERIAL ISSUES	2
The Decision Is Not Supported by any Findings on the Costs to Ratepayers of the New RA Counting Rule	3
The Decision Adopts an RA Counting Rule for Wind and Solar Parties Without Knowing What the Results of the Rule Would Be	5
The Decision Misstates the Position of the Supporters of the Current RA Counting Rule for Wind and Solar	7
The Decision Fails to Make Findings on the Material Issue of Why California Should Change a Counting Rule That Is Similar to the Methods Used in Other Major U.S. Control Areas and That Reflects the Industry’s Best Practices	10
The Decision Does Not Address the Material Issue of Whether the Continuation of the MCC Buckets Justifies the Retention of the Current RA Counting Rule for Wind and Solar	12
THE ADOPTED EXCEEDANCE METHOD DISADVANTAGES INTERMITTENT RENEWABLE TECHNOLOGIES	13
THE DECISION FAILS TO JUSTIFY WHY A CHANGE TO THE RA COUNTING RULE FOR WIND AND SOLAR IS NEEDED IMMEDIATELY	14
CONCLUSION	17

Table of Authorities

California Public Utilities Code

Section 380, 451, 454.5	4
Section 453(a)	13
Section 1705	2
Section 1731-36	1
Section 1757.1	2, 9

CPUC's Rules of Practice and Procedure

Rule 16.1	1
-----------------	---

CPUC Decisions

D. 04-07-029	11
D. 05-10-042	4

Court Cases

<i>California Manufacturers Assn. v. Public Utilities Com.</i> (1979) 24 Cal.3d 251, 259	2
<i>California Motor Transport Co. v. Public Utilities Com.</i> (1963) 59 Cal.2d 270, 273	2

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

Order Instituting Rulemaking to Consider)	Rulemaking No. 08-01-025
Annual Revisions to Local Procurement)	(Filed January 21, 2008)
Obligations and Refinements to the Resource)	
Adequacy Program)	
<hr/>		

**APPLICATION OF
THE UTILITY REFORM NETWORK, THE CALIFORNIA WIND ENERGY
ASSOCIATION, THE AMERICAN WIND ENERGY ASSOCIATION,
AND THE SOLAR ALLIANCE FOR REHEARING OF D. 09-06-028**

Pursuant to Public Utilities Code Sections 1731-1736 and Rule 16.1 of the Commission’s Rules of Practice and Procedure, The Utility Reform Network (TURN), the California Wind Energy Association (CalWEA), the American Wind Energy Association (AWEA), and the Solar Alliance (SA) – collectively, the Joint Parties – respectfully ask the Commission to rehear and modify Decision No. 09-06-028 (“the Decision”), issued in this proceeding on June 22, 2009.

As the Commission is well aware, California has made a major commitment to the development of renewable resources for electric generation, with a Renewables Portfolio Standard (RPS) of 20% by 2010 in place and an extended RPS of 33% by 2020 now pending before the Legislature. The RPS goals are a central element in the state’s AB 32 Scoping Plan to reduce its greenhouse gas emissions to 1990 levels by 2020. This Commission has the authority and responsibility to ensure that the RPS goals are met, including oversight of the cost to utility ratepayers of meeting these ambitious targets. The Joint Parties represent a party whose mission is the protection of ratepayer interests (TURN), as well as numerous companies whose primary businesses are the development of California’s abundant wind and solar resources to supply the renewable generation needed to meet the RPS goals (CalWEA, AWEA, and SA).

One of the important issues resolved in the Decision is whether to change the “counting rule” used to determine the resource adequacy (RA) value of intermittent renewable resources in California, primarily wind and solar resources. The Decision adopts a change in the RA counting rule for intermittent renewables, replacing the existing rule which is based on the average generation of a wind or solar resource during the on-peak hours of noon to 6 p.m. on weekdays. The new rule would use a “70% exceedance” method, which would set the RA value of a wind or solar project at the output that is exceeded in 70% of the 1 p.m. to 6 p.m. on-peak hours each day, plus an adjustment that attempts to capture the geographic and temporal diversity of the output of wind and solar resources. The change adopted in the Decision will result in a significant reduction (i.e. de-rating) in the RA capacity of the wind and solar resources on which California expects to rely to meet its environmental goals and its future energy needs. In order to replace the de-rated wind and solar capacity and to meet their RA needs, the state’s utilities will have to procure additional RA capacity from other sources, most of which is likely to be fossil-fueled. The Joint Parties believe that the Decision’s resolution of this issue is erroneous as a matter of law. We are filing this application to enumerate those the legal errors and to ask the Commission to grant rehearing for the purpose of modifying the Decision to remedy those mistakes.

I. THE DECISION FAILS TO MAKE FINDINGS ON ALL MATERIAL ISSUES.

Public Utilities Code Section 1757.1(a)(4) requires decisions of this Commission to be “supported by the findings.” Public Utilities Code Section 1705 requires the Decision to “contain, separately stated, findings of fact and conclusions of law... on all issues material to the . . . [d]ecision.” In terms of what is meant by “material,” the California Supreme Court has held that “[e]very issue that must be resolved to reach [an] ultimate finding is ‘material to the order or decision.’”¹ The Commission must provide findings of fact that are supported by record evidence on all material issues in order to provide assurance to a reviewing court and to parties that may

¹ *California Motor Transport Co. v. Public Utilities Com.* (1963) 59 Cal.2d 270, 273.

rely upon the order in the future that the Commission has not acted arbitrarily.² As set forth below, the Decision is not substantiated by the underlying record and does not include the requisite findings on issues material to the Decision's determination of the RA capacity provided by the state's wind and solar resources.

A. The Decision Is Not Supported by Any Findings on the Costs to Ratepayers of the New RA Counting Rule.

The 70% exceedance method adopted in the Decision will result in the substantial de-rating of the state's wind and solar resources, as the Decision acknowledges.³ The Decision also recognizes that this change will result in higher costs to ratepayers to replace the devalued intermittent capacity.⁴ The CalWEA, AWEA, and SA introduced evidence that, if the replacement capacity is gas-fired resources, the long-term cost to ratepayers of the replacement capacity would be \$1.5 to \$3.0 billion if the replacement capacity is new gas-fired peaking capacity.⁵ This calculation is based on the amount of wind and solar generation anticipated to be on-line by 2015; obviously, the costs would be higher to meet the likely 2020 target of 33% renewable generation. The Division of Ratepayer Advocates (DRA) also introduced evidence that the cost to ratepayers of the change in the RA counting rule for wind resources alone would total \$1.2 billion, or \$180 million on an annual basis.⁶ If DRA had included solar resources, this would increase the costs significantly. In response, the proponents of the 70% exceedance method argued that the existing counting rule, if it is retained, also could result in costs for ratepayers. The proponents maintain that if the existing rule does not produce enough RA capacity during peak periods, the California Independent System Operator (CAISO) would incur

² *California Manufacturers Assn. v. Public Utilities Com.* (1979) 24 Cal.3d 251, 259.

³ Decision, at 52.

⁴ *Ibid.*

⁵ February 27, 2009 CalWEA / AWEA / SA Reply Comments in this docket, at 6-8; January 15, 2009 CalWEA / AWEA Proposal, at 13-14.

⁶ June 4, 2009 Comments of DRA on the Proposed Decision of ALJ Wetzell, pp. 2-3.

costs under its backstop procurement mechanisms to offset the shortfall in wind or solar output. Apart from this statement, no attempt was made by proponents of the exceedance method to estimate the amounts (in megawatts) or the costs of such backstop capacity, or to project how frequently the CAISO's backstop procurement mechanisms would be used.⁶ Yet, the Decision relies on this argument in concluding that the costs of CAISO backstop procurement would offset the savings in lower RA capacity costs if the current rule is maintained.⁷ There are no findings on this point in the Decision, and the record in the case does not support such a finding, because there was no evidence presented on the amount of the allegedly "offsetting" CAISO backstop procurement costs or on how often they would be incurred. As a result, the Commission committed legal error in its determination that ratepayer costs are not a barrier to this change in the RA counting rules.

In establishing the RA program, the Legislature intended that the Commission ensure reliability at reasonable costs for consumers, consistent with the Commission's overall goals.⁸ The Commission's decisions in this proceeding have stressed that the cost of the RA capacity must be considered:

The Commission noted that the traditional utility role in procurement included the responsibility to provide reliable service at least cost, and that this is one of the "same issues" of traditional resource procurement that RAR seeks to address. Thus, the concept embodied in the phrase "reliability at any cost" is not a policy option. Ultimately, *measures that are proposed to promote greater grid reliability should be evaluated by weighing their expected costs against the value of their expected contribution to reliability.*⁹

⁶ February 17, 2009 CAISO Opening Comments, at 35-38. Further, the CAISO will use its backstop procurement mechanisms to replace intermittent renewable generation only if the 15% planning reserve margin of RA capacity is exhausted, a far less likely occurrence than the 100% certainty of the higher RA costs that would result each month if wind and solar resources are de-valued as a result of moving to the 70% exceedance counting rule. June 4, 2009 CalWEA / AWEA / SA / LSA Opening Comments on the Proposed Decision of ALJ Wetzell, at 8-9.

⁷ Decision, at 52.

⁸ Public Utilities Code Sections 380, 451, and 454.5.

⁹ D. 05-10-042, at 8 (emphasis added).

By making clear that “‘reliability at any cost’ is not a policy option,” the Commission has committed to weighing the costs and benefits to ratepayers of any change in the RA counting rules and to choosing the path that strikes the best balance of reliability and cost. Thus, the Commission abused its discretion and failed to proceed in the manner required by law by failing to consider the cost impacts of changing to the exceedance method.

B. The Decision Adopts an RA Counting Rule for Wind and Solar Parties Without Knowing What the Results of the Rule Would Be.

Significant analytic effort is required in order to understand the impact of a proposed RA counting rule on the overall RA qualifying capacity (QC) of the resources subject to that rule. The new rule must be applied to the individual hourly generation output of all such resources on the CAISO system. In the regard, the Energy Division and California Energy Commission (CEC) staff made a significant effort to provide analytic support to the parties during this phase of R. 08-01-025. In particular, CEC staff provided comparative analyses of each party’s proposal for the RA counting rule for wind and solar in an effort to allow parties to understand and to compare the bottom-line results of each proposal. These results were made available to all parties prior to the due date for comments on the competing proposals. Regrettably, this effort was not entirely successful, as at least one non-market-participant party (TURN) was unable to obtain timely access to the CEC data and was not able to verify the CEC’s numbers.¹⁰ In addition, the Decision acknowledges that the CEC’s data on the nameplate capacities of existing RA resources is suspect and needs further scrutiny and orders the Energy Division to review the nameplate capacity data prior to the next review of the RA program.¹¹ Although it is within the Commission’s discretion to decide that these data defects are not serious enough to prevent a change to the RA counting rule, it is striking that none of the CEC’s analytic results are cited in the Decision. As a result, there is no evidence that the ALJ or the Commission considered the CEC’s analytic work in reaching the final Decision. The Decision cannot support

¹⁰ See February 27, 2009 TURN Reply Comments, at 8-9; June 4, 2009 TURN Opening Comments on the PD of ALJ Wetzell, at 4-6 and Attachment 1.

¹¹ Decision, at 54.

a finding that the adopted exceedance method meets the RA program’s reliability objective if the Commission itself did not know the QC values produced by that approach.

The Joint Parties’ concern on this issue is heightened by the fact that the Decision adopts a modification of the CAISO’s 70% exceedance method for which no analysis was made available to the parties, if it was conducted at all. Specifically, the Decision adopts the CAISO’s 70% exceedance methodology, but also approves a diversity adjustment based on the aggregate wind and solar production for the entire state. This modified version of the 70% exceedance method was first proposed in the ALJ’s Proposed Decision (PD) and was not accompanied by any analytic results showing how the modification affected the results of the CAISO’s original proposal. As a result, the parties commenting on the PD had no ability to know what QCs for intermittent renewables would result from the PD’s new proposal, and indeed several of the Joint Parties complained about this fact in their comments on the PD.¹² There is no indication in the Decision that the Commission knew how the diversity adjustment would affect the QC results. If the results of the adopted method are not clearly set forth in the record of the proceeding and the Commission does not discuss its review of those results, the parties, or a reviewing court, have no ability to ascertain whether the Commission is correct in concluding that the result truly is “meeting the RA program’s reliability objective” and “will best mitigate backstop procurement.”¹³ This uncertainty also has clear implications for the cost issue discussed in the previous section. If the Commission did not know how the adopted counting rule would impact QC values, then the Decision cannot support a finding that the increase in reliability from the new counting rule provides benefits that outweigh the costs to ratepayers of the additional RA procurement that the new rule will require.

Finally, the CAISO chose the 70% exceedance level as a rule of thumb, admitting that its

¹² June 4, 2009 CalWEA / AWEA / SA / LSA Opening Comments on the PD of ALJ Wetzell, at 10.

¹³ Decision, at 52.

choice was “somewhat subjective.”¹⁴ All that one can conclude about the new rule is that it provides that the RA value of wind and solar will be set at a level of output that is achieved in 70% of peak hours, instead of approximately 50% of hours under the old rule.¹⁵ The record includes no evidence that this change to the RA value of wind and solar is necessary in order to achieve a specific metric of overall system reliability, such as the typical standard of one day of outage in ten years. In contrast, the record shows that the existing counting rule has been benchmarked to reliability studies of intermittent renewable generation in California, including the CEC’s 2003-2006 study of the integration of renewables; these studies determine the capacity value of wind and solar generation such that the output from these resources achieves a well-defined reliability standard.¹⁶ As a result, there is no record evidence that a change in the RA counting rule for wind and solar is necessary to achieve an acceptable level of system reliability, or that the benefits of increased reliability from such a change outweigh the high costs.

C. The Decision Misstates the Position of the Supporters of the Current RA Counting Rule for Wind and Solar.

The Joint Parties support the continuation of the current RA counting rule for wind and solar. The current rule sets the RA value of wind and solar resources based on the average production of each resource over the summer on-peak period – noon to 6 p.m on weekdays – which are the hours during which electric demand in California peaks. Yet the Decision erroneously characterizes our position as follows: “[the] proponents of maintaining the status

¹⁴ CAISO Opening Comments in Phase 1 of R. 08-01-025, at 5. The CAISO made the same admission at the Phase 2 workshop this year. *See* Phase 2 Workshop Report, at 18. Also, February 27, 2009 CAISO Reply Comments, at 28.

¹⁵ Technically, the current method uses the average on-peak output rather than the 50% exceedance output. However, the two will be the same if production is a “normal” curve where the median, 50% exceedance, and average values are the same.

¹⁶ January 15, 2009 CalWEA / AWEA Proposal, at 4 - 7 and Table 2.

quo emphasize the need to assure reliability during off-peak periods.”¹⁷ This does not state our position accurately. By definition, the current counting rule is based solely on the on-peak production of wind and solar units; it does not give any consideration to the production of such units in off-peak hours. The Decision then proceeds to reject the current counting rule on the erroneous ground that “we find this emphasis on off-peak hours to be incompatible with the key objective of the RA program to meet peak demand.”¹⁸

More generally, the Decision sets up a false dichotomy between the supporters of the current counting rule, whom the Decision characterizes as being concerned with reliability in “all hours,” and the proponents of a change, who allegedly emphasize reliability in “peak hours.”¹⁹ This characterization is not correct: the current counting rule does not consider wind and solar output in all hours, it only considers output in a limited set of high-demand, on-peak hours. The current counting rule has been benchmarked to and validated by measures of the capacity value of wind in California that rely upon rigorous reliability models to calculate the Effective Load Carrying Capacity (ELCC) of wind resources. Although the ELCC approach analyzes all hours, this does not mean, as the Decision implies, that all hours are weighted equally in an ELCC analysis.²⁰ In fact, the ELCC approach emphasizes renewable generation in the riskiest peak hours, when the loss-of-load-probabilities (LOLP) that the reliability model calculates are the highest. During off-peak hours, the LOLP is extremely low, and generation in such hours contributes very little to the ELCC results.²¹

¹⁷ Decision, at 51.

¹⁸ *Ibid.*

¹⁹ Decision, at 49.

²⁰ Decision, at 51.

²¹ For example, Table 1 of the January 15, 2009 CalWEA / AWEA Proposal shows that just 1.3% of Southern California Edison’s (SCE) loss-of-load expectation falls in the off-peak hours, even though these hours constitute 60% of the hours in the year.

Thus, the Decision wrongly characterizes both the current counting rule and the ELCC analyses to which it is benchmarked as emphasizing “all hours” over “peak hours.” The Commission’s findings that the current counting rule should be changed are based on a fundamental mischaracterization and perhaps misunderstanding of both the current counting rule and the arguments of the parties supporting the rule. Because the Decision does not accurately reflect the positions of the parties, nor does it accurately discuss the two competing counting conventions at issue, the Joint Parties submit that the Commission must grant rehearing, under Public Utilities Code Section 1757.1.

Furthermore, the Decision states that it is adopting “the CalWEA / AWEA / SA proposal to aggregate the diversity benefits of solar and wind generation to recognize the complementary profiles of these resources.”²² Although the Joint Parties noted the importance of recognizing the diversity benefits of aggregated renewable generation and criticized the CAISO’s exceedance method for failing to reflect the full diversity of wind and solar resources, the Decision’s application of this concept should not be termed a “proposal” from CalWEA, AWEA, and SA. The specific diversity adjustment adopted in the Decision was never proposed or supported by the Joint Parties. We criticized the exceedance method for failing to reflect the full diversity benefits of the state’s aggregated wind and solar generation, and estimated the magnitude of this problem.²³ The Decision’s acceptance of this criticism and attempt to fix this one failing (among many) of the exceedance method should not be presented by the Commission as adoption of a proposal by the Joint Parties, with the obvious implication that the Commission has adopted a “compromise” between the CAISO / utility position and the position of renewable and consumer parties. The Joint Parties supported the current counting rule, in part, because no such diversity adjustment is needed with the current counting rule, which incorporates diversity by averaging

²² Decision, at 53.

²³ February 17, 2009 Opening Comments of CalWEA / AWEA / SA, at 9-11 and Figure 1. The Joint Parties did not have access to the underlying data set of project-specific generation data used for RA QC calculations, and did not request that the CEC perform a statewide diversity adjustment using both wind and solar resources, as the Decision adopts. Thus, our estimates of the magnitude of the diversity adjustment did not allow us to know the size of the diversity adjustment that the Decision ultimately adopted.

output across all of the on-peak hours. The Decision fails to consider this clear benefit of retaining the current counting rule.

The Commission cannot support a finding that the current counting rule should be changed, if that finding is based on a flawed misrepresentation of the positions of the parties supporting the current rule. Nor should the Commission seek to appear that it is adopting a balanced decision by adopting a “proposal” from the Joint Parties which we actually never made.

D. The Decision Fails to Make Findings on the Material Issue of Why California Should Change a Counting Rule That Is Similar to the Methods Used in Other Major U.S. Control Areas and That Reflects the Industry’s Best Practices.

The record in this proceeding includes extensive information on the methods used to assess the RA value of intermittent renewables in other major control areas in the U.S., as well as the method that is now considered to be “best practice” in the industry. For example, the Energy Division’s *2007 Resource Adequacy Report (2007 RA Report)*, served in Phase 1 of this docket on March 20, 2008, included a review of the counting rules for wind in other U.S. control areas, and the Energy Division asked CalWEA to update this information at the February 2009 workshop in Phase 2.²⁴ The Decision does not evaluate, or even discuss, this relevant and material information. Many of the major U.S. control areas also are experiencing significant growth in the installed capacity of intermittent technologies, particularly wind, and have implemented their own rules to count the capacity value of these resources. The Decision does not address the valuable experience and practices of the other major control areas in the U.S., which surely are relevant and material to the decision before the Commission. The record in this case shows clearly that many other control areas use RA counting rules similar to the existing rule that the Decision would replace (including ERCOT, the control area with the most installed wind capacity), and that there are no control areas in the U.S. that use an exceedance method for

²⁴ Attachment A to the January 15, 2009 CalWEA / AWEA Proposal is the most recent update of an ongoing study by the National Renewable Energy Laboratory (NREL) that reviews how various U.S. control areas and utilities have determined the capacity value of wind resources.

setting the resource adequacy value of intermittent renewables.²⁵ The Commission needs to explain why California should adopt an approach to valuing the RA capacity of wind and solar that is not used elsewhere in the U.S., and that would de-value wind and solar resources compared to the capacity value accorded to them in other regions. There is no such explanation or finding on this material issue in the Decision, even though the Joint Solar Parties repeatedly raised this concern and provided extensive information on practices elsewhere in the U.S. for the record in this case.²⁶

Similarly, the record contains significant documentation of the industry's state-of-the-art method for evaluating the RA value of intermittent renewables – the Effective Load Carrying Capacity (ELCC) approach.²⁷ The record in this case shows that the most recent ELCC results for California wind resource areas (WRAs) validate the accuracy of the current RA counting rule.²⁸ The Commission has adopted the use of these ELCC results in the RPS program, where the capacity value of intermittent renewables also must be measured.²⁹ The Decision fails to address the information in the record documenting the industry's "best practice" approach to this complex issue, and fails to reconcile its rejection of the ELCC approach in this context with its use of ELCC results to value wind and solar capacity for the RPS program.³⁰ Given California's

²⁵ January 15, 2009 CalWEA / AWEA Proposal, at 7-9, Table 3, and Attachment A.

²⁶ *Ibid.*

²⁷ The California Energy Commission's (CEC) multi-phase study of the integration of renewable resources into the California grid, conducted from 2003 - 2006, (the "CEC Integration Study") found the ELCC approach to be "the best method for determining capacity value of intermittent generators." *See* January 15, 2009 CalWEA / AWEA Proposal, at 4-6.

²⁸ January 15, 2009 CalWEA / AWEA Proposal in this docket, at Table 2.

²⁹ The Commission has used the ELCC results from the CEC's 2003-2006 Integration Study to assess the capacity value of wind resources in the "least-cost, best-fit" (LCBF) analysis used to evaluate bids for new renewable projects submitted under the RPS program. *See* D. 04-07-029, at 19-20.

³⁰ The Joint Parties are particularly disappointed that the presiding ALJ decided not to admit into the record an important new report from the North American Electric Reliability Corporation (NERC Special Report) on "Accommodating High Levels of Variable Generation." The NERC Special Report focuses on the integration of increased amounts of intermittent renewable resources into the electric grid in North America, including a

ambitious goals for new renewable generation, the state has a clear interest in ensuring that it uses consistent, state-of-the-art practices to value renewable generation, practices that do not discourage the renewable industry from pursuing project development in California in comparison to investment opportunities in other regions and countries.

E. The Decision Does Not Address the Material Issue of Whether the Continuation of the MCC Buckets Justifies the Retention of the Current RA Counting Rule for Wind and Solar.

In this case, the Large-scale Solar Association (LSA) contended that the current provisions limiting the Maximum Cumulative Capacity (MCC) for use-limited resources (ULRs) such as wind and solar will ensure that there is not an over-reliance on these intermittent resources for RA purposes.³¹ As a result, if these MCC “buckets” are retained, there is no need to change the current RA counting rule for these resources. The Decision decides to keep the MCC “buckets,” but never addresses the issue of whether this decision removes the need to change the RA counting rule for wind and solar. The Decision’s discussion of the MCC issue, at pages 17-18, finds that the MCC Buckets are “an important reliability measure,” and also can be viewed as “a cost-saving measure because it allows for the prudent use of ULRs to make up the RA fleet.” The Decision thus fails to address or resolve the material issue of whether the MCC Buckets allow retention of the current RA counting rule, because the MCC mechanism will limit over-reliance on energy-limited or intermittent resources.

recommendation that utilities and control areas in the U.S. and Canada should use the ELCC approach to assess the RA value of intermittent renewables. This report has particular significance because NERC is the organization responsible for developing and enforcing the grid reliability standards in the U.S. and Canada. Although no party objected to the admission of the NERC Special Report, the ALJ denied to admit it due to a lack of time to consider the report, even though the ALJ conceded that the report probably was relevant to the case. *See* the May 6, 2009 Motion of CalWEA to Reopen the Record to Accept NERC Report and the June 2, 2009 Motion of the Joint Parties for Expedited Reconsideration of the May 27 ALJ’s Ruling, and the ALJ Rulings of May 27 and June 20, 2009 denying these motions.

³¹ *See* January 15, 2009 LSA Proposal, at 3-4.

II. THE ADOPTED EXCEEDANCE METHOD DISADVANTAGES INTERMITTENT RENEWABLE TECHNOLOGIES, CONTRARY TO PUBLIC UTILITIES CODE 453(a).

The RA program's counting rules establish the contribution to maintaining system reliability of each electric generator selling or supplying power to the California utilities. As a result, the RA counting rules have a significant impact on the relative value of electric generators on the CAISO system. Public Utilities Code Section 453(a) provides that

No public utility shall, as to rates, charges, service, facilities, or in any other respect, make or grant any preference or advantage to any corporation or person or subject any corporation or person to any prejudice or disadvantage.

The Commission thus has a legal obligation to establish RA counting rules that do not discriminate unfairly against any particular type of generation. The Decision completely ignores the concern of the Joint Parties, expressed repeatedly in both phases of this case, that the exceedance method would result in the discriminatory treatment of generation projects using intermittent renewable resources compared to other types of generation, including gas-fired thermal generation.

The adopted exceedance approach de-rates wind and solar capacity twice: first, by using the actual capacity factor of intermittent generation over a peak period and, second, by applying an exceedance factor that ignores all energy that cannot be produced at the 70% capacity factor of a traditional baseload plant. In many hours, wind and solar generation will produce at levels far higher than these low QCs, but all of this power is assumed to make no contribution to reliability, even though the rigorous reliability studies cited in the record show that this above-QC power does contribute to system reliability.³² In this way, the exceedance method treats wind and solar in a fashion that is significantly different from that used for the RA counting rule for fossil-fueled thermal resources, yet the Decision has not justified such a discriminatory

³² January 15, 2009 CalWEA / AWEA Proposal, at 4-7 and Table 2 (showing that the current RA counting rule sets the RA value of wind at about a 20% to 30% of nameplate, similar to the results of the CEC's ELCC studies of wind in California).

approach. The QC for thermal generation is based on a unit's PMax, its maximum performance capability, without any de-rating for ambient conditions, forced outages, or actual performance during peak periods.³³ Yet the record shows that the output of all electric generating technologies varies with ambient conditions. For example, even the newest combined-cycle thermal units may operate during heat waves at capacity factors that are 10% - 15% below their QCs. Moreover, the intermittency of California's thermal generation will increase in the future, as a result of environmental and water-use concerns.³⁴ Because the amount of installed thermal capacity in California is very large, the total variability of thermal resources is certainly larger than the variability of today's installed solar and wind capacity or of the intermittent renewables that are expected to come on-line in the next several years. Today, the "intermittency" in the output of thermal units is accommodated in the 15% planning reserve margin (PRM). In contrast, the exceedance proposals for intermittent renewables would force the QCs of individual wind and solar plants to include virtually all of the worst-case reductions of their output due to ambient conditions.³⁵ Wind and solar generation thus would receive virtually no benefit from the 15% PRM, even though the amount of wind and solar capacity in California is still relatively modest. By denying any benefit of the 15% PRM to wind and solar resources, such a result clearly would discriminate unfairly against intermittent renewables, compared to the comparable treatment of thermal generation in the RA program.

III. THE DECISION FAILS TO JUSTIFY WHY A CHANGE TO THE RA COUNTING RULE FOR WIND AND SOLAR IS NEEDED IMMEDIATELY.

The Decision finds that the RA counting rule for intermittent renewables should be changed "as soon as possible," and on that basis excludes options such as new ELCC studies, on

³³ Although some consideration has been given to de-rating thermal generation for ambient conditions in this and other proceedings, no such adjustment has yet been implemented.

³⁴ February 17, 2009 Opening Comments of CalWEA / AWEA / SA, at 12-13.

³⁵ For example, although we do not know the exact results of the Decision's adopted exceedance method, it may set wind QCs to 10% or lower of installed wind capacity in many months.

the grounds that the CAISO's exceedance method "is the only comprehensive proposal that is ready for implementation with the 2010 compliance period."³⁶ Similarly, the ALJ excluded the new NERC Special Report from consideration in the record, on the grounds that there was not adequate time to consider this new information if a decision was to be rendered that would allow for timely 2010 RA compliance filings.³⁷

The Decision provides no rationale for the need to change the RA counting rule now, particularly given the CAISO's present 24% reserve margin and the relatively small amounts of wind and solar capacity that are on-line in California at the wholesale level (3,000 MW of wind and solar thermal).³⁸ Even the CAISO and the utilities, the proponents of the new counting rule, argued in *ex parte* meetings with CPUC decisionmakers that the change to the counting rule would require only a small amount of additional RA capacity ("several hundred megawatts") to be procured in the near term, due to the relatively modest amounts of wind and solar generation now on-line.³⁹ The Commission is well aware that significant quantities of new wind and solar capacity will not come on-line until new bulk transmission capacity can be completed. Substantial studies are now underway, both by this Commission and the CAISO, concerning the integration of 33% renewables into the California grid. These studies include running the types of models that could be used to perform new ELCC studies of the value of wind and solar capacity in California under a 33% RPS paradigm. Many of the parties to this case, including CalWEA, AWEA, Solar Alliance, LSA, and the Utility Reform Network (TURN), specifically urged the Commission to delay any change in the RA counting rule for wind and solar for at least a year, in order to take the time to develop more complete and up-to-date ELCC studies and to take advantage of work pending in other venues with respect to the integration of intermittent

³⁶ Decision, at 53.

³⁷ See the May 26 ALJ Ruling Denying the Motion of CalWEA to Re-Open the Record.

³⁸ February 17, 2009 Opening Comments of the CAISO, at 27 and 35..

³⁹ June 16, 2009 *ex parte* notices of the CAISO, Southern California Edison, and San Diego Gas & Electric, at 2.

renewable resources under a 33% RPS.⁴⁰

The Joint Parties appreciate that this case included issues that are important to the ongoing administration of the Resource Adequacy program and that needed to be decided on a tight time schedule. However, the record in this case also shows that the issue of the RA value of wind and solar resources is a crucial (and contentious) long-term policy issue, given the major commitment that the state has made to renewable resource development. This decision will have significant cost consequences for the Commission's RPS program, if the RA counting rules require the procurement of significant additional gas-fired generation in order to reach the 33% RPS goal. As a result, it is incumbent upon the Commission to take the time to decide this issue based on a full consideration of all relevant information, or to explain the exigent circumstances that require a rush to judgment. No such explanation is evident in the Decision.

⁴⁰ See, CalWEA/AWEA/Solar Alliance's February 17, 2009 Opening Comments, at 7-8 [CalWEA recommends that the Commission should not change the current counting rule until additional, updated ELCC studies are available.]; TURN's February 17, 2009 Opening Comments at 11-13 [TURN recommends maintaining the current calculation approach for 2010 to allow for "fully baked" ELCC analysis.]; LSA's February 17, 2009 Opening Comments, at 5-6 [Maintain the current counting conventions for solar facilities for the next few years to allow time to see if the coming integration study efforts at CAISO, WECC and FERC provide additional useful information on solar's capacity credits], and LSA's February 27, 2009 Reply Comments, at 1-2 and *passim* [There is value to take time and review studies to determine solar capacity value].

IV. CONCLUSION

For the reasons set forth above, the Commission should grant the Joint Parties' Application for Rehearing in order to revise Decision 09-06-028 to correct the legal errors summarized above and to review the Decision to ensure it is based upon findings of fact and supported by record evidence on all material issues. Only then can the Commission conclude that it has not acted arbitrarily or unfairly in establishing the RA counting rule for California's intermittent renewable resources.

Respectfully submitted,

/ s / R. Thomas Beach

R. Thomas Beach
Crossborder Energy
2560 Ninth Street, Suite 213A
Berkeley, California 94710
Telephone: 510-549-6922
Facsimile: 510-649-9793
E-mail: tomb@crossborderenergy.com

July 22, 2009

CERTIFICATE OF SERVICE

I hereby certify that I have this day caused to be served a copy of the foregoing document, **APPLICATION OF THE UTILITY REFORM NETWORK, THE CALIFORNIA WIND ENERGY ASSOCIATION, THE AMERICAN WIND ENERGY ASSOCIATION, AND THE SOLAR ALLIANCE FOR REHEARING OF D. 09-06-028**, by Electronic Mail where possible and First-Class Mail where not, on all known parties to R. 08-01-025, named on the service list attached to the original certificate of this document pursuant to the Commission's Rules of Practice and Procedure.

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

Executed at Berkeley, California, Wednesday, July 22, 2009.

/s/ Christa Goldblatt

Christa Goldblatt

PHILIPPE AUCLAIR
11 RUSSELL COURT
WALNUT CREEK, CA 94598
phil@auclairconsulting.com

DOCKET COORDINATOR
5727 KEITH ST.
OAKLAND, CA 94618
cpucdockets@keyesandfox.com

CLAUDIA GREIF
3144 ALANHILL LANE
SAN MATEO, CA 94403
c.greif@comcast.net

KEITH G. JOHNSON
151 BLUE RAVINE ROAD
FOLSOM, CA 95682
kjohnson@caiso.com

IRENE K. MOOSEN
53 SANTA YNEZ AVENUE
SAN FRANCISCO, CA 94112
irene@igc.org

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

MICHAEL MAZUR
3 PHASES RENEWABLES LLC
2100 SEPULVEDA BLVD, SUITE 37
MANHATTAN BEACH, CA 90266
mmazur@3PhasesRenewables.com

DENNIS W. DE CUIR
A LAW CORPORATION
2999 DOUGLAS BLVD., SUITE 325
ROSEVILLE, CA 95661
dennis@ddecuir.com

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

MICHAEL P. ALCANTAR
ALCANTAR & KAHL, LLP
33 NEW MONTGOMERY STREET,
SUITE 1850
SAN FRANCISCO, CA 94015
mpa@a-klaw.com

EVELYN KAHL
ALCANTAR & KAHL, LLP
33 NEW MONTGOMERY STREET,
SUITE 1850
SAN FRANCISCO, CA 94015
ek@a-klaw.com

SEEMA SRINIVASAN
ALCANTAR & KAHL, LLP
33 NEW MONTGOMERY STREET,
SUITE 1850
SAN FRANCISCO, CA 94105
sls@a-klaw.com

DIANA ANNUNZIATO
AMERICAN UTILITY NETWORK
10705 DEER CANYON DRIVE
ALTA LOMA, CA 91737

ROB GRAMLICH
AMERICAN WIND ENERGY
ASSOCIATION
1101 14TH STREET NW, 12TH FLOOR
WASHINGTON, DC 20005

DAVID J. COYLE
ANZA ELECTRIC CO-OPERATIVE, INC
(909)
PO BOX 391908 / 58470 HWY 371
ANZA, CA 92539-1909

PAUL OSHIDERI
AOL UTILITY CORP.
12752 BARRETT LANE
SANTA ANA, CA 92705

SARA STECK MYERS
ATTORNEY AT LAW
122 28TH AVE.
SAN FRANCISCO, CA 94121
ssmyers@att.net

BARBARA R. BARKOVICH
BARKOVICH & YAP, INC.
PO BOX 11031
OAKLAND, CA 94611
brbarkovich@earthlink.net

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

TRACEY L. DRABANT
BEAR VALLEY ELECTRIC SERVICE
PO BOX 1547
BIG BEAR LAKE, CA 92315
traceydrabant@bves.com

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

SCOTT BLAISING
BRAUN & BLAISING, P.C.
915 L STREET, SUITE 1270
SACRAMENTO, CA 95814
blaising@braunlegal.com

VICKI FERGUSON
BRAUN & BLAISING, PC
915 L STREET, SUITE 1270
SACRAMENTO, CA 95814
ferguson@braunlegal.com

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

C. ANTHONY BRAUN
BRAUN BLAISING MCLAUGHLIN, P.C.
915 L STREET, SUITE 1270
SACRAMENTO, CA 95814
braun@braunlegal.com

JUSTIN C. WYNNE
BRAUN BLAISING MCLAUGHLIN, P.C.
915 L STREET, SUITE 1270
SACRAMENTO, CA 95814
wynne@braunlegal.com

ARTHUR L. HAUBENSTOCK
BRIGHTSOURCE ENERGY, INC.
1999 HARRISON STREET, SUITE 2150
OAKLAND, CA 94612
ahaubenstock@brightsourceenergy.com

CALI INDEPENDENT SYSTEM
OPERATOR CORP.
151 BLUE RAVINE ROAD
FOLSOM, CA 95630
chinman@caiso.com

Valerie Beck
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
vjb@cpuc.ca.gov

Donald J. Brooks
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
dbr@cpuc.ca.gov

Laurence Chaset
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
lau@cpuc.ca.gov

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

Elizabeth Dorman
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
edd@cpuc.ca.gov

Kevin R. Dudney
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
kd1@cpuc.ca.gov

Farzad Ghazzagh
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
fxg@cpuc.ca.gov

Charlyn A. Hook
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
chh@cpuc.ca.gov

Peter Spencer
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
phs@cpuc.ca.gov

Elizabeth Stoltzfus
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
eks@cpuc.ca.gov

Robert L. Strauss
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
rls@cpuc.ca.gov

Lana Tran
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
lta@cpuc.ca.gov

Mark S. Wetzell
CALIF PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3214
msw@cpuc.ca.gov

SHUCHENG LIU
CALIF. INDEPENDENT SYSTEM
OPERATOR
151 BLUE REVINE ROAD
FOLSOM, CA 95630
SLiu@caiso.com

DAVID MORSE
CALIFORNIA AMERICAN WATER CO.
1411 W. COVELL BLVD., STE. 106-292
DAVIS, CA 95616-5934
demorse@omsoft.com

BETH VAUGHAN
CALIFORNIA COGENERATION
COUNCIL
4391 N. MARSH ELDER COURT
CONCORD, CA 94521
beth@beth411.com

MICHAEL JASKE
CALIFORNIA ENERGY COMMISSION
1516 9TH STREET, MS-39
SACRAMENTO, CA 95814
mjaske@energy.state.ca.us

LYNN MARSHALL
CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET, MS-22
SACRAMENTO, CA 95814
lmarshall@energy.state.ca.us

DARYL METZ
CALIFORNIA ENERGY COMMISSION
1516 9TH ST., MS-20
SACRAMENTO, CA 95814
dmetz@energy.state.ca.us

DAVID VIDAVER
CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET, MS-20
SACRAMENTO, CA 95814-5512
dvidaver@energy.state.ca.us

JAMES WOODWARD
CALIFORNIA ENERGY COMMISSION
1516 9TH STREET MS-20
SACRAMENTO, CA 95814
jwoodwar@energy.state.ca.us

CALIFORNIA ENERGY MARKETS
425 DIVISADERO STREET, STE 303
SAN FRANCISCO, CA 94117
cem@newsdata.com

ANTHONY IVANCOVICH
CALIFORNIA INDEPENDENT SYSTEM
OPER. CORP
151 BLUE RAVINE ROAD
FOLSOM, CA 95630
aivancovich@caiso.com

PHILIP D. PETTINGILL
CALIFORNIA INDEPENDENT SYSTEM
OPERATOR
151 BLUE RAVINE ROAD
FOLSOM, CA 95630
ppettingill@caiso.com

JUDITH B. SANDERS
CALIFORNIA INDEPENDENT SYSTEM
OPERATOR
151 BLUE RAVINE ROAD
FOLSOM, CA 95630
isanders@caiso.com

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

BETH ANN BURNS
CALIFORNIA ISO
151 BLUE RAVINE ROAD
FOLSOM, CA 95630
bburns@caiso.com

GRANT A. ROSENBLUM
CALIFORNIA ISO
151 BLUE RAVINE ROAD
FOLSOM, CA 95630
grosenblum@caiso.com

NANCY RADER
CALIFORNIA WIND ENERGY
ASSOCIATION
2560 NINTH STREET, SUITE 213A
BERKELEY, CA 94710
nrader@calwea.org

MATT BARMACK
CALPINE CORPORATION
4160 DUBLIN BLVD, SUITE 100
DUBLIN, CA 94568
barmackm@calpine.com

KEVIN BOUDREAUX
CALPINE CORPORATION
717 TEXAS AVENUE SUITE 1000
HOUSTON, TX 77002
boudreauxk@calpine.com

AVIS KOWALEWSKI
CALPINE CORPORATION
4160 DUBLIN BLVD, SUITE 100
DUBLIN, CA 94568
kowalewskia@calpine.com

DANIELLE M. SEPERAS
CALPINE CORPORATION
1215 K STREET, SUITE 2210
SACRAMENTO, CA 95814-3978
dseperas@calpine.com

MARK FRAZEE
CITY OF ANAHEIM PUBLIC UTILITIES
DEPT.
201 S. ANAHEIM BLVD., SUITE 802
ANAHEIM, CA 92805
mfraze@anaheim.net

INGER GOODMAN
COMMERCE ENERGY INC
600 ANTON AVE., SUITE 2000
COSTA MESA, CA 92626
igoodman@commerceenergy.com

CYNTHIA A. FONNER
CONSTELLATION ENERGY GROUP
INC
500 WEST WASHINGTON ST, STE 300
CHICAGO, IL 60661
Cynthia.A.Fonner@constellation.com

R. THOMAS BEACH
CROSSBORDER ENERGY
2560 NINTH STREET, SUITE 213A
BERKELEY, CA 94710-2557
tomb@crossborderenergy.com

RONALD M CERNIGLIA
DIRECT ENERGY SERVICES, LLC
40 COLUMBINE DRIVE
GLENMONT, NY 12077-2966
ron.cerniglia@directenergy.com

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

BRIAN THEAKER
DYNEGY, INC.
3161 KEN DEREK LANE
PLACERVILLE, CA 95667
brian.theaker@dynegy.com

ANDREW B. BROWN
ELLISON SCHNEIDER & HARRIS, LLP
2600 CAPITOL AVENUE, SUITE 400
SACRAMENTO, CA 95816-5905
abb@eslawfirm.com

CAROLYN KEHREIN
ENERGY MANAGEMENT SERVICES
2602 CELEBRATION WAY
WOODLAND, CA 95776
cmkehrein@ems-ca.com

MARK J. SMITH
CALPINE CORPORATION
PO BOX 11749
PLEASANTON, CA 94588
smithmj@calpine.com

KERRY EDEN
CITY OF CORONA DEPT. OF WATER &
POWER
730 CORPORATION YARD WAY
CORONA, CA 92880
kerry.eden@ci.corona.ca.us

ANN HEDRICKSON
COMMERCY ENERGY, INC
222 W. LAS COLINAS BLVD., STE.
950-E
IRVING, TX 75039
ahendrickson@commerceenergy.com

MIKE EVANS
CORAL POWER, LLC
4445 EASTGATE MALL, SUITE 100
SAN DIEGO, CA 92121
michael.evans@shell.com

JENNIFER CHAMBERLIN
DIRECT ENERGY
2633 WELLINGTON CT
CLYDE, CA 94520
jennifer.chamberlin@directenergy.com

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

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

STEPHEN HESS
EDISON MISSION MARKETING &
TRADING INC.
18101 VON KARMAN AVE, STE. 1700
IRVINE, CA 92612-1046
shess@edisonmission.com

JEDEDIAH J. GIBSON
ELLISON SCHNEIDER & HARRIS LLP
2600 CAPITOL AVENUE, SUITE 400
SACRAMENTO, CA 95816-5905
jjg@eslawfirm.com

RICHARD H. COUNIHAN
ENERNOC, INC.
500 HOWARD ST., SUITE 400
SAN FRANCISCO, CA 94105
rcounihan@enernoc.com

THERESA MUELLER
CITY AND COUNTY OF SAN
FRANCISCO
CITY HALL, ROOM 234
SAN FRANCISCO, CA 94102
theresa.mueller@sfaov.org

TRACY MARTIN
CITY OF CORONA, DEPT OF WATER &
POWER
755 CORPORATION YARD WAY
CORONA, CA 92880
tracy.martin@ci.corona.ca.us

MARY LYNCH
CONSTELLATION ENERGY
COMMODITIES GRP
5074 NAWAL DRIVE
EL DORADO HILLS, CA 95762
marv.lynch@constellation.com

MARCIE A. MILNER
CORAL POWER, LLC
4445 EASTGATE MALL, SUITE 100
SAN DIEGO, CA 92121
marcie.milner@shell.com

JENNIFER CHAMBERLIN
DIRECT ENERGY
12 GREENWAY PLAZA, SUITE 600
HOUSTON, TX 77046
jennifer.chamberlin@directenergy.com

GREGORY KLATT
DOUGLASS & LIDDELL
21700 OXNARD STREET, SUITE 1030
WOODLAND HILLS, CA 91367-8102
klatt@energyattorney.com

AUDRA HARTMANN
DYNEGY, INC.
980 NINTH STREET, SUITE 2130
SACRAMENTO, CA 95814
Audra.Hartmann@Dynegy.com

FRED MOBASHERI
ELECTRIC POWER GROUP
201 S. LAKE AVE., SUITE 400
PASADENA, CA 91101
fmobasher@aol.com

BRIAN S. BIERING
ELLISON SCHNEIDER & HARRIS, LLP
2600 CAPITOL AVENUE, SUITE 400
SACRAMENTO, CA 95816-5905
bsb@eslawfirm.com

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

MONA TIERNEY-LLOYD
ENERNOC, INC.
PO BOX 378
CAYUCOS, CA 93430
mtierney-lloyd@enernoc.com

BARRY R. FLYNN
FLYNN RESOURCE CONSULTANTS,
INC.
5440 EDGEVIEW DRIVE
DISCOVERY BAY, CA 94514
brflynn@flvnrnci.com

VIDHYA PRABHAKARAN
GOODIN MACBRIDE SQUERI DAY &
LAMPREY LLP
505 SANSOME STREET, SUITE 900
SAN FRANCISCO, CA 94111
vprabhakaran@aoodinmacbride.com

STEVEN KELLY
INDEPENDENT ENERGY PRODUCERS
ASSOCIATION
1516 K STREET, SUITE 900
SACRAMENTO, CA 95814
steven@iepa.com

CHRISTINE HENNING
LARGE-SCALE SOLAR ASSOCIATION
3572 HUNTSMAN DRIVE
SACRAMENTO, CA 95826
Christine@consciousventuresgroup.com

KAREN LINDH
LINDH & ASSOCIATES
7909 WALERGA ROAD, STE 112, PMB
119
ANTELOPE, CA 95843
karen@klindh.com

BARRY F. MCCARTHY, ESQ.
MCCARTHY & BARRY LLP
100 W. SAN FERNANDO ST., SUITE 501
SAN JOSE, CA 95113
bmcc@mccarthyllaw.com

DALE BOSOWSKI
MODESTO IRRIGATION DISTRICT
1231 11TH STREET
MODESTO, CA 95354
daleb@mid.org

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

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

SAEED FARROKHPAY
FEDERAL ENERGY REGULATORY
COMMISSION
110 BLUE RAVINE RD., SUITE 107
FOLSOM, CA 95630
saeed.farrokhpay@ferc.gov

DIANE I. FELLMAN
FPL ENERGY PROJECT
MANAGEMENT, INC.
234 VAN NESS AVENUE
SAN FRANCISCO, CA 94102
Diane.Fellman@fpl.com

JEANNE B. ARMSTRONG
GOODIN MACBRIDE SQUERI DAY &
RITCHIE
505 SANSOME STREET, SUITE 900
SAN FRANCISCO, CA 94111
jarmstronq@aoodinmacbride.com

SHAWN COX
KINDER MORGAN ENERGY
FORECASTER
1100 TOWN & COUNTRY ROAD, SUITE
700
ORANGE, CA 92868

WILLIAM H. BOOTH
LAW OFFICE OF WILLIAM H. BOOTH
67 CARR DRIVE
MORAGA, CA 94556
wbooth@booth-law.com

JOHN W. LESLIE
LUCE, FORWARD, HAMILTON &
SCRIPPS, LLP
11988 EL CAMINO REAL, SUITE 200
SAN DIEGO, CA 92130
ileslie@luce.com

SEAN P. BEATTY
MIRANT CALIFORNIA, LLC
PO BOX 192
PITTSBURG, CA 94707
sean.beatty@mirant.com

BLAIR JACKSON
MODESTO IRRIGATION DISTRICT
1231 ELEVENTH STREET
MODESTO, CA 95354
blairj@mid.org

MOUNTAIN UTILITIES
PO BOX 205
KIRKWOOD, CA 95646

KERRY HATTEVIK
NRG ENERGY
829 ARLINGTON BLVD.
EL CERRITO, CA 94530
kerry.hattevik@nrgenergy.com

ED CHANG
FLYNN RESOURCE CONSULTANTS,
INC.
2165 MOONSTONE CIRCLE
EL DORADO HILLS, CA 95762
edchang@flvnrnci.com

RONALD MOORE
GOLDEN STATE WATER/BEAR VALLEY
ELECTRIC
630 EAST FOOTHILL BOULEVARD
SAN DIMAS, CA 91773
rkmoore@aswater.com

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

JOEL M. HVIDSTEN
KINDER MORGAN ENERGY
FORECASTER
1100 TOWN & COUNTRY ROAD, SUITE
700
ORANGE, CA 92868

LIBERTY POWER HOLDINGS LLC
(1371)
131-A STONEY CIRCLE 500
SANTA ROSA, CA 95401

SUSIE BERLIN
MC CARTHY & BERLIN, LLP
100 W SAN FERNANDO ST., STE 501
SAN JOSE, CA 95113
sberlin@mccarthyllaw.com

MODESTO IRRIGATION DISTRICT
1231 ELEVENTH ST.
MODESTO, CA 95354
blairj@mid.org

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

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

JOE LAWLOR
PACIFIC GAS & ELECTRIC COMPANY
PO BOX 770000 MAIL CODE N12G
SAN FRANCISCO, CA 94177
JTL5@pge.com

CHARLES R. MIDDLEKAUFF
PACIFIC GAS & ELECTRIC COMPANY
77 BEALE STREET, B30A
SAN FRANCISCO, CA 94120
crmd@pge.com

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

ED LUCHA
PACIFIC GAS AND ELECTRIC
COMPANY
PO BOX 770000, MAIL CODE B9A
SAN FRANCISCO, CA 94177
ELL5@pae.com

SEBASTIEN CSAPO
PG&E PROJECT MGR.
PO BOX 770000
SAN FRANCISCO, CA 94177
sscb@pge.com

THOMAS R. DARTON
PILOT POWER SERVICES, INC.
8910 UNIVERSITY CENTER LANE,
SUITE 520
SAN DIEGO, CA 92122
tdarton@pilotpoweraroup.com

JAMES ROSS
RCS, INC.
500 CHESTERFIELD CENTER, SUITE
320
CHESTERFIELD, MO 63017
jimross@r-c-s-inc.com

ERIC LEUZE
RRI ENERGY, INC
PO BOX 5277
FAIR OAKS, CA 95628
eleuze@rrienergy.com

RANDY NICHOLSON
SAN DIEGO GAS & ELECTRIC
8330 CENTURY PARK COURT, CP32H
SAN DIEGO, CA 92123
RNicholson@Semprautilities.com

JAMES HENDRY
SAN FRANCISCO PUBLIC UTILITIES
COMM.
1155 MARKET STREET, FOURTH
FLOOR
SAN FRANCISCO, CA 94103

DAVID ORTH
SAN JOAQUIN VALLEY POWER
AUTHORITY
4886 EAST JENSEN AVENUE
FRESNO, CA 93725
dorth@krcd.org

BRIAN K. CHERRY
PACIFIC GAS AND ELECTRIC
COMPANY
PO BOX 770000, MAIL CODE: B10C
SAN FRANCISCO, CA 94177
bkc7@pae.com

TOM JARMAN
PACIFIC GAS AND ELECTRIC
COMPANY
PO BOX 770000, MAIL CODE B9A
SAN FRANCISCO, CA 94105-1814
tai8@pae.com

MARK TUCKER
PACIFICORP
825 NE MULTNOMAH, SUITE 2000
PORTLAND, OR 97232
californiadockets@pacificorp.com

MATTHEW BARMACK
PIEDMONT ECONOMICS
2811 FOREST AVE.
BERKELEY, CA 94705
mbarmack@alum.mit.edu

JESSICA NELSON
PLUMAS SIERRA RURAL ELECTRIC
COOP. (908)
73233 STATE ROUTE 70
PORTOLA, CA 96122-7069
jnelson@psrec.coop

TRENT CARLSON
RRI ENERGY, INC
1000 MAIN STREET
HOUSTON, TX 77002
tcarlson@rrienergy.com

GRETCHEN SCHOTT
RRI ENERGY, INC
1000 MAIN STREET
HOUSTON, TX 77002
gschott@rrienergy.com

NUO TANG
SAN DIEGO GAS & ELECTRIC
8315 CENTURY PARK COURT, CP21D
SAN DIEGO, CA 92123
ntang@semprautilities.com

MANUEL RAMIREZ
SAN FRANCISCO PUC
1155 MARKET STREET, 4TH FLOOR
SAN FRANCISCO, CA 94103
mramirez@sflower.org

PHILLIP J. MULLER
SCD ENERGY SOLUTIONS
436 NOVA ALBION WAY
SAN RAFAEL, CA 94903
philm@scdenergy.com

SHAUN HALVERSON
PACIFIC GAS AND ELECTRIC
COMPANY
PO BOX 770000
SAN FRANCISCO, CA 94177
SEHC@pae.com

GRACE LIVINGSTON-NUNLEY
PACIFIC GAS AND ELECTRIC
COMPANY
PO BOX 770000 MAIL CODE B9A
SAN FRANCISCO, CA 94177
GXL2@pae.com

JORDAN WHITE
PACIFICORP
825 NE MULTNOMAH STREET, SUITE
1800
PORTLAND, OR 97232
jordan.white@pacificorp.com

REID A. WINTHROP
PILOT POWER GROUP, INC.
8910 UNIVERSITY CENTER LANE,
SUITE 520
SAN DIEGO, CA 92122
rwinthrop@pilotpoweraroup.com

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

LES GULIASI
RRI ENERGY, INC
720 WILDCAT CANYON ROAD
BERKELEY, CA 94708
lguliasi@rrienergy.com

SUE MARA
RTO ADVISORS, LLC.
164 SPRINGDALE WAY
REDWOOD CITY, CA 94062
sue.mara@rtoadvisors.com

DON P. GARBER
SAN DIEGO GAS AND ELECTRIC
101 ASH STREET
SAN DIEGO, CA 92101-3017
DGarber@sempra.com

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

TOM CORR
SEMPRA GLOBAL
101 ASH STREET, 8TH FL.
SAN DIEGO, CA 92101-3017
tcorr@sempraglobal.com

THEODORE ROBERTS
SEMPRA GLOBAL
101 ASH STREET, HQ 12B
SAN DIEGO, CA 92101-3017
troberts@sempra.com

CASE ADMINISTRATION
SOUTHERN CALIFORNIA EDISON
COMPANY
2244 WALNUT GROVE AVENUE
ROSEMEAD, CA 91730
case.admin@sce.com

ANDREA MORRISON
STRATEGIC ENERGY
415 DIXSON STREET
ARROYO GRANDE, CA 93420
amorrison@strategicenergy.com

DANIEL SILVERIA
SURPRISE VALLEY ELECTRIC CORP.
PO BOX 691
ALTURAS, CA 96101
dansvec@hdo.net

MICHEL P. FLORIO
THE UTILITY REFORM NETWORK
(TURN)
115 SANSOME STREET, SUITE 900
SAN FRANCISCO, CA 94104
mflorio@turn.org

DOUG DAVIE
WELLHEAD ELECTRIC COMPANY
650 BERGUT DRIVE, SUITE C
SACRAMENTO, CA 95814
ddavie@wellhead.com

KARLEEN O'CONNOR
WINSTON & STRAWN LLP
101 CALIFORNIA STREET 39TH FLR
SAN FRANCISCO, CA 94111
koconnor@winston.com

SARA BIRMINGHAM
SOLAR ALLIANCE
646 19TH AVE
SAN FRANCISCO, CA 94121
sara@solaralliance.org

WILLIAM V. WALSH
SOUTHERN CALIFORNIA EDISON
COMPANY
2244 WALNUT GROVE AVE.
ROSEMEAD, CA 91770
william.v.walsh@sce.com

STRATEGIC ENERGY LLC
2030 MAIN STREET, SUITE 1030
IRVINE, CA 92614

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

MICHAEL SHAMES
UCAN
3100 FIFTH AVENUE, SUITE B
SAN DIEGO, CA 92103
mshames@ucan.org

JOSEPH M. PAUL
WEST COAST POWER
2420 CAMINO RAMON, BLDG. J, SUITE
215
SAN RAMON, CA 94583
ioe.paul@dyneqv.com

KEVIN WOODRUFF
WOODRUFF EXPERT SERVICES
1100 K STREET, SUITE 204
SACRAMENTO, CA 95814
kdw@woodruff-expert-services.com

KAREN LEE
SOUTHERN CALIFORNIA EDISON
2244 WALNUT GROVE AVE. PO BOX
800
ROSEMEAD, CA 91770
karen.lee@sce.com

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

JENNIFER CHAMBERLIN
STRATEGIC ENERGY, L.L.C.
2633 WELLINGTON CT.
CLYDE, CA 94520
jchamberlin@strategicenergy.com

REGINA COSTA
THE UTILITY REFORM NETWORK
115 SANSOME STREET, SUITE 900
SAN FRANCISCO, CA 94104
rcosta@turn.org

JIM SUEUGA
VALLEY ELECTRIC ASSOCIATION
800 E. HWY 372, PO BOX 237
PAHRUMP, NV 89041
jims@vea.coop

LISA COTTLE
WINSTON & STRAWN LLP
101 CALIFORNIA STREET, 39TH
FLOOR
SAN FRANCISCO, CA 94111
lcottle@winston.com

HANS LAETZ, J.D.
ZUMA IMPACT LLC
6402 SURFSIDE WAY
MALIBU, CA 90265
hanslaetz@gmail.com