

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

Order Instituting Rulemaking to Consider)
Annual Revisions to Local Procurement)
Obligations and Refinements to the) Rulemaking 08-01-025
Resource Adequacy Program) (Filed January 31, 2008)
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**COMMENTS OF THE CALIFORNIA INDEPENDENT
SYSTEM OPERATOR CORPORATION ON
PROPOSED DECISION**

Nancy Saracino, General Counsel
Anthony Ivancovich,
Assistant General Counsel, Regulatory
Beth Ann Burns, Senior Counsel
CALIFORNIA INDEPENDENT SYSTEM
OPERATOR CORPORATION
151 Blue Ravine Road
Folsom California 95630
Tel. (916) 608-7135
Fax. (916) 608-7296
Email: jsanders@caiso.com

Attorneys for CALIFORNIA INDEPENDENT
SYSTEM OPERATOR CORPORATION

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**COMMENTS ON PROPOSED DECISION OF THE
CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION**

Pursuant to Rule 14.3 of the California Public Utilities Commission (“Commission”) Rules of Practice and Procedure, the California Independent System Operator Corporation (“CAISO”) respectfully submits these comments on the Proposed Decision of Administrative Law Judge Wetzell (“Proposed Decision”). The Proposed Decision adopts local procurement obligations for the 2010 Resource Adequacy compliance year as well as certain refinements to the Commission’s Resource Adequacy program. The CAISO’s Comments address the following two determinations in the Proposed Decision: (1) the recommended methodology for counting intermittent resources; and (2) the suggestion that implementation of a Standard Capacity Product (“SCP”) impacts whether the existing replacement rule should be retained. With respect to the former, the CAISO strongly supports adoption of the intermittent resource counting methodology adopted in the Proposed Decision because it will more accurately reflect the dependable level of intermittent resource generation that will be available to serve load during peak periods, thereby promoting reliability and

reducing the need for the CAISO to procure backstop capacity. Second, the CAISO submits that implementation of SCP will not eliminate the need for the replacement rule.

I. THE CAISO SUPPORTS ADOPTION OF THE PROPOSED DECISION'S FINDINGS AND CONCLUSIONS REGARDING THE METHODOLOGY FOR COUNTING INTERMITTENT RESOURCES

Soon after the Commission implemented the current wind and solar counting convention in 2005, concerns arose that such rules overstated the actual availability of wind generation during peak periods. In its 2007 RA Report, the Commission's Energy Division provided data demonstrating that the existing counting methodology for determining wind resources' Qualifying Capacity (*i.e.*, using a three-year historical average of hourly production during Standard Offer ("SO1") peak hours) overstates the available capacity of these resources during peak demand periods.¹ Indeed, the Energy Division's 2007 RA report noted, among other things, that wind production is generally low during times of high demand, and is extremely variable and deviates broadly from its net qualifying capacity ("NQC") across peak hours. Tellingly, the report noted that during the top 20 load hours in 2007, wind resources met or exceeded their NQC only 5% of the time. In other words, wind resources failed to achieve their NQC in 19 of the top 20 load hours in 2007.² As the CAISO indicated in its Phase II Comments

¹ 2007 RA Report at 20-28.

² 2007 RA Report at 24.

filed in this proceeding on February 17, 2009, the findings in the 2007 RA Report are consistent with the CAISO's operational experience.³

Faced with a clear problem, the Commission directed that the existing intermittent counting rules be reviewed in this proceeding. As the Proposed Decision notes, there is little dispute that the current counting convention overstates wind resource production across peak hours.⁴ Likewise, the Proposed Decision correctly recognizes that parties did not contest the findings that there is a negative correlation between wind production and loads on the CAISO Controlled Grid, and that wind production is extremely variable and difficult to predict in advance of the hour of interest.⁵ Instead, the debate focused on whether the RA program is primarily designed to ensure reliability during peak hours. The Proposed Decision correctly found that the critical objective of the RA program is to meet peak demand, and that the emphasis of proponents of maintaining the status quo or adopting an Effective Load Carrying Capacity ("ELCC") approach that looks at wind production during every hour of every day was incompatible with the overarching goal of the RA program.⁶

³ Phase II Comments of the California Independent System Operator Corporation at 13, 24 and Attachment C. [See also *2008 Summer Loads and Resources Operations Preparedness Assessment* at 10-11 (April 28, 2008) ("2008 Summer Assessment"). The 2008 Summer Assessment is available at the following link: <http://www.caiso.com/1fb7/1fb7855eed50.pdf>. See also, CAISO Presentation re *Achieving California's 20% Renewable Operation Issues*, at 12,16,17 ("Renewables Integration Presentation") which is available at <http://www.caiso.com/1c64/1c64e47b71020.pdf> and the *Integration of Renewable Resources Report* (Nov. 2007) at 57-70 which is available at the following link: <http://www.caiso.com/1ca5/1ca5a7a026270.pdf>. Attachment C shows that in most seasons wind generation tends to peak when total system load is low and is at its lowest production levels when system load is high.

⁴ Proposed Decision at 50.

⁵ *Id.*

⁶ As the CAISO indicated in its Phase II comments, the Commission's stated goals for the RA program are to ensure that sufficient resources exist to meet demand during stressed

Based on unequivocal evidence in the record, the Proposed Decision finds that, because serving peak load is the key objective of the RA program and given the demonstrated extreme variability in wind production, the current averaging method is inaccurate because it can produce QC values that significantly overstate the actual, dependable capacity available to serve load during the conditions in which monthly peaks are experienced.⁷ Accordingly, the Proposed Decision appropriately adopts the recommendation in the Joint Proposal submitted by the CAISO, Southern California Edison Company and San Diego Gas & Electric Company (with two modifications discussed below) that an exceedance methodology should be used to calculate the QC of intermittent resources. The Proposed Decision acknowledges that the Joint Proposal best meets the Commission's objectives under RA.⁸ The Proposed Decision recognizes that the exceedance methodology proposed in the Joint Proposal produces a QC for intermittent resources that the CAISO can reasonably rely on to serve peak load, thereby meeting the RA program's reliability objective, while minimizing CAISO backstop procurement that can increase costs to ratepayers.⁹ Importantly, the Proposed Decision recognizes that the Joint Proposal is the *only* comprehensive proposal that is ready for implementation for the 2010 compliance year.¹⁰ Finally, the Proposed Decision correctly concludes that implementation of a more accurate counting convention for intermittent resources

conditions and that capacity is available to meet the CAISO's operational needs. CAISO Phase II Comments at 10-11. That is why LSE procurement obligations and other elements of the RA program are based on peak load numbers.

⁷ Proposed Decision at 50-51.

⁸ *Id.* at 51.

⁹ *Id.* at 52.

¹⁰ *Id.*

is important for reliability purposes as soon as practicable, and the Joint Proposal is the appropriate means for achieving such implementation.¹¹

The Proposed Decision recommends two modifications to the Joint Proposal. First, the Proposed Decision adopts the proposal submitted by the California Wind Energy Association (“CalWEA”), the American Wind Energy Association (“AWEA”) and the Solar Alliance to aggregate the diversity benefits of solar and wind generation to recognize the complementary profiles of these resources. Second, the Proposed Decision adopts the recommendation of the Energy Division Staff to incorporate into the exceedance methodology the diversity benefit of aggregating intermittent resources on a statewide basis.

The CAISO recognizes the importance of renewable resources, including wind and solar resources, in meeting the State’s environmental policy goals, and the CAISO firmly supports these efforts. However, the RA program and the RA counting rules are not intended to be the vehicle for implementing the State’s environmental policies. The sole purpose of the RA program is to support electric system reliability by ensuring that load serving entities procure sufficient resources in a forward timeframe to meet monthly peak demand levels, plus reserve margin, and meet the operational needs of the CAISO Controlled Grid. The Proposed Decision correctly recognizes this distinction. Mechanisms other than the RA program will ensure that renewable resources are developed, namely the RPS program. The CAISO supports those efforts.

¹¹ *Id.*

The Proposed Decision also recommends the appropriate and very necessary change to the existing counting rule to adopt an exceedance methodology for counting intermittent resources. As load serving entities strive to meet increased RPS requirements and energy production needs, it is critical for purposes of maintaining reliability that the QC rules for intermittent resources accurately reflect a dependable level of generation that will be available during peak load hours. The inaccurate counting rule that exists today, however, overstates the actual availability of intermittent resources during peak periods. It does not support the Commission's reliability goals or the CAISO's operational needs. Absent a change in the counting rule consistent with the exceedance methodology in the Proposed Decision, the problem will only be exacerbated as more-and-more MW of intermittent generation are added to the grid in California. In short, the existing counting rules create a problem that needs to be remedied now. The exceedance approach best resolves the problem because it takes into account the extreme variability of intermittent resources and the expected, dependable performance of such resources during peak periods when grid conditions are stressed and capacity must be available to serve load and maintain reliability.

As noted in the Proposed Decision, any counting rule that results in the overcounting of intermittent resources and does not accurately reflect their relative unavailability during peak load periods, will result in committing additional resources to ensure system reliability. That will result in increased costs to ratepayers. To the extent the CAISO must procure non-RA backstop resources,

the CAISO will be required to pay such resources a capacity payment. Thus, inaccurate counting rules could result in ratepayers paying twice for capacity: first, in the form of a monthly capacity payment to the RA resource that was not available and second, in the form of a daily or monthly capacity payment to the non-RA resource that the CAISO committed because of the intermittent resource's non-availability. Even to the extent other thermal RA resources are available to be committed, that too results in increased costs because the CAISO must pay such units their start-up costs. The Commission must recognize these additional costs that will be incurred when intermittent resource capacity is not available.

The CAISO firmly believes that the exceedance methodology adopted by the Proposed Decision will, compared to the existing counting methodology, produce QC values that are more accurate and, in doing so, will meet the fundamental objectives of the RA program to ensure system reliability. Furthermore, establishing an expected, dependable level of capacity that will be available during peak hours will mitigate backstop procurement and put an up-front transparent price on intermittent capacity. The CAISO endorses the Proposed Decision for recognizing these considerations and recommending changes to effectuate the most appropriate solution. The CAISO urges the Commission to act promptly and decisively to implement this remedy.

Although the Joint Proposal did not contain the two modifications adopted in the Proposed Decision, given the challenging nature of this issue and the fact

that the Joint Proposal, as modified, will produce far more accurate QC values for intermittent resources than exists today, the CAISO accepts the modifications subject to the caveats below. In addition, the modifications, which adopt recommendations from CalWEA/AWEA/Solar Alliance and the Energy Division Staff, recognize the diverse interests of the parties to this proceeding and mitigate the full impact of a pure exceedance approach.

One concern the CAISO has stems from the fact that the Commission currently has an ongoing proceeding to design the next generation of a Planning Reserve Study that will be used to establish the Planning Reserve Margin (“PRM”). If the PRM study considers the statewide diversity benefits of the entire resource fleet, it may fully account for the statewide diversity benefits provided by wind and solar resources. Yet, the approach recommended in the Proposed Decision explicitly adds a diversity benefit to the value of wind and solar resources. If any such PRM methodology is adopted in the future, the Commission may need to modify the diversity aspect of the QC counting rule for intermittent resources at that time. Otherwise, there could be a duplicate application of the diversity benefits for wind and solar resources. Any double counting of diversity benefits would be inappropriate.

A second issue arises from a Notice of *Ex Parte* Communication (“Notice”) filed by CalWEA and the Solar Alliance on May 28, 2009. With respect to the aggregation of wind and solar resources for purposes of determining a diversity benefit, CalWEA and the Solar Alliance state that this proposed modification has not been analyzed by the California Energy Commission (“CEC”) which ran the

numbers on all of the other proposals in this case. As a result, they claim that parties have no accurate understanding of the impact of the Proposed Decision on the capacity values for wind and solar.¹² The CAISO finds this argument curious to say the least because it was CalWEA, AWEA and the Solar Alliance that proposed the modification to aggregate the diversity benefits of wind and solar resources in the first place in their Opening Comments filed on February 17, 2009.¹³ Indeed, the Proposed Decision acknowledges that this modification was proposed by them.¹⁴ Now CalWEA and the Solar Alliance seem to claim that the Proposed Decision is flawed because it adopts their own proposed modification for which there are no supporting numbers from the CEC. The Commission should not permit any inadequacy in CalWEA's and the Solar Alliance's own proposed modification to serve as the basis for rejecting the entire Proposed Decision. If there is an issue regarding the sustainability of the proposed modification to aggregate wind and solar resources, then the appropriate course of action is to remove only that element from the Proposed Decision. The lack of numerical support for that particular modification should not infect the remainder of the Proposed Decision. The CAISO notes that the Joint Proposal contained a diversity benefit which aggregated the benefits of wind resources by wind region. The ALJ found that the Joint Proposal was the only comprehensive proposal ready for immediate implementation. Accordingly, if it is not appropriate to adopt CalWEA's and the Solar Alliance's modification to

¹² Notice at 2.

¹³ See Opening Comments of The California Wind Energy Association, the American Wind Energy Association, and the Solar Alliance at 9-11.

¹⁴ Proposed Decision at 52.

aggregate wind and solar resources because of the lack of data showing the impact of that modification, then the Commission should adopt the diversity benefit contained in the Joint Proposal. In no event, however, should the lack of justification for CalWEA's and the Solar Alliance's own modification cause rejection of the exceedance methodology reflected in the Joint Proposal which the ALJ found will (1) best support the Commission's RA objectives, (2) result in a more accurate counting convention for intermittent resources, and (3) best mitigate CAISO backstop procurement.

II. IMPLEMENTATION OF A STANDARD CAPACITY PRODUCT DOES NOT ELIMINATE THE NEED FOR THE EXISTING REPLACEMENT RULE

The Proposed Decision proposes to leave the proceeding open for a limited time for the limited purpose of addressing Standard Capacity Product ("SCP") issues, including: (1) whether and to what extent the final SCP should be required for RA compliance; and (2) whether the existing replacement requirement of the scheduled outage protocol should be eliminated if SCP is implemented.¹⁵

The CAISO stresses that adoption of the SCP will not eliminate the need for the existing replacement rule for scheduled outages.¹⁶ Accordingly, the replacement rule should be retained. In that regard, SCP will only impose

¹⁵ Proposed Decision at 43.

¹⁶ Under these existing replacement rule, a resource cannot be counted as RA capacity if its days of scheduled outage exceed 25 percent of days in a summer month (May through September) or extend longer than two weeks in a non-summer month (October through April), and a Load Serving Entity ("LSE") that has contracted with a resource subject to such outage has an obligation to procure replacement RA capacity.

financial charges on RA resources that are unavailable as the result of forced outages and certain derates. SCP does not impose charges on RA resources that are unavailable as the result of a scheduled outage. Because SCP does not address scheduled outages, adoption of SCP cannot serve as the basis for eliminating the replacement rule for scheduled outages. Stated differently, the availability standards and financial incentives under SCP neither duplicate nor supersede the replacement rule.

The availability standard in the CAISO's SCP proposal is designed on the premise that a resource receiving payments for providing RA capacity is expected to make its full RA capacity available to the CAISO, unless the resource is on a forced equipment outage or derate that diminishes its ability to provide the full amount of its RA capacity. Under the SCP, each resource's hourly availability (*i.e.*, its non-forced outage hours) will be tracked on a monthly basis and compared against a single availability standard or target that reflects the historic performance of the RA resource fleet during the peak hours of each month of the previous three years. On a monthly basis, the CAISO will assess charges to resources whose availability falls short of the target due to forced outages, and will provide credit payments to resources whose availability exceeds the target. SCP will not impose charges on RA resources that are unavailable as the result of scheduled outages. The availability incentives in the CAISO's SCP proposal, which consider only *forced outages* and certain derates, effectively complements the Commission's existing counting criterion and replacement obligation, which account for capacity subject to *scheduled outages*.

In any event, the mere existence of SCP and its availability provisions do not -- and cannot -- guarantee that a sufficient number of RA resources will be available in all circumstances.¹⁷ Elimination of the replacement rule could result in units that are being counted for RA purposes not being available to the CAISO as the result of a scheduled outage. If units counted for RA purposes are not available due to a scheduled outage, the CAISO could be forced to rely on the Residual Unit Commitment (“RUC”) and Exceptional Dispatch mechanisms under its tariff to access non-RA units in order to maintain reliability and compensate for the unavailability of RA capacity that was on a scheduled outage and was not replaced. The use of these measures will result in daily or monthly capacity payments to the non-RA units, which costs will be passed on to ratepayers in addition to the cost of the RA capacity that scheduled an outage. That will essentially result in capacity payments being made for redundant capacity. This clearly creates an opportunity to shift the cost of RA capacity procurement to other LSEs that should not be promoted. Retention of the replacement requirement will help avoid these redundant costs and cost shift.

Also, the existing scheduled outage counting criterion and replacement obligation provide necessary flexibility to the CAISO in approving scheduled outages. They allow the CAISO to rely on replacement capacity being available for a unit on scheduled outage, which in turn allows the CAISO to more easily accommodate unanticipated outages and reduces cancellations or other

¹⁷ It is possible that LSEs will have an incentive to fulfill their capacity obligations by procuring resources that have a CAISO approved outage scheduled in the upcoming RA month. Such capacity would clearly have an attractively low price, because it is not expected to provide the capacity service for the full RA month.

schedule modifications. These benefits to efficient resource maintenance should continue after SCP becomes effective. For example, in the past year, it has been necessary for the CAISO to cancel some scheduled outages due to system reliability concerns.¹⁸ Elimination of the replacement requirement will only exacerbate this situation and lead to further scheduled outages being cancelled. If LSEs do not take scheduled outages into account in their RA procurement decisions, capacity shortfalls may result in the shoulder months when generators typically schedule outages. The SCP proposal does not contain a measure that will address or correct this potential capacity shortfall in the off-peak months. Accordingly, if the replacement rule is eliminated, the CAISO will have less flexibility to schedule outages.

III. CONCLUSION

For the foregoing reasons, the CAISO respectfully requests that the Commission adopt the Proposed Decision consistent with the discussion herein.

¹⁸ This unfortunately leads to the canceling of much needed clearances for maintenance and overhauls of generating resources that routinely occur during off-peak months.

Respectfully submitted,

/s/ Anthony Ivancovich
Anthony Ivancovich
Assistant General Counsel-Regulatory
Beth Ann Burns
Senior Counsel
Attorneys for
CALIFORNIA INDEPENDENT SYSTEM
OPERATOR CORPORATION
151 Blue Ravine Road
Folsom California 95630
Tel. (916) 351-4400
Fax. (916) 608-7296

Email: aivancovich@caiso.com
bburns@caiso.com

Date: June 4, 2009

CERTIFICATE OF SERVICE

I hereby certify that I have served, by electronic mail and U.S. Mail,
Comments on Proposed Decision of the California Independent System Operator
Corporation in Docket No. R.08-01-025.

Executed on June 4, 2009, at Folsom, California.

/s/ Jane Ostapovich

Jane Ostapovich

An Employee of the California
Independent System Operator