# BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

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Order Instituting Rulemaking to Consider Annual Revisions to Local Procurement Obligations and Refinements to the Resource Adequacy Program

R.08-01-025

# REPLY COMMENTS OF THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION ON PHASE 1 ISSUES

The California Independent System Operator ("CAISO") submits the following

response to comments provided by parties to this proceeding on May 12, 2008. In its

reply comments, the CAISO addresses the following specific topics:

- Calculation of Qualifying Capacity ("QC") for intermittent (wind and solar) resources;
- Clarification and use of Commercial Operation Date;
- Waiver of new resources for local resource adequacy ("RA") requirements;
- QC rule for back-up generation (BUGs);
- Double-counting of Scheduled Outages
- CAISO's 2009 LCR Study; and
- AReM's comments on offer obligations for Ancillary Services and the standard RA contract.

#### I. Calculation of NQC for Intermittent Resources

Based on the data provided during the Commission workshops, there cannot be any meaningful debate whether wind resources under perform in relation to their procured NQC during CAISO peak demand periods. The only real question is how the counting rules for intermittent resources should be modified to ensure that such resources are accounted for in a manner more consistent with their actual contribution to system reliability during perk demand.

Comments on proposed modifications to the counting rules for intermittent resources divide into two basic groups. One group promotes an exceedance approach, which uses historic production over a number of peak load hours to establish the amount of generation that can be expected at a selected level of confidence. The second group advocates no change until an Effective Load Carrying Capability ("ELCC") study can be performed.

There is support from the IOUs, Dynegy and the CAISO for the exceedance approach. As noted, the exceedance approach provides a high level of confidence that intermittent resources will be made available when they are most needed. The exceedance approach can be run using current data accessible to the CEC and therefore would not require additional time or resources to implement. The data needed for this approach is a subset of the data already available to the CEC and in practice was closely mimicked when the Energy Division staff provided the results of the "5c" approach proposed in the staff report.

CAISO agrees with SDG&E's comment that "the foundation of the Commission's RA program is assurance of adequate capacity to meet peak demand, and the ELCC methodology diverges from this objective by including non-peak hours to define the capacity benefits of each resource." (SDG&E at 5.) In addition, from submitted written

comments and stakeholder discussions, the CAISO is not aware of any ELCC study that addresses the monthly variability of intermittent resources. Since intermittent resources have a high degree of variability in production levels, across months and days, the Commission has determined that a monthly QC for such resources is appropriate. Performing a complex ELCC study on a monthly basis with a monthly determination of the many variables involved in running the ELCC study will be time intensive. Questions as to what entity would be engaged to do these monthly ELCC studies on an annual basis and the associated costs remain open questions and would need to be addressed.

The CAISO would like to again emphasize that the value of intermittent resources is not being debated. The CAISO recognizes that intermittent resources are an important part of the entire resource mix that provides valuable electric service to the people of California. The issue being addressed in this proceeding is what counting rules should be put in place "to reflect the expected capacity value that will be available to the CAISO during periods of system peak demand."<sup>1</sup> The CAISO believes that with the expected increase in intermittent resources over the next few years, an improvement to the counting rules is required as soon as possible. The CAISO's proposed change is easy to implement and provides a high level of confidence that the resources required to serve California during the system peak demand will be available. This high level of confidence not only serves to promote grid reliability, but also contributes to the likelihood that RA resources will be primarily relied upon to meet system needs under the peak demand conditions assumed by the RA program. To the extent the RA program does not provide the CAISO with the expected capacity assumed in the program's design,

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As noted on page 17, section 4.1 of the Energy Division's 2007 RA Report

either reliability will suffer or the CAISO will be forced to utilize other market mechanisms to reliably serve load. The Commission should adopt the exceedance approach as an improvement to the current process for determining QC values for intermittent resources. Taking on a more complex solution, such as an ELCC study, can be addressed after the supporters of this approach have a proposal that addresses the needs of the RA program and can be clearly defined and implemented.

#### **II.** Clarification and Use of Commercial Operation Date

IEP asserts that the experience of the past few years suggests that the 60-day period between when a new resource can count for RA purposes and when it achieves "operational status" is not necessary and "rigid application of the rule will lead to excess costs for both consumers and generators." (IEP at 6.) Accordingly, IEP proposes that for new units being developed to meet the terms of a power purchase agreement of a substantial proportion of its output, i.e., 75%, the new unit's capacity can count from the date of Commercial Operation. (IEP at 7-8.)

The CAISO agrees in principle with IEP. The critical date is Commercial Operation. At this time, the new unit should be done with all necessary testing and is, in fact, submitting schedules to participate in CAISO markets. For this reason, the CAISO proposed in its opening comments a proposal to simply require Commercial Operation prior to the submission of the LSE's RA Plan. The CAISO believes this approach is superior to IEP's proposal for two reasons. First, it is more straightforward. There is no assessing contract status or setting what is a "substantial" proportion of the new unit's capacity. Second, it requires that Commercial Operation occur at the appropriate time in the regulatory process – at the time of the RA Plan submission. If there are issues regarding reliance with the new unit at that time, the CAISO and Commission have mechanisms to notify the relevant parties to take action to correct any identified deficiencies. If it counted from the date of Commercial Operation, whenever, that may be, the CAISO may be compelled to engage in commercial backstop to the disadvantage of the LSE or, at worst, if for system needs, at the expense of other LSEs. The Commission's eligibility and QC rules should minimize the potential for shifting costs to parties without responsibility for not the resource shortfall. Accordingly, the CAISO asserts that the Commission should adopt its approach to counting new resources, rather than the proposal advanced by IEP.

#### **III.** Waiver of New Resources for Local RA Requirements

For the same reasons that the CAISO has opposed the current implementation of a seasonal LCR obligation, the CAISO objects to SDG&E request for a waiver of an LSE's LCR obligation during non-summer periods to accommodate potential new resources scheduled to be in Commercial Operation by the summer season. In short, SDG&E is requesting that the Commission sanction the potentially significant shortfall of local capacity during off-peak periods without any assessment of the impact of the capacity deficiency on reliability or the ability of the CAISO to conduct needed maintenance. Indeed, in the case of SDG&E, it could seek a waiver in anticipation of the Otay Mesa generating facility and thereby eliminate nearly 18% of the local capacity identified for the San Diego area. The CAISO therefore requests that SDG&E's request be denied.

The CAISO notes that its tariff does not in any way dictate procurement levels. However, to the extent the Commission's allocation of responsibility for local capacity does not ensure that sufficient capacity is procured to comply with the capacity requirements identified in its Local Capacity Technical Study, the CAISO may engage in backstop procurement to ensure reliability. If compelled to engage in backstop procurement under those circumstances, the cost of the capacity will be assigned to all Commission jurisdictional LSEs serving load in the deficient Transmission Access Charge Area.<sup>2</sup>

# IV. Qualifying Capacity Rule for Back-Up Generation

In PG&E's initial comments, it requests that the Commission adopt QC counting rules for BUGs based on existing demand response rules. Under the demand response counting rules, capacity that can be "reliably dispatched" for a least 48 hours in aggregate over a summer season or at least 10 hours per month during non-summer months is eligible for satisfying RA obligations. (PG&E at 6-7.)

The CAISO has had some discussions with market participants on this topic and believes further discussion on the applicability and implementation of BUGs to the RA program and the CAISO markets is warranted. Of specific concern to the CAISO are the following points:

- Geographic level at which the aggregation will be done (important if operated to remove load dictating local capacity requirements)
- How is the quantity that can be reliably dispatched to be determined?
- How will these resources be registered with the CAISO and offer into the CAISO markets and become dispatchable?
- What are the telemetry and metering requirements?

If the appropriate rules can be developed that address the CAISO's concerns, the CAISO would agree with PG&E that BUGs may constitute an appropriate RA resource. Given the potential uncertainties, the CAISO believes that this issue is beyond the scope, or inappropriate, for phase 1 of the current proceeding and should be moved to phase 2.

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CAISO MRTU Tariff Section 40.3.2.

### V. Double Counting of Scheduled Outages

In its opening comments, the CAISO opposed PG&E's proposal to address the double-counting of Scheduled Outages for Qualifying Facilities. While the CAISO acknowledges the existence of double-counting of Scheduled Outages for RA resources that utilize an historic output averaging approach to QC determination, the CAISO objected to PG&E's solution as suboptimal. Rather than address the incremental impact a Scheduled Outage would have on a resource's QC value when averaged over many hours, PG&E would have the resource fully count even when it is known in advance that the unit will be unavailable for up to 25% of the month. As such, the CAISO's preference was to continue to apply the Scheduled Outage rules to the QF, but adjust the resource specific counting rule to address the double counting. To the extent the parameters of this adjustment requires further examination, the CAISO would recommend that the topic be deferred to phase 2.

### VI. CAISO's 2009 LCR Study

During the 2009 LCR study process, the CAISO received and responded to many questions from stakeholders. The submitted questions and associated responses are published on the CAISO website, located at:

http://www.caiso.com/1c44/1c44b8e0380a0.html.<sup>3</sup> For those entities that were not directly involved in the LCR study process, the CAISO provides below a brief summary on some of the questions noted in the comments and the respective CAISO responses.

# A. PG&E Questions/Comments on 2009 LCR Study Process

1. The LCR study should include forecasts of local requirements for future years.

<sup>&</sup>lt;sup>3</sup> There are two sets of comments and responses posted to this location. All of the specific questions brought up in the April 15, 2008 comments to the phase 1 issues were addressed in these responses.

The CAISO believes it is appropriate to continue a sequential study approach with LCR needs for the upcoming Resource Adequacy Compliance Year and the longer-term horizon evaluated separately. This sequential approach facilitates the current Commission one-year RA procurement and compliance requirements. Nevertheless, the CAISO is amenable to considering within the context of the Transmission Planning Process modifications that extend the horizon beyond the current 3-year period employed in the Long-term LCR Study.

# 2. The LCR study must be coordinated with the transmission planning process and differences clearly explained.

The CAISO agrees with the need for coordination, but notes that the more immediate need is to ensure that confusion among stakeholders is avoided by clearly describing differences in the inputs, assumptions, and methodology of the each study. Generally, there are three major inputs: load, generation and transmission. Here, for instance, the CAISO notes that the CAISO and PG&E studies use different transmission project assumptions. The CAISO only uses CAISO approved projects. PG&E uses all projects incorporated in its planning process. The CAISO believes they are both right given the respective purposes of the two studies. The CAISO focuses on establishing LCR requirements using firm projects. PG&E appropriately demonstrates the value of new transmission projects by identifying the further potential reduction in LCR needs. Both result in healthy planning for any given area. In addition, the CAISO will continuously work on ensuring that the LCR Manual is comprehensive so that all stakeholders will be able fully understand the origin of CAISO results.

#### B. SCE Questions/Comments on 2009 LCR Study Process

1. The CAISO should discuss new sub-areas identified with the PTOs prior to publishing the results.

SCE has submitted and the CAISO has approved a new SPS for El Nido that substantially eliminates this sub-area. This project will trip load anytime a double-line outage is detected so that the rating of the remaining line is not exceeded. The CAISO will seek to coordinate with relevant PTOs prior to publication of findings on a new sub-area, but such coordination must be consistent with the overall LCR study schedule. The CAISO has also noted in the comments from April 10, 2008 that it will bring any new LCR findings to the stakeholders and PTOs attention as soon as they become available.

# 2. SCE's operating solutions should be incorporated in determining the procurement requirements for the 2009 Local RA program.

The CAISO agrees that such operation solutions can be accepted for procurement purposes and continue to satisfy Reliability Criteria.

# VII. The Commission Has Authorized Ancillary Services as Part of the Standard RA Contract

AReM suggests that the question whether the RA obligation should "add a new Must-Offer Obligation for Ancillary Services" should be deferred. AReM further intimates that the CAISO has requested that this purportedly new obligation be added by the Commission as a component of the RA program. (AReM at 11.) AReM misinterprets the CAISO's position and the need for deferral of this topic. The CAISO asserts that the Commission has already authorized the inclusion of such an obligation as part of the RA product and that no further action by the Commission is needed. Equally important, the CAISO and, apparently, AReM are in agreement that an Ancillary Services offer obligation applies to RA capacity suppliers to the extent they are capable of provides such products and does not alter or add to the procurement obligation of LSEs. The scope of the offer obligation was originally articulated in Decision (D.) 05-

10-042. In that decision, the Commission stated:

The obligation of suppliers to be available and perform is established indirectly through their contracts with LSEs. D.04-10-035 outlined (at p. 41) certain broad aspects of the contractual obligations to be imposed on generators. These include a sequential generator obligation to (1) be scheduled by the LSE, (2) bid into the forthcoming day-ahead market if not already scheduled, or (3) be subject to the CAISO's Residual Unit Commitment (RUC) process if the bid is not accepted. The Commission determined that in order to count for RAR purposes, contracts executed after the Phase 2 decision should include such provisions."<sup>4</sup>

The language selected by the Commission provides for significant flexibility by simply requiring the resource to be "bid" into the forthcoming "day-ahead market if not already scheduled." Neither the scope of the bid nor the day-ahead market was in any way restricted.

The Commission added greater detail to the unit commitment and dispatch requirements in Section 3.11 of D.06-07-031, which outlined elements of an accepted standard RA product. One category of necessary elements was entitled: "Compliance with CAISO Unit Commitment and Dispatch Requirements, and Other Information Reporting Requirements." That category first required that the RA capacity must be "self-scheduled for energy delivery" within the CAISO control area up to the amount of all RA capacity, and if not scheduled, subject to additional commitment obligations. These additional obligations covered both the CAISO's current market structure and MRTU.

In the CAISO's current market design there is no integrated day-ahead market and RA capacity must be made available to the CAISO subject to the FERC's must-offer ("FERC MOO") waiver process. Under the FERC MOO, if a waiver request is denied,

<sup>&</sup>lt;sup>4</sup> This reference can be found on page 14 of D.05-10-042, which can be found at: http://docs.cpuc.ca.gov/PUBLISHED/FINAL\_DECISION/50731-03.htm#P287\_23809

the resource is committed in the day-ahead timeframe and must submit bids in real-time. Accordingly, the Commission required that RA capacity denied a FERC MOO waiver must "submit supplemental energy or Ancillary Service bids to the CAISO." Thus, RA capacity committed by the CAISO through FERC MOO must offer Ancillary Services to the extent is has not submitted supplemental energy bids.

However, while the obligation to offer Ancillary Services is in the alternative under the current FERC MOO process, it becomes a joint obligation absent the FERC MOO process. D.07-06-031 requires that "if the FERC MOO is no longer operative, Capacity shall be made available to the CAISO as follows: (1) the CAISO shall have the right to commit any type of Units on a Day-Ahead basis; and (2) the CAISO shall have the right, on an intra-hour or Hour-Ahead basis, to call on supplemental energy *and/or* Ancillary Services from only those Units whose start-up time permits such a call." The use of the "and/or" acknowledges that not all resources are capable of supplying Ancillary Services. The implication of the language used is that those RA resources that are capable of providing Ancillary Services must do so.

The obligation on RA capacity in the CAISO's Market Redesign and Technology Upgrade ("MRTU") is simply to "bid into the CAISO's MRTU Day-Ahead Integrated Forward Market if not already scheduled." A "bid" under MRTU is "[a]n offer for the Supply or Demand of Energy or Ancillary Services."<sup>5</sup> Thus, while not explicit, it may be assumed that the Commission did not intend for CAISO to have less flexibility under MRTU than it would have had absent FERC MOO. If so, the use of the term "bid" as applied to RA resources in MRTU includes the obligation to bid supply or demand for energy and, if capable, Ancillary Services.

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See, CAISO MRTU Tariff, Master Definitions Supplement, Appendix A.

The CAISO believes that the Commission has already determined that resources offering RA capacity that can provide Ancillary Services must make those products available to the CAISO in accordance with D.07-06-031. Under MRTU, this obligation requires RA capacity to submit Ancillary Services Bids for co-optimization into the CAISO's Integrated Forward Market. By imposing such obligation on suppliers of RA capacity, the CAISO is not in any way advocating that LSEs are subject to any specific Ancillary Services procurement obligation or that there RA obligation in any way changes. The CAISO therefore requests confirmation as to the scope of the Commission's prior orders or, alternatively, to modify its prior orders to include such an obligation.

## **Conclusion**

The CAISO respectfully requests that the Presiding Administrative Law Judge prepare a proposed decision for Commission consideration consistent with the foregoing arguments.

Respectfully submitted,

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Date: May 19, 2008

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#### **CERTIFICATE OF SERVICE**

I hereby certify that on April 14, 2008. I served, by electronic mail and U.S. mail, a copy of the foregoing Comments of the California Independent System Operator to the Proposed Decision Adopting Protocols for Estimating Demand Response Load Impacts on the service list for proceeding R.08-01-025.

Executed on May 19, 2008 at Folsom, California

/s/ Anna Pascuzzo //

Anna Pascuzzo, An employee of the California Independent System Operator

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