

107 FERC ¶ 61,274
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Pat Wood, III, Chairman;
Nora Mead Brownell, and Joseph T. Kelliher.

California Independent System
Operator Corporation

Docket Nos. ER02-1656-017
ER02-1656-018
ER04-928-000
and
EL04-108-000

Public Utilities Providing Service in
California under Sellers' Choice
Contracts

ORDER ON FURTHER DEVELOPMENT OF
THE CALIFORNIA ISO'S MARKET REDESIGN
AND ESTABLISHING HEARING PROCEDURES

(Issued June 17, 2004)

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1. In this order, we provide guidance on seven outstanding issues, direct the submission of information on existing transmission contracts, convene a technical conference on congestion revenue rights, and defer remaining issues to a future order. In addition, pursuant to section 206 of the Federal Power Act,¹ we set for hearing issues related to sellers' choice contracts.

2. This order benefits customers by ensuring that the California Independent System Operator Corporation (CAISO) has the tools it requires to reliably operate the transmission grid and that it proceeds expeditiously with the development of procedures for improved operation and administration of the CAISO grid.

I. Background

A. October 28 Order

3. On July 22, 2003, the CAISO filed a revised conceptual proposal to progress and further develop design elements of its May 1, 2002 proposal (the CAISO's July 2003 filing). On October 28, 2003, the Commission issued a guidance order² approving, in principle, many of the conceptual design elements submitted by the CAISO. The Commission also sought additional information and explanation for some elements of the California proposal; and established technical conferences to address other issues raised by the filing. Two technical conferences were held by Commission staff in January and March, 2004, respectively, and addressed certain outstanding issues.

4. The first technical conference pertained to five issues: flexible offer obligation (FOO) proposal, residual unit commitment (RUC), ancillary services, marginal losses, and constrained output generators. The market power mitigation discussion was deferred in order to allow participants an opportunity to evaluate the California Public Utilities Commission's (CPUC) Procurement Decision,³ issued on January 22, 2004, in the context of the proposed market power mitigation design. The second technical conference was designed to complete the discussions started at the January conference and to introduce a Staff recommendation regarding market power mitigation. Staff introduced two approaches to complement the CAISO market power mitigation proposal: shortage pricing during reserves shortages and locational capacity obligations on load serving entities (LSEs) operating within the CAISO grid. After a series of comments and

¹ 16 U.S.C. § 825e (2003).

² California Independent System Operator Corporation, 105 FERC ¶ 61,140 (2003) (October 28 Order).

³ Public Utilities Commission of the State of California, Order Instituting Rulemaking to Establish Policies and Cost Recovery Mechanisms for Generation Procurement and Renewable Resource Development, Docket # R. 01-10-024.

reply comments between market participants, state agencies and the CAISO, the CAISO filed on May 11, 2004, revised proposals on elements discussed at the January and March technical conferences.⁴

B. Outstanding Issues

5. This order addresses the following discrete issues discussed at the January and March technical conferences: the proposed must offer obligation, RUC, the hour-ahead market, ancillary services, constrained output generators (COGs), marginal losses, and virtual bidding. In addition, we will also comment on the progress of other significant issues that are important to the further development of reliable and efficient operation of the CAISO grid and which, when implemented, will enhance the effectiveness and act as a complement to the operation of the seven areas referred to above. These other significant issues include existing transmission contracts (ETCs), sellers' choice contracts, and congestion revenue rights (CRR) allocation. The remaining conceptual issues discussed in the October 28 Order and at the technical conferences, including market power mitigation measures and resource adequacy, will be addressed in a future order.

C. History

6. In an order issued on January 7, 2000,⁵ the Commission found that the CAISO's existing congestion management method was fundamentally flawed, and directed it to design a comprehensive replacement congestion management approach. The CAISO began a stakeholder process to develop an alternate comprehensive congestion management system, but the subsequent upheaval in the CAISO power markets in 2000 and 2001 delayed the CAISO's efforts. In a December 19, 2001 order, the Commission directed the CAISO to propose a plan by May 1, 2002, to implement a day-ahead market, to be integrated with the revised congestion management plan that was directed in January 2000.⁶ The CAISO subsequently filed its Market Design 2002 (MD02) Proposal,

⁴ See Comments of the California Independent System Operator Corporation Regarding Technical Conference, Docket No. ER02-1656-017, filed May 11, 2004 (May 11 revised proposal).

⁵ California Independent System Operator Corporation, 90 FERC ¶ 61,006 (2000), reh'g denied 91 FERC ¶ 61,026 (2000) (January 2000 Order).

⁶ San Diego Gas & Electric Company 97 FERC ¶ 61,275 (2001) at 62,245.

to be implemented in three phases.⁷ On July 17, 2002, the Commission issued an order accepting in part, rejecting in part and directing modifications of the CAISO's MD02 proposal.⁸ In that order, the Commission also implemented a west-wide market power mitigation program.⁹

II. Notices and Interventions

7. Notice seeking comments in relation to the CAISO's filing in Docket No. ER02-1656-017 was published in the Federal Register, 69 Fed. Reg. 29,300 (2004), with comments, protests, and interventions due on or before May 19, 2004. The parties shown in Attachment A to this order filed timely interventions, protests or comments in response to this Notice, or in response to previous Notices issued by the Commission¹⁰ in preparation for, or in response to, the technical conferences held in January and March, 2004. The CPUC filed a motion to intervene out-of-time on May 28, 2004. On June 8, 2004, Pacific Gas and Electric Company (PG&E) filed comments out-of-time. The CAISO filed an answer June 3, 2004.

⁷ Phase 1: market power mitigation measures, real-time economic dispatch and the use of a single energy bid curve; Phase 2: an integrated forward market, including an energy market and procedures for procurement of ancillary services; and Phase 3: implementation of the full network model, redesigned firm transmission rights, and the integration of congestion management with energy and ancillary services market.

⁸ California Independent System Operator Corporation, 100 FERC ¶ 61,060 (2002) (July 17 Order).

⁹ The west-wide market power mitigation program involved the extension of the existing must-offer provision within the area of the Western Electricity Coordinating Council (WECC), adoption of a set of Automatic Mitigation Procedures (AMP) to identify and limit excessive bids and local market power, and introduction of a bid cap of \$250/MWh to be applied to sales in all WECC spot markets.

¹⁰ A Notice of Technical Conference was issued on December 16, 2003 and invited participants to submit information and comments arising from the October 28 Order, the technical conference held in California on November 6, 2003, and from additional information submitted by the CAISO. This Notice was published in the Federal Register, 68 Fed. Reg. 74,565 (2003). A Notice Establishing Due Dates for Filing Comments Arising from the January 28-29, 2004 Staff Technical Conference was issued on February 12, 2004 and was published in the Federal Register, 69 Fed. Reg. 7,925 (2004).

III. Discussion

A. Procedural Matters

8. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2003), the timely, unopposed motions to intervene of the parties listed in Attachment A to this order serve to make them parties to this proceeding. We will grant the CPUC's motion to intervene out-of-time given its interest in this proceeding, the early stage of the proceeding, and the absence of any undue prejudice or delay. We will grant PG&E's motion to intervene out-of-time given its interest in this proceeding, the early stage of the proceeding, and the absence of any undue prejudice or delay. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2003), prohibits an answer to a protest unless otherwise ordered by the decisional authority. We will accept the CAISO's answer because it has provided information that assisted us in our decision-making process.

B. Substantive Matters

9. The CAISO proposal envisions an Integrated Forward Market (IFM), which will co-optimize energy, transmission service, and ancillary services day-ahead and hour-ahead. The IFM will consist of a financially-binding day-ahead market and a day-ahead RUC (day-ahead IFM), followed by a non-financially-binding hour-ahead scheduling process and an hour-ahead RUC (hour-ahead IFM). In the day-ahead IFM, market participants will submit preferred schedules and bids for energy and ancillary services through a CAISO-certified Scheduling Coordinator. The supply bids will consist of five components: 1) energy bid; 2) start-up cost; 3) minimum load cost; 4) ancillary services capacity bids; and 5) the RUC availability payment. After all schedules and bids have been submitted to the day-ahead IFM,¹¹ the CAISO will economically optimize those bids in light of transmission constraints. The optimization would also include constrained output generators as long as some portion of the unit's output is needed in merit order to serve load. In addition, the CAISO will procure 100 percent of the ancillary services it forecasts to need in the day-ahead market. Once the schedules and bids have been cleared in the day-ahead IFM and the CAISO has established final day-ahead schedules, the CAISO will compare those schedules to its projected load forecast. If the amount of energy included in the final day-ahead schedules is below the CAISO's load forecast, the CAISO will commit additional resources under the RUC process to meet their forecast load. Units committed in RUC to be available in the next market will receive an availability payment.

¹¹ The day ahead IFM consists of schedules submitted to the CAISO before the beginning of a trading day indicating the levels of generation and demand scheduled for that trading period.

10. Subsequent to the day-ahead IFM, the CAISO will run an hour-ahead IFM, consisting of a simplified hour-ahead scheduling process and an hour-ahead RUC. The simplified scheduling process will allow adjustments to the day-ahead schedules as real-time delivery approaches, but will not create a separate financial settlement. In essence, the settlements for the hour-ahead and real-time markets will be combined. Suppliers will submit energy bids and desired hour-ahead self schedules for supply resources and imports. Load will not submit bids. After the simplified hour-ahead scheduling process has closed, the CAISO will run an hour-ahead RUC process to commit any additional units needed to meet its projected load forecast.¹²

1. Must Offer Obligation

11. In the CAISO's July 2003 filing, the CAISO proposed both a day-ahead and real-time must offer obligation to mitigate against physical withholding.¹³ Specifically,

- A real-time must offer would become a permanent design feature.
- The day-ahead must offer would remain in place until there is a fully effective resource adequacy program.
- Must offer resources would be required to bid or schedule their entire operable capacity into the day-ahead and hour-ahead IFM to be committed and scheduled for energy, be available for commitment by the CAISO in the day-ahead and hour-ahead RUC process, and be available for real-time dispatch by the CAISO to the full extent of their operable capacity.

¹² The proposed timeline for the CAISO's markets is as follows. The CAISO will close the day-ahead market for Scheduling Coordinator submissions at 10:00 AM. The CAISO will then produce a final day-ahead schedule before performing the day-ahead RUC procedure. After the running of RUC, the CAISO will publish by 1:00 PM the final schedules resulting from the day-ahead IFM as well as any additional unit commitment or capacity reservations resulting from RUC. For the simplified hour-ahead scheduling process, the deadline for Scheduling Coordinator submissions will be 75 minutes prior to the beginning of the operating hour (referred to as T-75 minutes) and if possible, T-60 minutes. After the deadline for submissions, the CAISO will produce a final hour-ahead schedule. Immediately after the hour-ahead schedule is established, the CAISO will perform the hour-ahead RUC. The CAISO will publish pre-dispatch notices for generating units and for hourly inter-ties and advisory ancillary service awards at approximately 45 minutes before the start of the operating hour (T-45 minutes).

¹³ A detailed description of the CAISO's proposal is contained in the Commission's October 28 Order at P 217-19.

- The must offer would apply to all non-hydro units within the CAISO Control Area.
- The must offer would allow for exceptions for resources with legitimate use limitations.

Commission's October 28 Order

12. In its October 28 Order, the Commission rejected the CAISO's proposal to extend the must offer obligation to the forward markets without a corresponding payment. As an alternative, in an effort to balance those issues raised by intervenors and achieve the CAISO's goal to maximize the number of resources available to the CAISO in the forward market, the Commission offered a blending of the real-time must offer obligation with the proposed day-ahead must offer obligation. The alternative flexible offer obligation proposed to allow suppliers subject to the must offer obligation the flexibility to choose to offer capacity in either the day-ahead or the real-time market.¹⁴ Specifically:

- The flexible offer ensures that a generator offers supplies into either the day-ahead or real-time market.
- The flexible offer encourages (but does not require) generators to bid into the day-ahead market, thereby maximizing the number of resources to determine the least-cost dispatch.
- The flexible offer effectively substitutes for the current real-time must offer obligation process.

CAISO Revised Proposal

13. In its May 11 revised proposal, the CAISO resubmits its proposal to implement a day-ahead must offer obligation with slight modifications. The CAISO states that its previously proposed day-ahead must offer obligation will now contain a provision in

¹⁴ Generators who bid into the day-ahead market and the RUC, but whose bids are not accepted by the CAISO, will not be required to start up for the next day's real-time market. This obligation changes, however, if a generator elects to start up because it has, for example, another buyer for a portion of its capacity. If the generator is running and has uncommitted capacity available, the generator is then obligated to offer the uncommitted capacity it has not sold into other markets into the CAISO's real-time market. Generators also have the option not to bid into the day-ahead market and RUC process. A generator may pursue opportunities through bilateral contracts or offer to sell into other markets. If the generator sells all of its output as a bilateral trade or in another market, then there is no further obligation on the part of the generator.

which the must offer obligation will sunset on the earlier of January 1, 2008 or the date the CPUC's resource adequacy program is fully phased-in. The CAISO believes that a day-ahead must offer is superior to the Commission's flexible offer or a real-time-only must offer and reiterates that in its February 24, 2004 Comments and at the March 3-5, 2004 technical conference, it offered conditional support for the flexible offer¹⁵ as a superior alternative to a real-time-only must offer, but identified a number of operational concerns regarding the flexible offer mechanism. The CAISO believes that the adoption of certain bidding rules applicable to long start time and medium start time¹⁶ units would address some of its concerns and make the flexible offer a better alternative than mere retention of the existing real-time must offer. The CAISO stresses that in no event would the flexible offer result in a more effective and efficient commitment and dispatch of resources than a day-ahead must offer.

14. Given the market efficiency and implementation problems associated with the flexible offer and with a real-time-only must offer, the CAISO states that a day-ahead and real-time must offer is the most appropriate approach, is consistent with the objectives and the design of the comprehensive MD02 proposal and is superior from an operational and market efficiency standpoint to the flexible offer or a real-time-only must offer.

15. The CAISO believes that it is appropriate that some form of a real-time must offer become a permanent feature of the market. The CAISO states that a permanent real-time must offer should not impose an undue burden on suppliers because if suppliers have available capacity in real-time, they should have no problem bidding it into the CAISO's real-time market because, at that point in time, they have no other opportunities to sell the energy elsewhere. The CAISO proposes that once resource adequacy is fully implemented a real-time must offer would apply to all participating generators -- whether or not they have resource adequacy contracts -- that are already operating and have capacity that is unloaded and not otherwise committed (e.g., for ancillary services) to offer energy from that capacity into the real-time market.

16. The CAISO notes that a need for selective "pre-emptive" waivers is inherent in all three must offer options: day ahead, flexible offer obligation, or real time. Regardless of whether a resource bids into the day-ahead market or requests a waiver of its must offer obligation, it may be appropriate for the CAISO to issue a waiver to a resource that is

¹⁵ The CAISO states in its May 11 revised proposal, however, that the flexible offer obligation in conjunction with RUC could replace the existing must offer obligation and the must offer waiver procedure in a systematic and effective manner, provided its operational concerns are resolved.

¹⁶ The CAISO has defined long start time units as those which require five hours or more start-up time, and medium start time units as those which require less than five hours start-up time.

subject to the must offer obligation because (1) its capacity is not needed, or (2) its minimum load energy cannot be reliably accommodated on the grid. In a day-ahead must offer design, all must offer resources that are not self-committed or committed by the CAISO in either the IFM or RUC are effectively granted a waiver for the next day. In so doing, the RUC Security Constrained Unit Commitment can identify units suitable for waivers due to either excessive minimum load issues or expensive commitment or capacity costs.

Comments¹⁷

17. In comments filed February 17, 2004, the CPUC stated that its concerns with the flexible offer obligation were substantially resolved at the January technical conference. As a result, with the proviso that long start units must bid into the IFM, and either be selected for dispatch or not, the CPUC can accept the flexible offer proposal. In comments filed May 28, 2004, the CPUC states that it supports the CAISO's proposal for a day-ahead must offer obligation, or the flexible offer obligation if the Commission rejects the initial proposal.¹⁸

18. SoCal Edison stated that the Commission should approve the CAISO's must offer obligation proposal. SoCal Edison argued that in providing generators the choice between day-ahead and real-time markets in which to satisfy the must offer, the flexible offer obligation would hinder the CAISO's ability to effectively manage congestion and load at the lowest cost possible for California ratepayers.

19. PG&E supports the CAISO recommendation to implement a mandatory day-ahead must-offer obligation until such a time that a resource adequacy driven must-offer requirement can replace it. PG&E states it believes that the Commission's proposed flexible offer obligation may have good merits and could be supported in conjunction with other market rules.

¹⁷ There has been an extensive comment exchange filed since the Commission issued its October 28 Order in relation to the CAISO's Revised MD02 Proposal. Multiple parties have submitted comments and raised substantive issues throughout this proceeding. The final positions of parties are reflected in this order.

¹⁸ Also in its comments, the CPUC reiterates that its support of nodal pricing and the elements in the CAISO's May 11 revised proposal is conditioned on the following elements being accommodated in the final market design: (1) effective local market power mitigation, (2) sufficient available CRRs for load serving entities to hedge existing and planned growth, and (3) satisfactory resolution of the treatment of CDWR long term contracts under the new system. See Motion for Leave to File Comments Out of Time, and Comments of the Public Utilities Commission of the State of California, Docket No. ER02-1656-017 (May 28, 2004).

20. Duke Energy favors the implementation of a temporary flexible offer obligation but states that “the CAISO’s day-ahead/real-time must offer appears to be an acceptable alternative, provided that: (1) LSEs are also required to bid into the day-ahead market all of their projected load; and (2) generators not taken in the day-ahead market, but required to remain on-line, are adequately compensated for their start-up and minimum load (SU/ML) costs, and for the value of the capacity committed through the RUC process.”¹⁹

21. Calpine argues that to ensure investor confidence the Commission should re-affirm the must offer obligation as a temporary feature of the CAISO market. Calpine also argues that the must offer obligation should be phased out as the CPUC’s resource adequacy requirement is phased in.

22. IEP argues that the Commission should not approve an interim day-ahead must offer obligation. IEP states that the longer such a backstop remains in place the more likely resource adequacy will be delayed. IEP also states that the Commission should not accept the CAISO’s request for a permanent real-time must offer.

23. Dynegy/Williams state that the Commission should remain consistent with precedent and reject a day-ahead must offer obligation absent implementation of resource adequacy. Dynegy/Williams also assert that the time and expense required to develop the necessary software to implement a day-ahead must offer is not justified, considering that the ultimate duration of the CAISO’s requested temporary day-ahead must offer may be, for all practical purposes, a year or less.

24. Several parties²⁰ seek clarification from the CAISO that metered subsystems (MSS), municipal entities and energy limited resources remain exempt from the flexible offer obligation. NCPA adds, if the Commission maintains that the flexible offer obligation applies to MSS entities, the Commission must impose or develop a mechanism to deal with a CAISO phenomenon that NCPA refers to as “stupid dispatch.”²¹

¹⁹ See Comments of Duke Energy North America L.L.C. and Duke Energy Trading and Marketing L.L.C in response to the comments of the California Independent System Operator Corporation regarding technical Conference, Docket No. ER02-1656-017 (May 19, 2004).

²⁰ SVP, Bay Area Transmission, NCPA and Reliant.

²¹ NCPA defined “stupid dispatch” as dispatching a unit because it is economically efficient, though not the best use of limited resources; e.g., running a gas-fired peaker in the middle of the night. See Comments of the Northern California Power Agency, Docket No. ER02-1656-017, February 17, 2004. p. 3.

25. Mirant states that any obligation to offer distorts the efficient operation of the California market, both in the short term and the long term. Redding adds that the flexible offer obligation proposal should not be a substitute for adoption and implementation of a timely and effective resource adequacy standard.

Commission Determination

26. The Commission believes that participation in the CAISO day-ahead market should be voluntary absent a contractual obligation requiring participation in the day-ahead market, *i.e.*, sellers should have the choice of making sales bilaterally or selling into the CAISO market. A day-ahead must offer would preclude the possibility of bilateral sales by sellers after the close of the day-ahead market. A resource adequacy product, with a capacity payment, would compensate for taking away this choice and would obligate sellers to participate in the market, satisfying the CAISO's and Commission's objectives.

27. We recognize that the CAISO's implementation of its revised tariff and market operation is not expected until January 2006. The CPUC's latest scoping ruling²² ordered LSEs to submit plans to phase in resource adequacy requirements beginning in 2005 and required planning for full implementation of the resource adequacy requirement beginning on June 1, 2006 or January 1, 2008. Thus it is unclear whether the resource adequacy requirements that exist at the time the CAISO implements its market redesign will be sufficient to meet the CAISO's operational needs. In light of this and the above discussion, if the CAISO determines that the resource adequacy requirements placed upon LSEs at the time its proposal goes into effect are insufficient to meet its operational needs, the CAISO should revise its proposal to incorporate the flexible offer obligation on an interim basis. This flexible offer obligation will replace the existing Commission must-offer obligation. If, on the other hand, the CAISO determines that the resource adequacy requirements that exist at the time its proposal goes into effect are sufficient to meet its operational needs, the CAISO may choose not to implement the flexible offer obligation and the resource adequacy requirements and obligations will serve to replace the existing Commission must-offer obligation.

²² June 4, 2004, in Rulemaking 04-04-003, Order Instituting Rulemaking to promote Policy and Program Coordination and Integration in Electric Utility Resource Planning before the California Public Utilities Commission.

28. We believe the flexible offer obligation to be an appropriate tool given the current absence of a resource adequacy requirement, and we accept the CAISO's proposal for a sunset date of the earlier of January 1, 2008, or the full implementation date of the CPUC resource adequacy requirement.²³

29. To address the CAISO's operational concerns about the potential for the flexible offer obligation to result in overgeneration in real time, we will accept the CAISO's proposal to incorporate into the RUC procedure mechanisms that allow the CAISO to (1) grant waivers to flexible offer obligation resources that have opted out of the day-ahead market and are not needed to be on-line, and (2) specify the hours of the next day when the CAISO expects that such units will need to be available in real-time, regardless of whether the resources elect to participate in the day-ahead IFM. These features address the CAISO's legitimate operational needs to ensure reliability while preserving flexibility for resources to pursue profitable transactions among alternative counterparties.

30. Further, as requested by the CAISO, we confirm that under the flexible offer obligation, in order for a long start time (LST) or a medium start time (MST) resource that has not been given a preemptive waiver to obtain a waiver of its real-time obligation, it must bid into the last market in which it can be committed (i.e., the day-ahead market for LSTs and the simplified hour-ahead market for MSTs) and not be committed by the CAISO in that market's IFM or RUC process. We also confirm that in order for LST units to receive CAISO guaranteed SU/ML costs, those units would have to (1) not self-schedule²⁴ or self-commit,²⁵ and (2) bid into the day-ahead market, but not be committed by the CAISO in either the day-ahead market or RUC. Finally we confirm that the Scheduling Coordinator for the resource is the accountable entity for compliance with the flexible offer obligation. We find these features appropriate.

²³ The requirement for sellers to participate in the flexible offer obligation or be available as part of a resource adequacy requirement is consistent with Market Behavior Rule 1 of the Market Behavior Rules Order, 107 FERC ¶ 61,175 (2004). Compliance with that Rule "does not require Sellers to bid or supply electric energy or other electricity products unless such requirement is part of a separate Commission-approved tariff or requirement applicable to Seller."

²⁴ Self-scheduling is submitting a quantity schedule without any positive energy price bid, i.e., requesting the CAISO to schedule the resource to produce energy regardless of the price.

²⁵ Self-commitment is turning a resource on without expecting a payment from the CAISO for SU/ML costs.

2. Residual Unit Commitment

Background

31. In its July 2003 filing, the CAISO introduced a RUC process as a new reliability tool. According to the CAISO, the RUC process would provide a reliability backstop for the CAISO to commit additional units in order to meet its reliability requirements. As proposed, the CAISO would perform a day-ahead and hour-ahead RUC process immediately after the day-ahead or hour-ahead IFM has run and feasible final schedules are established.²⁶ In the event that these markets close below the CAISO's load forecast, the RUC process will commit additional resources to ensure that on-line capacity is available in real-time.

32. Specifically, the CAISO proposed to procure 100 percent of its capacity procurement target and 95 percent of its energy procurement target²⁷ from minimum-load energy and unloaded capacity of internal resources. The CAISO also proposed to procure energy from import suppliers, if adequate transmission capacity is available over the inter-ties to accommodate the energy. In addition, the CAISO further proposed that any energy procured in the day-ahead RUC process will be submitted to the hour-ahead market as a price-taker (*i.e.*, a self schedule) and, if cleared against load bids, will receive the appropriate locational market clearing price. Any energy not cleared in the hour-ahead market will be submitted to the real-time market as a price-taker with the same opportunity to earn market clearing prices. In the event that the locational market clearing price does not cover a resource's bid price either through the hour-ahead or real time markets, such resources will receive additional payment through the RUC uplift charge.

²⁶ According to the CAISO, this method is appropriate because the outcome of the IFM is predicated on schedules and bids, which may not coincide with the CAISO's load forecast.

²⁷ The capacity procurement target for the day-ahead RUC will be the next day's hourly load forecast plus reserves minus: 1) the final day-ahead schedule of energy plus ancillary service capacity; 2) a forecast of expected incremental hour-ahead schedule changes; and 3) a forecast of additional supplemental energy bids expected on the operating day. The energy procurement target is based on the CAISO's next day's hourly demand forecast.

33. The CAISO further proposed that resources committed under the RUC process would be fully compensated for the recovery of start-up costs and minimum-load costs through either a cost-based bid option²⁸ or market-based bid option.²⁹ However, the CAISO expressed that it will not pay SU/ML costs to resources that self-schedule energy or self-provide ancillary services in the day-ahead IFM because they are “self committed.”³⁰

34. The CAISO also proposed to provide resources with an availability payment for each MWh of RUC capacity that is not awarded ancillary service or dispatched for energy in the hour-ahead or real-time markets. The CAISO indicated that it will allow resources to include a bid for RUC availability as a component of their bids into the IFM, up to a cap of \$100 per MWh, in which the selected resource will be paid as-bid. The CAISO also proposed to net the RUC availability payment against each MW of RUC capacity that is scheduled or dispatched for energy or ancillary services in a subsequent market.³¹

Commission’s October 28 Order

35. In the October 28 Order, the Commission approved in principle the CAISO’s proposed RUC process with modifications to the treatment of (1) SU/ML costs, (2) the RUC availability payment, and (3) the RUC procurement targets for capacity and energy.

²⁸ Under the cost-based bid option, start-up costs will be recovered based on the lower of either a supplier’s bid or its cost-based start-up data plus a proxy price for natural gas and an electricity price index for start-up auxiliary energy consumption. Minimum load costs will be based on the lower of either a supplier’s bid or its cost-based data plus a payment of \$6 per MWh of minimum load for presumed O&M costs and a proxy price for natural gas costs.

²⁹ Under the market based-bid option, a resource will submit market-based bids for start up and minimum-load costs that will remain fixed for a six-month period. The CAISO will use the start-up and minimum-load costs bid in all markets in which the resource participates during the designated six months.

³⁰ The CAISO explicitly states that a resource in the day-ahead RUC process will lose all or part of its SU/ML cost compensation if it self-schedules energy or ancillary services in the hour-ahead IFM or engages in uninstructed deviations in the real time market. In addition, a resource eligible for cost recovery in the hour-ahead RUC process will lose all or part of its SU/ML cost compensation if it engages in uninstructed deviations in the real-time market.

³¹ Similarly, the RUC availability payment will be rescinded if the resource engages in uninstructed deviation or does not respond to the CAISO’s dispatch instruction.

Specifically, the Commission found the CAISO's proposal to compensate generators for the recovery of SU/ML costs through either a cost-based or a market-based bid option to be reasonable. However, the Commission was not prepared to rule on whether the cost-based bid option should recognize daily spot gas purchases because, to date, the CAISO had not demonstrated that the Gas Daily index met the minimum standards present in the Policy Statement on Natural Gas and Electric Markets for energy price indices.³² With regard to the market-based option, the Commission concluded that the option was a reasonable mechanism that prevents resources from submitting excessive SU/ML bids when contingencies exist within its system. The order also denied the CAISO's proposal to net the recovery of SU/ML costs against market profits, without prejudice to resubmit upon implementation of a resource adequacy program.

36. With respect to the RUC availability payment, the Commission found the procurement of capacity under RUC was similar to the procurement of capacity in the ancillary services market. As a result, the order directed the CAISO to replace the proposed \$100/MWh RUC availability bid cap to reflect the \$250/MWh ancillary services capacity bid cap. In addition, the order allowed for resource availability bids to set a market clearing price rather than be paid as bid. The order also sought clarification of whether or not energy from capacity committed in the day-ahead RUC is prohibited from being sold by the unit owner via any bilateral transaction in the hour-ahead market, including sales to other control areas.

37. The order further expressed that the CAISO had not adequately supported its proposal to rescind the RUC availability payment in order to remove the incentives for suppliers to attempt to bypass the day-ahead market to receive a guaranteed RUC availability payment. The Commission explained that according to the CAISO's design of the IFM and RUC, suppliers cannot bid exclusively into the RUC process. Once a supplier bids into the day-ahead market it is automatically considered as part of the RUC process. If this availability payment were rescinded, a supplier would be offering day-ahead and hour-ahead RUC capacity at no cost. The Commission further stated that the RUC availability payment is a payment for the call option on a supplier's capacity and therefore, should be paid regardless of its dispatch. As a result, the order directed the CAISO to modify its proposal to allow for the availability payment regardless of whether the power is taken.

38. With respect to the CAISO's proposed capacity and energy procurement targets, the Commission accepted the capacity procurement target as proposed. However, the order rejected, without prejudice, the proposal to procure energy in the RUC process. The Commission reasoned that the intent of the RUC process should be to obtain

³² Price Discovery in Natural Gas and Electric Markets, 104 FERC ¶ 61,121 (Policy Statement) (2003).

adequate capacity, not energy, to meet the system load forecast because by purchasing the capacity the CAISO will have access to the energy associated with those capacity resources.³³

CAISO Revisions to its Initial RUC Proposal

39. In response to the discussions and comments raised at the January and March technical conferences, the CAISO filed revisions to its initial RUC proposal on February 24, 2004, as amended by the May 11 revised proposal.³⁴ In its filing the CAISO stresses that the Commission should view the instant proposal as a “package deal” that should not be “cherry-picked.” In particular, the CAISO states that it has attempted to strike a balance of competing interests on the compensation-related issues. As a result, the CAISO requests that the proposed revisions be approved by the Commission on a conceptual basis without undoing the balance that it has attempted to strike by the instant proposal. Specifically, the CAISO proposed the following revisions to the RUC process:

- The CAISO opposes the Commission’s guidance to increase the proposed \$100/MWh availability bid cap to \$250/MWh and proposes to set the bid cap at \$150/MWh;
- The CAISO proposes to accept the Commission’s guidance to pay the RUC availability payment on a locational market clearing price basis;
- The CAISO proposes to accept the Commission’s guidance not to rescind the availability payment if a unit is dispatched in the energy markets subsequent to the RUC process; but proposed to limit to \$250/MWh the combined availability payment received in RUC and the energy market clearing price received in energy markets subsequent to RUC;
- The CAISO proposes that the portion of a unit’s output that is mitigated in the pre-IFM run for local market power in the energy market and does not clear the IFM, will be preserved in RUC (i.e., slated as RUC capacity) and will be eligible to receive a RUC availability payment in addition to the energy payment that it receives in the market where its energy is eventually scheduled or dispatched;

³³ We note, however, that the CAISO raises a concern that a purchase of only capacity might not give sufficient incentive to imports to acquire the necessary transmission capacity across the ties.

³⁴ The CAISO states that the objectives will provide adequate incentives for load to forward schedule, ensure that market power (including local market power) is adequately mitigated, provide for compensation to suppliers for the specific service that is being provided in RUC, and avoid the creation of perverse incentives.

- The CAISO argues that the above revisions give good cause to revisit the issue, and proposes to reject the Commission's prior guidance and propose anew that recovery of SU/ML cost shall be net of market revenues;
- In response to market participants' feedback, the CAISO proposes that intrastate gas transportation and municipal use fees shall be included in minimum load energy costs;
- In response to market participants' feedback, the CAISO proposes to use Reliability Must Run (RMR) contract gas costs for RUC;
- The CAISO proposes to revise its proposal such that RUC capacity procured in the day-ahead would be prevented from being used to serve export schedules in the hour-ahead; and
- The CAISO proposes that RMR dispatches that occur in RUC would not be eligible for setting or receiving the availability payment.

Netting of Start-up and Minimum-Load Cost

40. Given that the CAISO's revised RUC proposal provides suppliers with an opportunity to earn an availability payment, the CAISO contends that the rationale for the Commission's decision to reject "netting" in the October 28 Order does not apply. As a result, the CAISO proposes to reinstate its initial proposal to net SU/ML costs from net energy revenues³⁵ earned in the CAISO markets, ancillary services revenues, and the RUC availability payment. They argue that failure to require "netting" provides additional incentives for suppliers to bid strategically to avoid commitment in the IFM in order to capture the additional compensation offered in RUC.³⁶ Specifically, the CAISO states that suppliers, having been guaranteed recovery of their SU/ML costs through RUC, are free to participate in CAISO markets, retaining all of their profits by selling energy from their capacity at market based rates. The CAISO contends that this behavior will cause consumers to subsidize the suppliers' other out-of-the-CAISO-market activity or pay twice for the same energy.

³⁵ A seller's energy revenues represent the difference between gross energy revenues and the energy bid.

³⁶ The following represents an example of netting based on 1 MW for 1 hour: Assume a generator, day-ahead, bids \$100 in SU/ML and bid \$50 energy in the real time. The total bid cost is \$150. Assume also that the real time energy clearing price is \$90. The CAISO will net the \$40 profit from the energy market (\$90 clearing price - \$50 bid price) against the \$100 bid for SU/ML. Thus, generators would receive \$60 to cover its SU/ML costs in addition to the \$90 payment for real-time energy.

41. The CAISO also proposes to modify its SU/ML cost compensation to retain its original proposal to include auxiliary power costs as an appropriate component of start-up costs, but also add intrastate gas transportation and municipal use fees as recoverable costs to be included in the minimum load costs.³⁷

Comments

42. The CPUC submits comments in support of the CAISO's netting proposal. Dynegy/Williams argue that, to the extent the Commission approves the CAISO's proposal for RUC self-provision, the CAISO should pay SU/ML costs, without netting, to self-suppliers of RUC. Otherwise, Dynegy/Williams contend that the payments may result in undesirable price signals. Dynegy/Williams state that when forecasts are exceeded, *i.e.*, when LSEs most need to be adequately supply-scheduled, netting will result in the under-supplied LSE obtaining RUC capacity at a net lower cost, thus sending the wrong signal. Dynegy/Williams go on to argue that during instances where additional supply by self-supply RUC LSEs provides coverage to another LSE, "the netting provision would result in a sort of backwards cross-subsidy between LSEs (the LSE in need of supply gets to take the RUC capacity on the cheap, and the LSE with available capacity when needed surrenders the opportunity to collect market value)."³⁸ Dynegy/Williams argue that this conflicts with principles of proper cost allocation.

43. Dynegy/Williams and Duke Energy support the CAISO's proposal to include intrastate gas transportation costs, municipal fees and auxiliary power as components of SU/ML costs compensation.

Commission Determination

44. We note that in the October 28 Order the Commission denied the CAISO's request to net SU/ML costs against market profits because the Commission previously determined that the proposed RUC procedure would compromise a generator's ability to recover fixed costs.³⁹ The Commission's guidance in the October 28 Order suggested that the CAISO should not rescind the availability payment, in order to provide a compensatory payment to a supplier's underlying fixed costs. Elsewhere in this order, we are rejecting the CAISO's proposal to cap the combined energy and availability bid, and we find the RUC availability bid cap should be set at \$250/MWh. We find that in the context of such a payment, suppliers will be sufficiently compensated for their capacity.

³⁷ The CAISO states that suppliers have been seeking the recovery of these components as legitimate costs for SU/ML costs.

³⁸ Comments filed by Dynegy, May 19, 2004, at P 22.

³⁹ See October 28 Order at P 115. See also San Diego Gas and Electric Co., et al., 99 FERC ¶ 61,159 (2002).

Therefore, we will accept the CAISO's proposal for netting SU/ML costs with one modification. In the development of the netting calculations, the CAISO should include ancillary services and RUC bid costs in the same manner as the energy bid costs. Thus, instead of netting SU/ML costs against gross revenues for ancillary services and RUC, we direct the CAISO to net SU/ML costs against net revenues (i.e., the difference between gross revenues and the bid) for ancillary services and RUC availability payment revenues. Therefore, SU/ML costs will be netted against net revenues for energy, ancillary services, and RUC availability payment revenues. The bids of each service reflect the minimum revenue required by the seller to provide the service apart from recovery of SU/ML costs. Unless these costs are accounted for, the netting rule could cause the seller to receive less revenue in total than is required to provide the service.

45. With regard to Dynegy/Williams argument that self-suppliers of RUC should be paid SU/ML costs, we disagree. A participant self-supplies (including self-supplying RUC) when it provides its services without requiring any sort of minimum payment; in essence, the self-supplier offers its services at a bid of \$0 and agrees to receive the applicable market-clearing price, no matter how low that price. Any supplier that requires a positive minimum payment is free to submit a bid that specifies its minimum payment requirement into the CAISO's market. The CAISO can then compare the supplier's bid with all other bids, and select the set of suppliers that can meet demand at the lowest cost. Self-suppliers need not be subject to this cost comparison because they necessarily will be cheaper (or, at least, will require no higher payment) than any other supplier that submits a positive price bid. Dynegy/Williams' proposal would allow self-suppliers to be paid SU/ML costs without allowing the CAISO to review their costs in advance to determine whether their costs are lower than other suppliers.

46. We will also accept the CAISO's proposal to include auxiliary power costs as an appropriate component of start-up costs, and to add intrastate gas transportation costs and municipal use fees as a legitimate compensation component of minimum load costs. In the May 15, 2002 Rehearing Order,⁴⁰ the Commission rejected requests to include intrastate gas transportation and other costs in minimum load costs compensation.⁴¹ Upon further consideration, we will accept the CAISO's proposal to include these costs because the inclusion of these costs will allow suppliers to recover their actual costs to run at minimum load.

⁴⁰ See San Diego Gas & Electric Company, 99 FERC ¶ 61,159 at 61,642 (2002).

⁴¹ The Commission acknowledged that these costs are paid on a volumetric basis but indicated that these costs are by definition demand related.

Determining Gas Costs for SU/ML

47. The CAISO proposes to use a two-day average for determining gas costs, rather than the monthly average initially proposed because the two-day average will more closely reflect the actual gas costs being incurred by suppliers under RUC.

Commission Determination

48. With respect to the CAISO's proposal to use a two-day average for determining gas costs, we will not rule on this issue at this time. In the October 28 Order, the Commission stated that in its Policy Statement on Natural Gas and Electric Markets,⁴² the Commission will require that any prospective use of an index in a jurisdictional entity's tariffs meet the criteria set forth for price index developers and reflect adequate liquidity at the referenced location to be reliable. The CAISO, to date, has not demonstrated that its proposed index meets the minimum standards present in the Policy Statement for energy price indices. In spite of this decision, we note that the proposal to use a two-day average for determining gas costs may have some merit and therefore will allow the CAISO when it submits its tariff filing to support its proposal with further details on how this index proposal meets the standards put forth in the Commission's Policy Statement.

RUC Procurement Process for Imports

49. In the CAISO's July 2003 Filing, the CAISO proposed to procure energy in addition to capacity from imports in the RUC process. In particular, the CAISO proposed to optimize its selection of RUC resources by minimizing the total cost of procuring the resources, including the bid-based availability payment, energy bids (submitted by importers) and SU/ML costs. Based on the discussion at the March 3-5, 2004 technical conference, and comments submitted by several parties, the CAISO now proposes to procure only capacity under RUC.⁴³ Accordingly, as indicated above, the objective

⁴² Price Discovery in Natural Gas and Electric Markets, 104 FERC ¶ 61,121 (Policy Statement) (2003).

⁴³ CMUA states that it recognizes that the CAISO will procure capacity under RUC for both system needs and locational needs that are not covered by RMR. However, CMUA requests that the CAISO clarify the protocols it will employ to distinguish locational and system-wide requirements for RUC. The CAISO states that it is committed to transparency on this issue and will specify such protocols prior to implementation of RUC. The CAISO adds that the lack of specific protocols at this time should not preclude conceptual approval of the RUC elements proposed herein and should not be allowed to slow down the software development process which needs

(continued...)

function of RUC will now be reformulated to optimize only the sum of availability payments and SU/ML costs. Also, as the CAISO indicated at the March 3-5 technical conference, the CAISO will build into its software the functionality to include consideration of energy bids in the RUC optimization. The CAISO submits that this is a prudent approach given the CAISO's heavy dependence on imports and the possibility that, in the future, it might be necessary and appropriate for the CAISO to procure both energy and capacity under RUC. However, the CAISO notes that whether it procures energy from importers in RUC will be entirely dependent on the day-ahead supply bidding, scheduling and self-provision actions of the load-serving entities.

50. In its comments, the CAISO states that CMUA objects to some language in the CAISO's Market Power Mitigation White Paper which suggested that the CAISO might switch to a RUC objective function that seeks to minimize total bid costs if the CAISO finds that volumes turn out to be lower than expected or costs turn out to be excessive. The CAISO states that it has no intention of implementing such a measure unilaterally. It further states that if the CAISO determines that such a change in the RUC objective function is appropriate, the CAISO will make a section 205 filing at the Commission requesting the authorization to implement such an approach. The CAISO claims that all it seeks to do at this time is to build the appropriate software that allows the CAISO to optimize energy costs under RUC should that be necessary in the future.

Commission Determination

51. We find the CAISO's proposal to procure capacity under RUC is consistent with the October 28 Order. The Commission explained that the RUC process should be a method for obtaining adequate capacity, not energy, to meet the system load forecast because by purchasing the capacity the CAISO will have access to the energy associated with the capacity resource.⁴⁴ Based on the modifications as described above, we will accept the CAISO's proposal to procure capacity and to optimize the sum of availability payments and SU/ML costs. We note that the CAISO has expressed an interest to include in the development of its software the ability to optimize energy costs under RUC should that be necessary in the future. The Commission does not oppose the CAISO's preference to incorporate this functionality in the process. However, we note that the CAISO will have an obligation to file with the Commission any changes to the RUC process and procedures approved herein.

Commission approval to proceed on the proposed RUC design elements. Moreover, the CAISO recently committed, as part of the revised must-offer waiver process, to provide additional detail and transparency regarding its locational and system-wide capacity and operating requirements.

⁴⁴ See October 28 Order, at P 127.

RUC Self-Procurement Provision

52. According to the CAISO, SWP and other participants in the CAISO stakeholder process: 1) market participants should have the ability to opt out of RUC and assume full responsibility for their loads and 2) the day-ahead RUC procurement and cost allocation to under-scheduled load would pre-empt LSEs' ability to shop for cheaper energy after the close of the day-ahead market. The CAISO states that these parties expressed an interest in a so-called RUC self-provision mechanism.

53. The CAISO suggests that a day-ahead self-provision of RUC is workable and is consistent with the CAISO's proposal to simplify the hour ahead market. As a result, the CAISO states that LSEs would conceptually make a day ahead commitment to schedule specific quantities of additional energy in the hour ahead market, and to support this commitment would identify equal quantities of capacity from specific resources that will be available to the CAISO for dispatch in hour ahead and real time in the event these LSEs fail to schedule the committed energy. Such "self-provided RUC capacity" would need to be available⁴⁵ and deliverable to serve the LSE load not scheduled in day-ahead. Thus, the CAISO will reduce its day-ahead RUC procurement target by the amount of this self-provided RUC capacity and the corresponding cost allocation to the self-providing LSEs.⁴⁶ The CAISO requests that the Commission approve the concept of RUC self-provision consistent with the foregoing discussion and to allow the CAISO to further define the details of such a mechanism in its tariff filing.

54. The CAISO also states that SMUD, in its comments filed on February 17, 2004, requested that the CAISO clarify whether it will procure RUC on behalf of, or allocate RUC costs to, entities like SMUD that operate their own Control Areas.⁴⁷ According to the CAISO, SMUD noted that MSSs that cover their own load will not be assessed RUC charges. SMUD claims that it is comparable to a MSS because SMUD takes full

⁴⁵ The CAISO states that this means being able to operate and not otherwise scheduled or bid into the day-ahead market.

⁴⁶ The CAISO states that self-provided RUC capacity might include, for example, capacity the LSE has obtained under contract to meet its resource adequacy obligation. By relying on such already-purchased/procured capacity, the LSE retains the flexibility to shop for cheaper energy after the day-ahead market without risking a real-time shortage if no cheaper energy is found. It further states that verification procedures would be needed to ensure that the capacity slated by the LSEs to show up in the hour-ahead market is flagged properly so that it is not selected by the CAISO in the day-ahead IFM or RUC to compensate for other LSEs' under-scheduled load, and to enable the CAISO to ensure that its energy, if needed, would be deliverable without causing congestion in real time.

⁴⁷ SMUD Comments at 16. SMUD's comments submitted after the March 3-5 technical conference reflect similar concerns.

responsibility for its load, and will essentially self-provide RUC resources. The CAISO explains that RUC capacity is intended to satisfy CAISO Control Area load. As such, RUC capacity will not be procured for loads in other Control Areas. The CAISO notes, however, that if it commits more RUC capacity than the actual amount of underscheduled load, the CAISO will allocate to all, including metered load and exports, only the costs associated with the “excess” capacity.. They consider this to be an appropriate allocation because such costs were incurred to maintain the reliability of the entire transmission system upon which exports are being served.⁴⁸

Comments

55. Several intervenors⁴⁹ support the CAISO’s option for RUC self-provision and its limitation of RUC procurement to only capacity. CMUA states that it supports the concept, but that further details are needed before being finalized. In support, CMUA states that the RUC self-provision would allow the LSE to substitute cheaper energy so long as the capacity needed for reliability can be flagged so that it is not selected in the day-ahead market or through RUC to serve underscheduled load of other LSEs. It further states that this concept has promise as a mechanism for LSEs to manage exposure to RUC costs. In addition, the CMUA contends the proposed “flag” mechanism may have other beneficial functions in the overall market design.

56. IEP contends that the Commission should not allow LSEs to self-provide RUC. It states that after a resource adequacy requirement has been implemented and there is a must offer obligation for the resource-adequacy designated capacity, the obligation to bid into the CAISO market should be consistent among all suppliers, even generation provided by Investor Owned Utilities (IOUs). IEP further states that the CAISO proposes to allow self-provision of RUC without first defining how it would work in relation to the security constrained unit commitment of the day-ahead processes or how the costs of RUC would be subdivided between Scheduling Coordinators with and without self-provided RUC capacity.

Commission Determination

57. We will conditionally accept the CAISO’s proposal for the self-provision of RUC. We find the proposed mechanism may provide LSEs that are subject to RUC greater flexibility because they will be afforded the opportunity to shop for low cost energy after the day-ahead market. In addition, the CAISO has indicated that the self provision of

⁴⁸ The CAISO states for example, that it charges the Control Area Services (CAS) component of its Grid Management Charge on the basis of Control Area gross load and exports because CAS costs are necessary to maintain the system and operate it reliably.

⁴⁹ Metropolitan, CMUA, CERS, CDWR, CPUC and Dynegy/Williams.

RUC is a workable process that is consistent with other aspects of the market design. We support the conceptual proposal and agree with intervenors that further details are needed before tariff sheets are filed with the Commission. Therefore, we encourage the CAISO to address the functional concerns raised by intervenors as well as any other issues through the stakeholder process and file tariff sheets with Commission once the details have been finalized.

58. We reject SMUD's claim that it should not be assessed RUC charges by the CAISO. We find it appropriate for the CAISO to assess the costs associated with the over-procurement of capacity to metered load and exports because the RUC procurements are made in order to acquire the resources necessary to reliably operate the grid. In response to IEP's argument that the Commission should not allow LSEs to self-provide RUC because "the obligation to bid into the CAISO market should be consistent among all suppliers, even IOU-owned generation," we note that generators may also self-schedule RUC and ensure that they are selected in the RUC process by bidding zero for their availability bid and SU/ML costs, just like the IOUs. We note that just as IOUs then take responsibility for recovering SU/ML costs, so would a generator who decides to self-schedule.

Proposal to Modify Availability Payment and Energy Payment under RUC

59. The CAISO submits that a \$250 availability payment bid cap is inappropriate, but a \$150 bid cap on the availability payment and a total payment cap of \$250 for RUC availability and energy are just and reasonable for several reasons. First and foremost, the CAISO states that a lower bid cap and total hourly payment cap are appropriate because the CAISO is no longer proposing to rescind the availability payment if the unit is dispatched for energy. The CAISO notes that it continues to believe the rescission of the availability payment is the appropriate result if a RUC unit is dispatched for energy. However, a lower availability payment bid cap and a total payment cap mitigates the concern the CAISO has regarding non-rescission of the availability payment, namely suppliers will submit unreasonably high bids in the day-ahead market in order to avoid being selected, thereby creating an opportunity for them to obtain a RUC availability payment in addition to an energy payment. However, the CAISO claims that under its RUC proposal there is a very high likelihood that a unit owner awarded RUC capacity will receive both an availability payment and an energy payment. Under these circumstances, the CAISO contends that it is appropriate for the bid cap of the RUC availability payment to be set lower than the bid cap for ancillary services.

60. Second, the CAISO argues that Replacement Reserves are more akin to RUC capacity than any other Ancillary Service the CAISO provides because the CAISO procures Replacement Reserve capacity based on, among other things, projected shortfalls in day-ahead schedules.⁵⁰ As a result, the CAISO believes the RUC availability payment bid cap should be set lower than the bid caps for ancillary services, especially with the CAISO proposing a non-rescindable RUC availability payment as one element of a complete comprehensive “compromise” RUC compensation package.⁵¹ The CAISO further states that because they have taken great care in crafting this compromise proposal to balance the various arguments and concerns expressed by the parties and the Commission, it is important that the Commission view it as a comprehensive compensation package.

61. Third, the CAISO states that the October 28 Order ignores the important fact that the CAISO, under current rules, rescinds the capacity payment for Replacement Reserves if the Replacement Reserve capacity is subsequently dispatched as energy.⁵² The CAISO states that it does not understand why the Commission believes it is appropriate to rescind the capacity payment for Replacement Reserves that are dispatched, but not appropriate to rescind the availability payment for comparable RUC capacity. The CAISO believes the rationale that the Commission set forth for rescission of the Replacement Reserve capacity payment supports rescission of the RUC availability payment. The CAISO alleges that a similar problem plagued the CAISO’s Replacement Reserve market (*i.e.*, suppliers were holding back until real time so they could receive both a capacity and an energy payment) until the Commission approved tariff provisions rescinding the capacity payment upon dispatch. In that regard, the CAISO claims the Commission ruled that suppliers could receive either a capacity payment or an energy payment but not both.⁵³

⁵⁰ The CAISO states that “although RUC is somewhat comparable to Replacement Reserve and certainly is more like Replacement Reserve than any other Ancillary Service, for the reasons set forth in the MD02 Filing, Replacement Reserve is not an adequate substitute for RUC.” CAISO’s May 11 revised proposal, footnote 29 at p. 43.

⁵¹ The CAISO notes that having different bid caps for different capacity services is not a concept unique to the CAISO. For instance, in PJM the bid cap for Regulation capacity is \$100/MW and the bid cap for Spinning Reserve is \$7/MW.

⁵² Replacement Reserves are defined by the CAISO as generating capacity that is dedicated to the CAISO, is capable of starting up if not already operating, is being synchronized to the CAISO Controlled Grid, and is capable of ramping to a specified load point within a sixty (60) minute period, the output of which can be continuously maintained for a two hour period. Also included is curtailable demand that is capable of being curtailed within sixty minutes and that can remain curtailed for two hours.

⁵³ See San Diego Gas & Electric Company v. Sellers of Energy and Ancillary Services into Markets Operated By the California Independent System Operator and the California Power Exchange, 93 FERC ¶ 61,121 at 61,368 (2000).

Comments

62. While LSEs generally support rescission of the RUC availability payment, generators are opposed. Duke states that the \$150/MWh cap and the combined \$250/MWh combined availability payment and energy cap may result in generators not being fairly compensated for the value of the capacity and energy that they are required to make available, particularly where the capacity bid is subject to local market power mitigation. Dynegy/Williams oppose the cap, but in case the Commission wishes to impose such a cap, Dynegy/Williams offer a compromise of setting the combined cap at 150 percent of the energy bid cap.

63. The CPUC continues to oppose the RUC availability payment. In the event the Commission approves a non-rescindable availability payment, the CPUC supports the CAISO's compensation proposal to cap total availability payments and energy payments at \$250/MWh. The CPUC agrees with the CAISO's justification for the overall \$250/MWh cap, that RUC is unlike Ancillary Services compensation in that the unit has a high probability of dispatch in the energy market. Therefore, the CPUC argues that the availability payment is more of an upfront payment on the energy price rather than a call option or reservation for that capacity. The CPUC further argues that the RUC availability payment should sunset upon full implementation of resource adequacy.

64. In its reply comments, the CAISO disagrees with the Duke and Dynegy/Williams' argument that the RUC total payment cap will encourage under-scheduling of load in the day-ahead market. The CAISO reiterates that its proposal provides an appropriate balance of incentives for load to forward schedule and suppliers not to forego the day-ahead market.

Commission Determination

65. We are not persuaded by the CAISO's contention that the RUC availability bid cap should be lower than the \$250/MWh bid cap accepted in the October 28 Order. We also are not convinced by the CAISO's argument that the procurement of RUC capacity and ancillary services capacity are substantially different products. As stated in the October 28 Order, the Commission found the procurement of capacity under RUC was similar to the procurement of capacity in the ancillary services market (i.e., generation capacity being held for contingency purposes in order to meet reliability). Despite the CAISO's contention that there are dispatchable differences that justify a lower bid cap, we continue to view the products as similar because both serve a reliability function for both local and system-wide needs. We also note that, in its initial filing, the CAISO recognized the RUC process as a reliability backstop for the CAISO to meet its system load forecast and reserve requirements in accordance with North American Electric Reliability Council (NERC) and the WECC. As a result, the Commission will reject the CAISO proposal to lower the availability payment because the CAISO has not adequately

demonstrated that the RUC capacity market is substantially different from the ancillary services market. Thus, the RUC availability bid cap should be set at the level directed in the October 28 Order (i.e., \$250/MWh) to ensure comparable compensation among RUC and ancillary services capacity. With regard to the CPUC's proposal to sunset the availability payment upon implementation of resource adequacy, we will address that concern when the CAISO files its revised proposal.

66. We reject the CAISO's proposal to cap the combined energy and capacity payment at \$250/MWh, because not only will the proposal not adequately compensate resources for separate and distinct products, but also the combined cap will provide suppliers with mixed incentives to participate in the real-time energy market. For example, the CAISO may accept a RUC bid at the combined cap and subsequently dispatch the supplier's energy and not compensate the supplier for the energy product because the proposed threshold has been exceeded.

67. While the CAISO argues that an overall cap is required because generators would have an incentive to attempt to bid high enough to not be selected in the IFM, but low enough to be selected in the RUC process, so as to receive both the availability payment and the hope of receiving an energy payment if dispatched, we believe it would be difficult for a generator to consistently succeed in guessing that level. Additionally, LSEs have the ability to preclude being assigned RUC charges through full participation in the day-ahead market and the ability to self-provide. We note that the \$250/MWh is a cap on availability bids. However, we note that because this issue is of concern to the CAISO, we request the CAISO's Market Surveillance Committee to probe and study bidding behaviors among market participants and promptly notify the Commission of structural and behavioral problems. Finally, we note that the CAISO has proposed mitigation measures for the RUC availability payments. The Commission believes that resolution of these issues falls more appropriately under upcoming discussions on market power mitigation.

68. We reject the CAISO's proposal to rescind the availability payment associated with RUC if the energy is called upon by the CAISO in real time. The availability payment in RUC essentially serves the same purpose as other operating reserve products. That purpose is to ensure that capacity is reserved and its energy is committed and available to the CAISO should the energy be needed to maintain the reliability of the system. As such, RUC compensation should be consistent with other operating reserve products. The availability payment for these other capacity services is not rescinded under the CAISO's directed supply of energy. Additionally, allowing suppliers to keep the availability payment when energy is supplied should result in lower availability bids and ultimately lower the cost of supplying RUC. In response to the CAISO's reference to the November 1, 2000 Order, relating to payment of Replacement Reserves, we note that the Commission found that the electric market structure and market rules for wholesale sales of electricity at that time were seriously flawed and that the structures, in

conjunction with an imbalance of supply and demand in California at that time, caused rates that were unjust and unreasonable. The revocation of the Replacement Reserve capacity payment with the sale of energy in that order was one of many stop-gap price mitigation measures made in response to the multiple market design flaws at the time. In the context of a comprehensive market redesign that includes co-optimized reserves and energy procurement, along with revised market power mitigation measures, the Commission does not see the CAISO's comparison of past Replacement Reserve pricing mechanisms to the RUC payments as relevant.

RUC availability bids setting the market clearing price

69. The CAISO also put forward a revision to permit availability bids to set a locational market clearing price.⁵⁴ The CAISO contends that some mechanism must be in place to protect against the exercise of local market power because the CAISO contemplates that there will be instances where it will need to procure RUC capacity to satisfy locational needs that are not accounted for by RMR units. The CAISO states that a resource whose availability bid is mitigated can set the availability market clearing price or, if the market clearing price at its location is set by other accepted availability payment bids, it can then collect a higher availability market clearing price than its mitigated bid.

70. The CAISO states that the mitigated availability payment bid prices (bid-based reference level) would be calculated by an independent entity and based on competitive availability payment bid reference levels (e.g., the mean or median of the highest accepted "non-mitigated" availability payment bids for the preceding 90-days).⁵⁵ Nonetheless, if market participant consensus supports use of a different time frame (e.g. 30-day rolling average), the CAISO states it would be amenable to changing the timeframe for determining mitigated availability payment bid prices. It further states that using a rolling average over a significant time period (e.g. 30 days or more) results in a more stable (less volatile) reference level. In the event that there are no accepted "non-mitigated" availability payment bids in the previous 90-days to calculate a Bid-based Reference Value, the last available Bid-based Reference Value will serve as the default value until either (1) the Independent Entity and the affected unit owner reach agreement on an alternative Consultative Value, or (2) the CAISO awards RUC capacity to non-mitigated RUC bids, which will mean that data are once again available to calculate a new Bid-based Reference Level.

⁵⁴ The CAISO asserts that this proposal is consistent with the Commission's October 28 Order.

⁵⁵ The CAISO notes that use of a 90-day period is consistent with the calculation of "bid-based" AMP reference prices (see MMIP Appendix A, section 3.1.1.1(a) and DEC reference prices for managing intra-zonal congestion (see section 7.2.6.1.1).

Comments

71. Dynegy/Williams contend that the CAISO's proposal to mitigate the availability payment should be deferred until participants are provided details about California's resource adequacy program. They also state that the CAISO has gone to great lengths to discuss, in its comments, the need to mitigate the locational aspect of the availability payment without any further discussion of the CAISO's Local Market Power Mitigation (LMPM) proposal and ask that the Commission not rule at this time on the CAISO's proposed mitigation of the availability payment.⁵⁶ IEP also believes that it would be premature for the Commission to rule on the LMPM provisions within the RUC until it can review the resource adequacy requirement and local market power mitigation proposals as a whole to insure they are internally consistent.

72. SoCal Edison argues that the concept of a locational availability market clearing price is fundamentally flawed and should be abandoned. The RUC process does not propose to purchase a single homogenous product, and as a result, establishing a homogenous market clearing price is conceptually flawed and inappropriate. SoCal Edison alleges that RUC purchases are not homogenous for the following reasons: 1) the CAISO has two distinct and disparate criteria for purchasing RUC -- system requirements and local requirements that present distinctly different requirements; 2) the capacity purchased from each unit will provide the CAISO with distinctly different operating flexibility, thus it is inappropriate to establish a single market clearing price; and 3) the price of energy associated with each unit selected in RUC will be different. SoCal Edison states that the Commission has drawn analogies to purchasing RUC capacity and the CAISO purchasing options for real-time energy. If this is the case, SoCal Edison contends that a RUC market clearing price is equivalent to establishing an option market clearing price for a bundle of options where each option has a different strike price. It is nonsensical to propose that a bundle of such options, where each option within the bundle has a unique strike price, should be paid a single clearing price equal to the highest priced option in the bundle.

⁵⁶ Dynegy/Williams indicate that they do not oppose mitigation of location-specific availability payment bids per se. However, they state that the definition of "non-competitive paths" is overly broad. They also state that any availability payment bid mitigation must promote new infrastructure investment and send the proper price signals.

73. SoCal Edison further states that the CAISO's proposed method of determining availability market clearing prices is to treat RUC availability bids as though they were energy bids to be cleared against forecasted load using the full network model so that the result will be nodal availability payment market clearing prices." SoCal Edison states that it needs additional methodological details in order to offer substantive comments on the appropriateness of this proposal.

74. The CPUC similarly raises concerns and suggests that the CAISO return to its original proposal. Alternatively, the CPUC states that it is clearly necessary to mitigate locational RUC availability payments.

Commission Determination

75. In the October 28 Order, the Commission directed the CAISO to allow RUC availability bids to set a market clearing price rather than be paid as bid. We find the CAISO has adequately addressed the Commission's directive by revising its proposal to permit RUC suppliers to set and be paid the locational market clearing price for RUC capacity. In general, the bid prices of RUC capacity should reflect the opportunity cost of committing resources to the CAISO market. When and where necessary and as appropriate, mechanisms must be in place to protect against the exercise of local market power. The Commission has expressly found that there are locations in California where suppliers potentially have locational market power.⁵⁷

76. The CAISO's mitigation proposal should therefore take these factors into consideration. The Commission will reassess possible mitigation of RUC capacity bids in the context of an overall mitigation plan.

Re-bidding of Day-Ahead RUC energy prices

77. Dynegy/Williams argue that in its May 11 revised proposal, the CAISO gave insufficient attention to an issue Dynegy/Williams believe is critical for a well-functioning RUC. Dynegy/Williams argue that generators should be permitted to adjust day-ahead energy bids for units that were not selected in the day-ahead IFM, but were committed for capacity under the day-ahead RUC. Dynegy/Williams explain that when an offer is accepted in the day-ahead IFM, it is for energy. However, when a generator's bid is not accepted in the day-ahead IFM and is passed into RUC, a resource provider at this point does not purchase fuel because it does not know if it will receive a dispatch order for energy. It states that a resource will assume some risk between the close of the day-ahead market and real-time market due to intra-day variation in fuel markets. As a

⁵⁷ See AES Southland, Inc. and Williams Energy Marketing Trading Company, 94 FERC ¶ 61,248 at 61,871-72 (2001).

result, Dynegy/Williams recommend that market rules should allow the energy bid associated with a RUC resource to be fully adjustable in hour-ahead and real-time markets. Dynegy/Williams support the bid being subject to the larger limits on bidding, including any applicable bid caps, Automated Mitigation Procedures and local market power mitigation.

78. In its reply comments, the CAISO states that given that suppliers in RUC are being guaranteed a non-rescindable availability payment, it is inappropriate that they should be permitted to increase their energy bids. The CAISO states that any risk of an increase in fuel costs should presumably be incorporated in the day-ahead energy bid. The CAISO contends that allowing the RUC seller to raise its RUC energy bid price is equal to allowing the exercise of economic withholding. While the CAISO acknowledges that there is a legitimate issue regarding recovery of intra-day gas costs, it contends that the risk can be reflected in the availability payment bid and/or the energy bid. As a result, the CAISO believes suppliers will have a reasonable opportunity to sufficiently cover any intra-day gas costs risk from the two payments under RUC.

Commission Determination

79. We agree with Dynegy/Williams that units should be allowed to adjust day-ahead IFM market bids if they are not taken in that market, but subsequently selected for day-ahead RUC. In the October 28 Order, the Commission rejected the CAISO's proposal to procure energy in the RUC process, and directed the CAISO to procure only capacity. Thus, the CAISO will be making its determination of which resources to commit in RUC based only on RUC availability bids and SU/ML costs. Sellers in each market should be permitted to submit bids that reflect their actual marginal costs of supply in that market. When bids reflect actual marginal costs, the CAISO will be able to schedule and dispatch generators so as to minimize actual costs of meeting load. Dynegy/Williams state, and the CAISO agrees, that fuel costs (an important component of a generator's marginal costs) can increase between the day-ahead and real-time markets. Therefore, generators committed in RUC should be permitted to increase their energy bids above those submitted into the day-ahead market, in order to reflect these cost increases.

80. The CAISO argues that any such cost increases may be recovered through the RUC availability bid; we disagree that the RUC availability bid is a desirable mechanism for recovering increased fuel costs, for two reasons. First, by recovering fuel cost increases in the availability bid rather than in the energy bid, the energy bid will understate the actual, real-time marginal cost of the seller's production. As a result, the seller's supplies may be chosen in place of lower-cost, non-RUC sellers whose energy bids reflect their actual marginal costs. The availability payment under RUC is a payment for the call option on a supplier's capacity and should reflect the seller's opportunity costs of committing in the day-ahead time frame; the availability payment is not a payment for risk associated with providing energy once dispatched by the CAISO.

Second, the seller would need to estimate the change in fuel costs at the time it submitted its RUC availability bid, i.e., a day in advance, and such estimates may be in error. Because of this uncertainty, sellers may need to include a risk premium in its availability bid. By contrast, real-time fuel costs will be known with much more precision on the day of delivery, when real-time energy bids must be submitted, thus, avoiding the need for a risk premium to account for cost uncertainty. Thus, we think it is preferable to allow a seller to include fuel cost changes in its real-time energy bid. By reducing cost uncertainty and the corresponding need for a risk premium, the increase in energy bids is likely to be more than offset by the reduction in availability bids.

3. Hour-Ahead Market

CAISO Proposal

81. Under the MD02 proposal, the CAISO proposed to operate an integrated forward market consisting of a day-ahead market, an hour-ahead market, and the RUC process. This integrated forward market would simultaneously optimize energy, congestion management and ancillary services procurement using a security-constrained unit commitment process, and would be financially binding.

82. After discussions at the March Technical Conference, the CAISO submitted a revised proposal to simplify the hour-ahead market while keeping the functionality needed most by market participants. This new proposal eliminates a separate settlement of the hour-ahead market and combines the hour-ahead market with the real time pre-dispatch process.

83. Under the new hour-ahead IFM, Scheduling Coordinators would submit energy bids and desired hour-ahead self-schedules for supply resources and imports.⁵⁸ These submitted energy bids would be used for both the hour-ahead and real-time markets; there would be no separate submission of real-time supplemental energy bids. No bids or self-schedule changes for load are necessary in the hour-ahead IFM because all hour-ahead bids are settled at real-time prices.⁵⁹ In instances where real-time prices are insufficient to fully compensate resources dispatched in the hour-ahead IFM, a separate uplift payment would be used to ensure cost recovery. The CAISO would then run the IFM optimization using the CAISO load forecast to clear congestion and energy.

⁵⁸ The CAISO states that the deadline for hour ahead submissions would be T-75 (75 minutes before the operating hour) or, if possible, T-60 (60 minutes before the operating hour).

⁵⁹ The CAISO explains that submitted energy supply bids and supply self-schedules are cleared against the CAISO's forecast of imbalance energy requirements (i.e., the difference between the final day-ahead schedule and the forecast for real time).

84. The quantities cleared in the hour-ahead IFM constitute binding pre-dispatch instructions for real time. These pre-dispatched quantities would then be used as the reference for issuing further real-time dispatch instructions and for calculating real-time deviations. Of particular importance is that any difference between day-ahead final schedules and the pre-dispatches would not be subject to real time uninstructed deviation penalties. All pre-dispatched quantities would be settled based on the real-time locational marginal prices. Quantities pre-dispatched for real time would not be eligible to set the real-time market clearing price, but they would be eligible for bid cost recovery through an uplift charge. The CAISO would publish pre-dispatch notices at approximately T-45 (45 minutes before the operating hour).

Comments

85. CERS supports the CAISO's revised hour-ahead market proposal, as does the CMUA and Duke Energy. CMUA requests that the CAISO provide a more detailed explanation of its proposal, with specific scheduling examples, and institute a stakeholder process for further development of the proposal. Similarly, Duke Energy states it would be helpful if the CAISO would provide a timeline and examples of how the day-ahead, hour-ahead and real time markets would operate. Powerex also expresses a desire for clarification of the proposal and more detailed examples of the proposed market timing, particularly in comparison to the current market.

86. IEP states it believes that many aspects of the CAISO's proposal are feasible, but that there are many outstanding questions to be answered before implementing the simplified hour-ahead market. Metropolitan also offers its support for the CAISO's proposal, but noted that the modified hour-ahead market does not provide buyers the opportunity to forego a schedule if congestion costs are too high. Metropolitan recommends providing LSEs with the ability to hedge against real-time congestion costs. NCPA and SVP remark that the CAISO's proposal fails to explain how MSS entities would function in the simplified hour-ahead market, and state that the proposal lacks necessary detail.

87. CDWR asserts that hour-ahead self-schedule adjustments are essential for its daily operations and expresses concern that the CAISO's proposal would not allow for hour-ahead adjustments to load schedules, particularly if load is reduced and the CRR holder must pay for congestion in the opposite direction. SoCal Edison, PG&E and SVP also voice concern regarding the inability of load to make schedule adjustments after the close of the day-ahead market. In particular, SoCal Edison points out that CAISO Tariff Amendment No. 55 provides for penalties on market participants that underschedule load.⁶⁰ Therefore, SoCal Edison recommends that the proposal be modified to include an

⁶⁰ See Order on Rehearing, 107 FERC ¶ 61,118 (2004) at pages 37-38.

opportunity for load bid adjustments and self-schedules. In comments filed May 18, the CPUC suggests that the CAISO reconsider its proposal that it is not necessary for load to be able to submit hour-ahead schedule changes. The CPUC states, “equity demands that both supply and load be permitted to submit hour-ahead schedule changes.”⁶¹

88. Sempra states its preference that there exist an hour-ahead market that is settled at hour-ahead prices. Sempra notes that, under the CAISO’s revised proposal, “suppliers have the ability to lock-in a minimum price after the day-ahead market and prior to real-time, but the proposal does not afford buyers the equivalent opportunity to lock-in a maximum price.”⁶²

89. In its reply comments, the CAISO states that SoCal Edison’s concerns about penalties for under-scheduling load are moot because the CAISO “eliminated its proposal to implement an over-scheduled load penalty and did not propose a penalty for under-scheduled load” in its Amendment No. 55 compliance filing.⁶³

90. The CAISO also clarifies that CDWR need not be concerned about congestion charges in the opposite direction of its CRRs because “the only settlement for CRRs is based on the DA [day-ahead] market. Once CRR settlement is determined based on DA [day-ahead] prices, it cannot be altered by any change in congestion patterns that may occur in either the HA [hour-ahead] or RT [real-time] markets.”⁶⁴

91. In addition, the CAISO notes that Metropolitan’s concern that parties are unable to limit their exposure to congestion costs is misplaced. The CAISO states that this outcome is the result of an LSE choosing to self-schedule, rather than submitting an energy bid, and that the outcome would be the same in a full settlement hour-ahead market.

⁶¹ See Motion for Leave to File Comments Out of Time, and Comments of the Public Utilities Commission of the State of California, Docket No. ER02-1656-017 (May 28, 2004), p. 12.

⁶² See Sempra Energy Comments Supporting Adoption of Conceptual Market Design Proposals, p. 7.

⁶³ Reply Comments of the California Independent System Operator Corporation Regarding Technical Conference, page 13 (June 3, 2004). See California Independent System Operator Corporation Compliance Filing, Docket No. ER03-1102-003 (May 20, 2004).

⁶⁴ Reply Comments of the California Independent System Operator Corporation Regarding Technical Conference, pages 13-14 (June 3, 2004).

92. Finally, the CAISO explains that the negative impacts of a simplified hour-ahead market have been overstated. In particular, it cites the issue of uplift charges. The CAISO states that it understood that a compelling factor for keeping some form of HA market was the desire for parties to self-schedule supply to meet their own load when they revise their load forecasts or procure supply through bilateral transactions after the day-ahead market closes. These self-scheduled supply resources, the CAISO notes, “would be price takers in RT and would not contribute to any uplift charges.”⁶⁵

Commission Determination

93. We will accept the CAISO’s proposed simplified hour-ahead market. This simplified hour-ahead market should cost less to implement, provide reduced settlement complexity and should allow market participants to make scheduling changes and supply bid adjustments closer to real time.⁶⁶ It is similar to the Balancing Market Evaluation used in the NYISO market, and CAISO participants appear to be receptive to this revised structure. Many of the market participants expressed the continued need for schedule changes in the hour-ahead time frame but did not find a financially-binding settlement necessary. The CAISO’s proposal, while still requiring resolution of some details, accomplishes this.

94. With regard to concerns that load should be provided an opportunity for bid adjustments, as the CAISO explained, there will be no price other than the real-time price, and therefore, no ability to lock-in an hour-ahead price. Thus, all real-time load that is not scheduled day ahead is settled at real-time prices. We believe that the CAISO has adequately addressed most of the commenters’ concerns. With regard to the treatment of MSS contracts, we anticipate that this and related issues will be resolved through the current stakeholder process addressing all issues related to existing MSS contracts. Finally, the imposition of penalties on market participants that underschedule load will be addressed in the pending Amendment No. 55 proceeding. We note, however, that once MD02 is fully implemented, parties that underschedule load will be charged RUC costs, eliminating the need for penalties such as those under consideration in Amendment No. 55.

95. Finally, we note that our direction here is without prejudice to future reconsideration of the need for a financially-binding hour-ahead market, if the CAISO were to determine that the benefits of a full hour-ahead market outweigh the costs. While no other ISO has implemented a full hour-ahead market with financial settlement, California’s electricity system has unique aspects that may make it more important that

⁶⁵ Id. at 16.

⁶⁶ The current hour-ahead market closes 135 minutes before the start of the operating hour.

the CAISO have an hour-ahead market. California's load is substantially served by power that is imported into the CAISO footprint. Hour-ahead scheduling with a financially binding market would be particularly useful for these imports, in order to minimize uplift.

4. Ancillary Services Procurement

96. In the CAISO's July 2003 filing, the CAISO proposed to procure a portion of its forecasted ancillary services requirement in the day-ahead market and retain the option to procure the remainder in the hour-ahead market. The CAISO stated that this will minimize the risk of over-procuring ancillary services and will allow it to account for self-provision of ancillary services. In addition, the CAISO proposed that it may defer procurement if it anticipates the price will be lower in the hour-ahead market.

97. In the October 28 Order, the Commission allowed the CAISO the flexibility to procure a portion of its ancillary services requirement in the hour-ahead market and required the CAISO to give suppliers the same flexibility to buy back ancillary services. The Commission directed the CAISO's Department of Market Analysis to monitor the convergence/divergence of ancillary services prices in the day-ahead and hour-ahead markets and to report independently to the Commission on a monthly basis following the implementation of a day-ahead market.

98. In pre-technical conference comments filed on January 14, 2004, IEP supported the Commission's order confirming the market participants' ability to purchase back ancillary services in the hour-ahead market. IEP also supported the Commission's requirement that the CAISO's Division of Market Analysis monitor price convergence/divergence and reliability issues as they relate to ancillary services. The CPUC urged the CAISO to give a detailed update at the January technical conference on any changes it contemplated making to its ancillary services design.

99. In post-technical conference comments filed on February 17, 2004, Mirant, Powerex, Duke, Williams and Reliant all expressed continued support for the ability of market participants to buy back ancillary services in the hour-ahead market. Both the CPUC and SoCal Edison expressed concern regarding buy-back of ancillary services by suppliers in the hour-ahead market. The CPUC was supportive of ancillary services buy back of in-control-area resources but not imported ancillary services capacity. Reliant contends that concerns regarding buy back of ancillary services and gaming generally stem from a fundamental flaw in the old market design and will not occur under the proposal. SoCal Edison proposed that the buy back of ancillary services should only be permitted in the limited case where the selected generator is physically incapable of providing ancillary services in the hour-ahead market and simultaneously offers ancillary services from another unit. Powerex and Duke assert that allowing buy backs will help achieve price convergence.

100. SMUD suggested that the amount of ancillary services purchased in the day-ahead market be predicated on application of the independently prescribed WECC standards and that the percentage of ancillary services to be procured in the day-ahead market be statistically established as a function of CAISO forecast accuracy.

CAISO's Revised Proposal

101. Based on the discussions at the January technical conference and comments filed by the parties, the CAISO submitted a revised proposal on February 24, 2004, regarding ancillary services procurement, which it subsequently revised in its May 11 revised proposal.

102. The CAISO's May 11 revised proposal has changed from the February 24 proposal in several ways. The new proposal requires that all ancillary services self-provision be scheduled in the day-ahead market, although Scheduling Coordinators can substitute different resources in the hour-ahead market. The revised proposal includes:

- (1) The CAISO will procure ancillary services in the day-ahead IFM to meet 100 percent of its anticipated need, based on its load forecast for the next day, minus any acceptable Scheduling Coordinator self-provision of ancillary services. In particular, the CAISO will not engage in economic deferment of ancillary service procurement for the day-ahead to a subsequent market. Ancillary services procurement in the hour-ahead or real-time will be necessary only for post day-ahead changes in load forecast or system conditions (including outages of capacity previously committed to supply ancillary services).
- (2) Acceptable self-provision is defined as specific resources that are certified capable of providing ancillary services, meet any applicable locational ancillary services procurement requirements, and are identified by the Scheduling Coordinator in the day-ahead market in fulfillment of its anticipated requirements.
- (3) Scheduling Coordinators who sell or self-provide ancillary services capacity to the CAISO in the day-ahead may offer to substitute different resources in the hour-ahead, and this will be acceptable to the CAISO provided the substitute capacity meets the relevant ancillary services performance and locational requirements and has not already been committed for another use (e.g., scheduled to provide energy).

103. In comments filed on May 19, 2004, Duke Energy, SoCal Edison and SMUD all express concern that additional clarification and detail is needed in the CAISO's proposal regarding the substitution of different resources in the hour-ahead market. Specifically,

they seek clarification on the CAISO's language that "substitute capacity meets the relevant ancillary service performance and locational requirements." Powerex criticizes CAISO's proposal as an economically inefficient ancillary services market by preventing the buy-back of ancillary services by suppliers. Sempra favors retention of the full hour-ahead market to facilitate efficient procurement of ancillary services. Sempra supports the CAISO being able to procure a portion of its ancillary services in the hour-ahead market. In general, commenters support the CAISO's modification to allow self-scheduled ancillary services to be substituted in the hour-ahead market. PG&E does not support the CAISO's proposal to purchase 100 percent of its ancillary services requirement in the day-ahead market.

104. In comments filed on May 28, 2004, the CPUC does not support the CAISO's proposal to reduce its flexibility regarding procurement of ancillary services. The CPUC gives two reasons why the CAISO requires flexibility as to whether it purchases ancillary services in the day-ahead market or in the hour-ahead market. First, the CPUC states that a requirement to procure 100 percent of its day-ahead ancillary services forecast would likely result in over-procurement. Second, the CPUC believes that if LSEs have the opportunity to self-provide ancillary services in the hour-ahead market, then the CAISO must have the ability to reduce its day-ahead ancillary services procurement to the extent that it expects LSEs to self-provide in the hour-ahead. Also, the CPUC wants the CAISO to have additional flexibility to procure its ancillary services requirements in the most economical manner (buy-back flexibility). The CPUC does support the CAISO's proposal to permit suppliers who sell ancillary services in the day-ahead market to substitute equally satisfactory units to provide ancillary services in the hour-ahead market.

Commission Determination

105. Our acceptance of the CAISO's proposal to simplify the hour-ahead procedure has implications for the treatment of ancillary services. First, in the simplified hour-ahead procedure, the CAISO will not establish hour-ahead market-clearing prices for ancillary services. Thus, participants that sell ancillary services in the day-ahead market will not have the ability to buy back their ancillary service obligation in the hour-ahead market at an hour-ahead market-clearing price. In the Commission's October 28 Order, the Commission allowed the CAISO the flexibility to procure a portion of its ancillary services requirement in the hour-ahead market, and stated that suppliers must be allowed the same flexibility to buy back ancillary services for both fairness and market efficiency.⁶⁷ In light of the decision that the CAISO will operate a simplified hour-ahead procedure, such buy-back will not be feasible. The CAISO will not operate a financially-binding hour-ahead market in which participants can buy back ancillary services that they had sold in the day-ahead market.

⁶⁷ October 28 Order at P 83.

106. Second, the simplification of the hour-ahead market has implications for the payments associated with ancillary services.⁶⁸ In the CAISO's July 2003 filing, it proposed day-ahead, hour-ahead and real-time ancillary services markets. The day-ahead and hour ahead would result in market clearing prices with the allowance for capacity bids. In real time, no ancillary services bids were to be submitted and each supplier would only receive its supplier-specific opportunity costs to provide reserves, not a market clearing price. That is, each supplier would be paid a supplier-specific uplift if needed to compensate for lost profits from forgone energy sales. In proposing a simplified hour-ahead scheduling process, the CAISO has eliminated the hour-ahead ancillary services market. We note that this elimination will increase the CAISO's reliance on real-time procurement of ancillary services. The proposed simplified hour-ahead scheduling process and real-time market does not allow for ancillary services capacity bids, and limits payment for each supplier to its foregone energy profits due to the supply of ancillary services products.⁶⁹ We direct the CAISO to address this issue in its tariff filing, and to either justify the appropriateness of its real-time ancillary services payments in the absence of an hour-ahead ancillary services market, or provide for capacity bids and allow suppliers to be paid a market clearing price.

107. With regard to the CAISO's proposed procurement target, we agree that the CAISO should procure ancillary services in the day-ahead IFM to meet 100 percent of its anticipated need. It is also reasonable for the CAISO to adjust its ancillary services procurement in the simplified hour-ahead to provide for post day-ahead changes in the load forecast and unscheduled outages. We believe the CAISO needs flexibility to adjust its ancillary services procurement in the hour-ahead procedure if necessary. This will alleviate concern regarding over-procurement of ancillary services in the day-ahead market and will allow the CAISO to address load changes that occur from the day-ahead to hour-ahead.

⁶⁸ The CAISO currently has a day-ahead and an hour-ahead ancillary services market using capacity bids. The hour-ahead market allows the CAISO to procure ancillary services for real time, and provides suppliers an opportunity to receive a market clearing price for ancillary services. There is currently no ancillary service product or payments in the CAISO real-time market.

⁶⁹ In the absence of an hour-ahead ancillary services market, the Eastern ISOs have successfully implemented rules that allow for a market clearing price of real-time ancillary services to ensure that resources that provide similar service receive similar compensation.

108. We find the CAISO's proposal to allow Scheduling Coordinators who sell or self-provide ancillary services in the day-ahead market to substitute different resources in the simplified hour-ahead market a reasonable approach. The CAISO is willing to provide this flexibility as long as the substituted resources meet applicable performance and other locational criteria.

109. We agree with commenters that the CAISO should be required to provide additional clarification and detail on what will constitute "the relevant A/S [ancillary services] performance and locational requirements."⁷⁰ Duke's suggestion that the CAISO must be required to inform a successful ancillary services bidder of the relevant performance and locational requirements at the time the bidder receives its day-ahead schedule is reasonable.

5. Constrained Output Generators

110. In the CAISO's July 2003 filing, the CAISO proposed that constrained output generators (COGs) would not be allowed to set the energy price in the day-ahead market. The CAISO justified this proposal by asserting that allowing constrained output generation to set the energy price in the day-ahead market would involve acceptance of an infeasible schedule since this schedule would have to be adjusted in real-time.⁷¹

111. In its October 28 Order, the Commission directed the CAISO to review its approach to setting prices in the forward market and develop a pricing mechanism for COGs that is consistent with its approach to real-time pricing and promotes the convergence of prices in the forward and real-time markets.

112. In pre-technical conference comments filed on January 14, 2004, Reliant suggested that the NYISO methodology would be a useful place for the CAISO to begin its investigation into pricing of constrained units. IEP and Reliant both supported COGs

⁷⁰ See California Independent System Operator Corporation, Amendment to Comprehensive Market Design Proposal, Docket No. ER02-1656-015, et al., at P 81 (July 22, 2003). (Depending on network constraints and congestion, ancillary services requirements may be determined for major sub-areas of the CAISO control area which may result in different ancillary services clearing prices for each sub-area for each service.")

⁷¹ When scheduling COGs in the forward market, the CAISO may have to keep the schedule of a flexible generating resource below the level that it would otherwise have been scheduled, in order to accommodate the inflexible output of such resources. When dispatching these resources in real-time, the CAISO may have to reduce the dispatch of another generating resource (possibly below its hour-ahead schedule) in order to accommodate the inflexible output of such COGs.

being able to set the market-clearing price when the unit is required to serve load. The CPUC supported the CAISO's original proposal but was open to discussing this issue at the technical conference.

January 14, 2004 CAISO Clarification of Market Design Issues

113. The CAISO continued to advocate its original July 2003 proposal and asserted that allowing COGs to set prices in the forward markets is inconsistent with the definition of "marginal" prices. The CAISO asserts that this would have an undesirable consequence in the day-ahead market with respect to CRR settlement. The CAISO gave an example that showed how a COG setting the market price can cause inconsistency between the actual direction of congestion and the nodal price difference. The CRR settlement would then be distorted because nodal price differences would be set opposite to the direction of congestion.

114. In post-technical conference comments filed on February 17, 2004, Williams stated that a precise definition of what constitutes a COG is a necessary first step. Williams and Reliant supported COGs setting the market clearing price in the day-ahead market. SoCal Edison opposed COGs setting the LMP in the forward or real-time markets since they are not the marginal unit.

CAISO's Revised Proposal

115. Based on the discussions at the January technical conference and the pre- and post-conference comments filed by the parties, the CAISO filed a revised proposal on February 24, 2004. Under this revised proposal, COGs would be eligible to set prices, both in the day-ahead IFM and in real time.

116. In the February 24, 2004 proposal, the CAISO defines the COGs as combustion turbines that can run only at full output. The CAISO states that this definition is consistent with the definition of COGs adopted by the Commission in its order on the CAISO's Tariff Amendment No. 54 (Phase 1B). In the Amendment No. 54 Order, the Commission described COGs as generating resources that cannot easily or economically change load levels and are typically restricted to generating at their full capacity for their unit-specific minimum run time.⁷² On March 2, 2004 the CAISO filed Amendment No. 58.⁷³

⁷² California Independent System Operator Corporation 105 FERC ¶ 61,091 at P 70 (Amendment No. 54 Order).

⁷³ In Amendment No. 58, Docket Nos. ER04-609-000 and 001, the CAISO generally adopted the definition of COG from the Amendment No. 54 Order.

117. The CAISO states that the specification of the circumstances in which a COG may set prices in the day-ahead IFM is as follows:

- (1) Eligibility to set price in any settlement interval would depend on some portion of the unit's output being needed in merit order to serve load. In other words, if the unit is modeled as fully flexible to operate over its entire capacity range, it would receive a non-zero merit-order dispatch to clear the market.
- (2) If the unit was needed in accordance with the criterion set out in (1) in a previous interval, and is still operating due to a minimum-run-time constraint, but none of its energy is needed in merit order in the current interval, the unit would not be eligible to set the price in the current interval.

118. The CAISO proposes to implement this in the following manner in the day-ahead IFM design:

- (1) In the day-ahead IFM dispatch run, COG units will be treated as if they were flexible, i.e., capable of operating at any point between zero and their P-max (maximum operating point). As a result of this run, a COG unit that is needed in merit order to serve load will be dispatched at its economically optimal operating level, even though that operating level may not be feasible.
- (2) In the pricing run following the dispatch run, there is no change to the treatment of COG units. Thus, this proposed treatment of COG units does not result in inconsistency between the dispatch and pricing runs.
- (3) In the day-ahead RUC process, any COG units offered in the day-ahead IFM that were not dispatched will be treated as constrained. This treatment is appropriate because the RUC is an optimization of unit commitment, not a dispatch of energy.
- (4) In real time, the COG unit will be treated as constrained to ensure that its real-time dispatch is feasible. Thus, relative to the unit's potentially infeasible day-ahead schedule, the CAISO will dispatch the unit in real time either up to its P-max or down to zero.
- (5) For the purpose of setting real-time prices, these COG units will be treated as flexible and, therefore, eligible to set prices (as approved in the Amendment No. 54 Order⁷⁴). As in the day-ahead IFM, the COG's energy bid would be a constant price energy bid curve that covers the entire operating range of the COG unit from zero to P-max, with a price equal to the COG's minimum load bid divided by P-max.

⁷⁴ Amendment No. 54 Order at P 75.

- (6) COG units will be settled at the appropriate forward market price for their forward scheduled quantities, and at the real-time price for the difference between their real-time dispatch and their final forward schedules.

119. The CAISO has also addressed the infeasible dispatch issue with this proposal. The CAISO will treat COGs as flexible in both the dispatch and pricing runs of the IFM, and then apply the COG constraint in real-time dispatch so as to ensure a feasible dispatch. The magnitude of this problem should be small given the limited number of COGs that are eligible for this treatment,⁷⁵ and that real-time dispatch of these resources will be feasible and will thus “correct” the infeasible forward schedules.

Comments

120. In comments filed on May 19, 2004, SoCal Edison maintains that since COGs are not the marginal supplier, they should not be allowed to set the locational marginal price in either the day-ahead or real-time markets. However, SoCal Edison does concede that the CAISO’s proposal has sufficiently narrowed the definition of COG such that the problems created should be negligible. SoCal Edison remains strongly opposed to expanding the scope and definition of COG to include additional units because it will result in serious market distortion if COGs frequently set LMPs. The CDWR, on the other hand, would like to see hydro resources given the same treatment as COGs. Specifically, the CDWR has eight hydro units that are considered “lumpy” generators. “Lumpy” units have no controls and their individual MW production can vary from 10 to 53 MW depending on the head pressure. In comments filed on May 28, 2004, the CPUC supports the CAISO’s revised COG design proposal. In comments filed June 8, 2004, PG&E states that allowing COGs to set market clearing prices is inconsistent with marginal pricing principles.

Commission Determination

121. The Commission will accept the CAISO’s definition and treatment of COGs as set forth in its May 11 revised proposal as we find that it is consistent with Commission direction in NYISO.⁷⁶ There, in real time the NYISO allows the fixed block units to set the market clearing price even when a less expensive unit is backed down to make room for the final dispatch. The market clearing price set by a COG that operates for the purpose of meeting load is reflective of market conditions. Allowing COGs to set the

⁷⁵ The CAISO notes that, as defined in the CAISO’s May 11 revised proposal, there are currently 21 units with a total of 831 MW of capacity which would qualify as COGs.

⁷⁶ New York Independent System Operator, Inc. 95 FERC ¶61,121 (2001).

market clearing price in the forward market will promote efficiency in the CAISO energy markets. We agree with SoCal Edison's comments that the scope and definition of COGs should not be expanded.

122. The CAISO has adequately addressed earlier concerns regarding infeasible schedules and the possibility that the CRR settlement will be distorted by setting nodal price differences that are opposite to the direction of congestion. Overall, this modified proposal achieves the objective of creating prices that realistically reflect the cost of serving load in each interval in a manner that is consistent across the forward and real-time markets. This proposal is consistent with the Commission's guidance in the October 28 Order.⁷⁷

6. Marginal Losses

CAISO proposal

123. In the CAISO's July 2003 filing, the CAISO proposed to incorporate the cost of losses into the LMPs produced by the day-ahead IFM optimization using marginal losses rather than average losses.⁷⁸ In the IFM, the Scheduling Coordinator would estimate the amount of losses it will be responsible for and self-schedule additional supply to cover the estimated losses, using the payment for the excess supply to offset the cost of losses. Any over-collection would be refunded through the Congestion Revenue Rights Balancing Account.⁷⁹

Commission's October 28 Order

124. In its October 28 Order, the Commission found the CAISO's proposal to use marginal losses in its calculation of LMPs to be appropriate because this approach is necessary to assure a least-cost dispatch. The Commission further noted that "an average loss mechanism results in prices that produce a higher cost dispatch and adds to uplift charges"⁸⁰ and that the marginal loss approach is preferable to an average loss construct.

⁷⁷ October 28 Order at P 89.

⁷⁸ The CAISO currently uses an average loss approach known as "scaled marginal" losses.

⁷⁹ The CRR Balancing Account collects the excess revenues generated in hours when total net congestion charges exceed required net CRR payments and then distributes these revenues to keep CRR holders whole in hours when congestion charges are inadequate.

⁸⁰ October 28 Order at P 77.

125. The Commission also found the CAISO's proposed method of refunding over-collected losses through the CRR Balancing Account to be reasonable. However, the Commission voiced concern as to how an entity that self provides for losses would be compensated through the CRR Balancing Account and directed the CAISO to clarify this allocation methodology.

Revised CAISO Proposal

126. The CAISO made no revisions to its marginal losses proposal from July 2003. However, it admitted that it may be more precise to create a separate balancing account for loss revenues, but noted that such a system would be more complex and costly. The CAISO asserted that using the CRR Balancing Account should achieve the result of refunding excess revenues to load, since any monies remaining in the CRR Balancing Account reduce the Transmission Access Charge paid by all load.

Comments

127. Comments resulting from the January and March technical conferences center on three themes: physical self-provision of losses, preference for an average loss framework, and potential for cost shifts through use of the CRR Balancing Account. The comments below reflect the most recent position of parties. Following the discussion at the January 28-29 technical conference, comments filed by participants seemed to indicate a better understanding of the CAISO's proposal. However, there remains some disagreement over the proper methodology for allocating the surplus revenues.

128. In its comments, the CAISO clarified that a Scheduling Coordinator cannot explicitly self-provide, but can approximate self-supply by scheduling additional supply in excess of its demand to meet its estimated loss obligation. Sempra opposed the self-provision mechanism and urged the Commission to reject it. AWEA and CERS stated that the approach to self-scheduling disadvantages remotely-located resources (such as wind, geothermal and biomass facilities), contrary to public policies that favor such renewable resources.

129. AWEA argued that collection of full marginal losses will necessarily result in an over-collection and that absent a mechanism to return such over-collection to those overcharged, this proposal is flawed. Consequently, AWEA recommended avoiding the over-collection in the first place by using a scaled marginal loss design. Alternatively, AWEA supported the proposal put forth by FPL Energy, creating a secondary market for trading losses. IEP agreed that the marginal loss methodology is flawed and joined AWEA in supporting FPL's proposal.

130. FPL submitted a white paper with its comments detailing an alternative proposal for calculating marginal losses. FPL argued that the CAISO's proposed reallocation methodology distorts price signals to load, and is therefore unjust and unreasonable. FPL asserted that concerns about how to reallocate the over-collected revenues could be resolved if generators and load were allowed to trade their marginal loss obligations in an ex-post market.

131. Under FPL's proposal, LMPs would be established for the day-ahead and real-time markets using the marginal loss mechanism, just as proposed by the CAISO. However, FPL would have the CAISO establish an additional financial market (an ex-post market) for trading energy at a pre-designated bus, or hub, after the close of the real-time market. The ex-post market would establish an alternative set of payments from participating loads to participating sellers (*i.e.*, different from payments associated with day-ahead and real-time LMPs) that could reduce or eliminate the surplus revenues associated with marginal losses. In trading at the hub, each participant would be required to self-provide losses from its location to the hub. For most participants, the amount of losses required to be self-provided would be less than marginal losses. As a result, the net compensation for most sellers to transact at the hub would be higher – and the net payment for most buyers to transact at the hub would be smaller – than in the day-ahead or real-time markets. The total revenues collected from buyers in the ex-post market would match the total revenues paid to sellers, leaving no revenue surplus from losses for the energy clearing in the ex-post market. FPL argues that its proposal reduces or eliminates the need to distribute surplus revenues without distorting short run economic decisions, although it concedes that its proposal could adversely affect long run decisions by blunting the disincentive for participants to locate in regions where they would tend to increase system losses.

132. The CPUC claimed that under the CAISO's proposal there is no direct relationship between the loads that overpaid for losses and the recipients of the returned overcollections. Thus, the proposed disposition of the loss overcollection creates a potential cost shift between loads. The CPUC initially suggested establishing a separate fund for crediting and returning overcollections, thereby reducing or eliminating such a cost shift. The CPUC stated in later comments that it can support the CAISO's proposal to collect full marginal losses, with the return of over-collected revenues through the CRR Balancing Account. Similarly, Sempra requested that the Commission finalize the CAISO's proposal.

133. The Bay Area Transmission Group put forth an alternative for allocating over-collected revenues that calls for over-collections to be allocated in proportion to the difference between marginal losses and average losses to the loads that have been overcharged. It stated that refunds of over-collections should not be tied to the holding of CRRs. SVP echoed the Bay Area Transmission Group's comments.

134. CERS stated its concern that the CAISO's proposal will have an adverse impact on the settlement of energy trades under zonal contracts. It is concerned that sellers might be able to deliver at a lower-price node and collect revenues through financial counter-flow payments. CERS also believes the settlement process "should be capable of tracking all transactions and compensate all parties for incurred overpayments."⁸¹

135. CMUA faulted the CAISO proposal for lack of analysis as to the improvements in dispatch efficiency that the use of marginal losses may bring. CMUA also stated its concern that the use of marginal losses may inhibit new renewable resource development. Finally, CMUA supported the idea of returning excess revenues to load, but urged further study on how to distribute the monies, stating that the CRR Balancing Account may not be the best alternative.

136. Metropolitan asserted that "it is universally acknowledged that marginal losses will be vastly overcollected" and that this "suggests the potential for serious economic distortion and adverse impacts."⁸² Metropolitan also voiced concern that the CAISO has not provided information regarding selection of the reference bus from which marginal losses will be calculated and noted that it is more difficult to self-provide losses if they are determined on a marginal basis. Metropolitan agreed that any overcollection should be distributed to load, but was unable to support use of the CRR Balancing Account due to lack of information from the CAISO. Metropolitan suggested using excess revenues to fund congestion payments to CRR holders for their accepted hour-ahead schedules, or, in the alternative, creation of a separate balancing account for losses.

137. NCPA and SVP asserted that the CAISO's marginal loss proposal does not reflect cost-causation principles. In particular, they noted "losses are determined by the choice and location of resources to serve load.... By contrast, the refunding mechanism proposed would be based on a customer's total use of the grid...and refunds are made on an average basis."⁸³

138. Powerex stated its position that "exports also should be allocated a portion of the over collection of marginal losses" because, "like load, an export is a withdrawal from the CAISO system that pays for marginal losses."⁸⁴ Powerex asserted that "the CRR

⁸¹ Comments of the California Energy Resources Scheduling Division on California Independent System Operator Corporation's Comments Regarding Technical Conference, page 8 (May 19, 2004).

⁸² Comments of the Metropolitan Water District of Southern California on CAISO's Comments RE Technical Conference, pages 6-7 (May 19, 2004).

⁸³ Comments of the Northern California Power Agency and the City of Santa Clara, California, Silicon Valley Power, pages 6-7 (May 19, 2004).

⁸⁴ Comments of Powerex Corp., page 3 (May 19, 2004).

Balancing Account proposal should be modified to ensure that CRRs are allocated to any entity that contributes materially to the embedded cost of the transmission system, not solely those entities within the CAISO Control Area.”⁸⁵ Powerex also called for more analysis to determine the financial impact of marginal losses.

139. SMUD pointed out several deficiencies in the CAISO’s proposal, specifically (1) the treatment of ETC transactions is not addressed; (2) there is no mechanism for addressing over- and under-deliveries by entities self-providing losses; (3) the excess revenue refund mechanism is faulty and should include all entities that contribute materially to the embedded cost of the transmission system; and (4) the CAISO’s methodology may overstate marginal losses by failing to model constrained transmission into the marginal loss calculation. SMUD suggested creating a separate balancing account to collect all loss revenues associated with transactions utilizing ETCs and then refunding the revenues to ETC customers on a proportionate basis.

140. SoCal Edison stated its preference that overcollected revenues be returned to those who pay for the losses and the transmission system, namely, the load. It added that “the excess revenues should be distributed in a manner that does not allow a party...to directly influence its refund” by increasing purchases or sales.⁸⁶ SoCal Edison supported the CAISO’s proposal to refund excess revenues through the CRR Balancing Account and, if funds remain, the transmission revenue requirement of the Participating Transmission Owner. Regarding the self-provision of marginal losses, SoCal Edison argued that a Scheduling Coordinator can estimate the amount of losses it will be responsible for and self-schedule additional supply to cover the estimated losses.

141. In reply comments filed June 3, the CAISO notes that issues of CRR allocation, such as those raised by Powerex and SMUD, will be addressed in the CRR stakeholder process currently underway.

Commission Determination

Losses

142. We accept the CAISO’s proposal to use marginal losses in its calculation of LMPs because this approach helps to assure a least-cost dispatch. When prices at each location reflect the full marginal cost of delivery, (i.e., energy, congestion and losses), customers

⁸⁵ Id.

⁸⁶ Southern California Edison Company’s Comments on the CAISO’s May 11 revised proposal, p. 11 (May 19, 2004).

can make efficient choices among suppliers at different locations. The full marginal cost of delivering electricity to a customer at one location includes the marginal cost of the losses in moving the energy from the generator to the customer's location.

143. For example, if the marginal losses to deliver energy from a remote generator to a customer at another location are 10 percent, then in order to deliver 1 MWh to the customer, the remote generator must produce 10 percent more, or 1.1 MWh of energy. If the remote generator's marginal cost to produce 1 MWh is \$50, then the marginal cost of delivering 1 MWh of energy to the customer is \$55 (i.e., the marginal cost of producing 1.1 MWh). Suppose that the customer could be served with energy either from the remote generator or from a local generator whose losses would be de minimus and whose marginal production cost is \$53/MWh. If the buyer fails to consider, and is not required to pay for, losses, the remote generator would appear to be cheaper, since its marginal production cost (of \$50/MWh) would be lower than the \$53/MWh marginal production cost of the nearby generator. However, when marginal losses are considered, the nearby generator would be the more efficient source. That is because the marginal cost of delivering energy to the customer from the nearby generator would about the same as the marginal production cost of \$53/MWh (since losses would be de minimus), while the full marginal cost to deliver energy from the remote generator would be higher, i.e., \$55/MWh. Thus, in determining what supply sources can most efficiently serve customers, the cost of marginal losses should be considered. Failure to consider marginal losses – or to understate marginal loss costs – can inefficiently inflate the total cost of serving load.⁸⁷

Distribution of Surplus Revenues

144. It is a characteristic of transmission systems that losses increase with the amount of electricity transmitted, and at an increasing rate. As a result, if all transmission customers are charged for the cost of marginal losses, the total revenues collected will exceed the total costs actually incurred for losses, as the parties in this proceeding recognize. We note, however, that surplus monies that result from a marginal loss approach are not the result of any individual entity having overpaid, and thus no refunds are due any one entity. While there has been a surplus collection on an aggregate level,⁸⁸

⁸⁷ For example, applying a system-wide average loss factor of three percent results in the same inefficient dispatch: the distant generator will appear to have a marginal cost of \$51.50 while the local generator would appear to have a marginal cost of \$54.59. Use of this average loss factor would obscure the true marginal cost (\$55) of delivering the next MW from the distant generator.

⁸⁸ This result is similar to the surplus revenues resulting from the aggregate collection of congestion revenues in an LMP system, which results because the total charges collected from loads exceeds the total payments made to generators.

no one entity can claim to have overpaid. The collection of marginal losses is a more accurate representation of losses at each and every node on the grid, and each entity has paid the appropriate value of energy, conservation, and demand response at each node.

145. The Commission and commenters agree that the CAISO should not retain surplus revenues. We further agree with the CAISO and SoCal Edison that the surplus should be distributed in a way that does not distort the marginal cost price signal and does not influence participants' decisions regarding procurement of energy or transmission service. As discussed below, we conclude that CAISO's proposal achieves this objective. There are several ways that could be used to distribute the revenue surplus that could achieve this objective. We believe it is reasonable to distribute these monies to the parties that pay transmission costs.⁸⁹

146. The CAISO's proposal would distribute the surplus to the CRR Balancing Account.⁹⁰ CRRs would be allocated to loads who pay the fixed costs of the transmission grid, although initial holders of CRRs may sell their CRRs to others. Thus, the CAISO's proposal effectively distributes most or all of the surplus to loads who have paid for fixed transmission costs. This method preserves the marginal cost price signal, since the amount of the surplus received by a customer would not be affected by its choices among energy suppliers. We find the CAISO's proposal for distributing the surplus to be reasonable. We also find that FPL's proposal is inferior to the CAISO's proposal. FPL concedes that its proposal could distort long-run decisions; and we believe that its proposal could also distort short run decisions. While LMPs in the day-ahead and real-time markets would reflect marginal costs, the ex-post market provides an opportunity for sellers to receive compensation above the LMP at their locations and for buyers to pay

⁸⁹ The NYISO and ISO New England distribute the revenue surpluses associated with marginal losses in somewhat different ways, although both of their methods result in much or all of the surplus going to loads. The NYISO distributes the surplus to those who pay the Schedule 1 charges, which includes the ISO's operating costs and most categories of uplift. Loads pay 85 percent of the Schedule 1 charge generators pay the remaining 15 percent. See, New York Independent System Operator, Inc., FERC Electric Tariff Original Volume No. 1, Schedule 1 (see Fourth Revised Sheet No. 236 and Attachment K, Original Sheets No. 514 and 515). ISO New England distributes the revenue surpluses to real-time adjusted load obligations. See New England Power Pool, FERC Electric Rate Schedule No. 7, Market Rule 1, section 3.2.1 - NEPOOL Standard Market Design.

⁹⁰ The CAISO proposed crediting the surplus loss revenue to the CRR Balancing Account and distributing it to those entities that hold CRRs. CRRs are initially allocated to loads who pay for most of the fixed cost of building the transmission grid. Any revenues left after that disbursement would flow to the loads through a reduction in the Transmission Access Charge.

amounts below the LMPs at their locations. This feature would distort long run decisions because new entrants could see the opportunity to receive higher compensation than under LMP at locations distant from load, due to the fact that their compensation would not be fully reduced by the marginal cost of losses. This feature would distort short-run decisions by encouraging high-cost suppliers to alter their bids and distort the real-time dispatch. The ex-post market would be available only to participants that actually transact physical energy in the day-ahead or real-time markets. As a result, high-cost sellers (including sellers whose costs are high because of high marginal losses) would have an incentive to shave their bids in the day-ahead and real-time markets in order to be accepted in these markets. By shaving their bids, higher-cost suppliers may displace lower-cost suppliers in the physical dispatch. The CAISO's proposal would avoid these distortions, and thus, we find it superior to the FPL proposal.

147. While we believe a marginal loss approach provides for the most efficient dispatch, we would be concerned if this application were to substantially raise implementation costs of the CAISO's [market](#) redesign. We note that, if in the process of further developing the marginal loss proposal and tariff language the CAISO and market participants determine that use of average losses at inception would be more easily administered and less costly, then the CAISO may file to use average losses when it makes its tariff filing.

Self Provision of Losses

148. While there was some discussion at the technical conferences as to how an entity that self provides for losses would be treated, the issue of how that entity would be compensated through the distribution of surplus revenues has still not been resolved. The CAISO should address this issue in the tariff filing directed in this order.

Objections to Marginal Losses

149. We do not agree with AWEA that California's existing method for charging for losses, i.e., the scaled marginal loss method,⁹¹ is preferable to full marginal losses. Scaled marginal losses differ from full marginal losses, and thus, fail to send accurate price signals regarding the least cost way to serve load.

Intermittent Resources

150. As evidenced by the discussion above, the Commission places strong emphasis on the importance of an efficient, least-cost dispatch. However the Commission recognizes the additional costs that a move to a marginal loss mechanism will place on wind and other remote intermittent resources. Marginal losses are an appropriate method for sending proper signals with regard to short-term dispatch and long term investment and siting decisions. Losses increase with distance and, through the signals sent via the marginal loss calculation, generators are provided an incentive to locate near load centers. By siting generation near load, generators are able to minimize the losses incurred when transmitting energy, thereby minimizing the cost, for example, of serving load at that node. It is important to note, however, that wind generators are less able than, e.g., gas-fired resources to respond to the signals intended in marginal losses by choosing to locate near load. More so than most resources, wind resources must locate where the resource is available. Given that marginal losses are a function of distance, it is conceivable that any protocol that results in greater loss charges will significantly discourage wind resource development.

⁹¹ Under CAISO's existing scaled marginal loss system, generators are charged for losses through a system of "Generator Meter Multipliers." Through a computer simulation, each generator's marginal loss factor is estimated by simulating an increase in its output by a small amount, distributing the extra production throughout the grid to all locations on a load ratio basis, and calculating the percentage of the produced energy that would be lost in delivering it to the loads. Once all marginal loss factors are calculated, each generator's factor is scaled down by an equal percentage so that the total amount collected for losses matches the total actual losses. Each generator's scaled down factor is used to determine its Generator Meter Multiplier, which determines the proportion of its output that will be adjusted to account for losses. For example, if a generator's scaled marginal loss factor is 10 percent, then it will be paid the energy price for 90 percent of its output, (and the value of the remaining 10 percent will be kept by the ISO to pay for losses). See CAISO Tariff section 7.4.2.2 on First Revised Sheet No. 215. The generator will be assigned the same generator meter multiplier regardless of the customer that it actually sells to, even though the losses incurred to deliver energy to a customer varies depending on the location of the customer.

151. We note that the State of California has taken an aggressive approach in fostering the development of wind generation. The State currently has policies in place to encourage the development of wind generation, including the state-sponsored Renewable Portfolio Standard (RPS)⁹² and the CAISO's Participating Intermittent Resource Portfolio Standard (PIRP).⁹³ The CASIO has committed to helping the State reach its renewable energy goals with programs such as the PIRP. It is in line with the principles inherent in these programs that this Commission is concerned with the impact that a marginal loss regime will have on the ability for wind generation to continue to be a viable source of low-cost, renewable power to the consumers in the State of California.

152. The Commission notes that certain regions of the country have been more proactive in fostering development of wind generation than others. California has been the most aggressive in taking steps to remove the operational and regulatory obstacles that wind generation faces. Due to the innovation shown by the State through programs like the RPS and the PIRP, California now leads the nation in installed capacity for wind.

153. While the CAISO's marginal loss approach is just and reasonable, we provide the opportunity for California State entities to offer proposals to counter any negative impact of marginal losses on wind and other remote intermittent resources and invite comments within 30 days.

7. Virtual Bidding

154. The CAISO in its July proposal did not seek to include virtual bidding as part of its overall design. The CAISO has argued that there may be benefits to virtual bidding, but it does not believe that it would be prudent to implement virtual bidding at the outset

⁹² The Renewable Portfolio Standard was adopted by the California Legislature in 2002. The RPS calls for 20 percent of California's energy consumption to be served by renewable energy sources by the year 2017.

⁹³ The Participating Intermittent Resource Program recognizes the special operating characteristics of intermittent resources and provides a process for forecasting and scheduling Energy and settling deviations between scheduled and metered Energy by Eligible Intermittent Resources that elect to participate in the PIRP. The PIRP provisions were approved by the Commission in March 2002. See California Independent System Operator Corporation, 98 FERC ¶ 61,327 (2002).

of the new market design. The CAISO argues that no other independent system operator implemented virtual bidding at the outset of its markets and asserts that the CAISO should not be required to do so either.⁹⁴

155. Commenters have argued that virtual bidding will create liquidity in the California markets, provide the market with the proper price signals, facilitate demand response by providing market price signals upon which to make rational economic decisions, promote convergence of day-ahead and real-time prices, and eliminate the incentive for load to underschedule in the day-ahead markets.

156. In our October 28 Order, we agreed with intervenors on the benefits of virtual bidding, but we deferred to the CAISO's arguments for delaying the implementation of virtual bidding. We noted that the CAISO stated it would continue assessing the merits of explicit virtual bidding and would explore when it may be appropriate to allow such bidding. We recommended that the CAISO, along with stakeholders and market participants, continue to address the issue of virtual bidding.

157. However, in comments filed it has become clear to the Commission that the absence of virtual bidding has the potential to create many other problems in the operation of California's markets. Virtual bidding would help ameliorate issues regarding temporal market power, physical scheduling incentives, day-ahead pricing of constrained output generation, and the financial risks associated with real-time scheduling deviations.

158. While we understand the CAISO's desire to become familiar with the workings of the day-ahead market before allowing virtual bidding, we cannot ignore the likelihood that the benefits of allowing virtual bidding (and the operational problems caused by the absence of virtual bidding) may outweigh the costs and possible short-term learning curve associated with implementation of virtual bidding with the CAISO's day-ahead market. Moreover, we note that virtual bidding may help protect customers by curbing potential exercises of market power. Buyers and sellers with market power may have the ability to price discriminate between the forward and spot markets for electricity, resulting in the forward price being different than the expected spot price. Allowing virtual supply and demand bidding can reduce this opportunity and avoid having participants using physical schedules as a means to hedge financial expectations. Finally,

⁹⁴ Virtual Bidding involves the submission of bids to buy or sell energy in the forward market that will not ultimately be produced or consumed by the bidder in real-time. Virtual bids allow a participant to buy (or sell) electricity in the day-ahead market and to simultaneously assume an opposite obligation to sell (or buy) an identical amount of electricity in the real-time market. Virtual load and virtual supply transactions are financial transactions only, and have no effect on real-time physical energy consumption or the physical commitment of energy resources for purposes of system reliability.

since virtual bidding reduces the price differential between real-time and day-ahead prices, it also reduces the financial risks associated with the inevitable real-time deviations from each customer's day-ahead schedule.

159. We further note that MISO proposes to implement virtual bidding simultaneously with the implementation of its day-ahead market, and has not seen the need for a delay.⁹⁵ We believe that the benefits of virtual bidding outweigh the fears of a short-lived implementation learning curve and should be implemented when the CAISO implements its day-ahead market. We therefore direct the CAISO to submit, as part of the tariff filing directed in this order, either tariff sheets to implement virtual bidding simultaneously with the implementation of the day-ahead market, or a full explanation of why this should not be done, and the date when it would be implemented.

C. Further Procedures And Timelines

160. In the preceding sections, we provided direction to the CAISO on seven issues. The CAISO should submit tariff revisions consistent with the above direction within 180 days of the date of issuance of this order so that the Commission may rule on the filing in sufficient advance to allow the CAISO to meet its implementation time lines. With these issues now addressed, we turn to three additional issues: existing transmission contracts, sellers' choice contracts, and CRR allocation. For each of these issues, the Commission provided broad guidance in the October 28 Order and directed the CAISO to provide process and information to resolve the outstanding issues. These three issues are interrelated and should be resolved in an orderly manner.

1. Existing Transmission Contracts (ETCs)

161. In the October 28 Order, the Commission noted merit in the CAISO's proposal especially as it strove to address "phantom congestion," but also noted the lack of necessary details. For example, the Commission stated that it appears that the proposal may alter the rights of ETC holders if deviations to schedules submitted by ETC holders cannot be accommodated but that the extent of this is not presently known. The Commission, as an initial step, required the CAISO to conduct further analysis of the proposal to demonstrate the likelihood of ETC holders experiencing a diminution of contractual rights if the revised scheduling process is adopted and to present the results of this analysis to market participants and interested parties for further consideration and discussion. The Commission stated that it would be in a position to provide a definitive ruling on the ETC proposal only when further details have been settled and submitted for our consideration.

⁹⁵ We note that ISO-NE, NYISO, and PJM currently allow for virtual bidding in their markets.

162. On March 5, 2004, the CAISO posted on its website a White Paper about the development of its proposal for dealing with ETCs.⁹⁶ In it, the CAISO states that the CAISO's preference is to have all existing ETCs converted into CRRs, but that this is unlikely to happen until after implementation of other CAISO redesign elements. It is clear that the resolution of ETC issues will affect the manner in which the proposed CRR allocation proceeds. Through the March 5 White Paper, the CAISO has started to address the issues raised by the Commission in the October Order, including an analysis of the likelihood of diminution of ETC rights under the CAISO proposal and consequence of implementation, including potential variations in costs. According to the March 5 White Paper, the CAISO expected to have a final design proposal in the second quarter of 2004. The CAISO is hereby directed to inform the Commission within 15 days of the date of issuance of this order of any updates to its proposed stakeholder process (from that set forth in its March 5 White Paper) and the timeline and events that finalize the ETC issue such that tariff language will be filed by the end of December 2004.

163. In addition, so that the Commission has a full record before it on which to base its decision on the CAISO's proposal, public utility parties providing service under ETCs are directed to file the following information in Docket No. ER04-928-000 within 30 days of the date of issuance of this order and we invite non-jurisdictional parties to do likewise on a voluntary basis: (1) the name of the entity responsible under the contract for scheduling the contract; (2) the type of agreement, e.g., point to point, system integration; (3) the source point(s) applicable to the ETC; (4) the sink point(s) applicable to the ETC; (5) the maximum number of megawatts transmitted pursuant to the ETC for each set of source and sink points; (6) whether any modification to the ETC is subject to a "just and reasonable" standard of review or a Mobile-Sierra "public interest" standard of review; (7) the contract termination date; and (8) the FERC designation for the contract, if applicable.⁹⁷ Filings may be made electronically, using the eFiling system and the procedures that have been established for such filings.⁹⁸

164. This information, to be filed no later than July 23, 2004, will be used to form the basis of further proceedings, whether staff technical conferences, additional fact finding, trial type hearing, or further Commission order.

⁹⁶ CAISO White Paper "Proposal for Honoring Existing Transmission Contracts" March 5, 2004 (March 5 White Paper). Market Participants filed comments with the CAISO on March 29, 2004 in response to its White Paper, and the CAISO has announced its intention to hold further stakeholder discussions.

⁹⁷ Information should be submitted in an Excel spreadsheet.

⁹⁸ Please refer to the Commission's website for further information:
<http://www.ferc.gov/docs-filing/efiling/procedures.asp>.

2. Sellers' Choice Contracts

165. In the October 28 Order, we found that sellers' choice contracts in other regions had been successfully addressed by the parties to those contracts as commercial matters. At the time of the October 28 Order the CAISO committed to undertaking a White Paper to help parties better understand and assess how bilateral contracts can be accommodated under nodal pricing. The CAISO issued its paper on March 9, 2004,⁹⁹ market participants commented on the paper, and as recently as May 28, 2004, the CAISO posted additional materials showing illustrative examples of the impact of nodal pricing on pre-existing bilateral energy contracts. The Commission appreciates the CAISO's work on this issue and believes that it can serve as the basis for the hearing we order below.

166. While we continue to believe that these contracts represent commercial matters best left to resolution between parties to these contracts, these contracts appear to stand in the way of needed reforms to the reliable operation of the CAISO grid and may therefore be unjust and unreasonable. Accordingly, we will institute a section 206 proceeding before an administrative law judge (ALJ) for the purpose of investigating, in a structured fashion, the feasibility of both upholding these contracts without modification and implementing the CAISO's proposed redesign including the degree to which these types of contracts present market inefficiencies and are not operationally and economically compatible with the CAISO's proposed redesign; and the options for resolving the issues surrounding the sellers' choice contracts.¹⁰⁰ In particular, the ALJ should explore with the parties and the CAISO the viability of creating a trading hub or other commercial solution as a means of addressing the issues presented by the sellers' choice contracts. The ALJ should also gather applicable information on the universe of implicated contracts including not only contract terms such as duration and delivery location but also extension of these contracts to other entities in the market, *i.e.*, whether the parties to these contracts have effectively hedged positions by using other financial/contractual means. The ALJ should report this information and her/his findings to the Commission no later than September 15, 2004.

⁹⁹ Alternatives for Mitigation the Impact of Nodal Pricing on Pre-Existing Bilateral Energy Contracts.

¹⁰⁰ The contracts listed in Attachment B are listed on the CERS website at http://wwwcers.water.ca.gov/power_contracts.cfm. The ALJ should determine which of these contracts are at issue here.

3. Further Development of Congestion Revenue Rights Proposal

167. In the Commission's October 28 Order, guidance was provided in relation to the CAISO's preliminary proposals concerning the replacement of the existing "point to point" Firm Transmission Rights with "source to sink" CRRs, and the proposals to alleviate the problem of "phantom congestion" by modifying the way the CAISO reserves capacity for ETCs. The CAISO has not filed any further submission with the Commission on this proposal. However, we note that the CAISO is having discussions on this topic and intends to more fully develop its proposal on CRRs in consultation with market participants.¹⁰¹

168. In our October 28 Order, we expressed concern about the lack of detail in the proposed mechanism by which CRRs would be allocated, noting that the CRR study proposed by the CAISO has not yet been completed. This concern was shared by many market participants in their submissions made in advance of the October 28 Order. We reiterate our previous comments that the adoption of CRRs as a risk management tool for participants in the newly modified California electricity framework is a concept that is supported by the Commission.¹⁰² The Commission also gave considerable guidance on other CRR issues, including whether CRRs should be adopted as obligations or options, issues related to physical scheduling priority for CRR holders, the use of CRRs for ancillary services, and the allocation of CRRs to third parties for transmission expansion projects. While the CAISO is proactively developing its CRR proposal with market participants, there are further details of the CRR proposal that need to be resolved, and the Commission continues to have concerns about the CAISO's progress in resolving these matters. We note that some stakeholders have taken the opportunity in recently filed comments to express similar views.¹⁰³

169. In particular, we note that the CAISO proposes to call for requests for CRR allocations to be submitted prior to developing the final rules for CRR allocations and auctions. We have difficulty understanding how participants could be in a position to know what allocation of CRRs they will require if the detailed rules for the allocation

¹⁰¹ The CAISO has issued several discussion papers on this topic, including "Proposed Network Service Right Definition for the CRR Allocation" dated March 2004 and "Development of Allocation Rules for Congestion Revenue Rights" dated March 2004, and has sought feedback from stakeholders in relation to this issue. See <http://www.aiso.com/docs/2002/08/23/200208231357355753.html>, under "CRR" heading.

¹⁰² October 28, 2004 Order at P 171.

¹⁰³ Including SMUD, which states "...CAISO's promise to address CRRs at some unspecified future date is simply not an acceptable response to the concerns raised here." Response of SMUD to the CAISO's May 11 revised proposal, at page 10.

have not yet been developed. Participants will need a considerable measure of certainty in the CRR concept and the manner in which it will work to be in a position to determine their needs for CRRs. As CRRs are a tool that will allow participants to plan for the future and mitigate financial risks, expedited development and publication of details of the proposed methodology for the allocation of CRRs must occur. We therefore require that the mechanism for allocation of CRRs should be explained in some detail prior to the allocation process commencing.

170. We acknowledge that there are some fundamental elements of the CAISO's proposal that will affect the manner in which CRR allocation is resolved, such as the process for dealing with ETCs and pre-existing bilateral energy contracts. These issues should be resolved so that the CRR allocation methodology can be finalized. However, we believe it would be worthwhile to raise and discuss all issues of concern as part of the general resolution of all these inter-related elements of the proposal, rather than to do so in a piecemeal way, recognizing the potential for each element to affect the resolution of the others. We therefore direct staff to convene a technical conference wherein participants are encouraged to be prepared to discuss the CRRs and the issues they see in relation to the direction in which the CAISO's CRR proposal is proceeding. We expect that this will have the effect of at least flagging issues concerning CRRs that may arise as a consequence of the proposed resolution of ETCs and the treatment of pre-existing bilateral energy contracts, and will assist the CAISO to resolve and develop its CRR proposal expeditiously.

The Commission orders:

(A) The CAISO should submit tariff sheets consistent with the above discussions within 180 days of the date of issuance of this order.

(B) Staff is directed to convene a technical conference as outlined in the body of this order.

(C) Pursuant to the authority contained in and subject to the jurisdiction conferred upon the Federal Energy Regulatory Commission by section 402(a) of the Department of Energy Organization Act and by the Federal Power Act, particularly section 206 thereof, and pursuant to the Commission's Rules of Practice and Procedure and the regulations under the Federal Power Act (18 C.F.R., Chapter I), a public hearing shall be held in Docket No. EL04-108-000 concerning issues related to sellers' choice contracts, as discussed in the body of this order.

(D) The Secretary is directed to publish a notice of this section 206 proceeding in the Federal Register.

(E) The refund effective date established pursuant to section 206(b) of the FPA will be 60 days following publication in the Federal Register of the notice directed in Ordering Paragraph (D) above.

(F) A presiding administrative law judge, designated by the Chief Administrative Law Judge, shall convene a conference in this proceeding, to be held as soon as practicable after the date on which the Chief Judge designates the presiding judge, in a hearing room of the Federal Energy Regulatory Commission, 888 First Street, N.E. Washington, D.C. 20426. Such conference shall be held for the purpose of establishing a procedural schedule. The presiding administrative law judge is authorized to establish procedural dates, and to rule on all motions (except motions to dismiss), as provided in the Commission's Rules of Practice and Procedure.

(G) The presiding administrative law judge is directed to issue written findings summarizing the result of the hearing proceeding, and to present these findings to the Commission at its public meeting on September 15, 2004.

(H) Public utility parties providing service under ETCs are directed to file information, as described above, in Docket No. ER04-928-000 within 30 days of the date of issuance of this order. We invite non-jurisdictional parties to do likewise on a voluntary basis.

By the Commission. Commissioner Kelly not participating.

(S E A L)

Linda Mitry,
Acting Secretary

ATTACHMENT A**Comments**

American Wind Energy Association (AWEA)
Bay Area Municipal Transmission Group (Bay Municipals)
California Department of Water Resources (CDWR)
California Energy Resources Scheduling Division of the California Department of Water Resources (CERS)
California Municipal Utilities Association (CMUA)
California Public Utilities Commission (CPUC)
Calpine Corporation
City of Redding, California (Redding)
Duke Energy North America LLC and Duke Energy Trading and Marketing LLC. (Duke Energy)
Dynegy Power Marketing, Inc., El Segundo Power LLC, Long Beach Generation LLC, Cabrillo Power I LLC, Cabrillo Power II LLC and Williams Power Company, Inc. (Dynegy/Williams)
FPL Energy, LLC (FPL)
Independent Energy Producers Association
Maine Public Utilities Commission
Metropolitan Water District of Southern California
Mirant Americas Energy Marketing, LP, Mirant California, LLC, Mirant Delta, LLC, and Mirant Potrero, LLC (Mirant)
Northern California Power Agency (NCPA) and City of Santa Clara, Silicon Valley Power
Pacific Gas & Electric Company (PG&E)
Powerex Corp.
Reliant Energy Services, Inc., and Reliant Energy Power Generation, Inc. (Reliant)
Sacramento Municipal Utility District (SMUD)
Sempra Energy (Sempra)
Southern California Edison Company (SoCal Edison)
Williams Power Company, Inc.

ATTACHMENT B

**California Department of Water Resources
California Energy Resources Scheduling (CERS) Long-Term Power Contracts**

CalPeak Power, LLC
 CalPeak Power Border, LLC
 CalPeak Power El Cajon, LLC
 CalPeak Power Enterprise, LLC
 CalPeak Power Midway, LLC
 CalPeak Power Panoche, LLC
 CalPeak Power Vaca Dixon, LLC
Calpine Energy Services, L.P.
 Calpine Energy Services 1
 Calpine Energy Services 2
 Calpine Energy Services 3
 Calpine Energy Services 4
Clearwood Electric Company, LLC
Colton Power L.P.
Coral Power, LLC
Dynergy Power Marketing, Inc.
El Paso Merchant Energy, L.P.
Power Receivable Finance, LLC (A subsidiary of The Goldman Sachs Group, Inc.)
GWF Energy LLC
High Desert Power Project, LLC
Morgan Stanley Capital Group Inc.
Mountain View Power Partners, LLC
PacifiCorp Power Marketing, Inc.
Sempra Energy Resources
Shell WindEnergy Inc.
Whitewater Hill Wind Partners, LLC (Whitewater Hill)
Whitewater Hill Wind Partners, LLC (Cabazon)
Soledad Energy, LLC
Sunrise Power Company, LLC
Wellhead Power LLC
 Fresno Cogeneration Partners, L.P.
 Wellhead Power Panoche, LLC
 Wellhead Power Gates, LLC
Williams Energy Marketing & Trading Company
 Williams Energy Marketing & Trading Company Products A, B and C
 Williams Energy Marketing & Trading Company Product D