

108 FERC ¶ 61,254
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
ER02-1656-019

ORDER ON REHEARING OF
THE CALIFORNIA ISO'S MARKET REDESIGN

(Issued September 20, 2004)

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1. In this order, we respond to rehearing requests of an order issued by the Commission on June 17, 2004¹ concerning the further development of the market redesign proposed by the California Independent System Operator Corporation (CAISO).
2. This order benefits customers by clarifying aspects of the June 2004 Order and by providing further direction to the CAISO, ensuring that the operation of the California transmission grid can be undertaken with greater efficiency and reliability and maintaining momentum for the development of procedures for improved operation and administration of the CAISO grid.

I. Background

A. June 2004 Order

3. The June 2004 Order provided further direction by the Commission in relation to seven outstanding design issues being developed by the CAISO for the operation of the transmission grid that it controls: the must offer obligation, residual unit commitment, the hour-ahead market, ancillary services procurement, constrained output generators, marginal losses and virtual bidding. In addition, the Commission directed Commission staff to convene a technical conference to further develop the CAISO proposal relating to congestion revenue rights (CRRs).² The Commission also set for hearing the issues relating to sellers' choice contracts, and directed that public utilities providing service under existing transmission contracts (ETCs) file with the Commission certain information about those contracts.

B. History

4. In an order issued on January 7, 2000,³ 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,

¹ California Independent System Operator Corporation, 107 FERC ¶ 61,274 (June 2004 Order).

² A list of acronyms and abbreviations used in this order appears in Attachment B.

³ California Independent System Operator Corporation, 90 FERC ¶ 61,006, *reh'g denied*, 91 FERC ¶ 61,026 (2000) (January 2000 Order).

to be integrated with the revised congestion management plan that was directed in January 2000.⁴ The CAISO subsequently filed its Market Design 2002 (MD02) Proposal, to be implemented in three phases.⁵ On July 17, 2002, the Commission issued an order accepting in part, rejecting in part and directing modifications of the CAISO's MD02 proposal.⁶ In that order, the Commission also implemented a west-wide market power mitigation program.⁷

5. 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 order⁸ 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 the issues of flexible offer obligation proposal, residual unit commitment (RUC), ancillary services, marginal losses, constrained output generators, reserve shortage pricing and locational capacity requirements. A more comprehensive discussion of market power mitigation was deferred in order to allow

⁴ San Diego Gas & Electric Company, 97 FERC ¶ 61,275 at 62,245 (2001).

⁵ 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 (IFM), including an energy market and procedures for procurement of ancillary services; and Phase 3: implementation of the full network model, redesigned firm transmission rights (Congestion Revenue Rights or CRRs), and the integration of congestion management with energy and ancillary services market.

⁶ California Independent System Operator Corporation, 100 FERC ¶ 61,060 (2002) (July 2002 Order).

⁷ 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.

⁸ California Independent System Operator Corporation, 105 FERC ¶ 61,140 (2003) (October 28 Order).

participants an opportunity to evaluate the California Public Utilities Commission's (CPUC's) Procurement Decision,⁹ issued on January 22, 2004, in the context of the proposed market power mitigation design.

C. Procedural Matters

6. In this order, we address the rehearing requests on the seven issues discussed in the June 2004 Order that are due to be the subject of a tariff filing by the CAISO on or before December 14, 2004. We also clarify that, although it was not expressly incorporated as one of the seven redesign issues referred to in the June 2004 Order, we consider that the modifications contemplated by the seven redesign issues could not properly be implemented unless this is done against the backdrop of a functioning IFM. In addition, we will also comment on the progress of the three other significant issues that are not being addressed as part of this Order, but which are now being progressed in other proceedings. These three other issues are ETCs, sellers' choice contracts, and CRR allocation. The remaining conceptual issues, including market power mitigation measures and resource adequacy, will be addressed in a future order.

7. The parties shown in Attachment A¹⁰ to this order filed timely requests for rehearing, or requests for clarification and rehearing, or comments (as specified) in response to the June 2004 Order. On August 2, 2004, Powerex Corp. filed an Answer to the Requests for Clarification of the June 2004 Order, and on August 3, 2004, the CAISO filed a Response to Motions for Clarification, Motion for Leave to File an Answer and Answer. 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 request for rehearing unless otherwise ordered by the decisional authority. We will accept the answers of Powerex and the CAISO because they have provided information that assisted us in our decision-making process.

⁹ 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.

¹⁰ Attachment A also sets out the abbreviations used in this order to refer to parties to this proceeding.

II. Discussion

A. Flexible Offer Obligation/Real-Time Must Offer Obligation General

8. In the June 2004 Order the Commission determined that participation in the CAISO day-ahead market should be voluntary absent a contractual obligation requiring participation in the day-ahead market. Further, the Commission found the flexible offer obligation to be a superior alternative to the CAISO proposed day-ahead/existing real-time must offer requirement. If deemed necessary by the CAISO upon implementation of its market redesign project, the flexible offer obligation upon Commission approval will replace the existing real-time must offer requirement.

Comments

9. The CPUC argues that the June 2004 Order erroneously rejects the CAISO's proposed day-ahead must-offer obligation and eliminates the real-time must-offer obligation. The CPUC avers that the Commission should justify its reasoning for not maintaining a real-time must offer obligation in parallel with a fully functioning resource adequacy program and why physical withholding is no longer a threat to the stability of the California market.

Commission Response

10. Since the inception of the must-offer requirement in 2001, the Commission has viewed this requirement as a temporary measure. In the July 2002 Order we stated that, "We will consider removing the must-offer requirement in the future after we determine that adequate infrastructure and market design improvements have been made and Western market prices reflect competitive outcomes on a more consistent basis."¹¹ The Commission temporarily extended the must-offer requirement in the July 2002 Order in order to provide continued market stability until long-term, market-based solutions could be fully implemented. We find that this long-term solution will be achieved upon the implementation of the CAISO's market redesign, along with establishing a resource adequacy requirement. In Eastern ISOs, the obligation to bid has been associated with the supply of a resource adequacy product and has been in the day-ahead market.¹² Currently, California does not have a resource adequacy requirement in place. Until the resource adequacy requirement is implemented, it is inappropriate to place a mandatory

¹¹ July 2002 Order at P 35.

¹² See PJM Reliability Assurance Agreement, Article 7, Second Revised Sheet Nos. 23-26.

day-ahead obligation onto generators without a corresponding capacity payment. When the market design proposal goes into effect, the CAISO will have to decide if the resource adequacy requirements in place at that time are sufficient to meet its operational needs. If so, the flexible offer obligation will not be necessary and the existing real-time must-offer obligation will terminate. If on the other hand, the CAISO decides that the resource adequacy requirements are not sufficient to meet its operational needs, the CAISO should revise its proposal for Commission approval to incorporate the flexible offer obligation on an interim basis until the earlier of January 1, 2008 or the full implementation date of the CPUC resource adequacy requirement.¹³

11. In the interim, until resource adequacy has been implemented and evaluated in the context of the overall California market design, we believe that the flexible offer obligation is the appropriate tool for ensuring that supply is available in real-time and that a supplier is given an opportunity for adequate compensation. This is because the flexible offer obligation, unlike the real-time must offer, (1) ensures that a generator offers supplies into a market but provides greater flexibility for generators to offer supplies outside the CAISO's organized markets; (2) encourages (but does not require) generators to bid into the day-ahead market, thereby enabling the CAISO to select from the greatest number of resources to determine the least cost dispatch; (3) effectively substitutes for the current real-time must offer obligation process; and (4) effectively removes the call option associated with the extension of the must-offer obligation into the day-ahead must-offer obligation, thereby, eliminating the need for a capacity payment.

12. Further, we find that the CPUC's concern regarding the threat of physical withholding once the must-offer requirement is removed is addressed by the new market behavior rules now in effect. In the market behavior rules, we specifically addressed physical withholding. "If, for example, a seller is shown to have caused, or attempts to cause, an artificial shortage by physically withholding sufficient and otherwise available power from the market for the purpose of raising the sales price obtainable by other units participating in the market – the seller may be found to have engaged in market manipulation, as proscribed by Market Behavior Rule 2, *i.e.*, under these circumstances, there can be no legitimate business purpose attributable to such behavior."¹⁴ Any seller found to have engaged in the behavior prohibited by our rules will be subject to the disgorgement of unjust profits and any other appropriate non-monetary remedies, including suspension or revocation of seller's market-based rate authority."¹⁵

¹³ June 2004 Order at P 28.

¹⁴ Investigation of Terms and Conditions of Public Utility Market-Based Rate Authorizations, 105 FERC ¶ 61,218 at 62,147.

¹⁵ *See id.* at 62,143. *See also id.* at 62,162-63.

Waiver Process

13. Dynege/Williams seek clarification that (1) the CAISO's only ability to "deny" a waiver is to have the IFM/RUC offer accepted; and (2) there is no residual real-time offer obligation after a unit has had its offers in the IFM and RUC rejected or has otherwise received a waiver.

Commission Response

14. Dynege/Williams' explanation of (1) above is correct but not complete. The CAISO's ability to deny a waiver can be translated into: (a) accept a generator's bid in the day-ahead market or RUC, or know that if a generator did not bid day-ahead, they will be on in real-time, or (b) explicitly deny a waiver to a long start time unit.

15. In response to Dynege/Williams' request for clarification of (2), we note that while the flexible offer obligation is in place there is a residual real-time offer obligation under certain circumstances after a unit has had its offers in the IFM and RUC rejected, as explained below. In the June 2004 Order¹⁶ we stated:

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.

Extra-long Start-up Time Units

16. Dynege/Williams notes that the June 2004 Order does not address the treatment of extra-long start-up time units (start times from a cold start of 24 to 36 hours). Dynege/Williams state that because of their start-up requirements, it is not feasible to subject such units to a flexible offer obligation in any day-ahead market, at least when

¹⁶ June 2004 Order, note 14.

such units are not otherwise running. Dynegy/Williams request clarification that these units are exempt from the day-ahead flexible offer obligation because of their extra-long start-up times. Dynegy/Williams also request clarification that the capacity from the extra-long start-up time units should be subject to a multi-day-ahead RUC process.

Commission Response

17. We will clarify that extra-long start-up time units are exempt from the flexible offer obligation in the day-ahead market when such units are not otherwise running. Regarding Dynegy/Williams' clarification that extra-long start-up time units should be subject to a multi-day-ahead RUC process, we note that the CAISO envisioned a multi-day time horizon in order to take a realistic account of units with start-up times that are longer than one day (section 2.2.9, *Unit Commitment in the IFM*, paragraph 60 of the CAISO's July 2003 filing). We direct the CAISO to file in the December compliance filing, its procedure for incorporating extra-long start-up time units into the forward market.

Flexible Offer Obligation - Start-up and Minimum Load (SU/ML) Payments

18. Dynegy/Williams seek clarification that a resource committed under the flexible offer obligation will not lose its SU/ML costs if that energy is sold into the CAISO control area. In addition, Dynegy/Williams seek clarification that if a unit satisfies its Flexible Offer obligation by submitting a day-ahead bid and is taken, then the SU/ML costs should be paid, regardless of whether the unit subsequently delivers more or less energy than scheduled.

Commission Response

19. We will deny in part and grant in part Dynegy/Williams requests. First, under the flexible offer obligation, SU/ML costs will be netted against revenues from the sale of energy and ancillary services in all of the CAISO's spot markets, including day-ahead, hour-ahead and real-time markets. (SU/ML costs will not be netted against any revenues from bilateral sales, since the CAISO would not know what those bilateral revenues would be.) In the context of the must offer waiver process under existing market rules, SU/ML costs are not netted. Sellers retain all supplemental energy revenues in addition to their SU/ML costs when denied a must offer waiver. The existing must offer waiver, scheduling process and SU/ML netting treatment results from the inappropriate incentives that are created by the sequential approach to the CAISO unit commitment. The current treatment of SU/ML costs is part of the temporary measures to maintain system reliability and adequate market incentives given the existing flawed market design structure. A variant of this netting approach was in fact recently extended to ancillary

service markets to remove disincentives for the supply of ancillary services by must-offer resources.¹⁷ In an order on rehearing and compliance of Phase 1B,¹⁸ the Commission determined that ex-post revenues would continue not to be netted against minimum load costs. However, when the IFM is implemented, an adequate market mechanism will be available to allow these costs to be netted without adversely affecting market incentives. The integrated forward market will essentially replace the must offer waiver/commitment process and provide the CAISO with the ability to use energy and ancillary service bids to determine appropriate unit commitment. With the existence of the integrated forward market, the CAISO will be able to evaluate the revenues of generators at the time of commitment and ensure recovery of the SU/ML costs through supplemental payments if revenues from the integrated forward markets are insufficient. This methodology in the Eastern ISOs is generally referred to as the “bid production cost guarantee” and ensures that generators are assured adequate cost recovery when participating and committed in the ISO markets. Second, we agree with Dynegy/Williams that a unit’s SU/ML costs should not be rescinded due solely to delivering more or less energy than scheduled. We agree with Dynegy/Williams that the uninstructed deviation penalty to be implemented as part of Phase 1B is the appropriate penalty for such deviations, and that the unit should not be subjected to a double penalty by rescinding its SU/ML payments.

B. Residual Unit Commitment (RUC)

Re-bidding of Day-Ahead RUC Energy Prices

20. Several parties¹⁹ argue on rehearing that sellers of RUC capacity should not be allowed to re-bid the associated energy when selected for RUC. The CAISO contends that it is unduly discriminatory and preferential to allow RUC units the same re-bid opportunity as units that are not receiving an availability payment. The CAISO also states that the pricing scheme for RUC energy is inconsistent with the pricing of energy associated with ancillary services. In particular, the CAISO states that once suppliers’ capacity bids are accepted for ancillary services, suppliers are limited to the energy bid they submitted in the day-ahead market. The CAISO also asserts that given that suppliers are being guaranteed a non-rescindable availability payment, it is wholly inappropriate that they should be permitted to increase their previously submitted energy bids. The CAISO further contends that a resource committed under the RUC process is essentially assured of being “pivotal” in the real-time market because there is a high probability that

¹⁷California Independent System Operator Corporation, 108 FERC ¶ 61,022 at P89 (2004).

¹⁸ California Independent System Operator Corporation, 108 FERC ¶ 61,142 at P 77-78.

¹⁹ *See, e.g.*, Request for Rehearing of SoCal Edison, CPUC and the CAISO.

RUC capacity will be dispatched. As such, the CAISO contends that by allowing the RUC seller to raise its energy bid price after the day-ahead RUC process is tantamount to allowing the exercise of economic withholding. While the CAISO is opposed only to generators raising their bids after having been selected in the RUC process, SoCal Edison argues that generators should also be prevented from lowering their energy bids, in order to discourage gaming.

21. Dynegy/Williams support the Commission's acceptance of the re-bidding of day-ahead RUC energy prices based on the fact that fuel costs can increase between the day-ahead and real-time markets. Notwithstanding, Dynegy notes that the same fuel price risk faced by a seller of RUC capacity is also faced by a seller of day-ahead ancillary services. Dynegy/Williams states that a logical extension of the June 2004 Order would be to afford energy bidding flexibility on ancillary services bids accepted in the day-ahead market. To the extent the Commission finds inconsistency between the bidding activity rules of accepted day-ahead ancillary services and RUC offers, Dynegy/Williams believe that the Commission should revisit the bidding rules for sequential markets conditionally approved in the October 28 Order. Dynegy/Williams therefore seek clarification on this matter.

Commission Response

22. In determining which units are selected in the IFM, the CAISO's unit commitment software co-optimizes energy and ancillary services capacity bids. In the RUC process, the CAISO evaluates RUC availability bids from resources not selected in the IFM, but does not base its evaluation on the energy bids. The RUC availability payment is a separate product from the energy, in which the supplier is compensated for the foregone opportunity to sell their product in a different market. With these products being separate and distinct, we find it reasonable to allow suppliers to adjust their energy bids when appropriate to reflect costs to serve CAISO load. We disagree with the CAISO that generators selected in the RUC become "pivotal." We expect that competition among generators would generally prevent the energy bids and the RUC availability payment from rising significantly above the marginal and opportunity costs faced by a generator. Hence, generators would generally not find it more profitable to avoid the day-ahead market in order to be selected in RUC, because the revenues from the availability payment would, for example, compensate for opportunity costs. Of course, in those instances where competition is not sufficient to ensure such an outcome, appropriate mitigation measures should be in place.

23. Furthermore, a seller's internal costs, operating conditions and external factors can change between market timelines. Dynegy/Williams state, and the CAISO agrees, that fuel costs (an important component of a generator's costs) can increase (or decrease)

between the day-ahead and real-time markets. Sellers should have an opportunity to adjust their bids accordingly. Therefore, sellers committed in RUC should be permitted to adjust their energy bids in order to reflect these changes.²⁰

24. Moreover, we do not agree with SoCal Edison that generators would have an incentive to engage in gaming. The type of gaming SoCal Edison describes is unlikely to be a profitable strategy.²¹ We note that all energy bids, including those associated with RUC capacity will be subject to market power mitigation. As we stated in the October 28 Order, we are committed to the development of appropriate market power mitigation measures to prevent the exercise of market power, including gaming. However, we also acknowledged that market power mitigation issues should not be addressed separately from resource adequacy issues. The CPUC recently issued another ruling in its procurement proceeding. The mitigation measures for the California markets will be addressed in a forthcoming order. We will direct the CAISO's market monitor to monitor for the types of gaming described in SoCal Edison's comments.

25. We will grant Dynegy/Williams rehearing to require similar treatment of energy bids for ancillary services accepted in the day-ahead market. In general, we find that Dynegy/Williams provide a reasonable comparison with regard to fuel cost risk associated with sellers of RUC capacity and sellers of ancillary services. Since fuel costs can increase between the day-ahead and real-time markets, sellers of both RUC capacity and ancillary services should be permitted to submit energy bids that reflect their actual marginal costs of supply in that market.

²⁰ Note that a seller may not raise that portion of its energy bid that has been selected in the day-ahead energy market.

²¹ SoCal Edison argues that generators would prefer to receive both a RUC availability payment and a real-time energy payment, rather than receive only a day-ahead energy payment. Thus, SoCal Edison is concerned that some generators would bid very high so as to avoid being selected in the day-ahead market, but bid so as to be selected in RUC and receive the RUC availability payment, and then subsequently lower their energy bids in order to be dispatched in real-time. We find the successful execution of the strategy posited by SoCal Edison to be unlikely. Moreover, we do not expect that generators would generally find it more profitable to avoid the day-ahead market in order to be selected in RUC. The additional revenues (from the availability payment) would merely compensate for the additional costs of being committed in RUC, since either competition from other suppliers of RUC or appropriate market power mitigation would ensure that the RUC availability payment would reflect only the costs of being committed in RUC.

26. As we indicated in the June 2004 Order, fixing day-ahead energy bids and relying on a capacity bid to compensate for uncertainty in fuel costs is not a desirable mechanism for capacity suppliers, whether they are suppliers of RUC capacity or ancillary services capacity. First, restricting the real-time energy bids to be equal to or less than the unselected IFM energy bid may 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 sellers whose energy bids reflect their actual marginal costs. The availability/capacity payment should reflect the seller's opportunity costs of committing capacity in the day-ahead time frame; the availability payment is not a payment for risk associated with providing energy once dispatched by the CAISO.

27. 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 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 rather than incorporate the risk costs into the availability bid. By reducing cost uncertainty and the corresponding need for a risk premium the energy bidding flexibility should result in lower availability costs to customers. As a result, we will grant rehearing on this issue and require the CAISO to afford sellers of ancillary services capacity the same opportunity to adjust their energy bids, subject to the applicable market power mitigation. We direct the CAISO to include tariff sheets to reflect this change in the 180-day tariff filing directed in the June 2004 Order.

Netting of Start-up and Minimum Load Cost

28. The June 2004 Order accepted the CAISO's proposal for netting SU/ML costs with one modification. In development of the netting calculations, the CAISO should include ancillary services and RUC bid costs in the same manner as the energy costs. Thus, instead of netting SU/ML costs against gross revenues for ancillary services and RUC, the Commission directed 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 will be netted against net revenues for energy, ancillary services, and RUC availability payment revenues.²²

29. On rehearing, SoCal Edison contends that the entire RUC availability payment should be eligible to offset SU/ML costs. SoCal Edison believes the structure to net

²² June 2004 Order at P 44.

SU/ML costs against net revenues provides incentives not to bid opportunity costs, but rather at a level near the anticipated market clearing price so that no portion of the RUC availability payment will be rescinded. Moreover, SoCal Edison contends that allowing for any retention of the RUC availability payment when energy is dispatched provides incentives to withhold from the day-ahead market. SoCal Edison requests rehearing on this issue and urges the Commission to adopt a RUC availability payment mechanism that is pay-as-bid and that is revoked when energy is dispatched from the capacity.

Commission Response

30. The Commission denies rehearing regarding the rescission of the availability payment and the availability payment being paid as-bid to selected resources. We also deny SoCal Edison's requests for rehearing on whether the entire availability payment should be used to offset SU/ML costs. In the June 2004 Order, we indicated that the RUC availability payment is a payment for the call option on any supplier's capacity and therefore, should be paid regardless of its dispatch.²³ We further stated that if the availability payment were rescinded, suppliers would be offering day-ahead and hour-ahead RUC capacity without compensation. The Commission also required the CAISO to modify the RUC to allow for capacity bids to set a market clearing price rather than be paid as-bid. Moreover, the Commission accepted the CAISO's netting proposal as discussed above. The Commission remains committed to these decisions because we believe that it provides an appropriate balance of incentives to ensure the CAISO is able to meet control area reliability needs.

Self Provision of RUC

31. Independent Energy Producers (IEP) argued that the Commission should not allow load serving entities (LSEs) to self provide RUC because the obligation to bid into the CAISO market should be consistent among all suppliers, even generation provided by investor owned utilities. In the June 2004 Order, the Commission stated 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 start-up and minimum load costs, just like the IOUs [investor-owned utilities]." ²⁴ Dynegy/Williams request clarification of the Commission's statement. Dynegy/Williams state that it does not understand the statement because generators do not have load.

²³ *Id.* at P 59 and P 76.

²⁴ *Id.* at P 58.

Commission Response

32. We clarify that the Commission did not intend to suggest that generators would have any responsibility to pay RUC costs. We further clarify that the CAISO's proposal will not assess RUC cost to generators that do not have load. Our only point was to demonstrate that there is no discrimination in the CAISO's proposal to allow for the self-provision of RUC.

RUC Mitigation

33. PG&E states that the Commission has expressly found that there are locations in California where suppliers potentially have locational market power.²⁵ Based on that finding, PG&E argues that a bid-based system for RUC payments is not permissible under the Federal Power Act (FPA) without an adequate mitigation scheme adopted concurrently to prevent the exercise of market power. PG&E states that the Commission seeks to de-link and defer these issues by stating the Commission will assess possible mitigation of RUC capacity bids in the context of an overall mitigation plan. However, PG&E contends that this does not provide adequate safeguards under the FPA at this time to authorize the bid levels and payments authorized by the June 2004 Order. PG&E contends that, at a minimum, the Commission should indicate that its approval of the RUC payments in the June 2004 Order is conditional upon the development and implementation, by the time of any RUC process used by the CAISO, of fully adequate market mitigation for RUC bidding and payments.

Commission Response

34. We note PG&E's concern with regard to adequate mitigation of the RUC availability payment. However, we disagree with PG&E's contention that the Commission should have adopted a mitigation scheme concurrently with the CAISO's revised RUC proposal. We are committed to the development of appropriate market power mitigation measures; however we believe that resource adequacy must work together with market power mitigation. For this reason, our decision to defer the issue of RUC mitigation is reasonable because it would be premature for the Commission to establish a RUC mitigation method without consideration of the overall mitigation plan. The CPUC recently issued another ruling in its procurement proceeding. The Commission will address the CAISO's proposed market power mitigation together with the resource adequacy issues shortly.

²⁵ *Id.* at P 75.

35. Moreover, the Commission to date has not acted on any tariff provision but has provided guidance at a conceptual level; so, any concern about payment levels in violation of the FPA, either with or without mitigation, is premature.

C. Hour-Ahead Market

Comments

36. PG&E states that the proposal for the simplified hour-ahead market adopted by the June 2004 Order is procedurally improper. Moreover, PG&E claims that the removal of flexibility for LSEs to adjust schedules in the hour-ahead market exposes them to RUC charges for decisions made by the CAISO due to differences in system conditions which, but for the limited flexibility provided to load, the LSEs could have met themselves. Metropolitan argues that scheduling coordinators (SCs) representing load should be able to adjust their schedules in the hour-ahead so that the CAISO can avoid unnecessary procurement of RUC capacity, and the SCs can avoid unnecessary allocation of RUC capacity costs.²⁶

37. State Water Project contends that the Commission's June 2004 Order fails to prescribe clear treatment for load revisions in the hour-ahead market. PG&E argues that the Commission should specify that the CAISO permit load equal treatment, *i.e.*, maximum flexibility to reflect system conditions as provided by the proposed supply adjustments in the simplified hour-ahead market.

38. Metropolitan states that it fails to understand how the CAISO's receipt of adjusted load schedules in the hour-ahead can do anything other than contribute to a more efficient use of resources. Metropolitan argues that given the fact that load schedules will be more accurate in the hour-ahead timeframe as opposed to the day-ahead market because of the proximity to real-time operations, SCs representing load should have the ability to inform the CAISO that loads are different than originally anticipated. Metropolitan argues that unless the CAISO can explain how it is more harmful than beneficial to proscribe hour-ahead schedules for load, the Commission should direct that this be permitted.

39. SVP argues that the Commission erred in not clarifying how metered subsystems (MSS) agreements would be honored in a simplified hour-ahead market. SVP requests that in order to have a starting point for a productive stakeholder process, the

²⁶ Metropolitan cites the CAISO's position that "if it commits more RUC capacity than the actual amount of under-scheduled load, the CAISO will allocate to all, including metered load and exports, only the costs associated with the excess capacity."

Commission should grant rehearing, and order that the purpose of the MSS stakeholder process, with respect to the simplified hour-ahead market, is to develop mechanisms by which MSS agreements can be honored in the simplified hour-ahead market.

40. While Powerex supports the use of a simplified hour-ahead market, it states that the CAISO also must have a mechanism that will allow importers to bid their available capacity for ancillary services in the hour-ahead or real-time market. Powerex believes that the simplified hour-ahead market in conjunction with the elimination of the hour-ahead ancillary services market could prevent importers from being able to offer available ancillary services after the close of the day-ahead market.

41. SVP requests rehearing of the Commission's acceptance of the CAISO's proposal to simplify the hour-ahead procedure on the basis that, if there is no hour-ahead market for ancillary services, this could create serious problems for entities contemplating offering ancillary services in the day-ahead market. SVP believes that the Commission should grant rehearing on this issue and order the CAISO to reconsider its choice to procure 100 percent of its ancillary services requirements in the day-ahead market.

Commission Response

42. In our June 2004 Order, the Commission considered the relative costs and benefits of a simplified hour-ahead market and a financially binding hour-ahead market, and we accepted the CAISO's proposal for a simplified market. This proposal was put before us in a different form as part of a section 205 filing and has evolved into its present form as a "simplified hour-ahead market" through a course of formal filings, technical conferences and comments made by participants. Many proposals before this Commission evolve in this way, sometimes resulting in design anomalies being detected and addressed, or in improvements to design features being made, prior to implementation of the final change. This review, discussion and evolution of proposals results in developments to market operations that are more efficient, accurate and workable, and which have greater support from market participants. Therefore, we consider that this proposal is properly before the Commission for consideration.

43. Our decision to accept the simplified hour-ahead market was based on the conclusion that while a simplified market would provide fewer benefits, its reduced cost and complexity would likely outweigh its reduced benefits. However, after reviewing the requests for rehearing, we realize that additional information is necessary to allow the Commission to make a decision on the proper hour-ahead market functionality and structure.

44. The Commission recognizes the goal of simplifying the hour-ahead market to minimize implementation costs while attempting to maximize functionality. At the same time, we believe that a financially binding hour-ahead market and its associated products provide certain benefits to the market, particularly given the hourly scheduling requirements associated with most imports into and exports out of the CAISO.

45. As we noted in our June 2004 Order, while no other ISO has implemented a financially binding hour-ahead market, California's electricity system has unique aspects that may make it more important that the CAISO have such a market. California's variable climate makes it more difficult to forecast loads in advance and thus, it is more important that hour-ahead scheduling adjustments be accurate. Moreover, California is substantially served by power that is imported into the CAISO footprint to meet peak load, and since the CAISO must commit to a specific MWh level of imports in the hour-ahead time frame (unlike energy from generation within the control area), it is important that hour-ahead schedules be accurate. In addition, hour-ahead scheduling with a financially binding market would be particularly useful for imports, in order to minimize uplift.

46. Therefore, we direct the CAISO to provide a comparison of the costs and benefits of a simplified hour-ahead market, and the costs and benefits of a financially binding hour-ahead market. The CAISO should, as part of this, quantify the additional software, settlements and other costs, *e.g.*, uplift (separately identified to the extent possible) associated with waiting to implement the financially binding hour-ahead market, any other revisions to existing software and settlements as a result of adding the hour-ahead market later, and identify any potential impacts (negative or positive) to not moving forward with a financially binding hour-ahead market at initiation of the redesign. We also require the CAISO to quantify the cost of inefficiencies with not having a binding hour-ahead market, including the related complications of eliminating the hour-ahead ancillary services market. Additionally, we direct the CAISO to inform the Commission whether and how soon the CAISO could close a financially binding hour-ahead market closer to real-time. The CAISO is directed to file this information with the Commission within 30 days of the date of issuance of this order. We note that we will address any market design decisions that are dependent on the design of the hour-ahead market in a future order in response to this filing.

D. Ancillary Services Procurement

Comments

47. SMUD states that it reluctantly supported the CAISO's ancillary services proposal, conditioned on obtaining clarification of the treatment of "acceptable SC self-provisions of ancillary services". SMUD claims that the Commission approved the proposal, but did not mention SMUD's request for clarification. On rehearing, SMUD

urges the Commission to grant clarification of the following: (1) that ancillary services it provides to the CAISO through its scheduling coordinator automatically qualifies as “acceptable SC self-provision of ancillary services” and (2) that any ancillary services it must provide to PG&E under existing contracts will likewise be treated as acceptable scheduling coordinator provision of ancillary services for purposes of determining the CAISO’s ancillary services purchase requirements.

48. SVP argues that the Commission erred in approving the ability to “substitute” resources for those committed in the day-ahead ancillary services market without first requiring more details from the CAISO.

49. SoCal Edison supports the CAISO proposal for pricing ancillary services in real-time using opportunity costs, rather than providing explicit capacity bids for real-time ancillary services. SoCal Edison states that while an explicit capacity bid in the day-ahead market may be appropriate to allow participants to price opportunity costs, such opportunities no longer exist in the real-time market and such capacity bids are unnecessary.

Commission Response

50. In our June 2004 Order we noted that “Our acceptance of the CAISO’s proposal to simplify the hour-ahead procedure has implications for the treatment of ancillary services.”²⁷ We realized that the ancillary services component of the CAISO’s market design proposal would require modification upon implementation of a simplified hour-ahead market. Given our directive for the CAISO to provide additional information to further inform a decision on the hour-ahead market, we cannot rule on this issue at this time. We will address the outstanding ancillary services issues that are dependent upon the design of the hour-ahead market when we address the hour-ahead market in a future order.

51. We find the CAISO’s proposal to allow scheduling coordinators the ability to self-provide ancillary services in the day-ahead market to be reasonable. Also, we agree with the CAISO’s proposal to provide flexibility to self-providing scheduling coordinators to substitute different resources in a subsequent market, *i.e.*, either hour-ahead or real-time. The CAISO is willing to provide this flexibility as long as the substituted resources meet applicable performance and locational criteria. However, the CAISO needs to provide this same flexibility in the hour-ahead market (simplified or financially-binding) for all scheduling coordinators whether or not they are self-providing ancillary services. This will provide a market for more efficient energy and ancillary service resources to be

²⁷ June 2004 Order at P 105.

dispatched as real-time approaches. Providing more flexibility for scheduling coordinators in the hour-ahead market will encourage greater participation in the ancillary services day-ahead market and should ultimately result in lower costs to customers. We agree with intervenors that the CAISO should clarify what it will deem as, “acceptable SC self-provision of ancillary services.”

52. The CAISO has asked for and been granted by this Commission locational and performance requirements on the procurement of ancillary services. However, the CAISO must provide market participants with a more detailed explanation of the specific requirements that will be in effect when it files the required tariff language, particularly addressing performance and locational requirements. At that time, all parties will have the opportunity to comment and the Commission will make a further ruling on the reasonableness of the proposed ancillary services requirements.

E. Constrained Output Generators

Comments

53. PG&E asks the Commission to clarify that its acceptance of constrained output generator (COG) treatment and pricing by the CAISO is conditioned upon accepted market power mitigation and that the Commission will reconsider the process of allowing COG to set market prices once the appropriate market mitigation has been determined.

54. SWP states that the June 2004 Order fails to address State Water Project’s request for confirmation that its “lumpy” hydro generation will receive the same accommodations as other constrained output generators.²⁸ State Water Project points out that the CAISO had identified a concern with a previous proposal for dispatching COGs which could have resulted in a situation in which price responsive load bidding in the IFM could be scheduled in the dispatch run and then charged a price higher than its bid in the pricing run. SWP states that the June 2004 Order fails to clarify whether its units would qualify as COGs under the CAISO definition or explain why they would not qualify.

²⁸ State Water Project identifies its “lumpy” generators as units which have no controls and whose individual MW production can vary from 10 to 53 MWs depending on the head pressure.

Commission Response

55. As stated above, the Commission will evaluate the appropriate measures to mitigate the exercise of market power in a future order addressing the CAISO's resource adequacy plan. We believe that issues such as resource adequacy and market mitigation should not be dealt with in isolation. We note that the CPUC recently issued another ruling in its procurement proceeding. The Commission thus expects to address the market power mitigation measures shortly. Therefore, we reject PG&E's request. Under the treatment of COG approved in the June 2004 Order, there is no inconsistency between the IFM dispatch and pricing runs. Although State Water Project is correct that the CAISO's previous proposal could have resulted in an undesirable outcome, we find that the CAISO revised its proposal in a manner which addressed the concern raised by State Water Project.

F. Marginal Losses

56. In the June 2004 Order, we accepted the CAISO's proposal to use marginal losses in its calculation of LMPs because this approach helps to assure a least-cost dispatch.²⁹ We also determined that the CAISO's proposal to distribute surplus monies to the CRR Balancing Account was reasonable, noting that this methodology "effectively distributes most or all of the surplus to loads who have paid for fixed transmission costs."³⁰ Finally, we directed the CAISO to include in its tariff filing a discussion of how an entity that self provides for losses would be treated and how it would be compensated through the distribution of surplus revenues.

Appropriateness/Cost Effectiveness of Marginal Losses

57. Several intervenors assert that marginal losses may not be an appropriate solution in the redesign of the California market. CMUA argues that the CAISO has not shown that the use of marginal losses will improve the dispatch efficiency, and thus the CAISO has not met its burden of showing that this market redesign proposal is just and reasonable. CMUA requests that the Commission clarify that its acceptance of the CAISO's use of marginal losses is solely to allow the CAISO to move forward with system design, and that further review of the issues of marginal losses when the CAISO makes its required tariff filing will be *de novo*. Further, CMUA requests that the Commission should clarify that it will require, in association with that tariff filing, a complete analysis of the costs and benefits of marginal loss implementation.

²⁹ June 2004 Order at P 142.

³⁰ *Id* at P 146.

58. Similarly, SVP requests rehearing of the Commission's decision to accept the use of marginal losses without first requiring a determination that the use of marginal losses would be "more easily administered and less costly."³¹ SVP requests that the Commission grant rehearing, and order the ISO to analyze: (1) the improvements in dispatch efficiency, if any, of using marginal losses rather than average losses, and (2) what the difference in setup and administration costs are between using average losses and marginal losses. Metropolitan believes the Commission must reject the CAISO's proposed implementation of marginal loss pricing in the absence of an empirical showing that the costs associated with this methodology are at least equal to if not exceeded by the benefits derived.

59. SMUD contends that the Commission erred in its decision not to direct the CAISO to bear the burden of demonstrating the reason for its decision either to use average or marginal system losses. SMUD believes the CAISO should be directed to examine whether the efficiency gains of a marginal loss approach exceed the costs of implementation and that further, the CAISO should be required to document and demonstrate the reason for its choice.

Commission Response

60. In our June 2004 Order, we accepted the CAISO's proposal to use marginal losses in the calculation of LMPs on the basis of economic efficiency. We noted how reflecting the full marginal cost of delivering electricity allows customers to make efficient choices among suppliers at different locations. We also asked the CAISO to bring to our attention any major concerns related to implementation costs and administration of marginal losses. The CAISO has thus far not indicated any such concerns, and the intervenors have not provided evidence to the contrary. Accordingly, we deny without prejudice rehearing on this issue.

Detail in Marginal Loss Proposal

61. AWEA, FPL and SMUD suggest that the Commission should direct the CAISO to provide a detailed explanation of its marginal loss formula in its tariff filing. SMUD notes several areas of the CAISO's proposal where more detail should be provided. First, the marginal loss proposal does not distinguish between the treatment of losses incurred under CAISO tariff transactions and ETCs, a problem that results in double recovery of

³¹ Request for Rehearing and Clarification of the June 17, 2004 Order on Further Development of the California ISO's Market Redesign and Establishing Hearing Procedures of the City of Santa Clara, California, page 8, *quoting* June 2004 Order at P 147 (July 19, 2004).

losses from ETC customers who, in effect, self-provide losses through their contract payments. Second, SMUD states that there is no mechanism for addressing over-deliveries and under-deliveries by those self-providing losses. Finally, SMUD believes that while a marginal cost loss methodology will, by definition, overcollect actual losses, the CAISO's methodology may overstate marginal losses by failing to model constrained transmission into the marginal loss calculation. Similarly, FPL notes that the CAISO must decide how to calculate losses in the face of congestion. FPL further contends that the marginal loss calculation is typically dependent upon the selection of the reference bus, which has not yet been identified by the CAISO. It asserts that the CAISO has not disclosed which of the two main methods for calculating marginal losses it plans to employ. Finally, FPL states the CAISO should be directed to present its proposed marginal loss calculation in the stakeholder process and to file the marginal loss calculation when it makes its tariff filing with sufficient detail.

Commission Response

62. We clarify that the CAISO should provide a detailed explanation of its marginal loss computations (complete with any applicable formulas) and direct the CAISO to include this information in its tariff filing.

63. SMUD notes that the CAISO's current proposal does not address the treatment of losses under ETCs. We note SMUD's concern, but find this issue to be most appropriately addressed in the CAISO's ongoing stakeholder process regarding other ETC issues.

Distribution of Surplus Revenue from Marginal Losses

64. SVP requests rehearing of the Commission's decision to adopt the CAISO's proposal to have marginal loss over-collections distributed through the CRR balancing account. SVP requests that the Commission grant rehearing and hold in abeyance any decision on the methodology for distribution of marginal loss revenue surplus until the CRR allocation methodology has been finalized.

65. SMUD asserts that it is premature for the Commission to find that distributing surplus marginal loss revenues through the CRR Balancing Account would, in fact, "distribute the monies to the parties that pay transmission costs." Similarly, SMUD states that the reasonableness of the refund mechanism depends on modification of the CRR mechanism which it asserts would allocate CRRs only to load within the CAISO control area, rather than to any entity that contributes materially to the embedded cost of the transmission system.

Commission Response

66. In the June 2004 Order, we found that distributing surplus revenues through the CRR Balancing Account to those who have contributed to building the transmission grid was reasonable. This decision is consistent with the principle underlying our approach to CRR revenues—any excess should be returned to those who paid the fixed costs of the transmission system. As we stated in the June 2004 Order, we agree that CRRs should be allocated to loads who pay the fixed costs of the transmission grid.³² We note that in the Commission's *White Paper Wholesale Market Platform*,³³ we stated that these rights would be allocated according to existing contracts and existing service arrangements in order to hold customers harmless. The underlying notion is that existing customers who have transmission rights pay the fixed transmission costs. SMUD states that while it is comfortable with the marginal loss overcollection proposal, it remains concerned about the allocation of CRRs. We note that the CAISO is addressing the CRR allocation process in a separate stakeholder process that will ultimately lead to a filing with the Commission seeking approval of the CRR allocation rules. We also note that the CAISO has committed to addressing in that stakeholder process the issue raised by SMUD³⁴ Moreover, distribution of surplus marginal loss revenues through the CRR Balancing Account is a simple administrative action and should not impact the initial allocation of CRRs. Therefore, we also deny SVP's request to hold this decision in abeyance until the CRR allocation methodology has been finalized.

Alternative Proposals for Intermittent Resources

67. The CPUC requests that FERC provide additional time for the CPUC to work with other interested California agencies, and the ISO, to consider the issue and propose alternative solutions, to be proposed not later than the tariff filing directed by the June 2004 Order. AWEA recommends that the Commission extend the opportunity to make alternative proposals to all interested parties, and that the opportunity for proposals remain open at least through the implementation phase of this proceeding. AWEA requests that the Commission clarify that development of such proposals will be specifically included on the agenda of forthcoming technical conferences.

68. FPL also seeks rehearing on the issues addressed in Paragraph 153 of the June 2004 Order, where California State entities were given 30 days to offer proposals to counter any negative impact of marginal losses on wind and other remote intermittent resources. FPL asserts that giving the California State entities 30 days to submit

³² June 17 Order at P146.

³³ *White Paper Wholesale Market Platform*, at 10 (April 28, 2003).

³⁴ CAISO's Answer to Protests, at 12 (June 2, 2004).

proposals to counter a negative impact that is not yet known because the CAISO's proposal has not yet been developed is unjust and unreasonable. Moreover, limiting select market participants (California State entities) or all market participants to 30 days for developing alternative proposals is arbitrary and capricious when the CAISO is granted 180 days to develop and submit the tariff language by which any negative impact must be measured.

Commission Response

69. In an attempt to allow the State of California to continue its support of wind and other intermittent resources, the June 2004 Order permitted California State entities to submit alternative proposals to lessen the impact of marginal losses on distant wind generation. It was our belief that California State entities may have been best suited to determine a solution that would best support State-sponsored renewable generation development. Those who commented note that our language was ambiguous and the timetable overly ambitious. We grant rehearing on this issue. We decline AWEA's suggestion to hold technical conferences on the subject. We continue to believe that California State entities are the appropriate entities to pursue a solution to lessen the impact of marginal losses on distant intermittent generation. We would also find it appropriate that, upon request of a State entity, an entity such as the CAISO could undertake a stakeholder process in order to address the issue of intermittent resources, including input from interested parties. If such a stakeholder process results in a solution that would best be implemented through the FERC-approved CAISO tariff, the State may request the CAISO to submit for filing with the Commission alternative proposals on this limited issue. As this is an evolving process, we will not establish a particular deadline for proposal submission. However, any proposal that the State wishes to be implemented through the CAISO tariff should be decided and clearly articulated with or before the CAISO's upcoming tariff filing.

G. Virtual Bidding

Comments

70. The CAISO and Powerex request that the Commission clarify that it directed the CAISO to implement "explicit" virtual bidding not "implicit" virtual bidding, and that any virtual bidding mechanism must be explicit by requiring that virtual or purely financial bids be flagged. Powerex states that the Commission should clarify that the CAISO must treat virtual bids the same as physical bids by allowing them to set the market clearing price.

71. The CPUC states that the CAISO has not proposed to include virtual bidding as part of its overall market design, and that the Order with respect to virtual bidding is contrary to law, as it exceeds the Commission's authority to address tariff filings made

under section 205 of the FPA, or to address rates under section 206 of the FPA. The CPUC states that FERC does not have the authority to order the CAISO to file particular tariff sheets in the absence of a finding that the CAISO's proposed rates or related tariffs are unjust and unreasonable.

72. SoCal Edison contends that the Commission does not have authority under the FPA to impose a virtual bidding system on the CAISO because virtual bidding is an organized exchange for financial derivatives and does not at all involve the transmission or sale of energy.

Commission Response

73. We clarify that virtual bids, *i.e.*, bids for which a bidder has no assets, should be explicitly flagged as such and that they are eligible to set the market clearing price.

74. Unlike purely financial instruments such as derivatives, futures and options, the virtual bidding system proposed by the CAISO will be integral to the bidding process that is part of the operation of the wholesale market. To participate in virtual bidding, a participant is required to submit virtual bids in the same way and at the same time as all other day-ahead bids. Virtual bids are cleared along with those other bids, and can affect the outcomes of the settlement of the day-ahead physical market. Therefore, virtual bids can be seen as a substitute for bids for physical power. As previously stated, we consider that the virtual bidding process will yield significant benefits as it will protect customers by curbing potential exercises of market power and reduce financial risks associated with real-time deviations from each customer's day-ahead schedule, among other things.³⁵ We also note that virtual bidding is a feature of some other electricity markets, including those administered by the New York Independent System Operator Inc., ISO New England, Inc. and PJM Interconnection, L.L.C., where it has widely been accepted as an important feature of market operation.

75. Virtual bidding is a mechanism that was initially raised by the CAISO in its July 2003 filing.³⁶ Although the CAISO stated its preference for not implementing virtual bidding immediately, its reasons for not doing so were the subject of discussion in our June 2004 Order, and we noted that "the benefits of virtual bidding outweigh the fears of a short-lived implementation learning curve."³⁷ We therefore concluded that the CAISO should not delay its implementation of this feature of the market, especially in light of the fact that this mechanism will enhance the proper operation of the market once

³⁵ See June 2004 Order at P 158-159.

³⁶ CAISO filing, July 22, 2003 at 124.

³⁷ June 2004 Order at P 159.

the other design issues that are the subject of this order have been implemented. It is for this reason that we consider our action in directing the CAISO to file tariff sheets that include the virtual bidding mechanism to be proper, and that the process leading to implementation of the virtual bidding mechanism correctly remains a part of the section 205 filing initiated by the CAISO in this proceeding. In any case, in response to the CPUC's concerns, we note that our June 2004 Order gave the CAISO the option to submit "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."³⁸

76. We disagree with SoCal Edison's contention that the Commission does not have statutory authority to impose a virtual bidding system. Virtual bidding is in essence analogous to firm transmission rights (FTRs), which the Commission previously found to be jurisdictional.³⁹ As an important element of the operation of the CAISO's wholesale market, virtual bidding directly affects rates by determining (in conjunction with other bids) the unit that sets market clearing price. We note that its effect is necessary and helps to ensure that prices for energy in spot markets, as well as congestion charges for transmission service, are just and reasonable.

H. Other Design Issues

1. IFM

77. In the preceding sections, we have discussed the seven major redesign issues being developed by the CAISO in preparation for the filing of tariff sheets later this year, as directed in the June 2004 Order. We take this opportunity to restate our expectations for that tariff filing. In accordance with ordering paragraph (A) of the June 2004 Order, "The CAISO should submit tariff sheets consistent with the above discussions within 180 days of the date of issuance of this order." Those discussions begin under the heading of "Substantive Matters" with a description of the IFM, as follows:

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-

³⁸ *Id.* at P 159.

³⁹ See California Independent System Operator System Corp., 89 FERC ¶ 61,153 at 61,435-36 (1999), *order on reh'g*, 94 FERC ¶ 61,343 at 62,270-71 (2001) (finding FTRs to be a term or condition of transmission that are sold in connection with CAISO's transmission service and that affect significantly the charges for service).

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, 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.⁴⁰

Accordingly, we expect the tariff sheets to be filed within 180 days of the June 2004 Order would include tariff language to implement the IFM, as modified in the present order.

2. ETCs

78. In the June 2004 Order, we directed public utility parties providing service under ETCs to file certain information in Docket No. ER04-928-000 within 30 days of the June 2004 Order and we invited non-jurisdictional parties to do likewise on a voluntary basis. Any further development of the issues pertaining to ETCs will now proceed in that separate Docket No. ER04-928-000.

3. Sellers' Choice Contracts

79. In the June 2004 Order, we also instituted a section 206 proceeding to investigate the feasibility of upholding sellers' choice contracts without modification in the context of the CAISO's proposed redesign. The section 206 proceeding is underway, and all matters pertaining to the investigation and resolution of issues surrounding the sellers' choice contracts are now being addressed in Docket No. EL04-108-000.

⁴⁰ June 2004 Order, at P 9 (footnotes omitted).

4. CRRs

80. 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. As the CAISO had not filed any further submission with the Commission on this proposal prior to the June 2004 Order, we did not address that issue further in the June 2004 Order. However, mindful of the importance of progressing the development of the CRR proposal, and its effect on other elements of the CAISO redesign proposal, we directed staff to convene a technical conference for the purpose of allowing participants to discuss the CRR proposal and the issues they see in relation to the direction in which the CAISO's CRR proposal is proceeding.

81. Staff is in the process of making arrangements for this technical conference and a separate docket will be established, in which all further progress of the CRR proposal will be confined. A Notice of Technical Conference in the new docket number will be issued shortly.

The Commission orders:

(A) The CAISO should submit tariff sheets consistent with the above discussions within 180 days of the date of issuance of the June 2004 Order.

(B) The CAISO is hereby directed to submit, within 30 days of the date of issuance of this order, a compliance filing, as described in the body of this order.

By the Commission. Commissioner Kelly not participating.
(S E A L)

Linda Mitry,
Acting Secretary.

ATTACHMENT A**Comments, Requests for Clarification and
Requests for Rehearing**

American Wind Energy Association (AWEA)
State Water Project of the California Department of Water Resources (State Water Project)
California Energy Resources Scheduling Division of the California Department of Water Resources (CERS)
California Independent System Operator Corporation (CAISO)
California Municipal Utilities Association (CMUA)
California Public Utilities Commission (CPUC)
Calpine Corporation
Constellation Power Source, Inc., High Desert Power project, LLC and Morgan Stanley Capital Group Inc.
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)
El Paso Merchant Energy, L.P.
FPL Energy, LLC (FPL)
J. Aron & Company and Power Receivables Finance, LLC
Metropolitan Water District of Southern California
Northern California Power Agency (NCPA)
Pacific Gas & Electric Company (PG&E)
Powerex Corp.
Sacramento Municipal Utility District (SMUD)
City of Santa Clara doing business as Silicon Valley Power (SVP)
Southern California Edison Company (SoCal Edison)
Transmission Agency of Northern California
Williams Power Company, Inc.

ATTACHMENT B**Glossary of Acronyms and Abbreviations**

NOTE: Abbreviated names of parties referred to in this order appear in Attachment A.

AMP	Automatic mitigation procedures
CRR	Congestion revenue right
COG	Constrained output generator
ETC	Existing transmission contract
FPA	Federal Power Act
IOU	Investor-owned utility
ICAP	Installed capacity
IFM	Integrated forward market
LSE	Load serving entity
LMP	Locational marginal price
MD02	Market Design 2002 Proposal
MRTU	Market Redesign Technology Upgrade project
MSS	Metered subsystems
RUC	Residual unit commitment
SC	Scheduling coordinator
SU/ML	Start-up and minimum load