

UNITED STATES OF AMERICA 91 FERC ¶ 61,324  
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: James J. Hoecker, Chairman;  
William L. Massey, Linda Breathitt,  
and Curt Hébert, Jr.

California Independent System Operator Corporation      Docket No. ER00-2383-000

ORDER CONDITIONALLY ACCEPTING PROPOSED TARIFF REVISIONS

(Issued June 29, 2000)

In this order, we conditionally accept tariff revisions and other proposals filed by the California Independent System Operator Corporation (ISO), to become effective as discussed herein.

Background

On May 2, 2000, as amended on May 3, 2000, the ISO submitted for filing Tariff Amendment No. 29 containing several amendments to the ISO Tariff and related Protocols. Briefly, these revisions would modify the ISO's Tariff and Protocols by: (1) settling Scheduling Coordinators' obligations in the Imbalance Energy real-time market on a ten-minute basis, rather than hourly; (2) allowing Scheduling Coordinators to submit adjustment bids in conjunction with inter-Scheduling Coordinator trades; (3) automating dispatch instructions; (4) expanding the size of the Market Surveillance Committee (MSC); and (5) changing Scheduling Coordinator financial requirements.

Regarding effective dates, the ISO requests (1) waiver of notice requirements and an effective date the later of June 1, 2000, or at least 10 days after the ISO posts notice on its home page that the software is ready for use, for revisions related to automated dispatch, (2) for the proposals related to 10-minute markets and adjustment bids on inter-Scheduling Coordinator trades, an effective date of the later of July 1, 2000 or at least 10 days after the ISO posts notice on its home page that the software is ready for use, and (3) an effective date of July 1, 2000, for all other revisions.

Notice, Interventions, and Responsive Pleadings

Notices of the ISO's filing and amendment were published in the Federal Register, 65 Fed. Reg. 31,543 and 33,811 (2000), with motions to intervene, comments and protests due on or before May 23, 2000. A notice of intervention was filed by the Public Utilities Commission of the State of California (California Commission). Timely

motions to intervene, comments, and protests were filed by the Bonneville Power Administration (Bonneville); California Department of Water Resources (DWR); California Electricity Oversight Board (Oversight Board); California Power Exchange Corporation (PX); Cities of Redding and Santa Clara, California and the M-S-R Public Power Agency (Cities/M-S-R); Duke Energy Trading & Marketing, L.L.C. (Duke); Dynegy Power Marketing, Inc. (Dynegy); Enron Power Marketing, Inc. and Enron Energy Services, Inc. (jointly, Enron); Los Angeles Department of Water and Power (LADWP); Metropolitan Water District of Southern California (MWD); Modesto Irrigation District (Modesto); Northern California Power Agency (NCPA); Pacific Gas and Electric Company (PG&E); Sacramento Municipal Utility District (SMUD); Sempra Energy (Sempra); Southern California Edison Company (SoCal Edison); Southern Energy California, L.L.C., Southern Energy Delta, L.L.C., and Southern Energy Potrero, L.L.C., (jointly, Southern); Transmission Agency of Northern California (TANC); Turlock Irrigation District (Turlock); Western Area Power Administration (WAPA); and Williams Energy Marketing & Trading Company (Williams). In addition, on May 30, 2000, the Ancillary Services Coalition (ASC) filed a motion to intervene out-of-time with comments. On June 7, 2000, the ISO filed an answer, and on June 19, as corrected on June 22, 2000, Enron responded to the answer.

## Discussion

### Procedural Matters

Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure,<sup>1</sup> the timely, unopposed motions to intervene serve to make Bonneville, DWR, the Oversight Board, the PX, Cities/M-S-R, Duke, Dynegy, Enron, LADWP, Metropolitan, Modesto, NCPA, PG&E, SMUD, Sempra, SoCal Edison, Southern, TANC, Turlock, WAPA, and Williams parties to this proceeding. In view of the early stage of this proceeding and the absence of any undue prejudice or delay, we find good cause to grant ASC's untimely, unopposed motion to intervene.

Although answers to protests generally are prohibited under 18 C.F.R. § 385.213 (a)(2), we nevertheless find good cause to allow the ISO's answer in this proceeding because it provides additional information that assists us in the decision-making process. Enron's response does not provide additional information that aids us in our disposition of this proceeding; we will, therefore, reject it.

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<sup>1</sup>18 C.F.R. § 385.214 (1999).

Ten-Minute Markets

Under the current Imbalance Energy market rules in California, different resources are dispatched over different intervals, but the settlement of market obligations is not always tied to the dispatch period. The settlement period for instructed Imbalance Energy is ten minutes, while uninstructed deviations from hourly schedules are settled at the Hourly Ex Post Price.<sup>2</sup> The ISO believes that this leads to inefficient and unintended operational consequences, including: (1) the current inefficient price signals result in the ISO's inability to rely on Imbalance Energy for load following, leading to excessive use of Regulation service; (2) decreased incentive for Scheduling Coordinators to submit bids in the Imbalance Energy market; (3) the price for incremental energy imports remaining "stuck" at the hourly price, even though less costly resources could meet the ISO's needs ("stuck price" effect);<sup>3</sup> and (4) poor response to the ISO's dispatch instructions. The ISO explains that the original design of its Imbalance Energy market would have had the ISO issue dispatch instructions for each interval, and all obligations would be settled on a consistent basis, *i.e.*, for each dispatch interval. However, because of problems with software development, implementation of this design had to be deferred.

Now, in Amendment No. 29, the ISO seeks to restore the originally intended design of the Imbalance Energy market. The proposal would implement a ten-minute market under which all resources supplying Imbalance Energy would be dispatched over the ten-minute interval used by the ISO's software, and obligations in the Imbalance Energy market would be settled on a ten-minute basis. Under the ISO's proposal, Scheduling Coordinators that provide incremental or decremental energy in accordance with ISO instructions in a ten-minute interval will be paid the interval clearing price for

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<sup>2</sup>Resources supplying Imbalance Energy are dispatched by the ISO's Balancing Energy and Ex Post Price (BEEP) software. The Hourly Ex Post Price is "the weighted average of the prices paid or charged to resources that are instructed during the hour's six ten-minute Dispatch intervals." Transmittal Letter at 3.

<sup>3</sup>The ISO elaborates, at p. 5:

Supplemental Energy bids on inter-Control Area ties are pre-Dispatched, *i.e.*, once accepted, they are not adjusted during the hour. If the ISO's need for Imbalance Energy declines during the hour, making the import of Supplemental Energy no longer economical, the ISO often cannot issue a decremental Dispatch instruction to reduce the import. As a result, the price for incremental Energy remains "stuck" at the bid associated with the import . . .

incremental energy, or will be charged the interval clearing price for decremental energy, as appropriate. However, uninstructed energy will be priced based on the marginal cost that the ISO incurs to accommodate the uninstructed deviation. That is, to accommodate an uninstructed decremental deviation, the ISO must increment resources that have submitted incremental energy bids and pay them the interval clearing price for incremental energy. The ISO will therefore charge this incremental energy price to the Scheduling Coordinator responsible for the uninstructed decremental deviation. Similarly, for uninstructed incremental deviations, the ISO will pay Scheduling Coordinators a price equal to the interval clearing price for decremental energy.

The ISO will issue mid-hour dispatch instructions to all resources (*i.e.*, every ten minutes), including external resources. All resources will have the choice of whether or not to follow these instructions. Any resource that is unable or unwilling to make mid-hour schedule adjustments in response to the ISO's instructions will be compensated accordingly at a price that reflects the value of the service that it ultimately provides to the ISO. The financial risk that this may create can be mitigated in two ways. First, resources can incorporate in their bids any risk that they perceive in not being able to respond to dispatch instructions. Second, they can continue to ask the ISO to be pre-dispatched, which effectively allows them to withdraw any portion of their bids that the ISO does not accept before the operating hour.

Resources must transition or "ramp" from one hourly schedule to another. To encourage smooth ramps between hourly schedules, the ISO will issue instructions in the last interval of an hour and the first interval of the following hour that would cause Participating Generators and Participating Loads to move smoothly between the two hourly output levels. An entity following these ramping instructions would not incur responsibility for uninstructed deviations from schedules or under the existing "no-pay" rule approved as part of the ancillary services redesign.<sup>4</sup>

The ISO claims that, due to the inefficient operation of the current approach, the Imbalance Energy market does not provide the load-following service for which it was designed. As a result, the ISO has required a greater amount of Regulation service. With the proposed ten-minute market in place, the ISO expects that it will be able to reduce its requirements for Regulation service, resulting in savings of between \$80 million and \$120 million annually. In addition, the ISO points out that freeing this capacity from providing Regulation would increase the supply available for other ancillary service

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<sup>4</sup>The "no pay" penalty refers to a rule accepted as part of Tariff Amendment No. 13 requiring a Scheduling Coordinator that engages in uninstructed generation of energy from capacity committed for operating reserves or replacement reserves to forfeit a portion of the payment to which it would otherwise have been entitled. See California Independent System Operator Corp., 86 FERC ¶ 61,122 at 61,417-19 (1999).

markets, thus reducing those prices. The ISO estimates that eliminating the "stuck price" effect could save roughly \$15 million per year, and that improving participants' response to dispatch instructions could produce additional annual savings of between \$67 million and \$84 million through lower market clearing prices in the Imbalance Energy market. The total estimated cost savings equal approximately \$200 million.

### 1. Complexity and Timing

Several intervenors, including Dynegy, DWR, and SMUD, express concern about the complexity and timing of implementation of the ten-minute market proposal. The Oversight Board states that the details of the proposed solution are so complex that the hoped for efficiencies may not be achieved, or achieved only after market participants have gained several weeks of experience with the new settlement rules.

In response, the ISO asserts that the proposal will in fact simplify the determination of prices because it deletes complex pricing formulas from the Tariff. The ISO also notes that the availability of modern computer technology and electronic data transmission permit the processing of large volumes of data. In addition, the ISO states that the intervenors fail to mention the substantial opportunities that the ISO has provided to Scheduling Coordinators for training in the ten-minute market procedures.

The Oversight Board, NCPA, SMUD and PG&E question the advisability of implementing a major system change in the middle of the peak demand season, and Southern recommends that it not be implemented until after the summer peak. In response, the ISO states that delaying the implementation of ten-minute markets beyond the summer peak season will substantially reduce the expected benefits of the proposal.

### 2. Pricing Issues

Bonneville and ASC recommend that ISO end payments to the uninstructed energy market. In a similar vein, DWR recommends requiring suppliers to provide timely response to ISO dispatch orders resulting from a bid, or to provide liquidated damages for failure to perform when and as contracted through bidding.

In response, the ISO argues that, unlike its market-based approach, paying nothing for uninstructed deviations would be punitive. The ISO explains that as long as generators supplying energy on an uninstructed basis do not receive more for their energy than it is worth at the time it is supplied, the ISO does not want to discourage generators from responding to the price signal. The ISO states that a punitive approach is neither necessary nor appropriate.

Enron notes that the ISO proposes to compute two different prices for each ten-minute interval: an incremental (inc) price and a decremental (dec) price. Enron contends that the ISO's proposal to separately price uninstructed incremental energy and uninstructed decremental energy is unjust and unreasonable. As an alternative to the ISO's approach, Enron proposes a pricing policy that would price all uninstructed incremental and decremental energy at the weighted average of the ISO's inc and dec prices. Enron claims that this approach would be cost-based, revenue neutral, and less susceptible to gaming.

The ISO responds that, contrary to Enron's claims, the ISO's approach to pricing uninstructed Imbalance Energy is consistent with cost causation and is not punitive. The ISO claims that it simply assigns to those responsible for the uninstructed deviations the costs that the ISO incurs to accommodate the deviations while maintaining a real-time balance between generation and demand. The ISO states that those costs are the market clearing prices of decremental or incremental Imbalance Energy, respectively, during the relevant BEEP interval, because the resources that have submitted Imbalance Energy bids are the only resources upon which the ISO can rely to make room for the uninstructed deviations. The ISO further argues that Enron's alternative proposal would create a new opportunity for gaming; the ISO claims that during intervals in which separate decremental and incremental clearing prices are established, Scheduling Coordinators could attempt to profit by engaging in uninstructed deviations rather than submitting supplemental energy bids.

Enron and Southern claim that the ISO's current "target price" mechanism, which is designed to eliminate overlaps between incremental and decremental bid stacks, causes price fluctuations that create instability. Southern notes that stakeholders are currently engaged in discussions to revise the target price system methodology to correct this problem. Therefore, Southern recommends that the ten-minute settlement proposal not be implemented until after revisions to the ISO's target price mechanism are implemented. In response, the ISO argues that the design of the target price mechanism is an issue unrelated to the implementation of ten-minute markets.

Sempra asks the Commission to direct the ISO to undertake a comprehensive stakeholder review of real-time market operations and pricing in concert with the on-going congestion management review now being undertaken among stakeholders and the ISO. In response, the ISO states that regardless of the approach used to relieve congestion, the Imbalance Energy market should be as efficient as possible.

### 3. Problems for External Resources and Other Control Areas

The California Commission claims that, to the extent the proposal may be out of step with the practices of the rest of the Western Systems Coordinating Council, it may

endanger the ability of necessary imported energy to participate in the California market. SMUD asserts that ten-minute dispatch and settlements moves away from the practices of the rest of the Western Interconnection and is therefore a step away from formation of a truly regional RTO. SMUD believes that the proposal will only exacerbate "seams" issues that already exist between the ISO and other control areas.

Bonneville and SoCal Edison note that generation resources that are located outside the ISO grid are subject to both the technical limitations and existing regulations of each control area with which they are scheduled and these control areas at present function on hourly schedules. Thus, such generators may not have the technical capability to participate in the proposed ten-minute market. Bonneville states that the consequence to an external resource of being unable to respond to an ISO dispatch instruction is to engage in an uninstructed deviation which results in economic risk. Bonneville adds that, if implemented, the ten-minute dispatch proposal would significantly impair the ability of interconnected control areas to perform after-the-fact accounting for interchange schedules.

In response, the ISO states that the ten-minute market proposal does not require importers to make mid-hour schedule adjustments that operators of other control areas do not and cannot support. Also, the ISO states that an external resource that is unable or unwilling to adjust its import schedule in accordance with an ISO dispatch instruction is not violating the ISO Tariff but rather is making an economic choice. The ISO argues, however, that under the current market design, that choice is made on the basis of incorrect prices.

Bonneville contends that, contrary to the ISO's assertion, the risks faced by external resources cannot be mitigated by bidding strategies. Bonneville states that bidding strategies cannot mitigate the risk of sanctions, and any increase in bid price to accommodate risk is likely to keep the external resource out of the market. Bonneville states that the ability to withdraw a bid for an hour if an external resource has not been dispatched in the first BEEP interval is unsatisfactory because it is only temporary and because, if any portion of the bid is dispatched in the first interval, that portion is still subject to dispatch instructions during the delivery hour. Bonneville requests that, if the Commission does not reject the ten-minute dispatch proposal, the Commission should order the ISO not to require mid-hour schedule changes at tie points for supplemental energy imports and to pay the bid price for the full settlement period if those imports are dispatched.

In response, the ISO notes that the exposure to charges or credits for uninstructed deviations is a risk borne by all participants in the supplemental energy market, not just imports. The ISO states that the possibility that an external resource could be priced out of the market in some periods if it reflects in its supplemental energy bid the risk of

uninstructed energy obligations is not a cause for concern. Rather, it simply indicates that the market is working properly. Also, the ISO explains that its proposal preserves the option by which a Scheduling Coordinator now can set a "pre-dispatch flag" on its supplemental energy bid from an external resource. This allows the Scheduling Coordinator to effectively withdraw any portion of the bid that the ISO does not accept before the beginning of the operating hour, eliminating any risk that it would be unable to comply with an incremental dispatch instruction later in the hour because transmission is unavailable. The ISO argues that external resources will therefore have a choice: they can continue to submit supplemental energy bids for pre-dispatch only or they can participate fully in the Imbalance Energy market on the same basis as other market participants. In addition, the ISO states that no neighboring control area is required to modify its procedures to increase the mid-hour schedule changes that it recognizes if local conditions do not permit or if it is not confident that interchange accounting can be performed reliably. Finally, the ISO states that Bonneville's demand that it be paid its bid price when it disregards a dispatch instruction exposes the root of the "stuck price" phenomenon. The ISO asserts that Bonneville's proposal would yield prices that exceed the value of the energy supplied, impose higher costs on other market participants, and lead to inefficient behavior.

Southern claims that the proposed ten-minute settlement provisions grant undue preferential treatment to external resources by favoring imports of real-time energy over in-state resources. Southern argues that an external generator using the pre-dispatch option could simply submit a high bid for an hour, see that it was not dispatched in the first ten-minute interval, then withdraw the bid and seek other opportunities, while not having to stand ready to deliver or face the prospect of imbalance penalties. Southern believes that this accommodation unduly discriminates against internal resources. In response, the ISO states that the pre-dispatch option for imports is not an undue preference but is simply a reasonable recognition of differences in scheduling practices among control areas. Also, the ISO notes that the pre-dispatch option does not allow an importer to see how it likes the price in the first ten-minute interval before deciding whether to withdraw its bid.

#### 4. Problems for Participating Loads

DWR claims that the Amendment No. 29 Tariff language would penalize load for failure to meet physically impossible "inc" and "dec" directives every ten minutes within the space of an hour. DWR further claims that Amendment No. 29 would essentially foreclose DWR's load shedding ability from the market by applying a "no pay" penalty if DWR is unable to turn its loads on and off every ten minutes within the hour. NCPA argues that the "no pay" penalty gives the ISO the incentive to dispatch a unit on for ten minutes then order it off, allowing it to use the energy free of charge for the next hour



and precluding the unit from bidding in the reserve market in the next hour for its failure to follow instructions.

In response, the ISO argues that these concerns have less to do with the ten-minute market proposal than with the no-pay rule. The ISO asserts that this proceeding represents an inappropriate forum for DWR's attack on the no-pay rule. Nevertheless, the ISO acknowledges that a participating load's provision of energy on an uninstructed basis during the intervals following the ISO's dispatch of such energy from capacity accepted for an ancillary service could implicate the no-pay rule, requiring the load to forfeit compensation for uninstructed Imbalance Energy to which it would otherwise be entitled. However, the ISO states that this result would occur regardless of whether the energy is priced on a ten-minute basis or an hourly basis. As an accommodation to participating loads, the ISO states that its proposal relaxes the application of the no-pay rule for loads taking part in the ISO's Summer 2000 trial program for load participation in the ancillary service markets, which is described in Amendment No. 28. This accommodation would exempt participating load from the no-pay rule for the hour of the original dispatch and the two succeeding hours. In response to NCPA's concerns about the no-pay rule, the ISO states that this rule is not a component of its Amendment No. 29 filing and, in any event, NCPA's concerns are unfounded. The ISO states that the no-pay rule does not ignore ramping limitations reflected in a resource's bid or require the exclusion of a resource that is subject to forfeiture under the no-pay rule from the ancillary service market in subsequent hours.

DWR and MWD are concerned that Amendment No. 29 does not address the no-pay problem for loads other than those included in the ISO's Summer 2000 trial program for load participation. The ISO states that it had anticipated that loads interested in taking part in the ancillary service market this summer would participate in the Summer 2000 trial program. To the extent that this is not the case, the ISO states that it would not object to permitting any participating load that enters in to an appropriate participating load agreement to benefit from the same no-pay exemption for the duration of the

Summer 2000 trial program, regardless of whether it applied and was selected to participate in that program.

MWD is concerned about the first sentence of the proposed new section 2.2.16: "The ISO shall only accept bids for Supplemental Energy or Ancillary Services, or Schedules for self-provision of Ancillary Services, from Loads if such Loads are Participating Loads which meet standards adopted by the ISO and published on the ISO Home Page." MWD claims that this sentence would establish additional requirements for Loads that have no apparent connection to the ISO's ten-minute market proposal. In addition, MWD notes that the ISO changed the definitions for Dispatchable Loads, Participating Load and Supplemental Energy. MWD states that it has not yet verified

that conflicts would not arise from acceptance of the ISO's revised definitions, or that load participation would not be diminished by these changes.

The ISO states that section 2.2.16 of the Tariff simply applies to loads the provisions that are applicable to Participating Generators in section 5 of the Tariff: the requirement that they qualify as Participating Loads by signing an appropriate Participating Load Agreement and submit bids and schedules through a Scheduling Coordinator. The ISO states that the reference to technical standards posted on the ISO Home Page reflects the fact that the technical qualifications applicable to Participating Loads, like those applicable to Participating Generators, are too detailed to warrant inclusion in the Tariff. Also, the ISO states that the revised definitions simply reflect the distinction between curtailable demand, which is the "product" that Participating Loads supply in the ancillary service and Imbalance Energy markets, and dispatchable loads, which are loads that are the subject of an adjustment bid, signifying their willingness to be adjusted in congestion management.

#### 5. Need for Further Study

PG&E supports the ISO's move to ten-minute settlements but is concerned that the ISO's two-price (incremental and decremental) proposal may be too complex and administratively burdensome, and may possibly subject generators to unnecessary financial risks. PG&E believes that, as a condition to acceptance of the ISO's ten-minute settlement proposal, the Commission should direct the ISO to submit a report explaining the attendant impact on energy and ancillary services prices from the two prices produced. MWD also requests an audit and cost/benefit analysis after implementation of the ten-minute markets.

The ISO states that it would accept a requirement to submit a report to the Commission regarding how ten-minute markets operate following implementation. To permit the report to be based on analysis of a full year of data, the ISO proposes to submit a report fifteen months after the ten-minute market is implemented. The ISO states that this is consistent with the one year proposed by PG&E, but allows time for assembly and review of the data.

#### 6. Other Implementation Issues

Dynegy states that the ISO is proposing to change its dispatch protocol to provide that supplemental energy bids may be submitted to the ISO no later than 45 minutes (instead of 30 minutes as previously required) prior to the beginning of the settlement period. Dynegy states that this change is apparently being made to provide consistency with section 23 of the Tariff, which was intended to remain in effect only until the ISO proposed, and the Commission accepted, new, long-term, changes to the ISO Tariff in

regard to the real-time market for Imbalance Energy, in connection with implementing a sub-hour settlement period.

The ISO states that the 45-minute period is the subject of a pending challenge in Docket No. ER96-3760 (the "Unresolved Issues" proceeding). The ISO adds that if the Commission rules in Docket No. ER96-3760 against the 45 minute period, the ISO will modify its tariff accordingly.

## 7. Commission Response

We accept the ISO's ten-minute market proposal, which was developed through an extensive stakeholder process. The proposal is a reasonable response to the inefficiencies and operational problems that the ISO has encountered in the Imbalance Energy market. As the ISO notes, this proposal serves to implement the original design of that market, whereby obligations in that market would be settled over the same time interval in which resources are dispatched, and it will help to restore the load following function that the Imbalance Energy market was intended to serve. This, in turn, will enable the ISO to reduce substantially its requirements for Regulation capacity.<sup>5</sup> Moreover, the cost savings that the ISO anticipates, potentially in excess of \$200 million, are quite significant. Accordingly, we will accept this proposal, as modified in one respect below, to become effective on the later of July 1, 2000, or ten days after the ISO posts a notice that the modified software is ready for use.

The ISO explains that the thrust of the proposal is to avoid situations, such as those that occur currently, in which Imbalance Energy sales or purchases are priced on the basis of the value of energy at times other than the interval in which the energy is purchased or consumed. Under the ISO's proposal, Scheduling Coordinators that provide incremental or decremental energy in accordance with ISO instructions in a ten-minute interval will be paid the interval clearing price for incremental energy, or will be charged the interval clearing price for decremental energy, as appropriate, and uninstructed energy will be priced based on the marginal cost that the ISO incurs to accommodate the uninstructed deviation. We believe that the proposed approach provides market participants with price signals that are generally efficient and consistent with principles of cost causation. We believe that Intervenor's proposals to use weighted averages of incremental and decremental clearing prices would provide less incentive for market participants to submit bids for the Imbalance Energy market.

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<sup>5</sup>Currently, the ISO must procure Regulation capacity that is between 5 - 12 percent of load, whereas historically, the utilities that formed the ISO control area required Regulation equal to approximately 1.5 percent of their respective loads. See Attachment G, p. 5.

Contrary to the views of ASC and Bonneville, we believe that paying nothing for Imbalance Energy would be punitive and inefficient. For example, the ISO states that during times of rising prices additional generation is needed, and the intervenors' approach would discourage generation from responding. In these circumstances, the energy clearly has a positive value to the ISO. Regarding DWR's suggestion that the ISO require suppliers failing to perform as they bid to pay liquidated damages, we note that the ISO proposes just such a scenario, by stipulating an amount to be paid in lieu of performance.

Also, although we recognize that the ISO's "target price" mechanism can affect the determination of clearing prices in the imbalance energy market, we find that the particular design of this mechanism has no direct bearing on the reasonableness of the ISO's ten-minute market proposal, which mainly involves tariff modifications to ensure that market obligations are settled over the same interval in which resources are dispatched. We note that the "target price" mechanism is the subject of an ongoing stakeholder process.<sup>6</sup> We direct the ISO to make its target price mechanism the subject of a future filing upon the completion of this process. Similarly, we do not believe that the ten-minute market proposal is related in a fundamental way to the comprehensive review of the ISO's congestion management system that is now underway. However, to the extent that the design of an effective congestion management system implicates the design of the ISO's Imbalance Energy market, we would expect the ISO and stakeholders to consider these implications within the context of the comprehensive review.

We do not believe the ten-minute market proposal creates any new problems for external resources and other control areas. The most significant change that external resources likely will see is a change in the way they are compensated, due to the fact that their bids will no longer be treated as fixed for an entire hour and no longer set the clearing price. Instead, the ISO will issue mid-hour dispatch instructions to all resources, including external resources. As the ISO notes, all resources will have the choice of whether or not to follow these instructions, and they have the means to mitigate any financial risk. We believe that these measures adequately accommodate the needs of external resources. Moreover, the fact that a resource cannot participate in the ten minute market does not mean that it cannot sell energy in California. Indeed, external resources which are also baseload units may be better suited to participate in the hourly energy market rather than the Imbalance Energy market.

Also, we do not believe that the ISO's proposal interferes with the operations of neighboring control areas which currently supply a substantial portion of the ISO's

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<sup>6</sup>See Attachment B to Enron's protest.

ancillary services requirements.<sup>7</sup> There is nothing in the proposal that would require another control area to modify its operations if it does not believe that it can adequately perform interchange accounting or undertake other necessary procedures. According to the application, Work Group discussions with other control areas continue to explore alternative methods of implementing ten-minute dispatch through procedures or automated approaches.

Similarly, we do not believe that the ten-minute market proposal causes undue harm for loads that wish to participate in the Imbalance Energy market. As in the case of external resources, we find that loads participating in this market will receive compensation that reflects the value of the energy they supply. The Commission recognizes that some loads will find it difficult to meet the technical requirements for efficient participation in the Imbalance Energy market. However, we agree with the ISO that these concerns present no basis for continuing to pay a price for Imbalance Energy that does not reflect the value of energy at the time it is purchased or supplied. Also, intervenors' concerns about the no-pay rule, which applies to ancillary service markets, are misplaced. The effect of the no-pay rule on participating loads that do not follow the ISO's instructions is not changed by the ISO's proposal in this proceeding. In any event, the proposal provides a limited no-pay exemption to loads that are taking part in the ISO's Summer 2000 trial program for load participation in the ancillary service markets.

In addition, we note that in its Answer the ISO expresses a willingness to permit any participating load that enters into an appropriate agreement to benefit from the same no-pay exemption that applies to load that has been selected to participate in the Summer 2000 program. We find this to be a reasonable accommodation, and therefore will condition our acceptance of the ten-minute market proposal on the ISO's commitment. We will require the ISO to modify its Tariff to reflect this commitment.

We do not believe that the intervenors' concerns about the proposal's complexity or other matters warrant a delay in implementation. As the ISO notes, and as the Commission noted in Pennsylvania - New Jersey - Maryland Interconnection, et al., 81 FERC ¶ 61,257 (1997), the availability of modern computer and communications technology allows the storage, transmission, analysis and auditing of large quantities of data. Thus, the Commission does not view complexity as a reason for delaying implementation. Furthermore, the ISO states that the ten-minute market proposal has been the subject of extensive discussions with stakeholders and numerous training sessions for market participants. In addition, delaying implementation beyond the summer peak season would mean that the proposal would not be in effect at a time when

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<sup>7</sup>For capacity to qualify for participation in the ISO's ancillary services markets, it must be dispatchable on a ten-minute basis.

potential cost savings are greatest, and when the ISO would likely realize substantial operational benefits.

In response to PG&E's request for a future report, we will accept the ISO's proposal to submit a report fifteen months after the ten-minute market is implemented. This report should address the costs and benefits of the ten-minute market, as well as related pricing issues.

With regard to intervenors' concerns about the drafting of tariff section 2.2.16, the reference to technical standards posted on the ISO Home Page, and revised definitions, we find the ISO's explanation in its Answer regarding these matters to be acceptable. Finally, with regard to Dynegy's concern about the requirement for submitting bids no later than 45 minutes prior to the settlement period, we note that this is among the issues to be

resolved in  
the  
"Unresolved  
Issues"  
proceeding,  
Docket No.  
ER96-3760.  
We believe  
that the  
resolution of  
this matter  
should  
remain in  
that  
proceeding.

### Adjustment Bids for Inter-Scheduling Coordinator Trades

Currently, the ISO's software recognizes bilateral trades of ancillary services between Scheduling Coordinators.<sup>8</sup> However, until now, the ISO did not accept adjustment bids in connection with these trades, preventing Scheduling Coordinators from participating in the congestion management auction. In Amendment No. 29, the ISO proposes to allow these adjustment bids; in doing so, it hopes to increase the number of adjustment bids it receives and thus increase the depth of its Inter-Zonal congestion management market.

Numerous parties express their support for this proposed revision, and none protest it. The California Commission submitted the only substantive comment, stating that this Commission should make clear that the bid data publication procedures previously approved as part of Tariff Amendment No. 25<sup>9</sup> apply to inter-Scheduling Coordinator adjustment bids. The ISO did not address this comment in its Answer. As requested by the California Commission, we will require that the bid data publication procedures approved in the March 29 Order to apply to inter-Scheduling Coordinator trade adjustment bids.

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<sup>8</sup>See AES Redondo Beach, L.L.C., et al., 87 FERC ¶ 61,208 at 61,812 (1999), reh'g denied, 90 FERC ¶ 61,036 (2000) (AES Redondo) (approving the ISO's proposal to recognize inter-Scheduling Coordinator trades).

<sup>9</sup>See California Independent System Operator Corporation, 90 FERC ¶ 61,316 at 62,047 (2000) (March 29 Order).

Accordingly, we will accept this proposal, to become effective on the later of July 1, 2000, or ten days after the ISO posts a notice that the modified software is ready for use.

### Scheduling Coordinator Financial Requirements

The ISO proposes revising the definition of Approved Credit Rating for Scheduling Coordinators, relaxing their credit standards to potentially reduce the costs of participating in the ISO's markets. The current credit standard for Scheduling Coordinators' obligations to the ISO for Grid Management Charges (GMC) would remain unchanged; but, for market obligations, Scheduling Coordinators could establish an Approved Credit Rating by demonstrating a short-term rating of A2/P2 or better (the second highest level), or a long-term rating of at least A3/A- (one level above the lowest investment grade rating).

PG&E and SoCal Edison protest this proposal, calling the proposed short-term rating "dangerously close to a non-investment grade rating."<sup>10</sup> PG&E asserts that unlimited unsecured credit should be granted only to A1/P1 counterparties. SoCal Edison argues that the Commission should reject the proposal or modify it to allow only the proposed long-term rating of A3/A- or better. In addition, SoCal Edison is concerned about the ISO's separation of security amounts as they apply to the GMC versus other charges, and requests the Commission to require clarification that the security amount allocated to pay charges other than the GMC will not be subordinated to the security amount allocated to the GMC. Without such a clarification, SoCal Edison requests that that aspect of the proposal be rejected.

The ISO explains in its Answer that stakeholders considered the apprehension expressed by PG&E and SoCal Edison about relaxing the financial security criteria, but concluded that the risk of default was minimal. The ISO contends that PG&E and SoCal Edison have not supported their claim that this conclusion was unreasonable. Regarding SoCal Edison's concern about separating security amounts, the ISO explains that the amount posted to secure an SC's market obligations will not be tapped to meet a default for Grid Management Charges ahead of its market obligations; "each will be handled separately and earmarked for its intended purpose."<sup>11</sup>

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<sup>10</sup>SoCal Edison at 6.

<sup>11</sup>Answer at 38.



We will approve this proposal without modification. We are persuaded by the collective stakeholder opinion that the benefits of relaxing the criteria would outweigh the risks. Also, we trust that the ISO's explanation of how it will separately handle the security amounts will allay SoCal Edison's concerns.

#### Automation of Dispatch Instructions

The ISO proposes in Amendment No. 29 to relay its dispatch instructions to resources participating in its ancillary service and Imbalance Energy markets electronically, rather than telephonically. The ISO proposes to revise its Tariff and Dispatch Protocol to clarify that resources submitting bids must be capable of receiving dispatch instructions electronically.<sup>12</sup> The ISO requests an effective date of June 1, 2000, when it projects its Automated Dispatch System will become operational.

Bonneville protests that the ISO's proposal will not permit adequate communication among the ISO, Scheduling Coordinators and involved control area operators. Specifically, Bonneville objects that the ISO does not intend to include control area operators in its Automated Dispatch System communications loop and warns that this may lead to unbalanced tie point interchange schedules or interconnected transmission system instability.

The ISO responds that Bonneville's protest is untimely, because the Commission previously approved the electronic communication of dispatch instructions in an earlier order.<sup>13</sup> Moreover, the ISO clarifies that its proposed automated and electronic communication of dispatch instructions does not give it automated control of resources; thus, the ISO explains, it will not be able to direct changes in the operation of external resources without the knowledge of neighboring control area operators.

We will approve these proposed revisions. We believe that the ISO's explanation that it is merely changing the form of communications with resource operators, and not taking control of them, adequately addresses Bonneville's objection. Because resource operators must still take affirmative action to implement the ISO's dispatch instructions, including communicating with control area operators other than the ISO, this proposal will not interfere with the operation of other control areas. In addition, we will grant

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<sup>12</sup>The ISO explains that its Tariff already requires resources providing Regulation service must be able to receive electronic dispatch instructions, and that the proposed changes will extend that requirement to the provision of any ancillary service or supplemental energy bid.

<sup>13</sup>See AES Redondo, 87 FERC at 61,815.

waiver of the 60-day prior notice requirement to the extent necessary to allow the proposed Tariff revisions to become effective on June 1, 2000, as requested.

Expansion of the Market Surveillance Committee

Currently, the ISO's Market Monitoring Information Protocol fixes the number of MSC members at three. The ISO proposes to amend the provision to provide for three or more members, believing that an additional member would expand the expertise for the MSC and aid in transition when there is turnover in membership. No parties oppose this proposal, and we find it to be a reasonable approach. Accordingly, we will accept the proposed revisions effective July 1, 2000, as requested.

The Commission orders:

(A) The ISO is hereby directed to submit a compliance filing as discussed in the body of this order within 30 days of the date of this order.

(B) The ISO's proposed tariff changes, as modified in Ordering Paragraph (A), are hereby accepted for filing, without suspension or hearing, to become effective on July 1, 2000, or as otherwise discussed in the body of this order.

(C) The ISO is hereby informed that the rate schedule designations will be supplied in a future order. Consistent with our prior orders, the ISO is hereby directed to promptly post the proposed tariff sheets as revised in this order on the Western Energy Network.

By the Commission.

( S E A L )

Linwood A. Watson, Jr.,  
Acting Secretary.