

March 23, 1998

The Honorable David P. Boergers
Acting Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

**Re: California Independent System Operator Corporation, Docket Nos.
EC96-19-____ and ER96-1663-____**

**Amendment No. 6 to the ISO Operating Agreement and Tariff,
including the ISO Protocols**

***Relating to Critical Reliability Issues Identified in Coupled Market
Demonstration Testing and Other Conforming Changes***

Dear Secretary Boergers:

Pursuant to Section 205 of the Federal Power Act ("FPA"), 16 U.S.C. § 824(d), the California Independent System Operator Corporation ("ISO") respectfully submits for filing Amendment No. 6 to the ISO Operating Agreement and Tariff, including the ISO Protocols ("ISO Tariff").¹

¹ This numbering system refers to amendments made in 1998, *after* the Commission's December 17, 1997 order conditionally accepting the ISO Tariff, as amended, for filing. Amendment No. 1, filed with the Commission on February 19, 1998, related to minor mismatches in ISO Tariff language and actual operations. Amendment No. 2 related to a proposed new definition, in the ISO Tariff, of the "ISO Control Area," plus certain consequential matters. Amendment No. 3 involved Regulatory Must-Take and Regulatory Must-Run issues. Amendments No. 2 and 3 were filed with the Commission on February 25, 1998. Amendment No. 4, which contained several discrete amendments, and Amendment No. 5, which involved certain simplification items to ensure timely and reliable operation, were filed with the Commission on March 3, 1998.

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The ISO respectfully requests that the Commission accept this amendment ("Amendment No. 6") for filing and make it effective as of the ISO Operations Date.² Certain of these amendment provisions, as set out in new Sections 23, 24,

² Capitalized terms not otherwise defined herein are defined in the Master Definitions Supplement, ISO Tariff Appendix A, as filed August 15, 1997.

25 and 26 of the ISO Tariff, are temporary measures and, therefore, the ISO also respectfully requests that the Commission grant pre-approval of the termination of these provisions as set out in the Sections in question.

Included with this submittal are:

- Amendment No. 6 (providing only the revised excerpts from the ISO Tariff, including the ISO Protocols, blacklined to show changes from the ISO's December 22, 1997 Compliance Posting and reflecting the filings made in regard to Amendment Nos. 1 through 5) (**Attachment A**);
- a notice suitable for publication in the Federal Register (**Attachment B**); and
- a memorandum describing in greater detail the types of issues that have been identified for which relief is sought in Part III.L of this letter (**Attachment C**).

I. NOTICES

The following individuals should be placed on the Commission's Official Service list for this submittal:

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II. BACKGROUND--THE COUPLED MARKET DEMONSTRATION TEST

Since last year, the ISO has been testing various parts of the ISO control center and the markets in the "Operational Dry Run" ("ODR"). The ODR involved using spreadsheets and models for simulating the operation of the system.

The ability of the ISO Control Center personnel to operate the system reliably using the systems and procedures available to them was *not* fully tested during the ODR. Not until the *coupled* market demonstration testing, commencing March 1, 1998, which integrated the ISO's systems and procedures with the systems and procedures of the three California investor-owned utilities (the "Companies"), did the ISO have the opportunity to test its ability to operate the physical system utilizing the ISO scheduling, real-time control and Congestion Management tools. This exercise also tested the ISO's Settlement system.

This real time testing of the system involved the ISO using its new software and operational tools to follow fluctuations in demand by:

- utilizing the bids of Generators on Automatic Generation Control ("AGC");
- supporting interchange scheduling with adjacent Control Areas;
- using the Supplemental Energy bids and Ancillary Services Energy bids submitted by Scheduling Coordinators as balancing Energy in real time; and
- committing and Dispatching Reliability Must-Run units.

During the coupled testing, a number of problems and challenges emerged. As described below, the ISO team, working with representatives of the Companies and the California Power Exchange (the "PX") (collectively, the "Task Force"), identified each problem, the cause, and one or more solutions.

Some of the proposed solutions involve ISO Tariff (including ISO Protocol) changes. Many of the proposed solutions have now been successfully tested. All of the changes principally relate to the ISO's primary mission:

- to secure the reliability of the ISO Control Area in accordance with applicable standards and practices of the NERC and WSCC; and
- to support the competitive markets for electricity in an efficient and cost-effective manner.

Most of the changes were presented to the ISO Board of Governors at a special meeting held March 11. A written description of the changes was posted on the ISO's Home Page prior to that public meeting. The other changes were presented to the Board at the regularly-scheduled monthly meeting held March 18. They were discussed in detail at the public meeting of the Grid Reliability and

Operations Committee on March 17. The memoranda describing the changes were posted on the ISO Home Page, and a written copy of each was made available for inspection at the Board meeting. Based on the input of the Board, several changes were made.

Because this filing is being made so close to the ISO Operations Date, the ISO delayed this filing to allow an abbreviated stakeholder review. On March 18, 1998, a draft of this transmittal letter, including the draft amendments to the ISO Tariff, was shared with Scheduling Coordinators, seeking their input. The changes were discussed with Scheduling Coordinators at a meeting hosted by ISO staff on March 19. Copies were also provided to the Task Force for review and comment. On March 20 and 21, 1998, the ISO considered all comments it had received in preparing the final version of this transmittal letter and these amendments to the ISO Tariff.

The changes proposed in this Amendment No. 6 are essential to meet the ISO's primary mission and must be effective as of the ISO Operations Date. Only changes essential for reliable operations in conformity with the ISO Tariff are included.³

Where the ISO software could be changed to meet Tariff language, the software has been modified. Conversely, where software could not be changed, Tariff provisions have been modified to ensure that the ISO operates in conformity with its Tariff. In a limited number of cases, both the software and Tariff are being changed to alleviate reliability and other concerns identified through testing.

III. THE NATURE OF AMENDMENT NO. 6

The several changes to the ISO Tariff, including the ISO Protocols, are summarized in the following sections of this part III. Items A, B, K, L and M are temporary or interim changes, while the remainder are longer term measures, as more fully discussed below.

³ The ISO has included some non-substantive changes clarifying language and correcting typographical errors, but only in sections that otherwise were required to be modified to meet operational concerns.

A. Temporary Changes to the Real-Time Market for Imbalance Energy

The coupled testing procedure included a test of the ISO's scheduling, Dispatch and Settlement systems. The testing required the PX, acting as Scheduling Coordinator for the Companies, and a limited number of other Scheduling Coordinators, to submit actual Schedules and bids to prove the ISO's ability to manage the various markets under its control efficiently and effectively. The results of coupled testing to date have revealed that the ISO may routinely receive an insufficient number of Supplemental Energy bids and Ancillary Service Energy bids, resulting in a "thin" market.

The implications of this, in relation to the ISO's responsibility as a Control Area operator beginning on the ISO Operations Date, are significant. If, upon start-up, there continues to be a "thin" market for Supplemental Energy and Ancillary Services, the ISO's ability to balance Generation and Demand on a real time basis, in compliance with NERC and WSCC minimum operating criteria, could be threatened. In fact, the ISO's difficulty in following ramps during the coupled test was, in large part, attributable to not having adequate Regulation.

During the coupled test, the ISO determined that some of the causes of "thin" markets were associated with pricing arrangements and, specifically, the way in which the ISO's software – for balancing Energy and *ex post* pricing ("BEEP") – operated. Moreover, the Companies informed the ISO that reliability could deteriorate further in the real markets when strategies would focus, even more, on prices – and not operations – for most Scheduling Coordinators.

Accordingly, the ISO quickly modified the BEEP software, and its later success in the coupled test demonstrated the efficacy of the modifications. Further software changes will be installed prior to start-up. This amendment will make the ISO Tariff consistent with the modified software.

A brief description of BEEP is useful to introduce the issues.

The ISO is responsible for the real-time Dispatch of (1) Generating Units, (2) Curtailable Demands and (3) interchange schedules to meet real time imbalances. The ISO determines the merit order stack for real time sources of balancing Energy by utilizing its BEEP software.

In the original ISO system design, BEEP would determine the Dispatch instructions required for each five minute interval, Dispatch instructions would be given, and parties would be billed based on actual *vs.* Final Schedules for the same five minutes -- the Settlement Period. When the ISO decided to stage

implementation of the five minute Settlement Period, it adopted an Hourly Ex Post Price, based on the average of the Five Minute Ex Post Prices. BEEP, however, was not modified. Instead, BEEP was designed and installed pursuant to the original assumptions -- to operate on a five minute interval.

In addition, during the coupled test, the ISO -- for the first time -- identified irregularities in the effects of BEEP software on economic Dispatch. Coupled testing also identified, and proved the existence of, a number of other problems, both operational and commercial, as follows.

- BEEP, as designed and installed, assumed that all of its previous Dispatch instructions were, in fact, communicated by the ISO operators to, and implemented accordingly by, Scheduling Coordinators. BEEP calculated the Five Minute Ex Post Price on this basis. However, the ISO's dispatchers cannot precisely respond to BEEP's recommended Dispatch instructions on a five minute interval basis; in fact, even with an additional operator on shift, not every call can be made.
- Partly because of the requirement to route Dispatch instructions *via* Scheduling Coordinators, BEEP's recommendations cannot be followed on a five minute interval basis, even when instructions are given in a timely fashion by the ISO.
- The five minute Dispatch interval is inconsistent with actual unit operating capabilities in many cases (*e.g.*, the out-of-state coal units, which are essential to the Ancillary Services and Supplemental Energy market, generally cannot be moved more than once per hour, and some pumped-storage hydro units must pump for at least an hour before being reversed).
- Dispatch based upon the marginal unit in each five minute interval, with payment based upon the hourly average of the five minute prices, leads to inequities. The actual payment to Scheduling Coordinators for incremental Energy requested by the ISO can be less than the price bid by the marginal unit dispatched in the five minute interval; conversely, the payment by Scheduling Coordinators for decremental Energy (*e.g.* Generation reductions) requested by the ISO could be greater than the price bid by the marginal unit chosen in the five minute interval. The owners of these units informed the ISO that they would withhold the units from the Supplemental Energy and Ancillary Services market after start-up, rather than risk economic losses.

- The ISO requirement for Supplemental Energy bids to be received no later than 30 minutes prior to the operating hour, and the five minute scheduling intervals of BEEP, are inconsistent with the scheduling requirements of adjacent Control Areas, thereby discouraging Supplemental Energy bids from outside the ISO Control Area.
- A number of highly-desirable units were being withheld from the Supplemental Energy and Ancillary Services markets because the requirement for unit-specific Dispatch makes operation problematic for physically interdependent units, (*e.g.*, those in a sequential hydro system).

These problems are, if unsolved, sufficient to keep the ISO from commencing operations. In order to address these difficulties, the ISO made adjustments to its BEEP software and various operating procedures. Many of the adjustments have been tested and the results demonstrate their efficacy in addressing the reliability concerns.

A number of these adjustments may be eliminated once the Dispatch period and the Settlement Period are parallel (when the sub-hour Settlement Period is adopted pursuant to the ISO staging plan). Until then, and until the ISO and its stakeholders have revisited these issues in a comprehensive fashion, the adjustments are those which are set out in new *interim* Section 23 of the ISO Tariff that will:

- allow the ISO to adjust the BEEP interval, subsequent to issuing a notice to Scheduling Coordinators, to a value ranging from five minutes to thirty minutes;⁴
- allow Scheduling Coordinators, when responding to a Dispatch instruction, to advise the ISO operators of a minimum run time, up to one hour, between Dispatch instructions;⁵

⁴ This interval was set at 10 minutes during the last days of the coupled test. The ISO expects the 10 minute interval to be used initially, but needs the flexibility to lengthen it if operational constraints suggest that 10 minutes is not an adequate period.

⁵ Initially, this notice cannot be submitted with a bid, but rather may only be given orally when the Scheduling Coordinator is called by the ISO operator.

- change the deadline for Scheduling Coordinators' submittals of Supplemental Energy bids, from thirty minutes prior to the Settlement Period, to forty-five minutes prior to the Settlement Period, to accommodate offers of Supplemental Energy imported from sources located in other Control Areas without violating WSCC interchange scheduling practices;
- clarify that physically interlinked resources (*i.e.* those associated with river or aqueduct systems) can be bid as a Physical Scheduling Plant, rather than on a resource-specific basis;
- clarify that actual Dispatch will be based on the ISO operator's prudent response to BEEP instructions, rather than a strict adherence to BEEP instructions, with the requirement that ISO dispatchers log the variations from BEEP instructions; and
- provide that, upon securing permission from a Scheduling Coordinator, the ISO may contact operators of Generators and Loads directly, for purposes of instructing incremental or decremental changes resulting from bids submitted by the Scheduling Coordinator, without having to communicate with them through their appointed Scheduling Coordinator.⁶

In addition, and most importantly, the ISO is changing the basis on which Scheduling Coordinators are compensated for accepted Supplemental Energy and Ancillary Service bids. This change will be effective for as long as the Settlement Period (currently an hour) and the Dispatch interval (currently less than an hour) are not the same. Until then, the ISO will settle with Scheduling Coordinators, for ***instructed deviations*** from their Schedules, as follows:

- for incremental Energy, the ISO will pay the Scheduling Coordinator, for each interval (*i.e.* 10 minutes, initially), at the higher of the bid price or the marginal incremental price for each interval, for the duration of the instructed deviation; and

⁶ Some Scheduling Coordinators expressed concern that direct communications would leave them without adequate information for their own settlement systems. The ISO assumes that a Scheduling Coordinator would not give its consent without having adopted internal procedures to capture necessary information directly from any Generator or Load called directly by the ISO.

- for decremental Energy, the Scheduling Coordinator will pay the ISO for each interval (i.e. 10 minutes, initially), at the lower of the bid price or the marginal price for each interval, for the duration of the instructed deviation.

The ISO will continue to settle with Scheduling Coordinators for ***uninstructed deviations*** in accordance with Section 11.2.4.1 of the ISO Tariff ("Net Settlements for Imbalance Energy"). Section 2.5.23 is, however, being amended to reflect the different interval periods (*i.e.*, 10 minutes, initially) used to calculate the Hourly Ex Post Price.

In addition, the amendment reflects the fact that BEEP calculates the price based on BEEP's instructions, whether or not the operator is able to communicate with the Scheduling Coordinator and whether or not the unit in fact responds. Eventually, the ISO intends to modify BEEP to calculate prices based on ***actual*** performance. This is not, however, possible in the short-run. The difference between BEEP's calculation and actual marginal prices is not expected to be significant, but there is the potential for a variance. The ISO has made software changes since the commencement of the coupled test and the ISO plans to modify its software further to continue to narrow the potential for variance until the more comprehensive software redesign can be implemented.

Any special adjustments, required to maintain revenue neutrality under this temporary regime, will be accounted for in accordance with section 3.1.1(c) of the ISO Settlement and Billing Protocol. This is discussed below under section III.J, Changes Regarding Neutrality Adjustments.

As noted above, because many of the problems with Supplemental Energy and Ancillary Services Energy relate to the duration of the BEEP Dispatch interval and the hourly Settlement Period not being the same, Section 23 is an interim provision. A number of comments from Scheduling Coordinators reflected a willingness to abide by the above-described changes as an interim measure, but expressed their discomfort with the short period in which they had to review the changes and consider their implications. The ISO agrees.

A comprehensive stakeholder process will be undertaken after start-up to determine how best to implement a sub-hour Settlement Period, pursuant to the ISO staging plan. The process will also look at how BEEP should be further redesigned and the other interim measures. At the conclusion of that process, the ISO will seek termination of this interim Section, identify which measures should be made permanent, and make other changes, all in a comprehensive ISO Tariff amendment.

B. Temporary Changes Regarding Physical Constraints on Schedules

During coupled testing, the ISO did not identify any problems with respect to operations that resulted from Schedules being outside of the physical limits of the units Scheduled. The ISO is, however, concerned about this possibility, especially in combination with "thin" Supplemental Energy and Ancillary Services markets. The ISO is also concerned about the lack of adequate economic incentives against imbalances that may result from staging the sub-hour Settlement Period. At least until there is a direct economic consequence relating to imbalances in each of the sub-hour intervals (*i.e.* sub-hour Settlement Periods), the ISO believes that there is a heightened risk to reliability that must be addressed with a market rule.

Although the Schedules and Bids Protocol (section 4) requires that the minimum and maximum output levels contained in Adjustment Bids must be physically achievable, the ISO Tariff, including the Protocols, does not, in its current version, explicitly require that each Generating Unit's schedule, nor any associated Adjustment Bids, be within the Generating Unit's physically achievable capability. For example, a Unit may schedule to operate at 100 MW in one hour and 1000 MW in the next hour, but be physically incapable of a 900 MW ramp within a single hour, leaving the ISO to manage the deficiency in real time. Importantly, without sub-hour Settlement Periods, the economic signal to schedule realistically is muted by the averaging used for the Hourly Ex Post Price for Imbalance Energy.

Thus, in new Section 24 of the ISO Tariff, the ISO amends the Schedules and Bids Protocol to require Scheduling Coordinators for Generators to schedule and bid within the physical capability of their Generating Units. The change also specifies that Generating Units must be capable of the degree of ramping reflected in any Schedule submitted by a Scheduling Coordinator.

As noted above in regard to the problems with Supplemental Energy, this issue also relates to the duration of the BEEP Dispatch interval and the Hourly Settlement Period not being the same. Thus, Section 24 is also an interim provision. The ISO will seek termination of this interim Section and propose any measures that should be made permanent when a comprehensive ISO Tariff amendment is filed to implement a sub-hour Settlement Period pursuant to the ISO staging plan.

C. Changes to Provisions Regarding System Reliability

As noted above, the ISO has identified the potential risk that the Ancillary Services and Supplemental Energy markets would, at least initially, be "thin" (*i.e.* a market where the ISO has received an insufficient number of Ancillary Services and/or Supplemental Energy bids). Without sufficient Supplemental Energy and Ancillary Services bids, the ISO will not have the ability effectively to balance Generation and Demand on a real time basis.

In the coupled test, the ISO was forced to utilize non-market measures to operate the system reliably. In other words, the ISO had to direct specific Generators to operate, in order to maintain the stability of the system, rather than rely on the market to perform this function.

This issue will be exacerbated in the earliest months after start-up, because of low load and potential Overgeneration, due in large part to the season's large volume of hydro-power, including Regulatory Must-Run Resources, as well as the relatively mild temperatures associated with the spring season. Based on the ISO's experience with the coupled testing, and the expectation of even greater periods of Overgeneration as the snow-pack begins to melt, the ISO has determined that additional ISO Tariff changes are necessary to ensure reliable operation.

Some of the changes required to address the problem of a "thin" market for Supplemental Energy are temporary or interim. Those temporary measures are described above in part III.A of this letter. There are, in addition, necessary changes to the ISO Tariff, involving Sections 2.3.2.3 and 11.2.4.2, and a corresponding change to the Dispatch Protocol, that are not interim in nature.

First, Section 2.3.2.3 of the ISO Tariff defines, more clearly, the circumstances in which the ISO may set the Administrative Price. The provision, as revised, clarifies that the Administrative Price will **not** be set if the ISO is merely trying to **prevent** a System Emergency from occurring, but only if such an emergency actually occurs. A corresponding change is made to section 10.2.3, Intervention in Market Operations, of the Dispatch Protocol.

The ISO's ability to instruct a Generating Unit in circumstances in which the ISO considers that a System Emergency is imminent or threatened was already treated in Section 5.6. Section 5.6 will thus be the only applicable section for use when the ISO is acting to prevent a System Emergency.

Second, the ISO is amending Section 11.2.4.2 of the ISO Tariff to clarify that, where the ISO exercises its authority to Dispatch Generating Units, Loads or imports, in circumstances where there is a deficiency of Supplemental Energy bids short of a System Emergency, the concerned Scheduling Coordinators will be paid at the Imbalance Energy Price referenced in Section 11.2.4.1.

This clarification is necessary because, during the coupled testing, Scheduling Coordinators communicated a concern that they would not be paid when responding to an ISO "out of market" instruction short of a System Emergency. In fact, the ISO structure already contemplated that Scheduling Coordinators would be compensated through the Imbalance Energy mechanism for either increasing or decreasing Generation in response to an ISO out-of-market order. This clarification merely eliminates potential confusion.

Notwithstanding that the ISO Tariff already contemplated the Imbalance Price as the appropriate price, the ISO considered whether a different payment would be more appropriate. For example, many utilities charge a high "Emergency" Energy price, sometimes up to 100 mills/kWh. The ISO considered a premium price, but concluded that no change to the ISO Tariff pricing structure is necessary at this time, in particular because a premium price might encourage the Generating Units to withhold bids, awaiting a call "out of market."

The Imbalance Energy Price, in contrast, reflects the value of the Energy to the market and provides no disincentive to Scheduling Coordinators to submit sufficient Supplemental Energy bids and Ancillary Service bids for use by the ISO. Specifically, a Scheduling Coordinator has two choices, as follows.

- It can choose not to submit a Supplemental Energy bid or Ancillary Service bid in any particular hour; however, in doing so it risks being called upon "out of market" at times when the Imbalance Energy Price may be insufficient to cover its incremental or decremental operating costs.
- Alternatively, if the Scheduling Coordinator submits a Supplemental Energy bid or Ancillary Service bid designed to recover its incremental or decremental costs, it can protect itself from uncertainty.

The ISO determined that the Imbalance Energy price currently in the ISO Tariff is, therefore, an acceptable approach that allows the ISO to operate the system reliably, without creating incentives that discourage bidding.

D. Changes Regarding Overgeneration Management

In its October 30, 1997 Order, the Commission rejected the ISO's Overgeneration Protocol, instructing Scheduling Coordinators to handle Overgeneration.⁷ The ISO, however, retains the responsibility to manage Overgeneration in real time.

To date, the Commission has not ruled on the ISO request for rehearing seeking reinstatement of the Overgeneration Protocol. As a result, since the ISO has been awaiting the rehearing, no comprehensive stakeholder process has been undertaken to develop a new Overgeneration Protocol limited to real time operations.

Experience during the coupled test has demonstrated that, at a minimum, the ISO must change certain provisions in the body of the ISO Tariff, and in the Dispatch Protocol, to provide adequate systems and procedures for managing Overgeneration in real time, until the Commission finally rules on the rehearing and pending further changes that may come out of a comprehensive stakeholder process once the rehearing is decided.

Currently, the only systems or procedures available to the ISO to handle Overgeneration are those specified in Section 2.3.4 of the ISO Tariff:

2.3.4 Management of Overgeneration Conditions.

The ISO's management of Overgeneration relates only to real time. Overgeneration in real time will be mitigated by the ISO through the Imbalance Energy market and, to the extent that this is insufficient to resolve the problem, by directing each Scheduling Coordinator to reduce its Generation pro rata based on the product of the total required reduction in Generation and the ratio of its Demand to the total Demand in the ISO Control Area.

This ISO Tariff provision is, in turn, cross-referenced in section DP 8.8 of the Dispatch Protocol.

The problems identified by the ISO are several:

⁷ See *Pacific Gas and Electric Company* 81 FERC ¶ 61,122 at 61,525-26 (1997) ("October 30 Order").

- there have been inadequate decremental bids (“decs”) in the Supplemental Energy market required for ramps, and for what might otherwise be required in certain instances to remedy Overgeneration;
- the current ISO Tariff procedure provides no mechanism for the market to respond before *pro rata* curtailments are ordered; and
- the current ISO Tariff procedure penalizes all Scheduling Coordinators, rather than those causing the Overgeneration,⁸ thereby providing the wrong incentives to Market Participants.⁹

After start-up, the ISO will commence a stakeholder process to consider a comprehensive approach to manage Overgeneration in real time. To meet immediate reliability concerns, however, the ISO is amending its real-time Overgeneration procedures, as follows.

- (1) The ISO will first rely on decremental Adjustment Bids and Supplemental Energy bids.
- (2) If these bids are insufficient, the ISO will notify Scheduling Coordinators of the amount of Overgeneration and advise the Scheduling Coordinators that the *ex post* price for Imbalance Energy is set to \$0/MWh, with periodic updates.
- (3) In addition, the ISO will, if necessary, do the following:
 - (a) attempt to eliminate the Overgeneration by exports of Energy to one or more adjoining Control Areas at no cost or at a negative price;
 - (b) direct Scheduling Coordinators to reduce Generation or external imports (or increase exports) on the basis of each Scheduling Coordinator’s scheduled Demand *pro rata* to total Scheduled Demand; and, finally,
 - (c) order mandatory reductions in the output of specific Generating Units and monitor the response of such units.¹⁰

⁸ The ISO does not have the ability, in real time, to determine which Scheduling Coordinator is deviating from its Schedule. This information is only known when all meter data is collected – monthly.

⁹ This problem is exacerbated when Dispatch periods are not the same as Settlement Periods. Scheduling Coordinators wishing to avoid Imbalance Energy payments will begin ramps ahead of the hour, increasing Overgeneration.

The operator will have the discretion, if necessary to avoid a System Emergency, to skip one or more of these steps. Any costs incurred in eliminating Overgeneration will be borne by Scheduling Coordinators through the Imbalance Energy charge – thus assigning the costs only to Scheduling Coordinators whose Generating Units were over-producing or whose Loads were under-consuming, relative to their respective Final Schedules.

These changes are contained in the amended Section 2.3.4 of the ISO Tariff and section 8.8 of the Dispatch Protocol.

As noted above, these changes are to continue in effect only until the Commission acts upon the application for rehearing of the ISO's rejected Overgeneration Protocol and until a comprehensive stakeholder process can be completed that looks at long-term solutions for managing Overgeneration in real time. For example, a number of Scheduling Coordinators favor allowing negative prices. That proposal will need to be explored in the comprehensive review. Also, stakeholders have expressed a concern that any discretionary actions by the ISO be subject to review. The ISO will work with stakeholders to develop a proper reporting and monitoring system that gives Market Participants confidence that Overgeneration is being prudently managed.

E. Changes to Give Load an Implicit Priority in Congestion Management

During the coupled test, there were some hours in which Congestion occurred. During these hours, the ISO Congestion Management software ("CONG") curtailed Load and Generation due to inadequate Adjustment Bids. In examining the test results, the ISO determined that CONG curtailed Load at the same relative priority as Generation and external exports.

Load is relatively less flexible than Generation. Thus, even though CONG **assumes** Load will be curtailed as per the Final Adjusted Schedule, in fact, it is more likely that Load will not be curtailed and add to real time imbalances. The ISO operators need accurate information to operate the system reliably. When curtailments are necessary, the ISO believes Generation is likely to be increased rather than Loaded curtailed and that CONG should recognize that assumption.

¹⁰ Some Scheduling Coordinators raised concerns about the equity of ordering mandatory reductions of specific units. This is a measure of last resort, necessary when the directive for *pro rata* reductions has not relieved the Overgeneration and immediate, verifiable action is required. The ISO would have this authority in any event under Section 5.6, since the intent is to use it to prevent a System Emergency.

The ISO is, therefore, revising the description and use provisions for Adjustment Bids, in both the Schedules and Bids Protocol and in the Scheduling Protocol, to alter the relative priority of the curtailments to reflect what, in all likelihood, will actually occur.

The CONG software assigns implicit Adjustment Bids to all Load and Generation in order to perform the congestion management. To give Load a relatively higher priority than Generation, the CONG software assigns an implicit higher Adjustment Bid to Loads that are submitted without Adjustment Bids (*i.e.* "price-takers") than is assigned to Generation submitted without Adjustment Bids. Using this approach will, however, require modification of several other values and ranges of Adjustment Bids.

The software change to give Load a higher relative priority is expected to be in place by the ISO Operations Date and the Schedules and Bids Protocol and the Scheduling Protocol must be revised to conform to the new software. The amendment does, however, provide for the current Adjustment Bid values to remain in place if the software is not operational at start-up and for seven days' notice before the amendments come into effect. Scheduling Coordinators need to be aware of these changes, since the internal changes affect several of the values and ranges that Scheduling Coordinators must rely upon to protect, and properly prioritize, their scheduled uses. Market Participants will be informed of these changes prior to the start of the market.

Finally, it should be noted that the changes in part E of Attachment A are not limited to the changes necessary to implement the prioritization of Load. Certain other blacklined changes are also included. These are non-substantive changes to clarify previous filings regarding the treatment of Regulatory Must-Take and Regulatory Must-Run Resources and Existing Contracts and the changes made *infra* regarding the Default Usage Charge.

F. Changes to the Default Usage Charge

Amendment No. 4 noted that the ISO had identified a potential gaming scenario and identified a solution whereby a default Usage Charge ("DUC") would be set at the top of the range of economic Adjustment Bids. Amendment No. 4 also provided for the DUC to be set by the ISO from time to time in a range between \$200/MWh and \$500/MWh. The ISO noted that the charge was being fixed initially at \$250/MWh.

As also noted in the Amendment No. 4 filing, Scheduling Coordinators have expressed a strong preference that the DUC be set as low as possible, to avoid

imposing unnecessary penalties on Scheduling Coordinators who must be "price takers" in Congestion Management because their Schedules are primarily composed of Inter-Scheduling Coordinator Trades. As the ISO considered the changes included in this filing, it became clear that the Scheduling Coordinators remain opposed to high DUCs.

That opposition must be balanced, however, with the need to avoid discouraging Adjustment Bids. Because the DUC must be equal to the top of the economic Adjustment Bid range to avoid the earlier-identified gaming opportunity, it is important not to set the DUC so low that it discourages Adjustment Bids.

In response to further discussions on this issue between the ISO and Market Participants concerned about the possibly punitive effect of a high DUC, the ISO has developed a further change to Section 7.3.1.3 of the ISO Tariff and to the Scheduling Protocol. The change would lower the floor of the DUC, and afford the ISO the necessary flexibility to balance, on a day-to-day basis, the concerns of Scheduling Coordinators with the need to avoid disincentives to Scheduling Coordinators to submit Adjustment Bids.

The ISO Board, after long discussion, concluded that ISO management should have the flexibility to set the applicable floor and ceiling within certain "absolute" amounts, namely an absolute floor of \$0 and an absolute ceiling of \$500. Initially, ISO management intends to set the floor at the very low level of \$30 and the ceiling at \$250.

The ISO Board also directed management to include, in this ISO Tariff amendment, a further provision, giving the ISO management the ability, when the required software is installed, to have a "floating" DUC, calculated in most instances by adding a pre-set "adder" (an amount between \$0 and \$99) to the highest incremental bid ("inc") used less the applicable decremental bid ("dec") used. In all cases where there are insufficient decremental bids or no decremental bids, the applicable dec will be zero. The values for the floor, ceiling and adder These values will be adjusted as required, within the absolute limits, with one day's notice to vary the floor and the adder, and seven days' notice to vary the ceiling.

The one day notice allows management to set a low floor initially, to soften the impact of early Scheduling Coordinator mistakes, knowing that it can raise the floor quickly if it concludes that Adjustment Bids are being discouraged. The floor and adder, as provided in the amended ISO Tariff provision, could be changed

with notice to the Scheduling Coordinators along with Final Revised Schedules at the close of the Day-Ahead Market, for applicability to the following Day-Ahead Market. As indicated, a seven-day advance notice would still be required to change the floating ceiling, again within the absolute limit of \$500. Such a change would be made if the ISO concluded that the level of the default Usage Charge may be discouraging Adjustment Bids.

The amendment also provides that, if the new software necessary to implement the "floating" DUC arrangement is not operational by start-up, the ISO management will establish a "fixed" DUC, changeable on one day's notice. Once available, the ISO will implement the software for the "floating" DUC arrangement, after giving Scheduling Coordinators seven days' notice.

Because the concept of the default Usage Charge is complex, the ISO Board asked management to provide a simple description of how the DUC will be calculated. Although it is somewhat difficult to describe the linear optimization algorithm that is used in the Congestion Management process in a simple manner, the following description will serve as a good approximation of the process.

The ISO's Congestion Management program (CONG) calculates a Usage Charge for a transmission path based on evaluating pairs of Adjustment Bids in each Scheduling Coordinator's portfolio. Adjustment Bids are voluntary adjustments that a Scheduling Coordinator can make to the resources in its portfolio. ***There is no matching of bids between Scheduling Coordinator portfolios in this process. There is also no requirement that a Scheduling Coordinator submit bids only in pairs.*** For example, a Scheduling Coordinator could submit a decremental bid on a fully loaded Generator, to indicate its willingness to decrement, and not have a matching incremental bid.

If there are insufficient pairs of Adjustment Bids to resolve Congestion, then all that will be left is Scheduling Coordinators that have unused incremental or decremental Adjustment Bids. At that point, CONG will deem that it has "run out of Adjustment Bids" even though there may be unused and unmatched bids remaining. The market design does ***not*** allow the ISO to match the decs of one Scheduling Coordinator with the incs of another Scheduling Coordinator.

At this point, the default Usage Charge applies. CONG will still calculate the most economical way to continue to reduce transmission path usage. For example, if there is an unused incremental Adjustment Bid that is the most economical, after all the pairs are exhausted, CONG will exercise the unused

incremental Adjustment Bid and decrement resources *pro rata in that Scheduling Coordinator portfolio* in order to keep it in balance. A similar action takes place with the unused decremental Adjustment Bids.

After all this takes place, CONG will take the highest incremental Adjustment Bid that was actually *used* as the basis for the DUC calculation. The lack of adequate Adjustment Bids signals, however, a market failure. Theoretically, setting a default Usage Charge equal to the last of a set of inadequate bids fails to send the proper signal to the market that additional Adjustment Bids are required (since clearly that price was inadequate to attract a sufficient amount of Adjustment Bids). For that reason, the Board has directed management to provide for an "adder", as described above, that may be applied to the highest incremental Adjustment Bid to provide additional incentive for Scheduling Coordinators to supply Adjustment Bids. As indicated, the adder will initially be set at \$0/MWh, but this number may be changed by the ISO, on one day's notice, as experience dictates.

Under these initial arrangements, calculation of the DUC will generally be as illustrated in the chart below.

		Decremental Adjustment Bids		
		Sufficient Decs	Insufficient Decs	No Decs
Incremental adjustment Bids	Sufficient Incs	No DUC – actual Usage Charge is incs minus decs, but always $\leq \$250$	highest inc minus \$0 plus \$ adder (initially \$0), but always $\leq \$250$ and $\geq \$30$	highest inc minus \$0 plus \$ adder, but always $\leq \$250$ and $\geq \$30$
	Insufficient Incs	highest inc minus lowest dec plus \$ adder, but always $\leq \$250$ and $\geq \$30$	highest inc minus \$0 plus \$ adder, but always $\leq \$250$ and $\geq \$30$	highest inc minus \$0 plus \$ adder, but always $\leq \$250$ and $\geq \$30$
	No Incs	\$250 minus lowest dec plus \$ adder, but always $\leq \$250$ and $\geq \$30$	\$250 minus \$0 plus \$ adder, but always $\leq \$250$ and $\geq \$30$	\$250 minus \$0 plus \$ adder, but always $\leq \$250$ and $\geq \$30$

G. Changes to Reliability Must-Run Unit Payments and Scheduling

The ISO, in conformity with the Commission's October 30 Order, will call upon Reliability Must-Run Generation ("RMR") after receipt of the initial Preferred Schedules in the Day-Ahead Market. Typically, the Scheduling Coordinator for a RMR unit would reflect the ISO's call on the RMR unit by revising its initial Preferred Schedule or changing its Schedule in the Hour-Ahead Market.

Most RMR units will, however, be scheduled through the PX, at least initially. The PX cannot adjust its initial Preferred Schedule in the Day-Ahead Market, nor can it schedule in the Hour-Ahead Market until implementation of its staging plan.

In order to deal with these constraints, the current ISO Tariff and Protocols provide for RMR units to be dispatched, and to provide reliability services, while making provisions to handle the minimum Energy required for these RMR units to be effective. An economic ranking of Day-Ahead and Hour-Ahead decremental bids is used by the ISO to lower existing Generation schedules in other areas to accommodate the minimum RMR Energy. Participating Transmission Owners (PTOs) pay for RMR Dispatch, but they are credited for the market value of the Energy, *i.e.*, the decremental bid Settlements.

However, through the ISO coupled testing, two problems were identified with the existing ISO Settlements and Billing Protocol, as follows.

- **RMR units may not be able to comply with RMR Dispatch instructions, or may not be able to do so in a timely manner.** The Settlements and Billing Protocol currently provides for PTO credits for RMRs based on instructed performance as opposed to actual performance. The ISO is, therefore, changing Appendix B of the Settlements and Billing Protocol to credit PTOs based on actual Generation output.
- **The ISO may not decrement other units to accommodate RMR Energy in real time.:** Due to timing and other operational constraints, ISO operators may request RMR units to provide additional Energy without instructing decremental Energy from another unit (while taking alternative actions to prevent Overgeneration conditions from developing). Where the ISO calls on RMR units in real time and does not decrement other units, the ISO proposes to credit PTOs the Energy provided at the Uninstructed Imbalance Energy Price and is, therefore, amending Appendix H of the Settlements and Billing Protocol to accomplish this.

Finally, an additional change has been made to reflect the fact that the standard arrangement for notifying Scheduling Coordinators for RMR Generation one day in advance of the Trading Day is not appropriate for RMR units with longer lead times. To deal with this, an amendment has been made to SP 3.2.6.1 of the Scheduling Protocol.

H. Changes to Settlement Calculations

The ISO proposes clarifications to Appendices C and D of the Settlement and Billing Protocol related to the calculations for buy back/sell back of Ancillary

Services, and the removal of a typographical error in the formulae for calculating payments and charges for Imbalance Energy.

I. Changes to Contingency Measures

Over the period leading to the ISO Operations Date, the ISO has been developing a number of operating procedures and contingency plans to meet possible eventualities. One of these relates to the procedures which the ISO will follow if it does not receive any, or a sufficient amount of, Preferred Schedules in either the Day-Ahead or Hour-Ahead Markets. Whatever the reason for such a deficiency, the ISO needs to ensure that Market Participants are aware of the actions the ISO will take.

The ISO presently has the ability, under SP 3 of the Scheduling Protocol, to implement temporary variations of timing requirements in the Day-Ahead and Hour-Ahead Markets, either for reliability purposes or due to error or delay. The ISO's operating procedures provide that, pursuant to SP 3, the ISO will hold open the market until it has received sufficient Preferred Schedules and will notify Scheduling Coordinators on the WEnet.

It is possible, however, that the delay in the market could reach such a state that the Day-Ahead Market operations could not be run. Again, pursuant to SP 3, the ISO has the ability to omit some of the steps in the timing requirements of the Markets in order to mitigate the problem.

Even this step may, however, not be sufficient in extreme circumstances and, in such cases, the ISO proposes that it should be given the authority to abort the Day-Ahead Market and require all Schedules to be submitted in the Hour-Ahead Market. For similar reasons, there may be inadequate time to operate the Hour-Ahead Market and, again, in that eventuality, the ISO proposes that it first deem final Day-Ahead Schedules to be Preferred Hour-Ahead Schedules for those hours, as described in SP 3.3. If that fails, the ISO needs the ability to abort the Hour-Ahead Schedule and operate in real time.

A further scenario is the possibility that the ISO may be unable to run Congestion Management, because of, for example, a scheduling or software problem. Again, the ISO proposes to resolve this problem pursuant to SP 3, both as currently filed and by an amendment of SP 3.

Currently, SP 3 provides that if the ISO is unable to run Congestion Management, the ISO has the ability to implement temporary variations of timing requirements of the Day-Ahead and Hour-Ahead Markets, either for reliability

purposes or due to error or delay. If, despite the variation of any timing requirement or omission of any step, the ISO still is unable to run Congestion Management, then, pursuant to this amendment, the ISO will have the ability to abort the Day-Ahead Market and instead run Congestion Management on the Hour-Ahead Market. For similar reasons, there may be inadequate time to operate the Hour-Ahead Market and, if so, the amendment will provide the ISO with the authority to abort Congestion Management in the Hour-Ahead Market and operate in real time.

J. Changes Respecting Neutrality Adjustments

The Settlement and Billing Protocol contains provisions for the ISO to levy additional charges and payments that arise when it is not possible to balance the ISO Clearing Account by means of a "neutrality adjustment." A change arising from cash imbalances due to "rounding" was the first charge identified as a situation to be handled by way of the neutrality adjustment.

The changes in the Imbalance Energy pricing calculations, discussed in part III.A of this letter, create additional cash imbalances that will be handled through neutrality adjustments. In addition, further imbalances were identified during the coupled test that must be handled through the neutrality adjustment.

In particular, it has become apparent that there are a variety of "other causes" for cash imbalances, beyond the "rounding" issue, that will require the use of the neutrality adjustment. Such "other causes" include the following.

- **Control Area inadvertent Energy interchanges:** Scheduling Coordinator import and export schedules at intertie points are "deemed" to equal the actual meter reads. This is because there are multiple schedules at each tie, and it is not possible to disaggregate hourly reads and assign them to individual schedules. This "deeming" results in zero import/export imbalances while there may be aggregate imbalances at the interties due to inadvertent flows. Unaccounted-for-Energy (UFE) is increased (or decreased) by these imbalances every hour and is charged to Scheduling Coordinators without any offsetting counter-charge (or credit).
- **Real time Inter-Zonal Congestion:** Inter-Zonal Congestion in real time will require resources to be dispatched in the importing and exporting Zones to mitigate the overload. To the extent that payments and charges in each separate Zone are not identical, there will be cash imbalances.

- **Differences in calculation of Transmission Losses on imports in formulae for Imbalance Energy and UFE:** Losses associated with import schedules are calculated in the import deviations formulae based on Scheduling Coordinators' schedules. Losses associated with import "actuals" are calculated as part of the UFE Settlement and are based on intertie metered values. Since the intertie metered values net import and export schedules, there may be smaller amounts of losses computed in UFE than in the Imbalance Energy calculations. This also creates cash imbalances.
- **Imbalance in forward market schedules:** To the extent the sum of scheduled Generation, imports, Loads, exports and Inter-Scheduling Coordinator Trades is not balanced (yet within allowable ISO mismatch tolerance – which is set by the ISO at amounts between 1 MW and 20 MW as discussed in part III.K of this transmittal letter), the ISO may find UFE which is not offset by any Imbalance Energy charge or payment.
- **Differences in settlements due to price calculations for instructed and uninstructed deviations:** Payments for instructed Imbalance Energy in the new Real Time Market pricing methodology will be paid based on the Energy "instructed." Any differences between this instruction and the meter reads from the Generation Units will be charged (or paid) at the Imbalance Energy Price for uninstructed deviations. The differences in these prices will cause revenue mismatches whenever units fail to meet ISO instructions.

Having identified, as a result of the coupled testing, the existence of these various imbalances, it was clear to the ISO that the language relating to neutrality adjustments in the Settlements and Billing Protocol should be reviewed to ensure that it adequately reflected the operation of the software. As a result of that review, the ISO is making further minor changes to the Settlement and Billing Protocol, to align it with the way the software operates. In addition, the ISO Tariff contains, at present, no provisions on neutrality adjustments. An additional section is, therefore, being inserted in the ISO Tariff, similar to the Settlements and Billing Protocol's provisions, to address this issue.

Finally, the ISO notes that several Scheduling Coordinators expressed concern about the degree of discretion afforded to the ISO with respect to Neutrality Adjustments. This discretion has been in the ISO Tariff (specifically, the Settlements and Billing Protocol) but may not have been fully comprehended until

specific examples were called to the attention of Market Participants by the ISO's circulation of a draft of this Amendment No. 6. To give Market Participants assurance that the Neutrality Adjustment is not being abused by the ISO, and in response to comments received from Scheduling Coordinators the ISO will make publicly available, on a periodic basis, the amounts flowing through the Neutrality Adjustment, by category. In addition, the ISO will continue to pursue software changes to classify and properly allocate the items for which the Neutrality Adjustment is used – seeking stakeholder input on which items are of significant magnitude to warrant additional investments of time and/or capital to apportion cash imbalances.

K. Change to the ISO Schedule Validation Tolerance

Amendment No. 5 introduced a temporary simplification to facilitate ISO validation of Scheduling Coordinators' Balanced Schedules by increasing the 1 MW "tolerance," within which a Schedule would be deemed to be balanced, to 20 MW. Amendment No. 5 further proposed that this simplification would terminate upon ISO notice. In discussions with Scheduling Coordinators, principally the PX, the ISO has determined that a 20 MW tolerance is likely not necessary and may result in unnecessary imbalances in settlements. On the other hand, Amendment No. 5 contemplated either 20 MW or 1 MW. A sliding scale for adjusting the tolerance appears more appropriate. Therefore, the ISO is filing an amendment to the earlier-filed Section 22, to allow the ISO to reduce the 20 MW "tolerance" band, after giving Scheduling Coordinators one day's notice, posted on the ISO's Home Page. Initially, the tolerance will be set at 2MW.

L. Temporary Liability and Exclusion Provisions

The ISO Tariff is, perhaps, unique in its detail and complexity. It is certainly far more detailed than *pro forma* tariffs filed by utilities under Order No. 888. The inability of the ISO to date to complete a comprehensive review and justification for excluding all or any part of the Protocols as part of the filed ISO Tariff creates additional detail and complexity. Thus, where many, if not most, utilities have typically been obligated to honor the express terms of their tariff and suffer liability for even negligent failure to do so, the ISO respectfully submits that the unique detail and complexity of the ISO Tariff presents an almost insurmountable standard of conduct and the potential for endless and possibly intractable disputes. The problem is intensified by the nature of the ISO market design – with 8,760 Settlement Periods annually and up to 42 separate charge types – for multiple Scheduling Coordinators whose individual statements are, by definition, interdependent on the charges made to every other Scheduling Coordinator.

During the coupled market demonstration testing, it became apparent that situations will occasionally arise in which the ISO operations and settlements staff make inadvertent errors in performing their duties under the ISO Tariff, including the ISO Protocols. In most instances, these errors will not be of a significant nature and remedial measures will be relatively straightforward. In other instances, the errors may result in impacts on Scheduling Coordinators that require more extensive corrective actions. In at least some cases, the egg simply cannot be unscrambled.

Obviously, as the ISO operations and settlements staff gain more familiarity with the system, the frequency of such errors will be reduced. In addition, over the next few months, the ISO will continue to develop administrative procedures designed to prevent the occurrence of such errors. Further, the ISO is developing numerous situation-specific correcting and remedial measures to be taken, if such events occur in the future. On the other hand, the ISO could be crippled in its ability to operate if faced with potential liability for what is undeniable – that humans will, occasionally, be human. Although not all human error rises to the level of negligence, the exhaustive detail of the ISO Protocols and the interrelated charges of all Scheduling Coordinators creates a very real risk of chaos if certain, albeit negligent, mistakes were to happen and the effects could not be resolved without an extremely burdensome and costly process.

A summary of some, but not all, of the potential human errors identified to date is included for the Commission's information as **Attachment C**.

ISO management, when considering the liability issue during the coupled test, initially undertook to review the ISO Tariff to identify all potential areas where the ISO Tariff should be amended to clarify the standard against which the ISO would be expected to act. It soon became clear, however, that this task could not be accomplished prior to start-up. Moreover, it is a task more appropriately handled in a stakeholder process that addresses the larger issue of which Protocols may be excluded from the ISO Tariff as true operating procedures, rather than contractual obligations, and which ones should be added to the main body of the ISO Tariff. This task has a high post-start-up priority for ISO management.

The ISO is mindful of the ruling of the Commission, in its October 30 Order, that the ISO's liability should extend to situations where damages have resulted from *all* types of negligence on the part of the ISO.¹¹ The ISO's December 1, 1997

¹¹ See 81 FERC at 61,520.

request for rehearing of that aspect of the October 30 Order, in which the ISO first proposed a "gross negligence" standard, is still pending.

However, until the rehearing is decided and the ISO can conclude its Protocol review, the ISO respectfully submits that an interim "gross negligence" standard is appropriate. This is particularly so given the need for ISO operators and settlement staff to gain experience with the various complex rules and procedures (and substantial manual work-arounds necessary to allow on-time operations). This interim amendment is, therefore, submitted by the ISO without prejudice to the position that any party, including the ISO, has taken or may take with respect to the liability issues raised in the October 30 Order, the ISO's rehearing request or any subsequent appellate or other proceedings arising therefrom.

In view of the above, the ISO is filing the special, temporary, liability provisions set out in proposed new Section 25 of the ISO Tariff. Essentially, Section 25 provides that, during a prescribed interim period, ***ending on December 31, 1998***, the ISO's liability for damages to any Market Participant, arising from the ISO's performance or non-performance of its obligations under the ISO Tariff, shall be limited to situations in which the damages result from either intentional wrongdoing or gross negligence on the part of the ISO.

M. Temporary Changes to Ancillary Services Penalties

As noted above, a significant concern identified in testing to date is the apparently "thin" Ancillary Services market. Accordingly, the ISO has continued to search for provisions in the ISO Tariff which may have the effect of discouraging Scheduling Coordinators from submitting Ancillary Services bids. During the coupled test, the ISO identified one such provision that it is now modifying.

The ISO Tariff provides for penalizing Scheduling Coordinators for non-performing with respect to Ancillary Services (ISO Tariff section 2.5.26). Prior to the coupled test, there were few, if any, objections to such penalties. However, results of the coupled test highlighted for Scheduling Coordinators the risk of such penalties. In reviewing the concerns with Scheduling Coordinators, management determined that the risk is exacerbated by (1) the increased emphasis on submitting adequate Adjustment Bids and (2) the process in which the ISO's software sequentially evaluates Congestion Management and Ancillary Services.

The ISO's Congestion Management software (CONG) and Ancillary Services management processes run sequentially in the ISO's scheduling system. In the

event of Congestion, some resources may be adjusted to the point at which their Revised Schedules conflict with their offered Ancillary Services. For example, a 100 MW Generator, with an initial Preferred Schedule of 75 MW, may also bid to supply 25 MW of Spinning Reserve. As a result of Congestion, the Generator may be adjusted to 80 MW. The ISO's Ancillary Services evaluation, as presently configured in the scheduling system, will not take into account the 5 MW adjustment, assuming that the whole of the 25 MW bid to supply Spinning Reserves is available. If this Generator is selected by the ISO to provide the full 25 MW of Spinning Reserve, and the ISO subsequently calls on the resource in real time to supply balancing Energy, the Scheduling Coordinator will not be in a position to respond fully and may be subject to penalties unless it can obtain substitute Energy for its Adjustment Bid so that the unit supporting Ancillary Services can be devoted to providing that service.

This is particularly troublesome for Scheduling Coordinators like the PX that are not able to submit Revised Preferred Day-Ahead Schedules or Hour-Ahead Schedules, until some months after the ISO Operations Date, and Scheduling Coordinators without access to multiple units.

The ISO therefore proposes changes to its Ancillary Services management software to properly account for Congestion Management adjustments to schedules. These software changes are currently under development and the ISO proposes to implement them as soon as they can be finished and satisfactorily tested. The ISO believes this software will be functional at some point after the ISO Operations Date.

For this reason, the ISO has set out, in new, temporary, Section 26, a provision waiving the cited penalties to avoid unnecessary impediments to Ancillary Services bids. The penalties will be reinstated when the software is functional, after giving Scheduling Coordinators seven days notice that this has occurred.

IV. REQUESTED EFFECTIVE DATE FOR AMENDMENT NO. 6

The ISO respectfully requests that the Commission accept for filing Tariff Amendment No. 6 and allow it to become effective as of the ISO Operations Date.

V. REQUEST FOR WAIVER OF THE 60-DAY FILING REQUIREMENT

Pursuant to Section 35.11 of the Commission's regulations,¹² the ISO respectfully moves for waiver of the 60-day notice requirement with respect to proposed ISO Tariff Amendment No. 6 and moves for waiver of the 60-day notice requirement for the termination of Sections 23 and 26 upon seven (7) days notice of posting on the ISO's "Home Page" and submission of such notice to the Commission.¹³

Good cause exists for the Commission to grant the ISO a waiver of each of the 60-day notice requirements. Proposed ISO Tariff Amendment No. 6 is intended to ensure a fail-safe start-up for the ISO by March 31, 1998, and the measures set out in that provision are necessary for this purpose.

The ISO is making this filing at the earliest practicable date. These provisions are the result of operational issues identified when the coupled market demonstration test began – which was March 1.

The ISO has consulted all Scheduling Coordinators in regard to these amendments. In addition, the ISO will, concurrently with this filing, take steps to ensure that all parties are quickly informed of this Amendment No. 6 by posting it on the ISO's "Home Page" and faxing to all parties on the service list a notice that the filing may be obtained from the web site if a party wishes to review it in advance of receiving its service copy.

Wherefore, for the foregoing reasons, the ISO respectfully requests waiver of the 60-day notice requirement for ISO Tariff Amendment No. 6 to allow it to become effective as of the ISO Operations Date and to pre-approve the effectiveness of the automatic termination provisions.

VI. CONCLUSION

Wherefore, for the foregoing reasons, the California Independent System Operator Corporation respectfully requests that (1) the Commission accept for filing proposed ISO Tariff Amendment No. 6 and allow it to become effective as of the ISO Operations Date; and (2) approve the termination of Sections 23, 24, 25

¹² 18 C.F.R. § 35.11 (1997).

¹³ The ISO also respectfully moves for waiver of any other applicable provision of part 35 of the Commission's regulations pursuant to 18 C.F.R. § 385.101(e) of the Commission's regulations.

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and 26 to be effective without further action of the Commission by their respective terms; and (3) grant such other relief as is requested herein.

Respectfully submitted,

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The California Independent System
Operator Corporation

CERTIFICATE OF SERVICE

I hereby certify I have this day served the foregoing submittal upon each person designated on the Official Service List compiled by the Secretary in Docket Nos. EC96-19-003 and ER96-1663-003, in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.2010.

Dated at Washington, D.C., this ____ day of March, 1998.

Harry Dupre