126 FERC ¶ 61,081
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Jon Wellinghoff, Acting Chairman;
Suedeen G. Kelly, Marc Spitzer,
and Philip D. Moeller.

California Independent System Operator Corporation — Docket No. ER09-213-000

ORDER ON TARIFF FILING

(Issued January 30, 2009)

1. In this order, we conditionally accept for filing tariff revisions submitted by the California Independent System Operator Corporation (CAISO) proposing to defer the availability of four operational features of Market Redesign and Technology Upgrade (MRTU).[1] These features are: (1) enforcement of Forbidden Operating Region constraints for generating units in the real-time market; (2) unlimited Operational Ramp Rate changes for generating units; (3) procurement of incremental ancillary services in the Hour-Ahead Scheduling Process; and (4) automation of the commitment process for extremely long-start resources.

## I. Summary

2. In its filing, the CAISO proposes to defer the availability of the identified MRTU features because, according to the CAISO, these are non-core MRTU features that provide minimal benefits to the CAISO markets and, due to implementation challenges, could interfere with successful implementation of

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[1] The MRTU Tariff was accepted for filing with a future effective date in September 2006. *See Cal. Indep. Sys. Operator Corp.*, 116 FERC ¶ 61,274, at P 1 (2006) (MRTU Order), *order on reh'g*, 119 FERC ¶ 61,076 (2007); *see also Cal. Indep. Sys. Operator Corp.*, 119 FERC ¶ 61,313 (2007).

MRTU were the CAISO to continue its efforts to include this functionality in the overall MRTU design at the MRTU "go-live" date.[2]

3. The CAISO anticipates that these four functionalities may be in place shortly after MRTU go-live. Specifically, the CAISO expects that multi-stage modeling may be ready for implementation approximately six to nine months after MRTU go-live.[3] Multi-stage modeling may eliminate the current problems posed by Forbidden Operating Regions and Operational Ramp Rates. The CAISO proposes to re-evaluate the need for the limitations on Forbidden Operating Regions and Operational Ramp Rates *via* the stakeholder process. The CAISO also anticipates that it will be able to revert to hour-ahead procurement of ancillary services within six to nine months following MRTU go-live, and will conduct a stakeholder process to consider the reversion to procurement of ancillary services in the Hour-Ahead Scheduling Process.[4] Regarding the automation of commitment for extremely long-start resources, the CAISO commits to conducting a stakeholder process to determine whether the automated process should be developed.[5]

4. The Commission will accept the CAISO's proposal to "defer" the four functionalities of the MRTU software identified in the CAISO's filing. The functionalities that the CAISO proposes for deferral will have a very limited impact on the market and do not represent high-priority features that must be in place for start-up. However, the Commission will accept these changes subject to the CAISO's commitment to work through the stakeholder process to implement these functionalities expediently. Specifically, the Commission accepts the CAISO's proposal to implement multi-stage modeling within six to nine months of MRTU go-live, as well as its commitment to address each of the functionalities shortly after go-live. The Commission will require the CAISO to report the status of the CAISO's efforts to resolve and restore the four deferred functionalities accepted herein in its quarterly reports on MRTU performance evaluation, and to

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[2] We note the MRTU is to become effective March 31, 2009. *See* the CAISO's MRTU Readiness Certificate, Docket No. ER06-615-038 (Jan. 16, 2009).

[3] CAISO Filing at 6.

[4] *Id.* at 9.

[5] *Id.* at 10.

lay out a timeframe in which each of the functionalities can be restored and implemented.[6]

## II. The CAISO Filing

### A. Deferral of Enforcement of Forbidden Operating Region Constraints in the Real-Time Market[7]

5. The CAISO proposes to defer the implementation of the MRTU feature designed to enforce Forbidden Operating Region[8] constraints for generating units in the real-time market. The CAISO explains that the MRTU Tariff currently provides that the real-time market software will not dispatch a generating unit within its Forbidden Operating Region, except for ramping through the Forbidden Operating Region. According to the CAISO, this software feature was included in MRTU to ensure that the resource is not dispatched up or down by the CAISO market optimization within an operating range prior to transiting all the way through the Forbidden Operating Region. However, as a result of market simulation observations, the CAISO concluded that the inclusion of this software feature in the real-time market will cause performance and stability issues. The CAISO states that in the real-time market there is significant opportunity for the CAISO optimization software to result in infeasible optimization solutions due to the interaction of the Forbidden Operating Regions information provided by operators of generating units with additional constraints inherited by the real-time market (such as ancillary service awards in the day-ahead market, initial conditions produced by the day-ahead market results, etc.). According to the

[6] The Commission required the CAISO to submit quarterly reports to evaluate MRTU performance and operational issues. *See* MRTU Order, 116 FERC ¶ 61,274 at P 1417.

[7] To defer the enforcement of Forbidden Operating Region constraints in the real-time market, the CAISO proposes to revise MRTU Tariff sections 34.15.1(b) and 34.19.2.3. *See* CAISO Filing at 12.

[8] Forbidden Operating Regions consist of a resource's operating ranges through which the resource can transit but within which it cannot operate in a manner such that it can be dispatched up or down with stability. Resources with Forbidden Operating Regions have “hold-times” that must be imposed for stability. For example, if the resource is required to pass through a Forbidden Operating Region in the upward direction, the resource must then stay above the Forbidden Operating Region for the specified amount of time.

CAISO, this infeasibility leads to a lack of dispatch and pricing results not just for resources with Forbidden Operating Regions, but for all resources. The CAISO adds that these same issues do not arise in the day-ahead market because the optimization of the day-ahead market does not have to take into account such constraints. Therefore, the CAISO is proposing to defer the implementation of this software or an alternative feature in the real-time market until a later date.

6. The CAISO further states that the Forbidden Operating Region feature is predominantly used by generating units as a proxy for information regarding the changes in the operating state of combined cycle resources that require more advanced multi-stage modeling in the optimization process. The CAISO thus argues that the more optimal multi-stage modeling approach would give the commitment and dispatch software the ability to better reflect the additional complexities presented by units like combined cycle units that have multiple stages of operational capability. The CAISO adds that it recognizes the superiority of the multi-stage modeling approach and has already accelerated its efforts to develop and implement the multi-stage modeling functionality after the MRTU launch.

7. The CAISO also argues that the impact from the absence of the Forbidden Operating Region feature will be minimal because the CAISO and participants can use the same practices for dealing with Forbidden Operating Regions that are in place under current operating practices and because the number of affected resources is limited.[9]

8. The CAISO further argues that the absence of the Forbidden Operating Region software feature does not significantly alter CAISO's operating requirements under MRTU. The CAISO explains that it must have tools in place to address the fact that certain resources have Forbidden Operating Regions regardless of the implementation of the software feature because, with or without the software feature, the CAISO is required to take action to move such resources once they are dispatched through a Forbidden Operating Region. The CAISO further explains that the software feature in question would only have allowed the CAISO to avoid dispatching a resource up or down from within a Forbidden

[9] The CAISO states that out of 800 generating resources in its market, there are only 61 resources with Forbidden Operating Regions, of which 53 resources have only one Forbidden Operating Region. According to the CAISO, during a typical day, a resource with a Forbidden Operating Region may be expected to move through the Forbidden Operating Region at least twice, once in the upward direction and once in the downward direction.

Operating Region; however, it would not have prevented the CAISO from dispatching a resource back through the Forbidden Operating Region just after transiting the Forbidden Operating Region.

9. The CAISO states that it does not propose to make any changes to the settlement provisions in light of the deferred functionality. The CAISO explains that resources that are constrained only as a result of Forbidden Operating Regions and are not marginal do not set locational marginal prices (LMPs). Further, the CAISO states that in order to deal with the existence of the Forbidden Operating Regions, the CAISO may have to itself initiate the constraint of a resource for reliability dispatch and through the use of Exceptional Dispatch.[10] The CAISO argues that because the market must deal with the existence of these Forbidden Operating Regions with or without the software feature at issue, the CAISO does not propose any changes to the Exceptional Dispatch payment construct currently under consideration by the Commission in Docket No. ER08-1178.

### B. Deferral of Unlimited Operational Ramp Rate Changes for Generating Units[11]

10. The CAISO states that due to performance issues observed during market simulation, it proposes to limit the magnitude of changes in the Operational Ramp Rates that can be submitted after the MRTU goes into effect. The CAISO explains that the MRTU Tariff requires a scheduling coordinator to provide a resource's Operational Ramp Rate as part of an energy bid. The CAISO further states based on the information submitted by the scheduling coordinator with the bids, it creates an aggregate ramp-rate curve made up of the Operational Ramp Rate and Forbidden Operating Regions. According to the CAISO, the current MRTU provisions that govern the submission of Operational Ramp Rates to the CAISO do not impose any limits on the magnitude of changes in the Operational Ramp Rate.

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[10] According to the CAISO, if the constraint of a resource is initiated by the scheduling coordinator to reflect operational characteristics through the use of the submission of an outages re-rate/derate card, or normal card, then the resource will continue to be paid LMP for such energy, as currently contemplated in section 11.5.1 of the MRTU Tariff. *See* CAISO Filing at 5.

[11] To defer the consideration of the unlimited operational ramp changes for generating units, the CAISO proposes to revise MRTU Tariff section 30.7.7. *Id*. at 12.

11. The CAISO states that during market simulations, the CAISO observed that when units submit Operational Ramp Rates that have a large magnitude of changes in ramping capability from one operating range to another, there is a significant degradation in the ability for the software to obtain a market solution. The CAISO argues that such large changes could prevent the CAISO from meeting deadlines for market runs and the posting of results because such degradation erodes the performance of the software. The CAISO further states that based on market simulation results and consultation with participants, it concluded that the performance of the market runs are substantially improved if Operational Ramp Rate changes are no more than a 10-to-1 ratio from one operating range to the next operating range. Therefore, the CAISO proposes to establish a maximum 10-to-1 ratio for such changes,[12] which will be implemented in a manner internal to the CAISO's software. The CAISO explains that in the event that scheduling coordinators submit Operational Ramp Rate changes that exceed the 10-to-1 ratio, the CAISO will modify lower Operational Ramp Rates upwards so that they are within the 10-to-1 ratio.

12. The CAISO also proposes to re-evaluate the need to eliminate or relax the proposed Operational Ramp Rate limitation six months after the MRTU implementation and to hold a stakeholder process to determine whether to eliminate the currently proposed limitation or impose additional limitations.

### C. Deferral of Procurement of Incremental Ancillary Services in the Hour-Ahead Scheduling Process.[13]

13. The CAISO states that through market simulations, it determined that the current software design prevents the CAISO from dispatching energy when necessary during real time from non-dynamic external resources whose ancillary

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[12] The CAISO provides, as an example, that if a resource has a Ramp-Rate of 10 MW/minute for the operating range of 0 MW to 20 MW and a Ramp-Rate of 0.5 MW/minute for the operating range from 20 MW to 30 MW, then, under the proposed limitation, the Ramp-Rate from 20 MW to 30 MW would be modified to be at least equal to 1 MW/minute. *Id*. at 7.

[13] To defer procurement of incremental ancillary services in the Hour-Ahead Scheduling Process, the CAISO proposes to revise MRTU Tariff sections 8.1, 8.2.3.1, 8.2.3.2, 8.3.1, 8.3.2, 8.3.3.3, 8.3.5, 8.3.7, 8.6.2, 8.7, 11.10.1.2, 30.7.6.2, 33.8, 34.2.2, 34.3, and 34.13, and to delete section 33.7. *Id*. at 12-13.

services bids have been awarded in the Hour-Ahead Scheduling Process. The CAISO explains that under the current MRTU Tariff, the Hour-Ahead Scheduling Process is designed to determine the optimal mix of ancillary services from internal resources, dynamic external resources, and non-dynamic external resources for the next trading hour. According to the CAISO, in the Hour-Ahead Scheduling Process, only the ancillary services awards to non-dynamic external resources are binding, while dynamic external resources and resources within the CAISO Balancing Authority Area are given non-binding advisory awards, as the CAISO would re-optimize the use of such by the subsequent Real-Time Unit Commitment that is run closer to the time the ancillary service will actually be needed. The CAISO adds that external resources designated in the Hour-Ahead Scheduling Process to provide operating reserves in the next trading hour must be dispatchable for energy in real time.

14. The CAISO argues that if it were to continue to procure ancillary services from non-dynamic external resources through the Hour-Ahead Scheduling Process, it would be procuring ancillary services from resources that are no longer dispatchable in the next hour for the energy required for the operating reserves. According to the CAISO, this would render the procured and paid for operating reserves useless for the CAISO in the real-time market.

15. The CAISO thus proposes to limit procurement of incremental ancillary service capacity to the 15-minute Real-Time Unit Commitment process, which procures ancillary services for the given fifteen minute time period in a given trading hour. The CAISO explains that the Real-Time Unit Commitment process only awards ancillary services from external resources that are dispatchable for energy during the applicable Real-Time Unit Commitment time horizon, ensuring that the CAISO can dispatch energy from external resources selected to provide ancillary service in that 15-minute time period. The CAISO concludes that the proposed amendments will eliminate all use of the Hour-Ahead Scheduling Process for the purposes of procuring ancillary services and eliminate a requirement that the CAISO determine the optimal mix of ancillary services from internal and external resources in the Hour-Ahead Scheduling Process.

16. The CAISO further states that in order to lessen the consequences of the deferral of the Hour-Ahead Scheduling Process ancillary services procurement on non-dynamic external resources, it proposes to allow non-dynamic external resources that are registered and certified to provide the specific ancillary service to participate in the Real-Time Unit Commitment process if energy from such resources is dispatchable within ten minutes. The CAISO also states that it anticipates being able to revert to hour-ahead procurement of ancillary services six to nine months after the MRTU launch. The CAISO commits to conduct a

stakeholder process to consider the reversion to procurement of ancillary services in the Hour-Ahead Scheduling Process.

### D. Deferral of Automation of the Commitment Process for[14] Extremely Long-Start Resources.

17. The CAISO states that the MRTU Tariff currently provides for the automatic optimal multi-day commitment of extremely long-start resources[15] through the Security Constrained Unit Commitment software. The CAISO, however, admits that it has not yet been able to develop the functionality within the Security Constrained Unit Commitment software for the automatic commitment of extremely long-start resources and instead, proposes to make extremely long-start resource decisions through a manual process based on good utility practice considering bids, start-up, and minimum load costs from resources that have submitted bids. The CAISO thus proposes to defer automated commitments for extremely long-start resources. The CAISO states that this represents no change from the proposed automated process, which would have used the same bids, as will the manual process to commit resources two days out and for consideration in the next day's day-ahead market. The CAISO asserts that because there are so few resources that qualify as extremely long-start resources, the CAISO believes that the use of a manual process will have a minimal impact on market efficiency and no adverse effect on reliability.

18. The CAISO further states that after MRTU implementation, and prior to developing an automated process, the CAISO proposes to conduct a stakeholder process to determine whether the automated process should be developed. According to the CAISO, any resulting proposed amendments will then be submitted to the CAISO Board of Governors and the Commission for approval.

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[14] To implement the deferral of the automation of the commitment process for extremely long-start resources, the CAISO proposes to modify MRTU Tariff sections 27.4.1, 31.3, 31.5.1.1, 31.7, and 31.7.1, and to delete sections 31.7.2, 31.7.2.1, 31.7.2.2, 31.7.2.3, 31.7.2.4, 31.7,2.5, and 31.7.3. *Id*. at 13-14.

[15] Extremely long-start resources are resources with startup times longer than 18 hours. These resources require commitment decisions prior to the normal day-ahead market timeline in order to ensure that the resource is online when operationally necessary.

## III. Notice of Filing, Motions to Intervene, and Responsive Pleadings

19. Notice of the CAISO's filing was published in the *Federal Register*, 73 Fed. Reg. § 67,495 (2008), with interventions, comments, and protests due on or before November 21, 2008. Timely motions to intervene were filed by entities listed in the Appendix to this order. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2008), the filing of timely, unopposed motions to intervene serve to make the movants parties to the proceeding.

20. The Transmission Agency of Northern California (TANC) filed a motion to intervene out-of-time. Given the lack of undue prejudice and the parties' interests, we find good cause to grant under Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2008), TANC's unopposed, untimely motion to intervene.

21. The following parties submitted comments and/or protests along with their motions to intervene: Northern California Power Agency (NCPA), Mirant Energy Trading, LLC, Mirant Delta, LLC, and Mirant Potrero, LLC (collectively, Mirant), Western Power Trading Forum (WPTF), Alliance for Retail Energy Markets (AReM), TANC, Powerex Corp. (Powerex), and Dynegy Morro Bay, LLC and Dynegy Moss Landing, LLC (collectively, Dynegy). The issues raised in these comments and protests are addressed in detail below.

22. The CAISO filed an answer to protests and comments. Rule 213(a) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a) (2008), prohibits answers to protests unless otherwise permitted by the decisional authority. We accept the CAISO's answer to protests as it has assisted in our decision-making.

## IV. Discussion

### A. Deferral of the Forbidden Operating Region Software Feature Comments

23. WPTF[16] states that the CAISO's inability to honor Forbidden Operating Regions in the MRTU software is another reflection of the challenges the CAISO has had implementing a subset of the preferred functionality in the MRTU market. WPTF states that the proposed work-around requires generators to submit

[16] Mirant and Dynegy filed comments in support of WPTF's position.

Scheduling and Logging for ISO of California (SLIC)[17] outage cards that do not reflect an outage *per se*, but act to restrict the unit's operating capabilities so that Forbidden Operating Regions are honored. WPTF argues that this manual work-around will impose an additional burden on generator operators, particularly operators of combined cycle plants, many of which have come on-line since the CAISO began operations in 1998.

24. WPTF adds that it supports the CAISO's decision to accelerate its multi-stage modeling effort. WPTF notes that the CAISO has already published its first white paper on the topic of multi-stage modeling,[18] and the aggressive schedule set forth in that document is encouraging. WPTF urges the Commission to take steps to encourage the CAISO to move forward with this effort quickly and asks the Commission to take steps to ensure that this effort does not displace other Commission-mandated efforts to balance the MRTU markets, such as the implementation of convergence bidding and scarcity pricing.

25. NCPA states that it is concerned about the potential impact of enforcement of Forbidden Operating Region constraints for generators in the real-time market. NCPA states that the removal of the Forbidden Operating Region functionality is directly linked to the issue of ensuring the feasibility of schedules, which was one of the core goals of the MRTU Tariff reforms. NCPA argues that the MRTU Order highlighted this goal as the first of the most important elements of MRTU.[19] NCPA states that the lack of Forbidden Operating Regions functionality may increase the CAISO's use of Exceptional Dispatch to resolve infeasible schedules.

26. AReM states that the deferment of the enforcement of Forbidden Operating Regions in the real-time market is likely to restrict low-cost supply, and thus is likely to increase costs to load-serving entities and their customers due to higher market clearing prices.

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[17] SLIC is a web service that provides access to data for transmission and generation clients to schedule and communicate outages.

[18] WPTF states that the multi-stage modeling white paper is available at: http://www.caiso.com/2078/2078fe23684e0.pdf.

[19] NCPA cites to MRTU Order, 116 FERC ¶ 61,274 at P 5.

**The CAISO's Answer**

27. In its answer, the CAISO reiterates its commitment to accelerate efforts to develop and implement the multi-stage modeling functionality as soon as practicable after the MRTU launch, noting that the effort is well underway. The CAISO states that it posted an Issue Paper regarding the multi-stage modeling process on November 7, 2008; comments were received in late November, and the CAISO is currently considering these comments. The CAISO states that it anticipates that the multi-stage modeling functionality may be ready for implementation approximately six to nine months after the MRTU implementation. The CAISO states that the Commission should not, however, impose arbitrary deadlines on the CAISO's development of this functionality.

**Commission Determination**

28. The Commission recognizes the concerns of the parties regarding the deferral of the Forbidden Operation Regions functionality. The CAISO will be required to rely on out-of-market dispatches, i.e., Exceptional Dispatch, to select and compensate resources due to the MRTU software's inability to properly model Forbidding Operating Regions. The pricing of Exceptional Dispatch, however, is not at issue in this filing; the CAISO's Exceptional Dispatch proposal is currently before the Commission in a Federal Power Act (FPA) section 206[20] investigation.[21] Comments regarding the compensation for resources that may be exceptionally dispatched due to the Forbidden Operating Regions inherent to their units are more properly addressed in that proceeding.

29. Furthermore, we disagree with TANC that the CAISO proposal to defer the Forbidden Operating Region functionality is inconsistent with the objective of the MRTU to ensure that all schedules are feasible. In the transmittal letter to the instant filing, the CAISO states that during market simulations over the summer of 2008, it observed that in the real-time market, there is significant opportunity for the CAISO optimization software to result in infeasible optimization solutions due to the complex interaction of the Forbidden Operating Region information provided by operators of generating units with other conditions that the real-time market is required to consider.[22] While the CAISO intended to include the

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[20] 16 U.S.C. § 824e (2006).

[21] *See* Docket Nos. ER08-1178 and EL08-88.

[22] The CAISO Filing at 2.

Forbidden Operating Regions functionality in the MRTU Tariff, the market simulations have shown that operation of that feature results in infeasible schedules. A solution of that situation can be a multi-stage modeling of Forbidden Operating Regions, which, the CAISO states, it has started developing.[23]

30. The Commission will accept the CAISO's commitment to develop the multi-stage modeling functionality within six to nine months following MRTU go-live. We strongly encourage the CAISO to work to meet that target, thereby minimizing the number of instances in which the CAISO will need to manually intrude on the market *via* Exceptional Dispatch. The CAISO has already committed to solving this functionality characteristic expediently, and is currently engaged in a stakeholder process regarding multi-stage modeling. Further, as the CAISO notes in its answer, the CAISO "anticipates that the multi-stage modeling functionality may be ready for implementation approximately six to nine months after MRTU 'go-live.'"[24] The Commission finds this to be a reasonable length of time, and will require the CAISO to report the status of multi-stage modeling efforts, as well as any other potential solutions for properly modeling Forbidden Operating Regions, in its quarterly reports to the Commission on MRTU performance.

### B. <u>Ramp Rate Limitations</u>

31. WPTF states that the CAISO's proposed solution for adjusting ramp rates is problematic because it has proposed to increase the lower ramp rate instead of lowering the higher ramp rate in order to achieve a 10-to-1 ratio. WPTF argues that the problem arises when a generating unit is unable to fully respond to the CAISO dispatch instructions because it cannot achieve the ramp rate as adjusted by the CAISO. WPTF explains that if the unit cannot respond to the CAISO dispatch instructions, it will incur imbalance energy costs. WPTF further states that, while the CAISO has not yet implemented imbalance energy penalties,[25] a unit that is unable to achieve the ramp rate, as adjusted by the CAISO, will be subject to such penalties. WPTF also states that a unit that cannot fully respond to the CAISO dispatch instructions also may not be considered fully available

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[23] The CAISO Answer at 9.

[24] *Id.*

[25] WPTF states that the CAISO has included uninstructed deviations penalties in its MRTU Tariff (section 11.23) but also indicated that those penalties will not be applied until the Commission issues an order directing the CAISO to implement those penalties. *See* WPTF Comments at 3 n.6.

according to the amount of Resource Adequacy capacity it has sold and therefore may incur monetary penalties.[26]

32. WPTF claims that the CAISO's proposed solution may be even more problematic because under MRTU, the CAISO will limit the number of operational ramp rate segments from the current number of nine to four. WPTF states that the reduced number of operational ramp rate segments will make it more difficult for generating unit owners to accurately represent the true ramping capability of their generating units, thereby increasing the likelihood that they will submit operational ramp rates with adjacent segments that have greater than a 10-to-1 ratio. WPTF states that the Commission has already recognized the link between the number of ramp rate segments and the potential to incur uninstructed deviation penalties and indicated that it expects the CAISO to increase the number of allowable ramp rate segments before it implements uninstructed deviation penalties.[27]

33. WPTF states that the scheduling coordinator for a generator that submits a ramp rate to the CAISO that the generator is unable to achieve could be found in violation of CAISO Tariff section 37.5.1.1, which requires market participants to submit accurate and factual information to the CAISO. WPTF states that, under the instant proposal, the CAISO has the right to require conduct that is otherwise prohibited by unilaterally increasing a unit's ramp rate beyond what the generator deems appropriate under the conditions that exist at the time. WPTF argues that this could expose the generator to costs and, at some point, penalties. Consequently, WPTF asserts that the CAISO should not be permitted to increase the ramp rate for a generating unit beyond the ramp rate submitted by the generating unit's scheduling coordinator. WPTF states that the Commission should instead require the CAISO to reduce the higher ramp rate, not increase the lower ramp rate, to stay within the 10-to-1 limit.

34. NCPA states that it is concerned about the potential impact of unlimited operational ramp rate changes for generating units because a unit's ramp rate is part of its energy bid. NCPA states that the limitations on the ramp rate change range goes directly to the issue of ensuring the feasibility of schedules, which was one of the core goals of the MRTU Tariff reforms. NCPA states that it is a safe

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[26] WPTF claims that such penalties may be developed through the CAISO's current Standard Capacity Product stakeholder process. *Id*. at 3 n.7.

[27] WPTF cites to MRTU Order, 116 FERC ¶ 61,274 at P 239 and 594.

assumption that this lack of functionality may increase the CAISO's use of Exceptional Dispatch to resolve infeasible schedules.

## The CAISO Answer

35. In its answer, the CAISO notes that the change from nine to four ramp rates segments was part of the overall MRTU market design, was subject to the stakeholder process and has long since been approved as part of the MRTU Tariff. The CAISO also notes that the ability to submit four segments is more than what other ISOs provide in their energy markets; moreover, this feature is also now fully incorporated in the MRTU software and changing it would not be feasible at this time.

36. The CAISO further states that WPTF's recommendation that the CAISO lower the upper limit of the ramp rate rather than increase the lower limit is also inappropriate because this would severely limit the amount of capacity available to the CAISO. The CAISO states that WPTF's argument that this would result in infeasible ramp rates and expose the generator to potential penalties for submitting inaccurate information are misplaced. The CAISO points out that the generator can avoid any such problem simply by submitting a ramp rate that accurately reflects its feasible operation but provides no more than a 10-to-1 ratio between adjacent operating regions. The CAISO states that if the CAISO is required to decrease the upper limit whenever a generator submits a ramp rate change that violates the magnitude of change permitted under the 10-to-1 ratio, generators would have an opportunity to intentionally take actions that could lead to the reduction of available capacity to the market. The CAISO argues that it should not be forced to sacrifice available capacity because a generator fails to submit ramp rates in compliance with the tariff limitations or perhaps even knowingly with the result of forcing capacity out of the market.

## Commission Determination

37. The Commission accepts for filing the CAISO's proposal to limit the magnitude of operational ramp rate changes. The Commission will not require the CAISO to allow resources to submit ramp rate schedules with large magnitudes of change from one ramp rate to another because, as the CAISO points out, including this functionality results in a significant degradation in the ability of the software to obtain a market solution.[28] The CAISO's proposal to limit generators' ramp rates to a 10-to-1 ratio is a reasonable solution to the problem caused by the MRTU software.

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[28] CAISO Filing at 6.

38. The Commission finds that WPTF's concern that the CAISO's proposal will unduly expose market participants to penalties is largely misplaced. WPTF's assertion that a resource may be exposed to imbalance penalties and other penalties because it cannot feasibly and fully respond to the CAISO dispatch instructions ignores the fact that a resource can avoid any problems related to this ramp rate requirement by submitting to the CAISO a feasible ramp rate schedule with ratios for adjacent operating regions that do not exceed the 10-to-1 ratio. WPTF has not explained whether if and to what extent this requirement is infeasible. Resources have complete control over the ramp rate schedules that their scheduling coordinator submits to the CAISO. Since the CAISO relays dispatch instructions based on those ramp rate schedules, resources have control over whether or not they can feasibly respond to the CAISO dispatch instructions. Thus, the Commission will not relieve generators of the requirement to submit feasible ramp rate schedules. Nothing in the CAISO proposal will prevent generators from submitting feasible ramp rate schedules, nor will anything in the CAISO proposal expose generators to imbalance penalties. Since imbalance penalties are directly linked to operational performance of generators' response to dispatch instructions, generators can fully avoid imbalance penalties by submitting feasible ramp rate schedules.[29]

39. Similarly, WPTF's argument that generators are especially disadvantaged by the CAISO's proposal because, under MRTU, the number of allowable ramp rate segments that can be submitted to the CAISO drops from nine to four is outside the scope of this proceeding. The number of ramp rate segments was an issue that was proposed and accepted as part of the MRTU filing.[30] We also note that the uninstructed deviation penalties mentioned by WPTF are not in effect at this time. As we stated in the MRTU Order, the CAISO is required to file under

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[29] WPTF's concern that the CAISO's proposal to limit ramp rate schedules may subject generators to potential future penalties is premature for consideration at this time. In the *MRTU Order*, the Commission directed that "under the MRTU proposal, the CAISO is required to file under section 205 of the FPA to implement the uninstructed deviation penalties provision." The Commission also noted that "in the event the CAISO files such a request, [all] parties may challenge the need to implement the [uninstructed deviation penalties] provision, at that time." *MRTU Order*, 116 FERC ¶ 61,274 at P 594.

[30] *See* MRTU Order, 116 FERC ¶ 61,274 at P 239.

section 205 of the FPA[31] before the uninstructed deviation penalties can be implemented.[32] WPTF may raise its concern at that time.

40. Regarding WPTF's proposal to require the CAISO to lower the upper limit of the ramp rate rather than increase the lower limit, the Commission will not require the CAISO to make such a change. As explained above, nothing in the CAISO proposal will prevent generators from submitting feasible ramp rate schedules, nor will anything in the CAISO proposal expose generators to imbalance penalties. For these reasons, the Commission finds that the CAISO's proposal to limit operational ramp rate segments is just and reasonable in light of the software deficiencies that have prevented the CAISO from providing unlimited operational ramp rate capability.

41. Finally, as to NCPA's concern regarding the CAISO's proposal to limit ramp rate schedules as possibly leading to infeasible schedules and increased Exceptional Dispatch instructions, the Commission reiterates that the CAISO has proposed a reasonable constraint on the structure of ramp rate schedules, a necessity dictated by software inadequacies. That constraint will not prevent resources from submitting feasible operating schedules, and thus, should not increase the likelihood of infeasible schedules, penalties, or increased reliance on Exceptional Dispatch. Also, the CAISO has committed to addressing the limitations on ramp rate schedules within six months following MRTU go-live. To encourage progress on this issue, the Commission will require the CAISO to include in its quarterly reports to the Commission an update on the status of stakeholder discussions regarding ramp rate schedule limitations. Finally, the Commission notes that NCPA's concerns regarding the increased use of Exceptional Dispatch should be assuaged over time; the CAISO has explained that with software and modeling improvements, the use of Exceptional Dispatch is expected to decrease dramatically.[33]

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[31] 16 U.S.C. § 824d (2006).

[32] MRTU Order P 594.

[33] The CAISO's Comments On Technical Conference, Docket Nos. ER08-1178-000 and EL08-88-000, at 22 (Nov. 24, 2008).

### C. Proposed Manual Commitment Process for Extremely Long-Start Resources

#### Comments

42. WPTF argues that the impact of switching to the manual commitment process for extremely long-start resources may be significant for some of WPTF's members that own extremely long-start units. In particular, WPTF objects to the CAISO's proposal to require the scheduling coordinator for an extremely long-start unit that has received a commitment instruction for Day 1 to submit the same energy bid for Day 2.[34] WPTF states that, from the proposed language, it is unclear whether "the same Bid" means "the same energy bid," "the same ancillary services bids," or "the same energy and ancillary services bids." WPTF presumes that the CAISO intends the last meaning, but the proposed language is ambiguous.

43. WPTF notes that the Commission directed the CAISO to revise the MRTU Tariff to explain "how it will determine the commitment of extremely long start resources and how such commitment will be integrated with the normal day-ahead commitment process."[35] According to WPTF, the CAISO responded to the Commission's directive by indicating that it would remove the obligation for the scheduling coordinator of an extremely long-start resource (that is required to stay on because of a long-start commitment) to not change its bid. At that time, WPTF states, it assumed that the CAISO was actually removing that requirement and not simply removing the reference to the requirement from its Business Practice Manual. WPTF argues that the CAISO's proposed tariff revision simply attempts to re-insert this same limitation on scheduling coordinators, and the Commission should reject it.

44. WPTF asserts that while the CAISO asserts that the manual process is no different than the automated process,[36] the requirement to resubmit the same bid for the next day's day-ahead market is new and was not part of the previous MRTU Tariff language that set forth the automated process. WPTF states that it is one thing for an automated extremely long-start commitment process, in the absence of bids submitted for Day 2 (and nothing compels a scheduling coordinator to submit bids two days in advance), to assume that the same bids submitted for Day 1 would be submitted for Day 2; however, it is altogether

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[34] WPTF refers to the proposed addition to MRTU Tariff section 31.7. *See* WPTF Comments at 5.

[35] WPTF cites to MRTU Order, 116 FERC ¶ 61,274 at P 125.

[36] WPTF cites to the CAISO Transmittal Letter at 11-12.

different to require a scheduling coordinator to resubmit the same bids for Day 2 that were submitted for Day 1. WPTF argues that natural gas prices may change substantially between "Day 0," the day on which day-ahead bids for operating Day 1 were submitted, and Day 1, when the day-ahead bids for operating Day 2 must be submitted. WPTF asserts that by requiring the scheduling coordinator for a generator to submit the same bid for Day 2 even if gas prices increase, the CAISO is unjustly and unreasonably limiting that generator's ability to recover its fuel costs.

45. WPTF states that though the CAISO does not explicitly explain the rationale for this requirement, WPTF believes that the CAISO is concerned that extremely long-start generators may seek to take advantage of the fact that they know they will be operating because they have already received a commitment instruction from the CAISO. WPTF notes that even if the extremely long-start generator does know its unit will be operating because it received a commitment instruction from the CAISO, it does not know how much energy it will be producing.[37] WPTF states that it is likely that the unit will sit at minimum load for the entire time it has been committed. WPTF claims that in such case, it would be impossible for the unit owner to take unfair advantage of the commitment instruction because it cannot change its start-up and minimum load cost bid, which is either cost-based or static for six months. WPTF states that the only way an extremely long-start generator can leverage the knowledge that it will be operating by inflating its energy bid on Day 1 for Day 2 is by also knowing how it will be dispatched above minimum load for Day 2. WPTF states, however, that the extremely long-start generator will not know that when it submits its bid for Day 2 on Day 1, because, as the CAISO acknowledges, the 48-hour commitment process dispatches the unit only to minimum load.

46. WPTF further argues that a strategy that contemplates raising the energy bid simply on the expectation that the extremely long-start unit will be required to produce energy above its minimum load level may be counterproductive or ineffective. WPTF explains that it would be ineffective if the increased bid priced the unit out of the market for system-wide energy and if the extremely long-start generating unit is required to operate for local reliability reasons, as the CAISO's expansive local market power mitigation will replace market bids with the unit's default energy bid.

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[37] WPTF cites to the CAISO Transmittal Letter at 14 (stating that "the [extremely long-start commitment] process does not dispatch Energy for the 48-hour time period and therefore the commitment instructions will not include megawatts schedules greater than the minimum load.") *See* WPTF Comments at 8 n.16.

47. Alternatively, if the Commission does not eliminate the proposed requirement, WPTF urges the Commission to direct the CAISO to include in its tariff a provision that authorizes extremely long-start generators to seek recovery of any increases in their fuel costs in the event that gas prices for Day 2 change but the energy bid submitted on Day 1 for Day 2 is not permitted to change. WPTF states that that there are only seven extremely long-start units and thus the reimbursement process, even if done manually, should not be unduly burdensome to the CAISO.

**The CAISO Answer**

48. The CAISO states that WPTF's arguments should be rejected. The CAISO states that the proposed manual commitment process for extremely long-start resources uses the same bid set (i.e., the bids submitted two days prior to the operating day) that the automated process would have used both for the commitment decision (two days prior to the operating day) and for the following day's day-ahead market (one day prior to the operating day). The CAISO states that requiring scheduling coordinators to resubmit the same bid submitted two days prior to the operating day (once the commitment decision is made) in the next day's day-ahead market simply reflects the manual implementation of the same process, which considers which resources to commit and schedule based on the bids (energy bids and ancillary services bids) received two days prior to the operating day. The CAISO states that allowing resources to submit different bids would undermine this process and should not be permitted.

49. The CAISO states that although extremely long-start resources may have fuel price risk, these resources have the same fuel cost risks under the manual process that they would have had under the automated process. The CAISO adds that resources can mitigate this risk by electing the Registered Cost option for their start-up and minimum load costs pursuant to CAISO Tariff section 30.4 and by reflecting the risk in their energy and ancillary services bids utilized in the extremely long-start process. The CAISO notes that resources that are not committed are free to submit different bids in the next day's day-ahead market for commitment decisions the next day. The CAISO also points out that resources that are committed and have the obligation to resubmit the same bid in the next day's day-ahead market are free from that obligation thereafter for as long as the resource remains on.

**Commission Determination**

50. The Commission accepts for filing the CAISO's proposal to manually dispatch extremely long-start units until such time as the CAISO is able to properly automatically commit such resources using the MRTU software after

MRTU implementation. We find the CAISO's explanation that the proposed manual commitment process for extremely long-start resources uses the same bid set as in the automated process convincing. Under the automated commitment, the bids would be submitted two days prior to the operating day and the automated process would use the same bids for both the commitment decision (two days prior to the operating day) and for the following day's day-ahead market (one day prior to the operating day).[38]

51. The Commission finds that the requirement for extremely long-start resources to submit the same bid for Day 1 and Day 2 is identical to the automated process under the MRTU Tariff. Thus, any risk associated with fixed energy bids over a two-day period is identical to that which the resource would have faced under the automated commitment process.

52. The Commission finds the CAISO's proposal to require extremely long-start units to submit the same bid for Day 2 once it is committed in Day 1 to be just and reasonable. First, the Commission notes that this is the process that the CAISO would have followed in the automated process using the MRTU software. Second, WPTF's concern regarding extremely long-start units' recovery of variable costs during times of volatility in the price of natural gas is unconvincing. Extremely long-start resources have two options in hedging daily fuel price risk related to the start-up and minimum load costs: the Proxy Cost option and the Registered Cost option.[39] The Proxy Cost option would allow an extremely long-start resource to submit bids for its start-up and minimum load costs based on a formula that is "adjusted for fuel-cost variation on a daily basis,"[40] thereby allowing a gas-fired extremely long-start resource to hedge its fuel price risk by linking its bid to movements in the price of its fuel. The Registered Cost option allows an extremely long-start unit to lock in a specific cost-based bid for up to six months. This bidding flexibility prevents extremely long-start resources from facing undue fuel-price risk.

53. Given the fact that the manual commitment will treat bids in the same manner as the previously accepted automated commitment process, the Commission finds the CAISO's proposal to be just and reasonable and will not order any further changes to the MRTU Tariff language in section 31.7.

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[38] CAISO Answer at 7.

[39] *See* section 30.4 of the MRTU Tariff.

[40] Section 30.4(1) of the MRTU Tariff.

54. We also reject WPTF's contention that the CAISO failed to respond to the Commission's directive to explain how the CAISO will determine the commitment of extremely long start resources and how such commitments will be integrated with the normal day-ahead commitment process.[41] We note that the automated commitment process for extremely long-start resources was proposed by the CAISO in a November 2006 filing in Docket No. ER06-615 in response to the Commission's directive in *MRTU Order* "to make a compliance filing … explaining how it will determine the commitment of extremely long start resources and how such commitment will be integrated with the normal day-ahead commitment process."[42] The automated commitment process was accepted for filing by the Commission in an order acting on the CAISO's MRTU compliance filings in June 2007.[43] We also note that the proposal on the automated commitment of extremely long-start resources was an uncontested issue and WPTF failed to raise any concerns regarding the proposed commitment process in that proceeding.[44] Accordingly, we find that WPTF's contention in regard to the CAISO's alleged non-compliance with the Commission's directive is misplaced.

### **D**. **Ancillary Services Procurement in Hour-Ahead Scheduling Process**

#### **Comments**

55. AReM states that it is concerned about the deferment of procurement of incremental ancillary services in the Hour-Ahead Scheduling Process. AReM claims that this deferment is likely to restrict low-cost supply, and thus is likely to increase costs to load-serving entities and their customers due to higher market clearing prices.

56. Powerex states that it understands the CAISO's need to defer the functionality of procurement of ancillary services in the Hour-Ahead Scheduling Process, but notes that it is important that the CAISO implement this feature as soon as possible after MRTU goes live. Powerex states that eliminating the ability of external resources to sell ancillary services from non-dynamic system resources on the CAISO interties during the hour-ahead timeframe effectively eliminates

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[41] WPTF Protest at 6-7.

[42] *See MRTU Order*, 122 FERC ¶ 61,274 at P 125.

[43] *See Cal. Indep. Sys. Operator Corp.*, 119 FERC ¶ 61,313, at P 7 (2007).

[44] *See id.*

their ability to sell such products at any point after the day-ahead market. Powerex notes that sellers will not know how much ancillary services they are awarded until 15 minutes prior to the time the services are needed, if the CAISO does not procure incremental ancillary services in the Hour-Ahead Scheduling Process. Powerex claims that, for non-dynamic system resources, this compressed timeframe will likely result in inefficient usage of transmission capacity.

57. Powerex claims that, as a result, delaying procurement of ancillary services in the Hour-Ahead Scheduling Process may defer market participants from making such sales from external resources, which Powerex claims are important sources of energy and capacity for the CAISO. Powerex states that if the Commission grants the CAISO's proposed delay, it should direct the CAISO to implement ancillary services procurement in the Hour-Ahead Scheduling Process within six to nine months after MRTU goes live, and require the filing of any amendments with the Commission for approval.

**Commission Determination**

58. We generally agree that the deferment of the CAISO's ability to accept ancillary services bids from non-dynamic external resources in the Hour-Ahead Scheduling Process may restrict the supply of ancillary services capacity available to the CAISO. However, even if the functionality were in place, it does not necessarily guarantee that non-dynamic external resources would bid in the Hour-Ahead Scheduling Process and that their bids would be lower than the marginal bid otherwise selected. Nonetheless, we believe that the MRTU software should allow for ancillary services bids from non-dynamic external resources and thus direct the CAISO to work toward ensuring that this functionality is restored within the six to nine month timeframe, as suggested in the instant proposal.[45] We also accept the CAISO's commitment to solve this functionality problem; further, we will ask the CAISO to include an update on the progress on this issue in its quarterly reports to the Commission.

### E. Request to Accept Instant Filing Subject to Refund and to Establish Additional Procedures

**Comments**

59. NCPA argues that the changes proposed by the CAISO undercut some of the very considerations on which the Commission based its conditional approval

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[45] The CAISO Transmittal Letter at 9.

of the MRTU Tariff in the first place. NCPA notes that while the proposed changes may not require a further delay in the MRTU implementation, they warrant a re-examination of the basis on which MRTU is permitted to go forward. NCPA further argues that the Commission should accept this filing only subject to refund and should further initiate its own investigation under section 206 of the FPA to make the entire MRTU Tariff implementation subject to refund, in order to fulfill its statutory obligation to protect CAISO ratepayers from the potential unforeseen effects of last-minute tariff changes. In support of its position, the NCPA states that the Commission has already made Exceptional Dispatch portions of the MRTU Tariff subject to refund in an October 26, 2008 order.[46] NCPA argues that the instant filing is analogous to the situation addressed in the Exceptional Dispatch Order accepting certain other last-minute MRTU Tariff changes for filing subject to refund, and initiating an FPA section 206 investigation to determine whether the new changes and other changed circumstances rendered all MRTU Tariff provisions concerning Exceptional Dispatch unjust and unreasonable. NCPA thus asserts that the instant filing should receive similar treatment.

60. TANC argues that the fact that certain features of MRTU have been approved does not mean that they should be implemented at the start of MRTU, particularly where such features have been shown to produce counterintuitive results, create seams issues or impose other market-limiting results. TANC also contends that the fact that features of MRTU have been approved does not absolve the Commission from determining whether the totality of the MRTU Tariff will produce a just and reasonable result. TANC further argues that the Commission should determine whether there are other features, whether core or non-core, that will adversely affect the implementation of MRTU and that should be deferred to a Phase II implementation.[47]

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[46] *Cal. Indep. Sys. Operator Corp.*, 125 FERC ¶ 61,055 (2008) (Exceptional Dispatch Order).

[47] TANC states that the Integrated Balancing Authority Area, accepted for filing by the Commission in MRTU Order is unnecessary and puts at risk the MRTU market. *See* TANC Comments at P 18-19. We will not address this argument by TANC, as it constitutes a collateral attack on the Commission's prior order.

**The CAISO's Answer**

61. The CAISO argues that there is no definitive evidence that the elimination of the Forbidden Operating Region functionality will increase the use of Exceptional Dispatch. The CAISO reiterates that the lack of multi-stage modeling may be a greater reason for the need to use Exceptional Dispatch to prevent dispatches within Forbidden Operating Regions.

62. The CAISO further argues that the NCPA's suggestion that the proposed amendment be subject to refund is not realistic. The CAISO explains that because the proposal concerns operational features, not rates, it would be impossible to determine what charges would have been avoided, had the functions not been deferred, and from whom refunds should be collected.

63. The CAISO also argues that the NCPA's suggestion that the entire MRTU proceeding be subject to refund is not only equally infeasible, but totally inappropriate at this stage of the process. The CAISO states that the MRTU Tariff was accepted for filing in September 2006 and the instant proposal was submitted in a separate docket from the remainder of the MRTU Tariff. The CAISO thus concludes that reconsideration of the entire MRTU Tariff is simply not within the scope of this proceeding.

**Commission Determination**

64. NCPA argues that the CAISO's proposal should be accepted for filing subject to refund and the outcome of a section 206 investigation because the instant filing is analogous to the Exceptional Dispatch proposal addressed by the Commission in the Exceptional Dispatch Order. We disagree. In the Exceptional Dispatch Order, the Commission accepted and suspended for a nominal period the CAISO's proposed tariff revisions pertaining to Exceptional Dispatch, to become effective upon implementation of the MRTU Tariff, subject to refund and the outcome of an FPA section 206 investigation.[48] The section 206 investigation was established to examine the justness and reasonableness of the Exceptional Dispatch mechanism as a whole because, as the Commission found, due to changes in circumstances the Exceptional Dispatch tariff provisions may no longer be just and reasonable.[49] The Commission will decide all issues related to Exceptional Dispatch, including compensation, in that docket. The instant case

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[48] Exceptional Dispatch Order, 125 FERC ¶ 61,055 at P 1.

[49] *Id*.

does not deal with changes in outside circumstances potentially affecting the treatment of Forbidden Operating Regions.

65. For these reasons, we find that the Exceptional Dispatch case and the instant case are fundamentally different, and that similar treatment is thus not warranted. Accordingly, we deny the NCPA's request to accept the instant proposal subject to refund and to institute a section 206 proceeding to investigate the justness and reasonableness of the proposal.

66. We also reject the NCPA's and TANC's requests to establish a section 206 investigation to re-examine the justness and reasonableness of the MRTU Tariff in light of the revisions proposed in the instant proceeding. We find this request too broad and unsubstantiated to warrant relief. Parties seeking Commission action must, at a minimum, make specific allegations and provide some basis to question the reasonableness of the tariff.[50] The Commission has, in the past, interpreted the section 206 burden to require a customer seeking an investigation into accepted rates to provide some basis to question the reasonableness of the *overall* rate level, taking into account changes in *all* cost components and not just the challenged component.[51] Neither TANC nor NCPA explained in their comments how the proposal to defer the four operational features would affect the justness and reasonableness of the entire MRTU Tariff. Changes in several software functions, as proposed by the CAISO in the instant filing, do not automatically render the entire MRTU Tariff unjust and reasonable.[52] As we found above, the CAISO's operations will not be significantly changed by the proposed deferral of the four features. For these reasons, we find that NCPA and TANC have failed to raise sufficient grounds to warrant an investigation into the justness and reasonableness of the entire MRTU Tariff, and thus deny their requests to establish a section 206 investigation.

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[50] *Algoma Group v. Wis. Pub. Serv. Corp.*, 61 FERC ¶ 61,265, at 61,959 (1992).

[51] *See Ameren Servs. Co. v. MISO*, 121 FERC ¶ 61,205, n.25 (2007) (citing *Sithe/Independence Power Partners, L.P. v. FERC*, 165 F.3d 944, 951 (D.C. Cir. 1999)).

[52] *Dynegy Midwest Gen., Inc*., 116 FERC ¶ 63,052, at P 24 (2006) (citing *Houlton Water Co. v. Maine Public Serv. Co*., 55 FERC ¶ 61,037, at 61,110 (1991)) (finding that "[a] single component does not necessarily mean that the overall rate has become unjust and unreasonable.").

The Commission orders:

(A) The CAISO's proposal to defer the identified four operational features is hereby conditionally accepted, subject to modifications, to become effective upon the launch of the MRTU markets.

(B) The CAISO is hereby directed to include in its quarterly reports to the Commission on evaluation of MRTU performance a description of the status of the CAISO's efforts to resolve and restore the four deferred functionalities accepted in this order.

(C) The CAISO is hereby directed to make an informational filing specifying the effective date of the tariff sheets being accepted herein prior to the implementation of MRTU.

By the Commission. Commissioner Kelliher is not participating.

( S E A L )

Nathaniel J. Davis, Sr.,
Deputy Secretary.

Appendix

**Motions to Intervene**
**Docket No. ER09-213-000**

Alliance for Retail Energy Markets*
California Department Of Water Resources State Water Project*
California Municipal Utilities Association
Cities of Anaheim, Azusa, Banning, Colton, Pasadena, and Riverside, California
City of Santa Clara, California and M-S-R public Power Agency
Dynegy Morro Bay, LLC and Dynegy Moss Landing, LLC*
J.P. Morgan Ventures Energy Corporation
Mirant Energy Trading, LLC, Mirant Delta, LLC, and Mirant Potrero, LLC
Northern California Power Agency*
Pacific Gas and Electric Company
Powerex Corp.*
Transmission Agency of Northern California*
Western Power Trading Forum*

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* indicates that a party has also filed comments

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