

129 FERC ¶ 61,009  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

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

California Independent System  
Operator Corporation

Docket No. ER09-1542-000

ORDER CONDITIONALLY ACCEPTING TARIFF REVISIONS

(Issued October 2, 2009)

1. On August 3, 2009, pursuant to section 205 of the Federal Power Act,<sup>1</sup> the California Independent System Operator Corporation (CAISO) filed amendments to its tariff<sup>2</sup> to (1) clarify that generating units located outside the CAISO's balancing authority area can be treated as regulatory must-take generation<sup>3</sup> under the tariff; and (2) clarify the tariff language regarding the role of the full network model<sup>4</sup> in enforcement of

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<sup>1</sup> 16 U.S.C. § 824d (2006).

<sup>2</sup> California Independent System Operator Corporation, FERC Electric Tariff, Fourth Replacement Volume No. 1 (CAISO Tariff). The CAISO Tariff referred to in this order is the same as the Market Redesign Technology Upgrade (MRTU) tariff.

<sup>3</sup> Appendix A of the CAISO Tariff defines regulatory must-take generation as generation resources identified by the California Public Utilities Commission (CPUC), or a local regulatory authority, the operation of which is not subject to competition. Regulatory must-take generation includes generation from qualifying facility generating units subject to a mandatory purchase obligation as defined by federal law, nuclear units and pre-existing power purchase contracts with minimum energy take requirements. The relevant scheduling coordinator will schedule these resources directly with the CAISO on a must-take basis. *See discussion infra* at P 7.

<sup>4</sup> Appendix A of the CAISO Tariff defines the full network model as a computer-based model that includes all CAISO balancing authority area transmission network (load and generating unit) busses, transmission constraints, and intertie busses between the CAISO balancing authority area and interconnected balancing authority areas. The full

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transmission constraints.<sup>5</sup> The Commission conditionally accepts the CAISO's filing and proposed tariff revisions.

## **I. Background**

2. In this proceeding the CAISO has filed tariff clarifications that were previously rejected as beyond the scope of compliance with its February 19, 2009 order in Docket No. ER09-240-000<sup>6</sup> concerning the setting of market optimization parameters.<sup>7</sup> The CAISO explains that its tariff modifications are intended to (1) implement the same tariff clarification proposed in its March 23, 2009 compliance filing regarding regulatory must-take generation; and (2) clarify the MRTU tariff language regarding transmission constraints and the full network model. The regulatory must-take generation tariff language is identical to the provisions previously submitted. The tariff language regarding the enforcement of constraints and the full network model differs from the language previously submitted, but according to the CAISO, was modified to provide additional clarity with regard to roles and scope.

## **II. Notice, Intervention, and Responsive Pleadings**

3. Notice of the CAISO's filing was published in the *Federal Register*, 74 Fed. Reg. 40,579 (2009), with comments or protests due on or before August 24, 2009.

4. Timely motions to intervene were filed by: (1) Santa Clara, California doing business as Silicon Valley Power, and the M-S-R Public Power Agency; (2) California Department of Water Resources State Water Project; (3) J.P. Morgan Ventures Energy Corporation and BE CA LLC (J.P. Morgan); (4) Pacific Gas and Electric Company

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network model models the transmission facilities internal to the CAISO balancing authority area as elements of a looped network and models the CAISO balancing authority area interties with interconnected balancing authority areas in a radial fashion. See discussion *infra* at P 11.

<sup>5</sup> CAISO's July 31, 2009 Tariff Clarifications Regarding Regulatory Must-Take Generation and Enforcement of Transmission Constraints, Docket No. ER09-1542-000 (CAISO's filing).

<sup>6</sup> *California Indep. Sys. Operator Corp.*, 126 FERC ¶ 61,147 (2009) (February 19 Parameter Tuning Order).

<sup>7</sup> *California Indep. Sys. Operator Corp.*, 127 FERC ¶ 61,233 (2009) (Order on Compliance Filing).

(PG&E); (5) Powerex Corporation (Powerex); (6) Western Power Trading Forum (WPTF); (7) Northern California Power Agency; (8) Modesto Irrigation District; and (9) Dynegy Morro Bay, LLC, Dynegy Moss Landing, LLC, Dynegy Oakland, LLC, and Dynegy South Bay, LLC. A motion to intervene out-of-time was filed by the California Public Utilities Commission (CPUC). Comments were filed by J.P. Morgan, PG&E, Powerex, and WPTF. The CAISO filed an answer to comments, motion to file answer and answer to protest.

### **III. Discussion**

#### **A. Procedural Matters**

5. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2009), the timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding. Pursuant to Rule 214(d) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214(d) (2009), the Commission will grant the late-filed motion to intervene of the CPUC, given its interest in the proceeding, the early stage of the proceeding, and the absence of undue prejudice or delay.

6. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2009), prohibits an answer to a protest unless otherwise ordered by the decisional authority. We will accept the answer filed by the CAISO because it provided information that assisted us in our decision-making process.

#### **B. Regulatory Must-Take Generation**

##### **1. The CAISO's Filing**

7. The CAISO explains that under its tariff, regulatory must-take generation generally describes those resources that the CAISO must schedule in the market at a higher priority for policy reasons (e.g., qualifying facility output under a Public Utility Regulatory Policies Act (PURPA) contract) or operational reasons (e.g., nuclear units that are non-dispatchable by the market) or grandfathered power purchase agreements as specified in the definition of "Regulatory Must Take Generation." The CAISO states that this term has been used in its tariff since the CAISO began operations. The CAISO explains that in reviewing the scheduling priority of certain regulatory must-take resources in the parameter assignment process, i.e., the process of setting administratively determined values for the parameters that are associated with certain non-priced quantities, the CAISO discovered an inadvertent and unintended limitation of some legacy tariff language. The CAISO states that under sections 31.4 and 34.1 of the CAISO Tariff, regulatory must-take resource self-schedules are appropriately accorded a higher priority than other self-schedules, due to their must-take status. The CAISO explains that due to the inadvertent capitalization of the word "Generation" within the definition of

“Regulatory Must-Take Generation,” it believes the tariff application of this term is now limited to resources inside the CAISO’s balancing authority area. The CAISO claims that this is because “Generation” is defined as “Energy delivered from a Generating Unit,” and “Generating Unit” is defined as a resource “located within the CAISO Balancing Authority Area.”

8. The CAISO states that, read literally, this could have the unintended consequence that certain units – such as qualifying facilities in non-CAISO balancing authority areas under a PURPA contract with a public utility within the CAISO balancing authority area or nuclear units that are outside of the CAISO balancing authority area but under contract with load-serving entities within the CAISO balancing authority area – may not qualify as regulatory must-take generating units. The CAISO states that it has always accorded “must-take” status to existing qualifying facilities and nuclear generating resources. The CAISO asserts that removing the regulatory must-take status from such units in the master file could have undesirable and unintended consequences in the market by changing the relative scheduling priority of these units. The CAISO states that, to avoid any unintended consequences resulting from the term “Regulatory Must-Take Generation,” it is proposing to correct the tariff definition to make it consistent with historical practice to ensure that the definition covers all the appropriate “must-take” resources. The CAISO proposes simply to change the word “Generation” to “generation” in the Appendix A definition of “Regulatory Must-Take Generation” to ensure that the term is not inadvertently confined to internal generating units.

**a. Comments and Protests**

9. PG&E supports the CAISO’s proposed tariff revision. No parties protested this portion of the CAISO’s amendments.

**b. Commission Determination**

10. We find the CAISO’s proposed tariff modification clarifying that generating units located outside the CAISO balancing authority area are included in the definition of regulatory must-take generation to be just and reasonable, and we hereby accept it. This tariff revision is consistent with the CAISO’s historical treatment of regulatory must-take generation.<sup>8</sup> It will also preclude inadvertent, undesirable consequences in the market that could result from changing the relative scheduling priority of these units.

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<sup>8</sup> CAISO’s July 31, 2009 Transmittal Letter, Docket No. ER09-1542-000, at 3.

## C. Full Network Model and Transmission Constraints

### 1. The CAISO's Filing

11. The CAISO explains that its tariff contains language describing the full network model and its use in the CAISO markets.<sup>9</sup> The CAISO states that the full network model is a detailed mathematical representation of the physical transmission system that the CAISO operates. The CAISO claims that the current tariff language does not accurately reflect the actual role the full network model plays in the CAISO markets and, in particular, erroneously attributes to it certain functions related to the setting and enforcement of transmission constraints that are actually effectuated through other market mechanisms. The CAISO asserts that the erroneous attribution of these functions to the full network model creates an appearance of inconsistency with other tariff provisions that relate to the management of transmission constraints through the clearing of the CAISO markets.

12. Specifically, the CAISO notes that sections 8.3.3.5 and 27.5.1 of the tariff contain the phrase: “The Full Network Model incorporates Transmission Losses and models and enforces all network constraints.” The CAISO states that, while primarily descriptive, this phrase (along with other supporting tariff provisions) requires clarification.

13. First, the CAISO states that the full network model is, as the name indicates, merely a model of the transmission system. The CAISO states that the full network model does not take any action with regard to transmission constraints. The CAISO states that such action is performed by the market optimization software, to which the full network model is an input, and/or by market operators, but not by the full network model itself. The CAISO notes, however, that as indicated in the quoted language above, the current tariff language erroneously suggests that the full network model actually performs the enforcement of constraints itself. The CAISO states that, in actuality, the full network model is a representation of the facilities on the grid and reflects the transmission limits and constraints but does not enforce or relax these elements.

14. Second, the CAISO claims that the above-quoted tariff language might also be interpreted to suggest that the CAISO actually enforces all transmission constraints at all times because it states that the full network model “enforces all network constraints.” The CAISO states that this is not the case, noting that in running the CAISO markets there are occasions when certain transmission limits are relaxed in the market optimization in lieu of pursuing more costly re-dispatch solutions. In addition, the CAISO states that there are certain lower voltage facilities on the network whose limits

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<sup>9</sup> *Id.*

the CAISO does not enforce, due to lack of sufficient visibility on those constraints stemming from inadequate telemetry. The CAISO states that section 2.1.1.1 of the CAISO's business practices manual on managing the full network model, titled "Facilities that Lack Sufficient Telemetry and Visibility," describes this practice in considerable detail and the facilities it impacts.<sup>10</sup>

15. Third, the CAISO states that the phrase quoted above states that the full network model "incorporates Transmission Losses," which is also incorrect. The CAISO states that actually the full network model includes certain physical properties of the transmission facilities it represents, which are used by the AC power flow algorithm of the market software to calculate transmission losses. The CAISO states that, again, the existing tariff language attributes to the full network model a function that it does not perform.

16. In order to more accurately clarify the role of the full network model and the CAISO's constraint enforcement practice, the CAISO proposes to make five tariff changes. First, the CAISO proposes to revise section 8.3.3.5 of the CAISO Tariff to clarify the role of the full network model in making ancillary services awards. The CAISO states that the existing language erroneously suggests that the full network model plays a role in the actual procurement of ancillary services. The CAISO states that this is not the case, and, accordingly, proposes to revise tariff language to clarify that although the CAISO market optimization process co-optimizes for the scheduling of ancillary services and energy, ancillary services are actually procured based on regional requirements as already indicated in that same section of the tariff, but not as clearly.

17. In addition, the CAISO proposes to revise section 27.5.1 of the CAISO Tariff to clarify the role of the full network model and to describe that, in running the CAISO Markets, the CAISO will establish, enforce (or not enforce as the case may be), and manage the constraints modeled in the full network model in accordance with the considerable detail provided in the business practices manual for the full network model. The CAISO also proposes a modification to sections 27.5.2 and 31.3.3 of the CAISO

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<sup>10</sup> *Id.* at 4 (citing section 2.1.1.1 of the business practices manual for managing the full network model in relevant part):

Certain transmission facilities lack sufficient telemetry to provide accurate data for market dispatch and pricing purposes. Regular enforcement of constraints on these facilities in the market optimizations may lead to spurious congestion or infeasible schedules. The CAISO therefore generally does not enforce constraints on the facilities where there is not sufficient telemetry and visibility.

Tariff regarding the treatment of constraints within a metered subsystem to correct an inaccuracy similar to the one described above in paragraphs 12-14. The CAISO states that the current language erroneously suggests that the constraints are enforced in the full network model. The CAISO emphasizes that this is not the case. The CAISO proposes changes to more accurately reflect the reality that any enforcement of transmission constraints is conducted through the CAISO markets.

18. Fourth, the CAISO proposes to revise section 31.2.1 of the CAISO Tariff to clarify that only those constraints expected to be enforced in the integrated forward market will be enforced in what is known as the “all constraints run” of the day-ahead market. The CAISO is proposing this change to make clear that although the CAISO calls this function of the market power mitigation and reliability requirements determination process of the day-ahead market the “all constraints run,” not all constraints are enforced at all times. Rather, the CAISO notes that the all constraints run enforces whatever constraints are expected to be enforced in the applicable corresponding market run. The CAISO is also proposing a corresponding change to the definition of “All Constraints Run” in Appendix A to the CAISO tariff.

19. Fifth, the CAISO is proposing a change to section 39.7.2.2 of the CAISO Tariff regarding how transmission constraints will be treated in making determinations about the competitiveness of certain paths for market power mitigation purposes. The CAISO notes that the current language suggests that transmission constraints are enforced by the full network model in the determination of the competitiveness of certain paths. Similarly to the proposed changes discussed above, the CAISO is proposing language to clarify that the constraints are enforced through the market runs and not by the full network model.

20. The CAISO states that because the tariff modifications it proposes in this proceeding differ slightly from what was previously proposed, the CAISO posted these tariff changes for stakeholder review and comment on July 9, 2009. The CAISO notes that on July 21, 2009, stakeholders submitted comments, and on July 23, 2009, the CAISO held a conference call with stakeholders to discuss the proposed tariff changes. With respect to the proposed changes to the full network model-related language, the CAISO claims it received two sets of comments saying that while the parties did not oppose the language specifically, they raised questions regarding the broader issue of the setting and management of transmission constraints through the CAISO markets. The CAISO states that, more specifically, both stakeholders requested that the CAISO provide additional information regarding the constraints enforced in market runs.

21. In an effort to provide more transparency in this area of the CAISO's processes, the CAISO claims that it has recently (both prior to and following the commencement of the new market), provided additional documentation that describes in some detail the CAISO practices regarding the setting of transmission constraints, the relaxation of such constraints and the "biasing" (i.e., manually changing the limits of transmission line constraints) practices of market operators. In addition, the CAISO states that it discussed these issues at great length with stakeholders at the last two meetings of the CAISO's market surveillance committee. The CAISO notes that these efforts did not address all of the requests put forth in the recently submitted comments and recognizes the need for further dialogue on these issues. The CAISO claims that it is considering these requests more carefully. The CAISO states that it is seeking to balance the request for greater transparency to the constraint enforcement and biasing practices and the requests for specific information sought by certain market participants, against the nature, timing, and format of the data to be provided and any confidentiality and data sensitivity concerns. The CAISO states that for purposes of this filing, it is important to note that the CAISO's constraint enforcement practice, changes to which are not proposed here, need not be resolved for the Commission to accept the narrow tariff clarifications described above. The CAISO requests that the proposed tariff modifications become effective October 2, 2009.

**a. Comments and Protests**

**i. WPTF's Protest and Comments**

22. WPTF protests the CAISO's proposal clarifying the role of the full network model and the enforcement of certain constraints. WPTF claims that the CAISO is seeking to change tariff language to explain that it does not enforce all transmission constraints in its full network model. WPTF does not understand the effect that the proposed changes will have on the CAISO's markets, since the only available information about the scope and effects of this practice are the general descriptions contained in the CAISO's business practices manual for managing the full network model and the responses in a CAISO answer submitted on April 28, 2009 in Docket No. ER09-240-002 (April 28 CAISO Answer). WPTF states that while the CAISO acknowledges that stakeholders have requested additional details on these practices and further acknowledges the need for additional dialogue on these issues, the CAISO has not yet provided the additional information sought by stakeholders, nor has the additional dialogue taken place. WPTF states that it cannot merely consent to the Commission granting the CAISO the clarification it seeks without first understanding the scope, nature and market consequences of not enforcing all full network model constraints. To that end, WPTF respectfully requests that the Commission reject the CAISO's proposed modifications regarding the enforcement of constraints, direct the CAISO to work with stakeholders to address concerns about the transparency of this practice, and require the CAISO to re-file its proposed tariff provisions after addressing stakeholders' transparency issues.

23. WPTF states that its concerns about the CAISO now seeking additional authority to avoid enforcement of other operating constraints are not unfounded, especially where there is little visibility about the scope and effect of that practice. WPTF states that visibility – or lack thereof – into this practice is a critical issue. WPTF notes that, when pressed for additional detail on the CAISO’s practice of not enforcing transmission constraints, the CAISO points to its business practices manual for managing the full network model, which states:

Certain transmission facilities lack sufficient telemetry to provide accurate data for market dispatch and pricing purposes. Regular enforcement of constraints on these facilities in the market optimizations may lead to spurious congestion or infeasible schedules. The CAISO therefore generally does not enforce constraints on the facilities where there is not sufficient telemetry and visibility. This applies to many facilities below 115 kV and to a small number of facilities at 115 kV, but does not apply to any of the facilities above 115 kV. In cases where there is limited telemetry and visibility on facilities, the CAISO will evaluate whether the model flows sufficiently reflect actual conditions on these facilities and will also continue to monitor them in real-time for overloads. If a real-time overload arises on one of these constraints that requires an operational response, the constraint can be turned on in the [Real Time Market] so that it is managed through the markets. The CAISO Operating Procedures list the set of below-115 kV constraints that it will enforce regularly in the markets, as well as the limited set of 115 kV constraints it will not enforce regularly in the markets.<sup>11</sup>

24. WPTF states, however, that the CAISO operating procedures that list the set of below-115 kV constraints that the CAISO will enforce, and the set of 115 kV constraints that the CAISO will not enforce, are not publicly available. Consequently, WPTF states that market participants cannot know or even estimate the effects that a failure to enforce these constraints may have on CAISO market prices. WPTF claims that the lack of any meaningful information deepens, rather than assuages, market participants’ concerns about these practices. Further, WPTF states that the CAISO has indicated that its operators often “bias” (manually change the limits of) transmission constraints based on

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<sup>11</sup> WPTF’s August 24, 2009 Comments, Docket No. ER09-1542-000, at 4 (citing section 2.1.1.1 of the CAISO’s business practices manual for managing the full network model).

anticipated operating conditions.<sup>12</sup> WPTF argues that this practice is not set forth either in the tariff or the business practices manual, and the CAISO has not disclosed either the limits that should have been used or the limits that ultimately were used.

25. WPTF states that the CAISO's inability to model and enforce certain capacity and voltage-related constraints in its market software has required the CAISO to rely on its exceptional dispatch<sup>13</sup> authority to commit and dispatch certain resources. WPTF states that, to date, the CAISO has not offered a comprehensive list of the operating nomograms and other operating procedures it has been unable to model and thus enforce in its market software. WPTF states that the CAISO should also provide information on operating requirements not yet modeled and whether and when such requirements can be included in the CAISO's market software.

26. WPTF notes that it protested the proposed tariff amendments regarding the enforcement of constraints when the CAISO submitted such language in a compliance filing in Docket No. ER09-240-002. In that protest, WPTF noted that the CAISO had not vetted or even explained its proposed changes in a stakeholder process. WPTF claims that the CAISO did not hold a stakeholder meeting to discuss this matter prior to posting the language proposed in the instant amendment for comment on July 8, 2009, as requested by WPTF. WPTF states that in its July 31 transmittal letter commencing this docket, the CAISO notes the comments submitted by WPTF and Southern California Edison Company (SoCal Edison) seeking additional information on the practice of not enforcing constraints. WPTF states that the CAISO even recognizes the need for additional dialogue on this practice. WPTF states that despite this acknowledgement of lack of relevant information, the CAISO nonetheless filed these proposed changes.

27. WPTF notes that the CAISO has tried to provide some additional information about some of the issues raised in the April 13 WPTF Protest in the April 28 CAISO Answer. WPTF states that in that answer, the CAISO asserted that it was not seeking a change in the way it was enforcing (or not enforcing) certain constraints, but merely amending tariff language to reflect the existing CAISO practice that was generally

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<sup>12</sup> *Id.* at 5 (citing CAISO Transmittal Letter at 6).

<sup>13</sup> "Exceptional Dispatch" allows the CAISO to manually commit and/or dispatch resources that are not cleared through market software in order to maintain reliable grid operations under certain circumstances. *Cal. Indep. Sys. Operator Corp.*, 128 FERC ¶ 61,218, at n.1 (2009). *See generally Cal. Indep. Sys. Operator Corp.*, 126 FERC ¶ 61,150, at P 6 (2009).

described in its business practices manual for managing the full network model.<sup>14</sup> WPTF states that it is clear that the existing tariff language, which the CAISO now seeks to change, required the CAISO to enforce all constraints in the full network model. Thus, WPTF states that to the extent that the CAISO was not enforcing those constraints, it is and was not complying with its filed tariff.

28. WPTF notes that the CAISO asserts that the provisions allowing it not to enforce certain constraints need not be in the CAISO tariff.<sup>15</sup> WPTF states that per the CAISO, the Commission's test for whether such provisions need to be in the CAISO tariff is whether such provisions significantly affect rates, terms, or conditions of service. WPTF claims that there is no way for market participants to know if the failure to enforce certain constraints significantly affects rates, terms or conditions of service because market participants do not know to what extent the CAISO is or is not enforcing constraints. WPTF notes that the CAISO offers WPTF and other market participants the upcoming opportunity to opine whether these operational practices about the non-enforcement of constraints should be in the CAISO tariff. However, WPTF states that with only a general description of this practice to inform market participants, and without real information about the magnitude and effects of this practice, the CAISO's offer is of little value.

29. WPTF states that the CAISO has clarified the difference between relaxing transmission constraints and not enforcing them: constraints are relaxed when they bind, but solving them through re-dispatch would produce uneconomic prices, while not enforcing constraints provides no indication of whether these constraints would bind and whether there may be congestion.<sup>16</sup> WPTF states that the CAISO thus argues it should not be required to set nodal prices to the bid cap when it does not enforce constraints, as it does when it relaxes constraints. WPTF states that it appreciates the difference between relaxing a constraint and not enforcing a constraint, and agrees that setting the price to the bid cap when a constraint is not enforced will produce inaccurate prices if the constraint does not bind. But WPTF states that the converse is also true: not enforcing the constraint will produce inaccurate prices when the constraint would bind. WPTF argues that with no knowledge of which constraints are not enforced, and how often they

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<sup>14</sup> WPTF Comments at 6 (citing CAISO's April 28, 2009 Answer, Docket No. ER09-240-002, at 5).

<sup>15</sup> *Id.*

<sup>16</sup> *Id.* at 7 (citing CAISO's April 28, 2009 Answer, Docket No. ER09-240-000, at 10-11).

are not enforced, market participants are unable to tell which is the greater of the two problems.

30. WPTF states that despite all these previously referenced issues with non-disclosure, the CAISO still takes the position that the transparency of not enforcing constraints is not needed to authorize the CAISO to continue to engage in this practice.<sup>17</sup> WPTF states that the CAISO is asking the Commission to grant this authority, with very little information about the effect of this practice on CAISO market results, apart from the general description in the transmittal letter and the business practices manual for managing the full network model. WPTF argues that such a request without clear and meaningful information about that practice is unreasonable. WPTF states that what does seem clear at this point is that the CAISO's MRTU tariff was implemented with a less-than-full understanding of its limitations. WPTF states that the Commission should not simply accept the broad authority the CAISO seeks without giving market participants an opportunity to fully understand the scope and implications of the authority to not enforce all constraints that the CAISO now seeks. WPTF asserts that the Commission should promote the transparency needed to develop a full understanding of the effects of this authority by rejecting the CAISO's proposal and directing the CAISO to do the following: develop OASIS reports indicating the constraints that the CAISO will not enforce in the day-ahead market; report the constraints that were not enforced in real time, as well as the transfer limits that were used for each constraint; fully discuss with stakeholders the implications of not enforcing those constraints; provide details regarding what nomogram and operating constraints are not included in the network model and when such will be included; and re-file its tariff change request and the full supporting information once these tasks have been completed.

## **ii. Powerex's Comments**

31. Powerex supports WPTF's comments. In addition, Powerex notes that the business practices manual relating to management of the full network model provides only that the CAISO "generally does not" enforce constraints on certain facilities at or below 115 kV and refers market participants to operating procedures for a list of the facilities at or below 115 kV on which it will not enforce constraints. Powerex notes that the operating procedures to which the CAISO refers are not publicly available. Powerex states that market participants without access to these protected operating procedures thus are unable to tell on which facilities the CAISO does not enforce constraints. Similarly, Powerex points out that the CAISO notes in its instant filing that its operators often manually change (or "bias") the limits of transmission constraints based on anticipated

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<sup>17</sup> WPTF Comments at 7, (citing CAISO's Transmittal Letter at 7).

operating conditions.<sup>18</sup> However, Powerex notes that the CAISO Tariff does not address this practice at all, and the business practices manuals provide only limited details. Powerex argues that as a practice that significantly affects transmission service and operations, Commission precedent requires this practice to be set forth explicitly in the tariff.<sup>19</sup>

### iii. J.P. Morgan's Comments

32. J.P. Morgan recommends that prior to, or as a condition of, Commission acceptance of the CAISO's amendment to, in part, clarify that not all constraints will be enforced in the CAISO's market, that the CAISO be directed to provide further detail on the constraints and contingencies that will or will not be enforced in the CAISO's market software. J.P. Morgan claims that notwithstanding the fact that the CAISO's proposal is in part intended to conform the terms of the CAISO Tariff to a practice already in effect at the CAISO, the CAISO has an obligation to fully support the proposed tariff change. J.P. Morgan states that, in order to do so, the CAISO must provide the specific information requested by market participants. J.P. Morgan argues that such information is necessary for market participants to understand the potential impact of its proposal on CAISO market outcomes. J.P. Morgan states that while the CAISO has endeavored to provide some level of detail regarding the mechanics of its market processes, absent specific information on the constraints and contingencies enforced or not enforced in the market software, market participants cannot assess the true market and price impact of the CAISO's practices and this proposal.

33. J.P. Morgan states that it supports the requests for information and transparency and shares in the concerns expressed by both SoCal Edison and WPTF in the stakeholder process regarding the instant proposal.<sup>20</sup> J.P. Morgan notes that those requests center on

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<sup>18</sup> Powerex's August 24, 2009 Comments, Docket No. ER09-1542-000, at 5, (citing Transmittal Letter at 6).

<sup>19</sup> Powerex Comments at 5, (citing, e.g., *Preventing Undue Discrimination and Preference in Transmission Service*, Order No. 890, 72 Fed. Reg. 12,266 (Mar. 15, 2007), FERC Stats. & Regs. ¶ 31,241, at P 1649-61 (2007); *California Independent System Operator Corp.*, 107 FERC ¶ 61,329, at P 21-22 (2004) (finding that details relating to dynamic scheduling could significantly affect the terms and conditions of transmission service and therefore should be included in the CAISO's Tariff)).

<sup>20</sup> J.P. Morgan's August 24, 2009 Comments, Docket No. ER09-1542-000, at 4, (citing July 20, 2009 comments of SoCal Edison, posted at <http://www.caiso.com/23f3/23f3830f66df0.pdf> and comments of WPTF, posted at

(continued...)

the idea that the lack of transparency regarding the CAISO's market processes and the data and information used to conduct such processes will inhibit market participants' understanding of CAISO market results.

34. J.P. Morgan states that the first five months of the CAISO's MRTU market has revealed the importance and impact of accurate modeling and the importance of price transparency and certainty. For example, J.P. Morgan states that the CAISO's difficulty in accurately modeling and enforcing complex capacity and voltage-related constraints has given rise to the CAISO's need to rely frequently on its exceptional dispatch authority. J.P. Morgan notes that, in addition, the CAISO has at times needed to rely on its broad authority to correct market prices outside of prescribed time periods. J.P. Morgan claims that these circumstances and actions produce uncertainty in the market. J.P. Morgan states that the continued success and viability of CAISO's new market is dependent upon the CAISO facilitating and supporting a fully transparent market. J.P. Morgan argues that such transparency is necessary so that market participants can understand, build confidence in, and be informed by, market results. J.P. Morgan claims that understandable and predictable market outcomes support good operating and investment decisions. J.P. Morgan therefore recommends that the Commission direct the CAISO to provide the information requested above.

#### **iv. PG&E's Comments**

35. PG&E supports the CAISO's proposed amendments to the CAISO tariff. With respect to the full network model and its use in the CAISO markets, PG&E agrees with the CAISO that certain tariff provisions appear to be contradictory. PG&E states that the CAISO's suggested tariff revisions, including the statement that the CAISO manages the constraints modeled in the full network model in accordance with the detail provided in the business practice manual for the full network model, are consistent with PG&E's understanding of how the CAISO uses the full network model in the CAISO markets, and therefore PG&E supports these proposed tariff modifications, as well.

#### **b. The CAISO's Answer**

36. The CAISO points out that no intervenor actually opposes the CAISO's specific proposed tariff language. The CAISO states that the changes are non-substantive and purely for the purpose of clarification.<sup>21</sup>

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<http://www.aiso.com/23f3/23f3830f66df0.pdf>).

<sup>21</sup> CAISO's September 8, 2009 Answer, Docket No. ER09-1542-000, at 3 (CAISO Answer).

37. The CAISO asserts that the basis upon which WPTF, J.P. Morgan, and Powerex protest the CAISO's proposed tariff revisions is their perception that the CAISO has not made sufficiently visible its practices for enforcing and managing the constraints through the operation of the CAISO's markets. In addition, the CAISO asserts that WPTF appears to believe that the CAISO's proposed tariff revisions are necessary to provide the CAISO with authority to not enforce constraints at all times. The CAISO characterizes WPTF's protest as leveraging the opportunity to submit comments on the CAISO's proposed clarifying tariff language into an opportunity to persuade the Commission to force the CAISO into other business practices, which the CAISO states are unrelated to the proposed tariff revisions in this docket.<sup>22</sup>

38. The CAISO reiterates that the current tariff language does not correctly represent the nature of the full network model. The CAISO specifically emphasizes that the function of the full network model is to model the topology of the transmission facilities and that the full network model is merely a mathematical representation of the physical transmission system that the CAISO operates. The CAISO asserts that the full network model does not take any action with regard to transmission constraints.<sup>23</sup>

39. The CAISO states that even without the proposed tariff revisions, the tariff does not require that the CAISO enforce all constraints at all times. The CAISO states that the only current tariff language cited by WPTF in support of the notion that the CAISO is required to enforce all constraints at all times is the language the CAISO seeks to correct in this filing. The CAISO argues that the language should be corrected because it is not factually accurate and is not consistent with other parts of the CAISO's Tariff.<sup>24</sup> The CAISO states that a practice of enforcing all constraints at all times would be entirely impractical because it would lead to schedules and prices that are entirely unrelated to actual system conditions. The CAISO asserts that enforcing all constraints at all times would be wholly inappropriate and not consistent with good utility practice.<sup>25</sup>

40. Finally, the CAISO states that the Commission should not condition acceptance of the proposed tariff revisions, nor delay acceptance of the proposed tariff revisions, on a requirement that the CAISO provide further disclosures of information regarding the CAISO's enforcement of transmission constraints or the practices of the CAISO's

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<sup>22</sup> *Id.* at 3-4.

<sup>23</sup> *Id.* at 4-5.

<sup>24</sup> *Id.* at 6.

<sup>25</sup> *Id.* at 5.

operators. The CAISO points out that the CAISO has already committed to conducting a stakeholder process to consider what additional transparency can be provided with respect to these areas of the CAISO's operations.<sup>26</sup> The CAISO states that in some instances it has been required to limit access to certain documents because of the confidential nature of such documentation. In addition, the CAISO states that it is currently developing a stakeholder process to seek ways in which the CAISO can either provide a list of constraints that are or are not enforced or more visibility into how they are established, or the list of contingencies that are enforced in the market process.<sup>27</sup>

**c. Commission Determination**

41. The Commission accepts the proposed tariff revisions as just and reasonable because they clarify the CAISO Tariff to more accurately reflect the role of the full network model in relation to the enforcement of transmission constraints. As the CAISO points out, the full network model is a mathematical representation of the CAISO's transmission network; it cannot actually operate the CAISO's markets. When the CAISO enforces (or relaxes) constraints, it does so through the operation of its markets. While it takes into account information received from its full network model, the model itself does not operate the markets. In the Commission's view, therefore, the CAISO's proposed tariff modifications simply seek to correct inartfully crafted tariff language regarding the actual function of the full network model.

42. WPTF seeks to elevate the CAISO's filing into a request by the CAISO for new authority to not enforce all transmission constraints. We conclude, however, that the CAISO's proposed tariff revisions do not serve to change the CAISO's existing authority to relax transmission constraints. While the current tariff language implies that the full network model enforces all transmission constraints, it is clear from the definition and performance of the full network model that such language does not correctly describe the full network model's actual relationship to the enforcement of constraints.<sup>28</sup> Not only does the full network model not operate the CAISO's markets, but, additionally, the February 19 Parameter Tuning Order plainly contemplates circumstances in which the CAISO will relax transmission constraints in order to facilitate the prudent operation of

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<sup>26</sup> *Id.*

<sup>27</sup> *Id.* at 9.

<sup>28</sup> Appendix A of the CAISO Tariff defines the full network model as a computer-based model that includes all CAISO balancing authority area transmission network (load and generating unit) busses, transmission constraints, and intertie busses between the CAISO balancing authority area and interconnected balancing authority areas.

the CAISO transmission system.<sup>29</sup> The relaxation of transmission constraints is appropriately considered by the CAISO's market optimization software in connection with running the CAISO's major market processes, including the integrated forward market, the residual unit commitment, the hour-ahead scheduling process, the real-time unit commitment and the real-time dispatch.<sup>30</sup>

43. Notwithstanding our acceptance of the proposed tariff modifications, we share protesters' concerns regarding the need for transparency regarding manual intrusions in the CAISO's markets, no matter how necessary they may be. Protesters have provided the Commission with a relatively extensive list of manual actions initiated by the CAISO for which market participants have no specific information, including the relaxing of certain transmission constraints, the non-enforcement of some (but not all) transmission constraints for facilities less than 115 kV, and other constraints that the CAISO has been unable to model.<sup>31</sup> We believe the CAISO and market participants should continue to explore means of improving market transparency and information sharing and that the existing stakeholder process is the appropriate forum.

44. In this regard, we note that the CAISO's Answer discusses a stakeholder process, apparently intended to consider what additional visibility can be provided with respect to the CAISO's transmission constraint enforcement and operator practices to account for system conditions in managing the limits of the transmission system.<sup>32</sup> In addition, in its Answer the CAISO commits to utilizing the stakeholder process to seek ways in which the CAISO can provide (1) either the list of the constraints that are not enforced in the CAISO market or more visibility into how they are established and (2) the list of contingencies that are enforced in the CAISO market process. We find that this stakeholder process will appropriately allow the interested market participants to address the transparency issues. Accordingly we direct the CAISO to convene the stakeholder process with an aim to address parties' concerns as expeditiously as possible.

45. Finally, WPTF, J.P. Morgan, and Powerex argue that the details concerning relaxing, not enforcing and manually adjusting transmission constraints must be included in the CAISO Tariff. They are concerned that the lack of specific information in the

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<sup>29</sup> See, e.g., February 19 Parameter Tuning Order, 126 FERC ¶ 61,147 at P 43, 46 (2009).

<sup>30</sup> *Id.* at P 6.

<sup>31</sup> See WPTF Comments at 4-5.

<sup>32</sup> See CAISO Answer at 6.

tariff may negatively impact parties' ability to participate in the CAISO markets.<sup>33</sup> Without additional information in the record, however, the Commission is unable to discern whether the failure to enforce certain constraints "significantly affects rates, terms or conditions of service."<sup>34</sup> Although it would be impractical to list in the tariff all instances in which the CAISO will relax, enforce, or manually adjust constraints, it is reasonable for the tariff to include the general guidelines explaining the CAISO's

constraint management practices.<sup>35</sup> This should provide market participants with additional market confidence by providing them with the additional transparency into the CAISO operations they seek, while preserving the CAISO's ability to engage in reasonable operating practices and market management in order to ensure a well-functioning, efficient market. The stakeholder processes described above provide appropriate forums for the parties to resolve this issue. Accordingly, we direct the CAISO, through its stakeholder processes, to develop guidelines for its constraint management process, and, within 90 days of issuance of this order, submit tariff sheets setting forth those principles that significantly affect rates, terms or conditions.

The Commission orders:

(A) The CAISO's proposed tariff revisions are conditionally accepted, effective October 2, 2009.

(B) The CAISO is directed to complete the stakeholder process as discussed in the body of this order within 90 days from the date of this order.

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<sup>33</sup> See, e.g., J.P. Morgan comments at 3-5.

<sup>34</sup> See *City of Cleveland v. FERC*, 249 U.S. App. D.C. 162, 773 F.2d 1368, 1376 (D.C. Cir. 1985) (finding that utilities must file "only those practices that affect rates and service significantly, that are reasonably susceptible of specification, and that are not so generally understood in any contractual arrangement as to render recitation superfluous").

<sup>35</sup> See February 19 Parameter Tuning Order, 126 FERC ¶ 61,147 at P 116 (finding that the CAISO's Parameter Tuning tariff revisions had provided sufficient detail regarding the manner in which scheduling and pricing parameters will impact settlement in clearing the market in the integrated forward market and real-time market, and were, therefore just and reasonable).

(C) The CAISO is hereby directed to submit a compliance filing within 90 days of the date of this order, as discussed in the body of this order.

By the Commission.

( S E A L )

Nathaniel J. Davis, Sr.,  
Deputy Secretary.