

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

California Independent System)
Operator Corporation) Docket No. ER06-615-002

**CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION JOINT
QUARTERLY SEAMS REPORTS FOR THE
THIRD QUARTER OF 2007**

In compliance with the Federal Energy Regulatory Commission's ("FERC" or Commission) September 21, 2006, order directing "the CAISO and neighboring control areas to meet as needed to resolve seams between them" and to "*jointly* report on the progress of these efforts in quarterly status reports filed with the Commission within 30 days of the end of each calendar quarter,"¹ the California Independent System Operator Corporation ("CAISO") hereby submits joint quarterly reports with Western Area Power Administration ("Western"); Sacramento Municipal Utility District ("SMUD"); Turlock Irrigation District ("Turlock"); the Bonneville Power Administration (Bonneville); and the Los Angeles Department of Water and Power ("LADWP") regarding seams-related discussions that took place during the third quarter of 2007. The joint status reports identify and, as appropriate, summarize bilateral discussions between the CAISO and neighboring control areas regarding seams issues. In addition, the CAISO also reports on additional seams-related activities and discussions

¹ *California Independent System Operator Corp.* 116 FERC ¶ 61,274 at P 490 (emphasis in original) ("September 21 Order").

facilitated by the Western Electricity Coordinating Council (“WECC”) during the third quarter of 2007.

I. INTRODUCTION

In an effort to continue to identify and resolve inter-control area seams issues, during the third quarter of 2007 the CAISO has met with: Western, SMUD, Turlock, Bonneville and LADWP. The CAISO is submitting joint reports with these parties as provided below in Part III, and related Attachments, of this report.

In the third quarter of 2007, representatives of the CAISO also met with representatives of other control areas in the Western Interconnection under the auspices of committees organized by the WECC. The purpose of these meetings is to identify and discuss any issues that might exist today or might arise with the inception of MRTU that could affect the operation of interconnected control areas as well as to discuss general seams issues in the Western Interconnection. A summary of those meetings is provided in Section IV of this report. Finally, Section V includes the CAISO’s status report regarding certain of the Commission’s directives in its April 20, 2007, Order Granting In Part and Denying In Part Requests for Clarification and Rehearing of the September 21, 2006, MRTU Order.²

II. JOINT QUARTERLY REPORT PROCESS

As described further in this document, since the Commission’s September 21 Order requiring the CAISO to meet with neighboring Control Areas to resolve

² *California Independent System Operator Corp.*, 119 FERC ¶ 61,076 (2007) (“Order on Rehearing”).

seams issues, the CAISO has been diligently seeking to meet with its neighboring control areas to identify and resolve any seams issues. The CAISO is approaching this in a two-pronged fashion: (1) one-on-one meetings with neighboring control areas, and (2) participation in WECC committee activities on regional issues.

In an attempt to fulfill the requirement for a joint reporting process on the meetings with neighboring control areas, the CAISO, working with neighboring control areas, has established what it views as an administratively simple process to ensure that the parties are in mutual agreement on the reports filed with the Commission. This process consists of the following.

- 1) At the time of the meeting the parties discuss the need for a joint report filing with the Commission and agree which party will prepare the first draft of the joint meeting report.
- 2) Within fourteen (14) calendar days following the end of the calendar quarter, the applicable party prepares the first draft of the meeting report and shares this with the meeting participants.
- 3) Within twenty-one (21) calendar days following the close of the calendar quarter the parties submit responsive comments to the entity that prepared the first draft of the meeting summary. Through any required iterations of modifications, the parties reach consensus that the summary may be filed as a joint report.³

³ Should the CAISO and the counter party fail to reach a consensus on the summary, the CAISO shall inform the Commission of this fact in its quarterly report. In such instances, nothing

- 4) At least one (1) day prior to filing the report with the Commission the CAISO provide to all counterparties a copy of the full text of the quarterly seams report.
- 5) The CAISO then includes all joint reports in the next quarterly report to the Commission or any supplement to such quarterly report.

With respect to the WECC process, the CAISO continues to work with the chairs of the relevant committees to develop a mutually-agreeable description of WECC activities to be filed with this quarterly status report.

III. JOINT REPORT OF THE CAISO AND OTHER CONTROL AREAS

Attachments A – E of this filing include joint reports of the one-on-one meetings between the CAISO and certain neighboring control areas. As noted above, the CAISO met with the following parties during the third quarter of 2007:

Western – August 9 and August 21, 2007;

SMUD – April 21, 2007;

Turlock - August 9 and August 21, 2007;

Bonneville – September 25, 2007; and

LADWP – August 19, 2007.

In addition, as further discussed below, the CAISO will also actively participate in the following upcoming WECC committee meetings: October 25-26 Market Interface Committee; December 13-14, 2007, Seams Issues Subcommittee; and the December, 2007, Board of Governors meeting.

shall limit a party's right to provide additional information, comments or summaries to the Commission regarding seams discussions between the CAISO and neighboring control areas.

IV. WECC AND OTHER REGIONAL ACTIVITY

WECC Activities

The CAISO continues to work through and with the established WECC committees to identify and discuss potential seams issues. During the third quarter of 2007, the CAISO has engaged in discussions facilitated by the WECC Seams Issues Subcommittee (“SIS”) of the WECC Market Interface Committee (“MIC”), and the WECC Interchange Scheduling and Accounting Subcommittee (“ISAS”). A summary of the WECC SIS and ISAS discussions are provided below. The following summary of seams efforts of WECC committees and subcommittees for the third quarter of 2007 was presented to Jerry Smith, Chair of the WECC SIS and Vice-Chair of the MIC and Carol Ballantine, Chair of the ISAS. Although this summary has not been formally adopted by the WECC, Mr. Smith and Ms. Ballantine authorized the CAISO to state that they have reviewed this summary and personally agree with it.

Summary of SIS Meetings

The SIS held a meeting on August 8, 2007, and conference calls on September 17 and 28, 2007. Although not yet posted, the meeting minutes for these meetings are anticipated to be posted on the WECC website (<http://www.wecc.biz>) prior to the next WECC SIS meeting on December 13-14, 2007.

The primary focus of the August 8th SIS meeting and September 17th and September 28th SIS conference calls was to review and finalize the SIS' final report on the California MRTU Seams Areas Evaluation ("SIS Report"). At these meetings, the SIS representatives in attendance reviewed and modified the draft sections of the report. The draft report included sections on: Congestion Management; Resource Adequacy Resources – Exports; the Operations Committee Task Force on MRTU; E-Tagging Requirements and Market Timing; Congestion Revenue Rights; Parallel Operations During Cutover; and Contingency Plan for Software Failure.

The SIS representatives present at these meetings re-confirmed their previous findings with respect to each of these issues. In addition, the SIS representatives present at these meetings discussed editorial recommendations put forth by the members to ensure that the final SIS Report was clear, accurate, and representative of the issues discussed and resolutions reached. A final version of the SIS Report entitled "Report of Findings Seams Issues Evaluation California Independent System Operator Market Redesign and Technology Upgrade" was distributed to the SIS members on October 4, 2007, and approved by vote of the SIS members on October 10, 2007. In summary the SIS report concluded that:

The Seams Issues Subcommittee (SIS) finds no specific seams issues that are created by MRTU or existing seams issues that are substantially worsened by MRTU implementation. Seams issues exist today, particularly between organized markets such as the CISO and bilateral physical markets that dominate the Western Interconnection. The SIS will continue to monitor, evaluate and propose solutions to all regional seams issues. [SIS Report at 2].

The approved final SIS Report is included as **Attachment F**. The Chair of the SIS will present the SIS' findings to the WECC MIC at the upcoming October 24-26, 2007, joint meeting of the MIC, the WECC Operations Committee, and the WECC Planning Coordination Committee. The SIS' findings will also be presented to the WECC Board of Governors at their upcoming meeting in December, 2007.

Summary of ISAS Meeting

The ISAS held a meeting on August 8-9, 2007. The meeting minutes for that meeting have been posted on the WECC website at:

<http://www.wecc.biz/index.php?module=pagesetter&func=viewpub&tid=4&pid=9> .

In its April 20, 2007, Order on Rehearing of its earlier MRTU order,⁴ the Commission directed the CAISO to provide information to stakeholders on the rules and mechanics of e-tagging interchange transactions under MRTU. The Commission directed the CAISO to include in its readiness activities a stakeholder process to further address concerns raised by parties about e-tagging rules and include a proposal on how it will address such issues in its next quarterly report. In the CAISO's First and Second Quarter 2007 Seams Reports, the CAISO stated that it would approach the ISAS, or other appropriate WECC committee, to schedule a presentation and discussion of the CAISO's MRTU e-tagging rules and requirements. Working with the appropriate WECC personnel and the Chair of the ISAS, the CAISO agreed to provide a presentation on its MRTU e-tagging rules at the ISAS' upcoming August 8-9, 2007, meeting.

⁴ Order on Rehearing, PP 229 and 230.

On August 1, 2007, in advance of the August 8-9, 2007, ISAS meeting, the CAISO distributed a market notice to all market participants indicating that the CAISO would be presenting its MRTU e-tagging rules to the ISAS (**Attachment G**). The CAISO's market notice also stated that the CAISO's presentation, entitled, "Tagging Under MRTU, New Interchange Transaction Scheduling System for CAISO," was posted on the CAISO website. At the August 8-9, 2007, ISAS meeting, the CAISO gave its presentation and answered a few limited questions. No concerns about the CAISO's MRTU e-tagging rules were raised by those attending the ISAS meeting.

Other Regional Activities

The North American Electric Reliability Corporation ("NERC") and WECC Mandatory Reliability Standards contain numerous requirements affecting coordination and communication between directly interconnected, and in some cases remotely interconnected, balancing authorities. The evidence of compliance with these reliability standards is often reflected in a wide variety of agreements, operating practices, and procedures rather than in a consolidated document between such balancing authorities. To better coordinate compliance documentation and practices, a number of balancing authorities in the WECC, including the CAISO, are working to develop a pro forma agreement or protocol consolidating all reliability standards that affect communication and coordination among interconnected balancing authorities. Although not directly a "seams"

issue, the involved entities will continue to report on progress with this initiative in subsequent Quarterly Reports.

V. UPDATE ON CAISO EFFORTS RELATED TO DIRECTIVES IN THE COMMISSION'S APRIL 20, 2007, ORDER ON REHEARING

In its April 20, 2007, Order on Rehearing among other actions, the Commission disposed of a number of seams issues raised in parties' comments, directed the CAISO to address certain seams issues, and imposed certain procedural requirements. The CAISO provides an update below on its efforts regarding certain of the Commission's directives in the Order on Rehearing.

Resource Adequacy Resource Supported Exports – In paragraphs 159 and 619 of the Order on rehearing, the Commission stated that exports of energy provided by Resource Adequacy capacity are “non-firm opportunity sales that should be subject to curtailment to prevent or alleviate a system emergency, as is consistent with NERC and WECC guidelines.” As previously summarized, at both the March 22, 2007, and May 30-31, 2007, meetings, the WECC SIS representatives came to a different conclusion and generally agreed that all exports included in CAISO final schedules are firm. As noted above, the SIS reconfirmed and codified this conclusion in its report entitled “Report of Findings Seams Issues Evaluation California Independent System Operator Market Redesign and Technology Upgrade,” dated October 4, 2007. Most importantly, the SIS' conclusion was confirmed by the Commission on September 24, 2007, in its order on rehearing addressing certain filings made by the CAISO, Southern California Edison Company (Edison), and jointly the City of Burbank, California

and the Turlock Irrigation District (Burbank/Turlock). In that order, FERC agreed with Edison and Burbank/Turlock that “exports supplied by RA capacity should not be considered non-firm opportunity sales but rather firm schedules subject to curtailment only during system emergencies.”⁵ . Based on the above, the CAISO considers this issue to be closed.

MRTU Readiness – In paragraph 188 of the Order on Rehearing the Commission encourages the CAISO to provide periodic updates to the appropriate WECC committees and subcommittees such as the SIS on the status of its readiness efforts. In addition, the Commission directs the CAISO and neighboring control areas to include in their joint quarterly reports on seams the input and comments received from WECC Committees.

As noted in the CAISO’s Second Quarter Seams Report, at the June 13-14, 2007, WECC MIC and OC meetings, the CAISO presented an overview of the CAISO’s MRTU Readiness Program and its initial thinking regarding the MRTU Cutover and Reversion Plan. The CAISO’s presentation overviewed both the CAISO’s *internal* as well as *external* readiness efforts. Among other things, the CAISO explained summarized its market participant readiness outreach and assessment efforts and provided an overview of the CAISO’s established MRTU Readiness Metrics. The CAISO also provided an initial outline of, and thoughts on, the components of its MRTU Cutover and Reversion Plan. At that time, the CAISO explained that it is just beginning development of the MRTU Cutover and Reversion Plan and would be seeking stakeholder input and feedback over the course of the summer. The CAISO stated that its objective is to finalize the plan

⁵ *California Indep. Sys. Operator*, 120 FERC ¶ 61,271 at P 35 (2007).

in the late summer and early fall for presentation to the CAISO Governing Board and, as directed by the Commission, inclusion in the sixty-day readiness certification filing to the Commission. While no specific feedback on the CAISO's presentation was forthcoming at either the MIC or OC meetings, the CAISO extended an offer for participants to provide feedback on an ongoing basis.⁶

As the Commission is aware, the CAISO subsequently issued a notice that the start date for MRTU would be deferred to March 31, 2008, for trade date April 1, 2008. Based on that new date, the CAISO will not be submitting its required certification filing until January, 2008. As such, the timing for completing and filing the CAISO's MRTU Cutover and Reversion Plan has been adjusted. The CAISO will continue to work with stakeholders through January 2008 to complete the plan.

E-Tagging Requirements – In paragraphs 229 and 230 of the Order on Rehearing the Commission directs the CAISO to provide information to stakeholders on the mechanics of e-tagging interchange transactions. The Commission further states that it agrees with certain parties on the lack of clarity in the MRTU e-tagging requirements and mechanics. The Commission states that the, "Lack of clarity in transaction rules can create barriers to trade." The Commission thus directed the CAISO to include in its readiness activities a stakeholder process to further address concerns raised by parties about e-tagging rules and include a proposal on how it will address such issues in its next quarterly report.

⁶ As noted in the attached Joint Reports, the CAISO provided a similar presentation to certain of the external control areas with whom the CAISO has met during the second quarter of 2007.

As summarized in Section IV above, the CAISO has actively engaged in the SIS work group discussions regarding e-tagging requirements and, in those discussions, committed to follow all applicable NERC and WECC e-tagging requirements. As explained above, the primary issue raised with the SIS with respect to e-tagging and the CAISO's rules has been a concern that a late market closing could result in the late submission, i.e., after 15:00, of an e-tag and the CAISO believes that it has substantially addressed that issue. In its October 4, 2007, SIS Report, the SIS found that, "*The SIS concluded MRTU does not create any new seams issues related either to e tagging or market timelines.*" (SIS Report at p.9).

In addition, and as discussed above, the CAISO presented and discussed the CAISO's e-tagging requirements at the August 8-9, 2007 meeting of the WECC Interchange Scheduling and Accounting Subcommittee. As previously committed to, the CAISO provided a notice to all market participants of its presentation to the ISAS so that they could participate in that discussion if they so chose. The CAISO's presentation was posted to the CAISO website at <http://www.caiso.com/17ba/17baaa0325c10.html>. No specific issues of concern were raised with respect to the CAISO's e-tagging requirements under MRTU at the ISAS meeting.

VI. CONCLUSION

Wherefore, the CAISO respectfully requests that the Commission accept this quarterly seams status report.

Respectfully submitted,

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Dated: October 30, 2007

Certificate of Service

I hereby certify that I have this day served a copy of this document upon all parties listed on the official service list compiled by the Secretary in the above-captioned proceedings, in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2010).

Dated this 30th day of October, 2007 at Folsom in the State of California.

/s/ Susan Montana

Susan Montana



CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION

**Joint Report on Control Area Meeting between the California ISO and
Western Area Power Administration**

October 30, 2007

As part of the Federal Energy Regulatory Commission's (FERC) conditional approval of the California Independent System Operator Corporation's (CAISO) Market Redesign Technology Upgrade (MRTU) initiative, FERC directed the CAISO, Western, as well as other adjacent control areas to file joint quarterly reports which identify MRTU-related implementation issues and the progress that the parties are making to resolve such issues in a timely and effective manner.

On August 9 and August 21, 2007, staff from the California Independent System Operator Corporation (CAISO) and the Western Area Power Administration (Western) met to discuss seams issues that may arise between the CAISO and the Western sub-control area as a result of the CAISO's implementation of MRTU. The purpose of these two meetings was to determine how to model and treat, for settlement purposes, transactions between the CAISO and adjacent and/or embedded control areas (ECAs/ACAs) under MRTU. The August 9 meeting included Western and representatives of certain Load Serving Entities (LSEs) that are transmission customers of Western, including: The Turlock Irrigation District (Turlock); the Modesto Irrigation District (Modesto), and the City of Redding, California (Redding). The August 21, 2007, meeting included the CAISO, Western, Turlock, Modesto, Redding, and Western's host control area operator, the Sacramento Municipal Utility District (SMUD).

The major points which were presented and discussed at the two meetings are summarized below:

- The CAISO made a short presentation describing how the SMUD/Western and TID control areas were originally intended to be modeled and represented in its MRTU-related network models and systems and how the data derived from these models would be used by the CAISO to establish price. The CAISO explained that it originally intended to model and price the full detail of the ECAs/ACAs, thereby establishing and revealing Locational Marginal Prices (LMPs) for all resources and Scheduling Points within the ECA/ACA. The CAISO explained that in order to accomplish this level of pricing detail, each ECA/ACA would have to provide detailed information regarding the scheduling of physical resources within the ECA/ACA, including both "base schedules" regarding how the ECA/ACA would use to serve its

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internal load and imports/exports and wheel throughs to and on the CAISO system.

After meeting with SMUD and Western, and getting feedback which indicated concerns related to the sensitivity of the CAISO establishing LMPs for the neighboring ECAs/ACAs systems, the CAISO decided to revise its overall approach. At the August 9 and 21 meetings the CAISO indicated that although its revised approach still allowed the CAISO to model the ECA/ACA transmission system to ensure an accurate and reliable solution for the CAISO system, the CAISO would not be determining any internal constraints to the ECA/ACA system and also agreed not to calculate or establish any LMPs for internal ECA/ACA resources. Under its revised approach, the CAISO indicated that it could consider utilizing the existing Scheduling Points with the ECAs/ACAs for pricing and settlement or in the alternative, on an aggregated (i.e., hub) price. The CAISO also stated that it was considering three pricing options: 1) pricing at the Scheduling Points (interties); 2) pricing on a large hub basis, e.g., SMUD/Western as a single hub; or 3) pricing on an aggregate sub-subsystem basis wherein the CAISO would establish separate prices for the SMUD, Western, Turlock, Modesto, Redding, and other possible areas.

The CAISO stated at both meetings that its preference was the aggregate sub-system based pricing approach wherein the CAISO would establish separate prices for the SMUD, Western, Turlock, and Modesto areas. The CAISO stated that it could also establish sub-system prices for Redding, the City of the Roseville, and other smaller metered areas. The CAISO stated that it favored the sub-system based approach because an intertie-based pricing approach could create inappropriate scheduling/pricing incentives wherein customers would schedule at certain points to take advantage of perceived price differences between scheduling points even though they may not intend to dispatch and use their resources in a manner consistent with their submitted schedules. The CAISO also stated that it did not favor a large hub price, since a large hub price may unnecessarily diminish price signals and that such prices would not truly reflect the actual nature of sub-system based operations. The CAISO represented that it believed both those pricing options were less optimal than a sub-system based pricing regime and may be at odds with the broader objectives of MRTU. The CAISO also stated that certain reporting/information requirements may still be needed to ensure that the sub-system pricing approach aligns well with the ECAs/ACAs actual use of the grid.

Both Western and its customers indicated that CAISO's revised approach appeared to be preferable to the CAISO's more data-intensive original ACA/ECA proposal. However, Western and its customers stated that they required more information related to the modeling and pricing details before they could make an informed decision on the acceptability of any CAISO proposal. The CAISO stated that it was preparing a detailed paper on the issue that it would present to Western, its customers, and other affected

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ECAs/ACAs. The CAISO asked that Western and its customers consider the outlined pricing/settlement options and that the parties meet again to discuss a final proposal once the CAISO has completed and distributes its technical paper on the matter.⁷

During the discussions Western, SMUD, and its customers observed that it was important to note that not every action occurring in the SMUD control area deleteriously impacted operations in the CAISO control area, and that there were some instances where CAISO actions had deleterious impacts upon the operations of the Western-SMUD control area. Additionally, Western, SMUD, and its customers observed that as part of this overall process to select a preferred modeling and settlements approach, sufficient safeguards were needed to protect both parties so that over time, as flows and operations changed, that a mechanism was in place not only to review those changes in operations and flows, but to also make the appropriate corresponding changes to the models being used to develop LMPs.

Western noted that the CAISO had finalized its white paper reflecting its revised approach only after the initial due date for submissions for Tier 1 Congestions Revenue Right (CRR) nominations and on the date Tier 2 CRR nominations opened for submissions. To the extent that Western's selection of a preferred modeling option at this time affects or impacts its current CRR allocation or allocation requests, Western requests consideration from the CAISO for modification of its CRR allocations and allocation requests in the event that any differences may turn out to be material.

As noted above, on October 5, 2007, the CAISO distributed a paper on the modeling and settlement treatment of ECAs/ACAs to Western and other affected parties. In that paper the CAISO stated, in part, that, "The CAISO recognizes that the amount of Congestion cost that will be charged in the Day-Ahead Market for Schedules to or from an ACA will need to be consistent with the proposed pricing approach, but this does not affect the acquisition of CRRs whose purpose is to offset costs associated with Congestion costs that occur in the Day-Ahead Market...Therefore, the ultimately adopted pricing approach should not impact participation in the CRR allocation process for acquiring CRRs whose purpose is to offset Congestion costs that occur in the Day-Ahead Market."

The CAISO acknowledges that its ECA/ACA paper (provided to Western on October 5, 2007) was distributed after the CRR Tier 1 nomination process was concluded and at the start of the CRR Tier 2 nomination process. That said, the CAISO believes that in discussions that took place prior to Tier 1 nominations with Western and others, that the CAISO clearly indicated the

⁷ The CAISO distributed a paper on the modeling and settlement treatment of ECAs/ACAs to Western and other affected parties on October 5, 2007. Western has arranged meetings with Modesto, Redding, SMUD, Turlock, and other potentially impacted stakeholders during the month of October in order to review the CAISO's latest white paper.

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pricing/settlement options under consideration and that the CAISO was uncomfortable with a scheduling point-based settlement option.

Issues Requiring Resolution before MRTU Start-up- Identification of seams issues requiring resolution prior to MRTU start-up are a priority to Western and the CAISO. The parties have identified a number of action items requiring resolution prior to MRTU start up in addition to the modeling and settlement of ECAs/ACAs. These items remain open and timely resolution of the issues prior to MRTU start up is needed:

- *MRTU Curtailment of Firm Exports from the CAISO Control Area.* As noted in previous Quarterly Reports, Western has sought assurances that its firm exports from non-Resource Adequacy (RA) resources from the CAISO would not be cut in real-time except as consistent with NERC and WECC reliability provisions. In previous discussions with Western, the CAISO agreed to provide draft operating procedures and to consider the matter of clarifying its tariff or to provide some other type of clarification on this matter. In its August 3 Filing, in response to a directive by the Commission in its June 25 Order, the CAISO clarified that under the scheduling priorities as set forth in MRTU Tariff Section 34.10.1, the CAISO will seek first to dispatch Economic Bids submitted in the HASP or RTM, with the last option being to utilize non-participating load reduction and self-schedules for exports at Scheduling Points in the HASP that are not served by Resource Adequacy or RUC capacity. Therefore, the CAISO determined that no further modifications to the MRTU Tariff were necessary. Confirmation that the Commission finds the CAISO's clarification acceptable is pending. In addition, in its August 3 Filing, also in response to the June 25 Order, the CAISO submitted modifications to Section 31.5.1.1 and 34.10 to clarify that an export from RA capacity procured in order to cover the export should have the same priority as internal California load. These changes are also pending before the Commission.

In addition, the CAISO has confirmed that its MRTU Scheduling Infrastructure and Business Rules (SIBR) application now in Site Acceptance Testing includes the functionality to “flag” (identify) non-RA capacity so that the CAISO can identify and track such capacity to ensure that such schedules are provided the same priority as CAISO Self-Scheduled Demand in the Day-Ahead Market or CAISO Forecast of CAISO Demand in HASP and it will not be curtailed after clearing the Day-Ahead Market or Hour Ahead Scheduling Process (HASP) for purposes of satisfy supply deficiencies within the CAISO Balancing Area Authority except due emergency conditions.

From the CAISO's perspective, firm exports would have the same priority as its own firm load. Firm exports would only be cut as a last resort consistent with Western Electricity Coordinating Council policies and procedures. Based on the previous discussion, the CAISO believes this

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issue has been resolved and will continue to work with Western to confirm resolution.

- *Bifurcation of Western's Pacific AC Intertie (PACI) rights under the Transmission Exchange Agreement and Provision of Multiple Contract Reference Numbers (CRN) for the PACI.* Western previously raised concerns about the CAISO's proposal to bifurcate treatment of Western's PACI rights under the Transmission Exchange Agreement (TEA) into two separate components: 1) Transmission Ownership Rights for Malin to Round Mountain, and 2) Existing Transmission Contract rights for Round Mountain to Tracy. Western stated the TEA incorporates both the Malin to Round Mountain and the Round Mountain to Tracy elements of the PACI so as to be consistent with the original Congressional authorization of the construction of the PACI as a federal project. If Western's rights are bifurcated into a Transmission Ownership Right (TOR) component and an "Existing Transmission Contract (ETC)-like" component, as suggested by the CAISO, Western is concerned that such treatment could preclude Western's use of the PACI as intended by Congress at such time as the TEA terminates, because ETCs cannot be renewed. Western also previously expressed concern about how the 400 MW of TEA rights on the PACI, between Malin and Tracy will be treated from a scheduling and settlements standpoint under MRTU. CAISO stated it would probably be willing to consider both legs as either a TOR or a TOR-like right and indicated that it was the CAISO's intent to fully honor the terms and conditions of the three party (Western, PG&E, and the CAISO) TEA agreement under MRTU.

In addition, Western previously advised the CAISO that under the terms of the TEA, the CAISO contractually committed to providing Western with the right to have multiple CRNs for its PACI scheduling rights in order to allow Western to sell transmission service to third parties whenever it was not needed by Western. Under the CAISO's current market systems, the CAISO cannot accommodate Western's need for multiple CRNs on the PACI. Therefore, today, if Western sold excess transmission rights to a third party, Western would still be financially liable in the event the third party fails to meet its financial obligations to the CAISO. Western stated that it cannot undertake such an obligation without violating the Federal Anti-Deficiency Act.

In previous discussions the CAISO indicated that it would examine a comprehensive solution to Western's issues with the TEA. The CAISO agreed to consider and develop CAISO Tariff changes acknowledging its commitment to honor the terms of the TEA and to explore mechanisms to provide Western the ability to resell its transmission capacity, as contemplated under the TEA. Over the last several months the CAISO has examined 1) the possibility of providing Western with Congestion Revenue

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Rights (CRRs) commensurate with its transmission entitlements; and 2) whether the CAISO can develop the system functionality necessary to track secondary sales of Western transmission capacity and ensure that Western's transmission customers are financially responsible for use of the transmission (as opposed to Western). The CAISO is continuing to examine these potential solutions, but both have deficiencies. The CRR approach may not be acceptable to Western, as it still may require Western to be involved in day-to-day scheduling activities on behalf of its customers (i.e., acting as Scheduling Coordinator), thus potentially imposing a direct financial obligation on Western. The second solution is potentially challenging in that it would require the CAISO to develop a secondary tracking system to accommodate Western's unique requirements. The CAISO will continue to work with Western on potential comprehensive solutions, including the development of appropriate CAISO Tariff language and finalizing the needed Transmission Rights Transmission Curtailment (TRTC) Instructions, and is in agreement with Western regarding the need for a resolution prior to MRTU start up.

- *Western's ETC for San Luis (Contract 2207A) and New Melones (Contract P0004).* Western seeks confirmation of how its Existing Transmission Contract (ETC) rights for both its New Melones and San Luis contracts will be handled in the CAISO's TRTC Instructions process to ensure that its rights are appropriately represented. The CAISO confirmed that it is currently in the process of identifying and requesting the additional detail needed to complete the TRTC Instructions from the responsible Participating Transmission Owners.
- *Self-Providing Ancillary Services (AS) from Boulder Canyon Project.* As summarized in previous Quarterly Reports, Western earlier inquired as to whether or not an external entity can still import self-provided ancillary services (AS) on the interties with the CAISO Control Area under MRTU. The CAISO explained that AS self-provision via imports is not explicitly accommodated under MRTU, except for under ETCs or TORs. However, as explained by the CAISO, there is an alternative means of "effectively accomplishing self-provision" through the submission of AS bids as a "price taker", which would result in the same benefit for market participants that intend to meet their AS obligations for load within the CAISO Control Area. Western expressed concern that a Western customer who was a "price taker" would be reselling federal power (ancillary services). This action would violate Western's long standing prohibition against the resale of federal power, and violate the terms of Western's power sales contracts with its customers. It was further identified that a problem exists for ancillary service self provision for those entities with existing transmission rights in that the new software will not have the functionality to reserve capacity at the interties for ancillary services when they run the Integrated Forward Market (IFM). The IFM only recognizes energy schedules. The

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CAISO indicated they needed to find a way to pre-process a capacity reservation for ancillary services prior to running the IFM. CAISO anticipated identifying a solution and testing it during Release 3 of Market Simulation (IMS-R3). The CAISO further indicated in a meeting on June 13 that they expected to file tariff language on or before August 30 to address the self provision issue and they would share a draft prior to filing at FERC. The CAISO has tested and confirmed that the pre-processing functionality necessary to facilitate self-provision of A/S at the ties is working. In addition, on August 3, 2007, filed MRTU Tariff language in Section 8.1 that, in its view, appropriately reflects the ability to self-provide AS from Western's Hoover resource. Western did not protest this filing. Based on the above, the CAISO believes this issue has been resolved. Western staff at its Desert Southwest Region is currently in the process of confirming with their counterparts at Southern California Edison Company that the CAISO's proposed solution is working as designed and will continue to work with the CAISO as needed to confirm that this issue has been resolved.

- *Development of a data sharing agreement governing the terms and conditions under which Western can provide real-time information to CAISO.* Western and the CAISO discussed the CAISO's Full Network Model FNM data needs, and the objective to help ensure an accurate power flow solution, that both optimizes use of the CAISO grid and improves reliability of grid operations in real time. The parties agreed that any such data exchanged will be proprietary and used only for operating purposes (i.e., not for market purposes). The CAISO explained its concept of "embedded/adjacent" control areas and need for both forward schedule data (internal generation levels, load distribution factors and Interchange), as well as the present real-time telemetry data. Both parties committed to a subsequent meeting to work out the details of the data needed, exchange mechanisms, and a contract to implement this data exchange. Western acknowledges receipt of a draft agreement from the CAISO. In attempting to adapt this agreement from a regional to an agency-wide agreement, timely completion of this document has been delayed because of internal coordination issues with other Western regional offices. Western regrets this delay and remains committed to resolving its internal coordination issues as expeditiously as possible so that an agreement can be submitted shortly for the CAISO's review.
- *Enhanced Real-Time Notification of Unmatched Inter-Scheduling Coordinator (SC) Trades:* This is a newly identified item as Western only recently sent a letter to the CAISO on October 2, 2007, identifying a potential enhancement to the CAISO's existing notification service for unmatched Inter-SC trades. Rather than waiting for the CAISO's notification cycle to run, Western believes that a more real-time oriented

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notification service would be preferable and reduce/mitigate market risk for all scheduling coordinators.

Western and the CAISO agree that all of these open issues need further and prompt consideration and require at a minimum conceptual resolution prior to the start up of MRTU. The CAISO and Western are committed to, if possible, resolving these issues prior to the MRTU implementation date so that the appropriate business process changes and any associated programming/coding changes, if any, may be designed, implemented, and tested prior to the start of MRTU. Although the CAISO and Western acknowledge that depending on the nature and complexity of the involved software changes, software implementation may have to be deferred beyond the initial MRTU implementation date, the CAISO and Western agree that the parties shall use their “best efforts” to ensure that as much of the required software changes will be implemented as practicable prior to MRTU start up. Subject to software and scheduling limitations, the CAISO and Western are committed to identifying solutions that, to the extent possible, minimize adverse impacts on Western or its customers.



CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION

**Joint Report on Control Area Meeting Between the California ISO and
Sacramento Municipal Utility District**

October 30, 2007

On August 21, 2007, the control area operators and other staff members of the CAISO and the Sacramento Municipal Utility District (SMUD) met to discuss seams issues that exist between the CAISO and the SMUD control areas. The August 21, 2007, meeting included SMUD, the Western Area Power Administration (Western) and representatives of certain Load Serving Entities (LSEs) that are transmission customers of Western, including: The Turlock Irrigation District (Turlock); the Modesto Irrigation District (Modesto), and the City of Redding, California (Redding). The purpose of this meeting was to determine how to model and treat, for settlement purposes, transactions between the CAISO and these adjacent control areas (ACAs) under MRTU.

FERC directed the CAISO, SMUD and other adjacent control areas to file a joint quarterly report regarding progress on the identification and resolution of MRTU seams issues.

- *Modeling and Treatment of Embedded/Adjacent Control Areas Under MRTU* (Meeting between SMUD, Western, Turlock, Modesto, Redding, and CAISO) – On August 21, 2007, representatives of SMUD, Western, Turlock, Modesto, Redding, and the CAISO met to discuss the modeling and settlement treatment for Embedded/Adjacent Control Areas (ECAs/ACAs) under MRTU. The discussions focused on how the CAISO proposed to represent (in the MRTU-related network models and systems) the SMUD/Western and TID control areas and how the CAISO will establish related prices. The CAISO made a short presentation describing how the SMUD/Western and TID control areas were originally intended to be modeled. The CAISO explained that its original proposal was to model and price the full detail of the ECAs/ACAs, thereby establishing and revealing Locational Marginal Prices (LMPs) for all resources and Scheduling Points within the ECA/ACA. The CAISO also explained that to do so, the CAISO's original proposal would have required each ECA/ACA to provide detailed information regarding the scheduling of physical resources within the ECA/ACA, including both "base schedules" regarding how the ECA/ACA would serve its internal load as well as imports/exports and wheel throughs to and on the CAISO system. SMUD and Western had earlier provided feedback indicating concerns related to the

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sensitivity of the CAISO establishing LMPs for the neighboring ACA systems in the SMUD and TID control areas. SMUD, for example, noted that it was not able, nor should it be required, to provide its own internal schedules to the CAISO. SMUD pointed out that such a requirement would be extremely invasive, in addition to being overly burdensome and costly. Moreover, SMUD, as the Balancing Authority, had no authority to compel entities within its boundaries to provide such data to the CAISO. Thus, from SMUD's viewpoint, the CAISO's original proposal was neither realistic nor achievable.

The CAISO reiterated to SMUD, Western, and Western's customers at the August 21 meeting that the CAISO had revised its approach based on the concerns raised by SMUD and Western regarding the establishment of LMPs within their own systems. These concerns were that the CAISO's original approach constituted what SMUD and Western viewed as overreaching by the CAISO, and that the original approach imposed voluminous data requirements. The CAISO indicated that, although its revised approach still allows the CAISO to model ECA/ACA transmission systems to ensure an accurate solution for the CAISO system, the CAISO would not be determining any of the constraints internal to these ACA systems and also agreed to calculate or establish LMPs only for aggregated resources that are scheduled in the CAISO markets, not for their internal ACA resources. Under its revised approach, the CAISO indicated it would utilize the existing Scheduling Points with the SMUD and TID ACAs for submission of schedules in the CAISO markets. The CAISO also stated that it was considering three pricing options: 1) pricing at the Scheduling Points (interties); 2) pricing on a large hub basis, e.g., SMUD/Western would be a single hub; or 3) pricing on an aggregate sub-system basis wherein the CAISO would establish separate prices for the SMUD, Western, Turlock, Modesto and other possible areas.

The CAISO stated that, at that time, it favored the aggregate sub-system based pricing approach wherein the CAISO would establish separate prices for the SMUD, Western, Turlock, and Modesto areas. The CAISO stated that it could also establish sub-system prices for Redding, the City of the Roseville, and other smaller metered areas. The CAISO stated that it favored the sub-system based approach because an intertie-based pricing approach could create inappropriate scheduling/pricing incentives wherein customers would schedule at certain points to take advantage of perceived price differences between Scheduling Points even though they may not intend to dispatch and use their resources in a manner consistent with their submitted schedules. The CAISO also stated that it did not favor a large hub price, since a large hub price may unnecessarily diminish price signals and that such prices would not truly reflect the actual nature of sub-system based operations. The CAISO represented that it believed both those pricing options were less optimal than a sub-system based pricing regime and may be odds with the broader objectives of MRTU. The CAISO also stated that it may still need additional information from the ACAs to ensure that the sub-system pricing approach aligns well with the ACAs' actual use of the grid.

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SMUD, Western and Western's other customers indicated that CAISO's approach appeared to be preferable to the CAISO's more data-intensive original ACA/ECA proposal, which SMUD and the other ACAs viewed as a non-starter. However, SMUD stated that it requires more information regarding the modeling and pricing details so as to better understand the advantages and disadvantages of both the modeling and settlement treatment options. SMUD, as well as Western and other Western customers also made the observation that not every action occurring in the SMUD control area had a material impact on operations in the CAISO control area and that, conversely, there were some instances where CAISO actions did have a deleterious impact on operations in the Western/SMUD control area. Additionally, these parties observed that, as part of the overall process to select a preferred modeling and settlements approach, sufficient safeguards were needed to protect all parties so that, over time, as flows and operations change, a mechanism would be in place not only to review those changes in operations and flows, but also to make the appropriate corresponding changes to the models being used to develop LMPs.

SMUD and Western also raised a concern as to the impact of the CAISO's pricing proposal on the ACAs' congestion revenue rights (CRRs) nominations. Western noted that the CAISO had finalized its white paper reflecting its revised approach only after the initial due date for submissions for Tier 1 and on the date Tier 2 CRR nominations opened for submissions. Western accordingly requested consideration from the CAISO for modification of its CRR allocations and allocation requests in the event the changes in the CAISO's approach turned out to have a material effect on Western's nominations. SMUD similarly noted that it was planning to nominate CRRs in the upcoming CRR nomination process, commencing in September 2007, based upon its established assumption that its CRR sinks were Scheduling Points. Thus, it questioned how a hub nominated as a CRR sink might differ from a Scheduling Point. More specifically, it questioned whether such a change might negatively impact SMUD's CRR nominations or allocations. The CAISO stated that it was preparing a detailed paper on the issue that it would present to SMUD and other affected ECAs/ACAs. The CAISO asked that SMUD consider the outlined pricing/settlement options and that the parties meet again to discuss a final proposal once the CAISO has completed and distributes its technical paper on the matter.

On September 10, 2007, SMUD sent an e-mail request to the CAISO, asking for assurances that such a proposed change to a hub would not negatively impact SMUD's CRR nominations--which were now in progress. SMUD noted:

SMUD is basing its CRR nominations upon its analysis of LMP prices at SMUD's various Scheduling Points, not at a yet-to-be determined SMUD trading hub. Consequently, the prospect exists that SMUD will be basing its CRR nominations on a set of assumptions that are likely to change. Accordingly, SMUD requires some form of assurance from the ISO that it

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will not be prejudiced by some future changes to how LMPs will be settled for SMUD and other similarly-situated out-of-control-area LSEs. SMUD notes that all other LSEs have the benefit of knowing the settlement treatment of their sink locations (for most, the load aggregation points or “LAPs”).

The CAISO responded to SMUD, by letter from Deborah Le Vine, dated September 13, 2007 (Letter), assuring SMUD “that it [SMUD] has certainty its pricing settlement option ultimately adopted through the resolution of the ACA issue will not be inconsistent with its CRR settlement.” Letter at 2. However, SMUD believes there are two primary CRR-related issues associated with moving from intertie-specific pricing to a hub. The first pertains to the financial settlement of CRRs that would result from such a change. This, the CAISO has assured SMUD by its Letter, will not be affected. In SMUD’s view, what has not been addressed is the question as to how SMUD’s CRR nominations might have changed with a hub (aggregation) rather than a Scheduling Point as its CRR Sink. That is, whether SMUD would wish to nominate an entirely different set or quantity of CRRs had it compared the marginal congestion price differences between a specific source and sink, when that sink is an aggregated hub, versus a specific Scheduling Point. This question, SMUD stated, has not been addressed by the CAISO and in SMUD’s view remains open.

As noted above, the CAISO has explained that it will ensure, consistent with the applicable CAISO Tariff provisions and SMUD’s demonstration of qualified resources, that SMUD’s sources and sinks, and the calculation of congestion costs, are consistent between the CAISO’s CRR settlements and the congestion charges in the Day-Ahead Market. The CAISO stated its view that if SMUD requests and receives CRRs that match the schedules that it will submit in the CAISO’s market, its CRRs will provide the necessary hedge from potential congestion costs.⁸

Regarding SMUD’s second concern, the CAISO stated its view that this issue is not related to CRRs, but is related to the ultimate pricing approach adopted for ECAs/ACAs. The CAISO stated that it had sought to ensure that the ECA/ACA design is consistent with the core design principles and objectives of the larger MRTU design. In its view, the ECA/ACA design adopted results in feasible forward schedules and related prices aligned with real-time operating requirements. Therefore, while the CAISO believes that it has addressed SMUD’s concerns with respect to SMUD’s exposure to potential CAISO congestion costs, the CAISO believes that further discussion on the proposed modeling and settlement of ECAs/ACAs is needed.

- *Issues Requiring Resolution Before MRTU Start-up*- Identification of seams issues requiring resolution prior to MRTU start-up are a priority to SMUD and

⁸ The CAISO further explained its position and commitment on this issue in the October 5, 2007, ACA paper. The parties will discuss the ACA paper, and SMUD’s response to it, in greater detail in the next status report.

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the CAISO. The parties have identified for action issues related to finalizing the modeling and settlement treatment of ECAs/ACAs under MRTU. The CAISO and SMUD are continuing to work to address the above item and are hopeful that a resolution of these items can be implemented before the start of MRTU.



CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION

**Joint Report on Control Area Meeting Between the California ISO and
The Turlock Irrigation District**

October 30, 2007

On August 9 and August 21, 2007, the control area operators and other staff members of the CAISO and the Turlock Irrigation District (Turlock) met to discuss seams issues that exist between the CAISO and the Turlock control areas. The August 9, 2007, meeting included Turlock, the Western Area Power Administration (Western) and representatives of other Load Serving Entities (LSEs) that are transmission customers of Western, including: the Modesto Irrigation District (Modesto), and the City of Redding, California (Redding). The August 21, 2007, meeting was a joint meeting between the CAISO, Turlock, Western, Modesto, Redding, and the Sacramento Municipal Utility District (SMUD). The purpose of these meetings was to discuss issues that might arise from the implementation of MRTU and pose difficulties for the continued efficient operation of the interconnected control areas. The August 9 and 27, 2007, meetings primarily focused on the modeling and settlement treatment of Adjacent/Embedded Control Areas under MRTU.

FERC directed the CAISO, Turlock and other adjacent control areas to file a joint quarterly report regarding progress on the identification and resolution of MRTU seams issues.

- *Modeling and Treatment of Embedded/Adjacent Control Areas Under MRTU* (Meetings between Turlock, Western, Modesto, Redding, SMUD and CAISO) – On August 9 and 21, 2007, representatives of Turlock, Western, Modesto, Redding, SMUD and the CAISO met to discuss the modeling and settlement treatment for Embedded/Adjacent Control Areas (ECAs/ACAs) under MRTU. The discussions focused on how the CAISO proposed to represent (in the MRTU-related network models and systems) the TID and SMUD/Western control areas and how the CAISO will establish related prices. The CAISO explained that its original proposal was to model and price the full detail of the ECAs/ACAs, thereby establishing and revealing Locational Marginal Prices (LMPs) for all resources and Scheduling Points within the ECA/ACA. The CAISO also explained that to do so, the CAISO's original proposal would require each ECA/ACA to provide detailed information regarding the scheduling of physical resources within the ECA/ACA, including both "base

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schedules” regarding how the ECA/ACA would serve its internal load as well as imports/exports and wheel throughs to and on the CAISO system.

At the August 9th and 21st meetings the CAISO reiterated to Turlock, Western, Western’s other transmission customers, and SMUD that the CAISO had revised its approach based concerns raised by SMUD and Western regarding the establishment of LMPs within their own systems and the voluminous data requirements of the CAISO’s original proposal. The CAISO explained that while its current proposal provided for the detailed modeling of the ECA/ACA transmission system (to ensure an accurate and reliable solution for the CAISO system), the CAISO would not enforce any of the constraints internal to the ECA/ACA system and proposed not to establish LMPs for internal ECA/ACA resources. Under the new approach, the CAISO would utilize the existing Scheduling Points with the ECAs/ACAs and offered to price/settle at those tie points or on an aggregated (i.e., hub) basis. The CAISO stated that it was currently considering three pricing options: 1) pricing at the Scheduling Points (interties); 2) pricing on a large hub basis, e.g., SMUD/Western would be one hub; or 3) pricing on a aggregate sub-subsystem basis wherein the CAISO would establish separate prices for the Turlock, SMUD, Western, Modesto and other possible areas.

The CAISO stated that at that time, it favored aggregate sub-system based pricing approach wherein the CAISO would establish separate prices for the Turlock, SMUD, Western, and Modesto areas. The CAISO stated that it could also establish sub-system prices for Redding, the City of the Roseville, and other potential areas. The CAISO stated that it favored the sub-system based approach because an intertie-based pricing approach could create inappropriate scheduling/pricing incentives wherein customers would schedule at certain points to take advantage of perceived price differences between Scheduling Points even though they may not intend to dispatch and use their resources in a manner consistent with their submitted schedules. The CAISO also stated that it did not favor a large hub price, since a large hub price may unnecessarily diminish price signals and that such prices would not truly reflect the actual nature of sub-system based operations. The CAISO represented that it believed both those pricing options were less optimal than a sub-system based pricing regime and may be odds with the broader objectives of MRTU. The CAISO also stated that certain reporting/information requirements may still be needed to ensure that the sub-system pricing approach aligns well with the ECAs/ACAs actual use of the grid.

Turlock indicated that CAISO’s approach appeared to be preferable to the CAISO’s more data-intensive original ACA/ECA proposal. However, Turlock stated that it requires more information regarding the modeling and pricing details so as to better understand the advantages and disadvantages of both the modeling and settlement treatment options. The CAISO stated that it was preparing a detailed paper on the issue that it would present to Turlock and other affected ECAs/ACAs. The CAISO asked that Turlock consider the

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outlined pricing/settlement options and that the parties meet again to discuss a final proposal once the CAISO has completed and distributes its technical paper on the matter.

- *Issues Requiring Resolution Before MRTU Start-up*- Identification of seams issues requiring resolution prior to MRTU start-up are a priority to Turlock and the CAISO. The parties have identified for action issues related to the finalizing the modeling and settlement treatment of ECAs/ACAs under MRTU. The CAISO and Turlock are continuing to work to address the above item and are hopeful that a resolution of these items can be implemented before the start of MRTU.



CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION

**Joint Report on Control Area Meeting Between the California ISO and
The Los Angeles Department of Water and Power**

October 30, 2007

On August 17, 2007, staff members of the California Independent System Operator Corporation (CAISO) and the Los Angeles Department of Water and Power (LADWP) met to discuss seams issues that exist between the CAISO and the LADWP control areas. The purpose of the meeting was to both explore any issues that might exist today or might arise with the inception of MRTU that would pose difficulties for the continued operation of the interconnected Balancing Authority Areas and to coordinate on issues pertinent to each entity's continued satisfaction of the applicable NERC and WECC Reliability Standards. The meeting was arranged and scheduled so as to enable LADWP's wholesale trading staff to attend and address commercial issues and to allow LADWP's grid operations staff to attend other portions of the meeting to address reliability issues.

FERC further directed the CAISO, LADWP and other adjacent control areas to file at FERC a joint quarterly report regarding progress on the identification and resolution of MRTU seams issues. The parties discussed the following topics:

- *Development of Potential Agreements to Address Compliance with Applicable NERC/WECC Reliability Standards:* As summarized in their Second Quarter 2007 Joint FERC Seams Report, representatives of the CAISO and LADWP discussed appropriate changes to the existing Inter-Control Area Operating Agreement (ICAOA) between LADWP and the CAISO to reflect, among other things, implementation of the new applicable NERC and WECC Reliability Standards and other proposed enhancements. Both LADWP and the CAISO acknowledged that a review of, and potential updates to, the existing ICAOA were appropriate in light of the adoption of the new applicable NERC and WECC Reliability Standards.

At the August 17th meeting, LADWP proposed a meeting of all the Balancing Area Authorities with which LADWP and the CAISO are interconnected in order to explore the possibility of developing a standard umbrella agreement that each Balancing Area Authority could use to satisfy various reliability standards and related requirements. The CAISO agreed that such a meeting made sense and agreed to coordinate with LADWP on this matter. The CAISO also repeated its

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earlier offer that the CAISO's new draft pro forma Interconnected Balancing Area Authority Operating Agreement (IBAAOA) could be the basis of such a standard umbrella agreement.

- *Issues requiring resolution before MRTU start-up:* Identification of seams issues requiring resolution prior to MRTU start-up are a priority to LADWP and the CAISO. The parties have identified for immediate action the coordination necessary to ensure satisfaction of all reliability standards and, if any, related mitigation plans. While no MRTU-specific seams issues have been identified to date, not all seams issues may have been identified and may not become apparent until MRTU start-up. As issues become apparent concerning MRTU implementation, the parties will work together to resolve them so that MRTU can be implemented successfully on schedule.



CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION

**Joint Report on Balancing Authority Area Meeting Between the California ISO
and The Bonneville Power Administration**

October 30, 2007

On September 25, 2007, staff members of the California Independent System Operator Corporation (CAISO) and the Bonneville Power Administration - Transmission Business Line (Bonneville) met to discuss seams issues that exist between the CAISO and the Bonneville Balancing Authority Areas. The purpose of the meeting was to both explore any issues that might exist today or might arise with the inception of MRTU that would pose difficulties for the continued operation of the interconnected Balancing Authority Areas and to coordinate on issues pertinent to each entity's continued satisfaction of the applicable NERC and WECC Reliability Standards.

FERC further directed the CAISO, Bonneville and other adjacent Balancing Authorities to file at FERC a joint quarterly report regarding progress on the identification and resolution of MRTU seams issues. The parties discussed the following topics:

- *Satisfaction of NERC Standard Emergency Operating Plan-001-0, Requirement 1 (EOP-001-0, R1) and Relationship to Broader Interconnected Balancing Authority Area Operating Agreement:* Bonneville expressed a need to enter into an Operating Agreement with the CAISO in order to satisfy the specific requirements of EOP-001-0, R1. EOP-001-0, R1 states that each Balancing Authority is required to develop, maintain, and implement a set of plans to mitigate operating emergencies, and to coordinate such plans with other Balancing Authorities. Requirement 1 of the standard specifically directs Balancing Authorities to have emergency assistance arrangements in place. Bonneville stated that it has been working both with other Balancing Authorities in the Pacific Northwest as well as the Los Angeles Department of Water and Power (LADWP) on such arrangements. Bonneville indicated that while the CAISO and Bonneville have, in the past, entered into seasonal and other shorter-term assistance arrangements, Bonneville wanted to establish a more enduring arrangement. Bonneville presented a draft Operating Agreement that it believes satisfies the requirements of the NERC standard.

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The CAISO agreed with Bonneville on the need for a long-term agreement that would satisfy applicable NERC and WECC requirements. The CAISO explained that it has reviewed its existing pro forma Interconnected Control Area Operating Agreement (ICAOA) and revised the agreement to reflect adoption of the NERC and WECC Reliability Standards, as well as other changes related to the CAISO's MRTU program and other improvements and enhancements identified over the past several years. The CAISO expressed its view that the new draft "Interconnected Balancing Authority Area Operating Agreement" or "IBAAOA" was a possible vehicle that could assist the CAISO and Bonneville in satisfying all applicable NERC and WECC Reliability Standards, not just EOP-001-0, RR1, and otherwise ensure coordinated Balancing Authority Area operations. The CAISO expressed a willingness to enter into an Interim Operating Agreement in order to satisfy the immediate requirements of EOP-001-0, R1, but requested that Bonneville consider quickly working towards a long-term IBAAOA arrangement. The CAISO stated that the relevant terms of such an Interim Operating Agreement could eventually be incorporated into the IBAAOA. The CAISO also expressed its view that any Interim Operating Agreement and successor IBAAOA should build off of the Real-Time Operating Protocol established by the CAISO and Bonneville earlier this summer. In addition, the CAISO stated that, based on earlier discussions, the CAISO believed that Bonneville's concerns regarding the pricing for emergency assistance have been addressed (MRTU Tariff Section 11.5.8).

Bonneville expressed that working toward an IBAAOA arrangement described above was workable and that it would examine the possibility of providing comments to the CAISO by either the end of the last quarter of 2007 or the first quarter of 2008, depending on CAISO's schedule for submitting the IBAAOA to FERC. Toward that goal, the CAISO stated that it would review and provide comment on Bonneville's draft Operating Agreement and that it would send Bonneville a draft of its IBAAOA. Bonneville agreed to review the draft IBAAOA and provide comments to the CAISO. Bonneville and CAISO would then enter into negotiations to finalize the IBAAOA for signature.

- *Discussion of Western Electricity Coordinating Council Standard TOP-STD-007-0 (Operating Transfer Capability):* The CAISO stated that comments on WECC Standard TOP-STD-007-0 – Operating Transfer Capability are due on November 5, 2007. [This is the date shown on the WECC website.] Bonneville expressed its view that it is important that Bonneville, the CAISO, and other utilities speak with one voice on issues that had major impact on reliability identified in the above standard. Bonneville stated that the wording of the proposed standard that pertain to net scheduled and actual flows was subject to varying interpretations, could complicate compliance with the standard, and may in fact compromise the reliable operation of interconnected systems. The CAISO agreed with Bonneville regarding its concerns and further agreed to work with Bonneville and other interested utilities in securing a satisfactory and reliable outcome of the revisions to this standard in the WECC committees addressing TOP-STD-007-0.

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- *45-Day Advance Outage Coordination:* Bonneville reviewed our past efforts to expand the participation of California utilities in Outage Coordination activities. Bonneville asked if the CAISO has had any additional discussions with its Participating Transmission Owners (PTOs) regarding the need for, and adoption of, a NWPP type 45-day in advance outage coordination requirement. The CAISO indicated that its PTOs continued to resist a 45-day outage coordination requirement and that the PTOs continued to push back on the current MRTU Tariff 30-day outage scheduling requirement. The CAISO stated that the PTOs continued to be concerned about the cost-implications of such a requirement. The PTOs are apparently concerned that if they have to plan and commit to perform their planned outages 45-days in advance, they will incur high costs if they have to subsequently cancel or rearrange planned outages with their outage contractors. Bonneville expressed a willingness to participate in another technical briefing session with PTOs on the NWPP process or assist the CAISO in explaining to its PTOs and other transmission owners in California the benefits of a 45-day outage requirement. The CAISO and Bonneville agreed that absent an agreement to voluntarily change the outage coordination requirements, it may be necessary to escalate the issue to WECC and ask WECC to establish a region-wide standard. Bonneville suggested that a “pilot program” may be a reasonable way to initially implement such a requirement. Bonneville invited CAISO personnel to visit and see a demonstration of Bonneville’s outage coordination systems. The CAISO agreed to do so. Finally, Bonneville and the CAISO agreed that it would be a good idea to arrange a meeting between the CAISO, Bonneville, LADWP, Pacific Gas and Electric Company, Southern California Edison Company, San Diego Gas & Electric Company, the Sacramento Municipal Utility District and state representatives to further discuss the outage coordination issue. The CAISO and Bonneville agreed to aim for an early February, 2008, meeting, as part of their efforts to prepare for Summer 2008 operations.
- *Issues requiring resolution before MRTU start-up:* Identification of seams issues requiring resolution prior to MRTU start-up are a priority to Bonneville and the CAISO. The parties have identified for immediate action the coordination necessary to ensure satisfaction of all reliability standards and, if any, related mitigation plans. While no MRTU-specific seams issues have been identified to date, not all seams issues may have been identified and may not become apparent until MRTU start-up. As issues become apparent concerning MRTU implementation, the parties will work together to resolve them so that MRTU can be implemented successfully on schedule.



Western Electricity Coordinating Council

Seams Issues Subcommittee

**Report of Findings
Seams Issues Evaluation
California Independent System Operator
Market Redesign and Technology Upgrade**

October 4, 2007

OCTOBER 2007

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CAISO Provisions Regarding Resource Adequacy Capacity and Exports under MRTU 12

List of Acronyms in this Report

CAISO	California Independent System Operator
CISO	California Independent System Operator
CRR	Congestion Revenue Rights
DA	Day-Ahead
DAM	Day-Ahead Market
ETC	Existing Transmission Contracts
FERC	Federal Energy Regulatory Commission
FTR	Firm Transmission Rights
HASP	Hour-Ahead Scheduling Process
IFM	Integrated Forward Market
ISAS	Interchange Scheduling and Accounting Subcommittee
LMP	Locational Marginal Pricing
LSE	Load Serving Entity
MIC	Market Interface Committee
MORC	Minimum Operating Reliability Criteria
MRTU	Market Redesign and Technology Upgrade
MW	Megawatt
NERC	North American Electric Reliability Corporation
OC	Operating Committee
RA	Resource Adequacy
RAR	Resource Adequacy Resource
RC	Reliability Coordinator
RMR	Reliability Must Run
RT	Real-Time
RTM	Real-Time Market
RUC	Residual Unit Commitment
SC	Scheduling Coordinator
SIS	Seams Issues Subcommittee
SSG-WI	Seams Steering Group – Western Interconnection
USF	Unscheduled Flow
USFMP	Unscheduled Flow Mitigation Plan
WECC	Western Electricity Coordinating Council

Seams Issues Subcommittee Roster of Members

Jerry Smith - Chair	Arizona Public Service (AZPS)
Jeffrey Ackerman	Western Area Power Administration (WAPA)
Ali Amirali	Dynegy (DYN)
Brenda Anderson	Bonneville Power Administration – Power Business Line (BPAP)
Layne Brown	Western Electricity Coordinating Council (WECC)
John Burnett	Los Angeles Department of Water and Power (LDWP)
Edison Elizeh	PacifiCorp Merchant (PACM)
Alan Hockenson	Transmission Agency of Northern California (TANC)
Richard Lehman	Salt River Project (SRP)
Bill Kirby	Portland General Electric (PGE)
David Lemmons	Public Service Company of Colorado (PSCO)
Melissa Lyons	Public Utility District of Chelan County
Jim McMorran	Sierra Pacific Resources (SPR)
Ken Otto	Western Area Power Administration (WAPA)
Mark Rothleder	California Independent System Operator (CISO)
David Schiada	Southern California Edison (SCE)
Robert Schwermann	Sacramento Municipal Utility District (SMUD)
Casey Sprouse	Public Utility District of Grand County (GRPD)
Brian Theaker	Williams Energy Marketing and Trading (WEMT)
Mike Wells	Western Electricity Coordinating Council (WECC)

Introduction

The mission of the Seams Issues Subcommittee (SIS) is to assess market and reliability activities to identify seams issues needing evaluation to assure that outcomes do not unnecessarily impede efficient and competitive electricity markets or the reliability of the Western Interconnection. The SIS has investigated numerous potential seams issues associated with the implementation of the CISO's Market Design and Technology Upgrade (MRTU) to determine if California's proposed market structure would cause new, or substantially alter existing seams issues.

This report presents the Subcommittee's findings on the following subject areas:

- Congestion Management
- Exports from Resource Adequacy Resources
- E-Tagging and Market Timing
- Congestion Revenue Rights
- Parallel Operations During Cutover – Operating Committee (OC) Task Force Coordination
- Contingency Plan for Software Failure

Potential seams issues were evaluated and discussed in an open forum with concerned stakeholders and while several issues are not specifically mentioned in this report they were included in the evaluation. The seams issues beyond the six subject areas of this report were either evaluated with one of the identified subject areas, were not identified as a new seams issue or it was determined that they do not substantially alter an existing seams issue. These issues included, but were not limited to:

- Unaccounted for Energy
- Planning Outage Coordination
- Residual Unit Commitment
- Existing Transmission Contracts
- Determination of Available Transmission Capacity

Background

Due to the Energy Crisis of 2000-2001, a number of significant flaws in the California market structure were identified. Among others, the flaws included inadequate infrastructure (generation, transmission and demand response) and CISO market rules that were not aligned with reliable operation of the system. All of these factors contributed to an environment where the electricity market was subject to manipulation and the exercise of market power. As a result, FERC issued a number of orders directing the CISO to revise its market rules.

In 2002 the CISO launched its then-named Market Design 2002 (MD02) project. Over the next several years, that effort evolved into the CISO's MRTU project. The primary objective of the MRTU project is to substantially revise the CISO's market rules to address the identified flaws and to upgrade the CISO's now dated reliability and market systems. With respect to the CISO's market rules, the principal objective was to establish

market rules aligned with the physical operation of the system and all applicable reliability requirements.

In early 2006, the CISO filed its final MRTU tariff language at FERC. The CISO's filing raised new interest in, and concerns about, the impact of MRTU on the rest of the Western Interconnection. Certain parties raised concerns that MRTU would create new seams issues in the West. In its September 21, 2006 MRTU order, FERC addressed a number of the seams-related issues. In particular, FERC directed the CISO and other entities to file quarterly seams reports that discuss the parties' efforts to identify and resolve seams issues. In addition, FERC staff was to schedule a Seams Technical Conference where these issues could be further addressed. FERC staff scheduled and held that conference on December 14-15, 2006. On April 20, 2007, FERC issued an Order on Rehearing in which it addressed a number of seams issues.

Executive Summary

Following review, evaluation and extensive discussions, the SIS found that the CISO changes in market rules and generation dispatch patterns will result in changes for many entities operating and doing business in the Western Interconnection. The SIS also embraces the concept that there are three viable methods to address seams issues: 1) the CISO stakeholder process, 2) one-on-one (bi-lateral discussions) with adjacent systems, and 3) through regional evaluation such as through the SIS. Given this foundation, the SIS makes the following statement:

The Seams Issues Subcommittee (SIS) finds no specific seams issues that are created by MRTU or existing seams issues that are substantially worsened by MRTU implementation. Seams issues exist today, particularly between organized markets such as the CISO and bilateral physical markets that dominate the Western Interconnection. The SIS will continue to monitor, evaluate and propose solutions to all regional seams issues.

Congestion Management

Congestion management concerns have been raised due to the possibility that MRTU may bring significantly different generation patterns within the CISO and previously unseen and unstudied unscheduled flow patterns in the rest of the Western Interconnection. The SIS evaluated congestion management practices in the Western Interconnection under the Unscheduled Flow Mitigation Plan (USFMP).

The SIS agreed that unscheduled flows in the Western Interconnection will change if generation dispatches are implemented that differ significantly from historical dispatches. However, it is the SIS determination that although MRTU may bring refinements to current dispatch patterns, significant changes are unlikely under most operating conditions. The SIS also agreed that an evaluation of WECC-wide congestion management procedures is appropriate and within the scope of the SIS.

The SIS determined that real-time congestion management issues exist in the WECC today, are an interconnection-wide issue, and are not specifically related to MRTU.

Exports from Resource Adequacy Resources

Since 2002, California has been developing and implementing Resource Adequacy (RA) requirements for Load Serving Entities (LSE). A critical component of those rules is the requirement that capacity designated as a Resource Adequacy Resource (RAR) be made available to the CISO for possible commitment and dispatch to serve California load.

The SIS evaluated California's resource adequacy rules and requirements and the CISO plans to manage the RA requirements when MRTU is implemented. While acknowledging that resource adequacy issues are not directly related to MRTU, the SIS discussed the interface between California's resource adequacy requirements and the MRTU day-ahead and real-time market rules. Specifically, the SIS discussed the following:

- whether an RAR-backed export is subject to recall provisions inconsistent with good utility practices in the West
- the details and likelihood of a real-time recall of a CISO export schedule that is backed by an RAR
- whether an RAR-backed product can be considered "firm"

On April 20, 2007, FERC issued an Order on Rehearing of its earlier MRTU order. FERC stated that exports of energy provided by RA capacity are "non-firm opportunity sales that should be subject to curtailment to prevent or alleviate a system emergency, as is consistent with NERC and WECC guidelines." In response, the CISO prepared a white paper stating that after day-ahead and hour-ahead schedules are finalized, all exports—whether backed by RA or non-RA Resources—are considered firm. The CISO paper further stated that all e-Tags will indicate the schedule is "firm" and that no schedule will be curtailed outside normal contingency operations. After extensive discussions, the SIS members agreed that all exports included in CISO *final schedules* are "firm." (See page 9 for a detailed description.)

Based on the above, the SIS members present unanimously passed the following motion at the SIS meeting of May 30-31, 2007:

Based on the review process described above, it is the finding of the SIS that 1) the CISO's treatment of export schedules under MRTU is consistent with general operating practice in WECC; 2) export schedules accepted in the CISO day-ahead Integrated Forward Market or Hour Ahead Scheduling Process from RA resources in MRTU shall be considered firm for purposes of commercial transactions in the Western Interconnection. The SIS concurs with the description of the treatment of RA capacity and exports in MRTU in the CISO's white paper dated May 25, 2007.

E-Tagging and Market Timing

The SIS considered several issues related to e-tagging and market timelines including whether MRTU will change the CISO adherence to all NERC and WECC standards and business practices related to scheduling and tagging of energy, and whether there are impacts of having different market timelines in different regions of WECC.

The CISO firmly stated they will adhere to all NERC and WECC standards and business practices related to scheduling and e-tagging of energy. Additionally, the CISO presented an analysis of its operating logs that demonstrated that the majority of late market closings occurred when Scheduling Coordinators (SC) were late submitting balanced schedules. Under MRTU, this requirement is removed and further reduces the likelihood of late market closing.

The SIS concluded MRTU does not create any new seams issues related either to e-tagging or market timelines.

Congestion Revenue Rights

Congestion Revenue Rights (CRR) are financial instruments that enable the CRR holders to manage the volatility in transmission congestion costs imbedded in the LMP. The CRRs will replace the Firm Transmission Rights (FTR) that are currently used to hedge transmission congestion costs. The SIS evaluated the change from FTRs to CRRs in relation to potential seams issues and submitted and evaluated several questions to the CISO.

The SIS evaluation concluded that CRRs represent enough of a change from the current FTRs that market participants will need some time to understand how to effectively include CRRs in their portfolios. However, no new seams issues were identified in the evaluation.

While the industry has varied opinions on the design and allocation of CRRs, the SIS does not find specific seams issues related to CRRs.

Parallel Operations During Cutover – OC Task Force Coordination

The purpose of this evaluation was to address concerns that MRTU may cause reliability problems severe enough either to call for immediate mitigation or reversion to the pre-MRTU system, because of dispatch patterns leading to high energy flows and associated voltage concerns throughout the Western Interconnection. The OC created a task force to review any reliability concerns with implementation of MRTU and the SIS coordinated with this task force to determine if any special monitoring of parallel operations was warranted during MRTU implementation.

The OC leadership determined no special monitoring activities are warranted unless a “specific” reliability issue is identified and brought to the OC for evaluation.

The SIS determined the current system monitoring processes in WECC are sufficient to maintain the integrity of the Interconnection. At this time, no

specific reliability concerns regarding MRTU implementation have been brought to the OC for evaluation.

Contingency Plan for Software Failure

The SIS discussed what plans the CISO has in place to continue to operate reliably and support continued interchange in the event of a failure of the MRTU software. The CISO is required to submit a Readiness Certification filing, including an MRTU Cutover and Reversion Plan, with FERC prior to implementation of MRTU. FERC has stated that the filing is to include “a contingency plan that addresses the failure of MRTU software systems to function as designed.”

The SIS is satisfied the FERC required Readiness Certification, which will include a Cutover and Reversion Plan, should be sufficient to address concerns related to a failure of the MRTU software. When the filing is submitted, the SIS will review the filing and comment if appropriate.

The Seams Issues Subcommittee evaluated six seams coordination areas to determine whether the implementation of the CISO Market Redesign and Technology Upgrade (MRTU) would cause or substantially intensify existing seams issues with surrounding control areas. The following sections detail these seams issues.

Congestion Management

Congestion management concerns have been raised that MRTU may bring significantly different generation patterns within the CISO as well as new—and unstudied—unscheduled flow patterns in the rest of the Western Interconnection.

The SIS evaluated congestion management practices in the WECC under the Unscheduled Flow Mitigation Plan (USFMP) and reviewed a document of the Seams Steering Group – Western Interconnection (SSG-WI) from 2003 that presented possible methods for addressing congestion management between the three then-proposed RTOs in the West. The SIS agreed that unscheduled flows in the Western Interconnection will change if generation dispatches are implemented that differ significantly from historical dispatches. However, the magnitude of the problem is difficult to estimate without west-wide system studies and there remained a lack of consensus on the accuracy and value of studies due to widely varying study scenarios.

The SIS determined that MRTU may bring refinements to current dispatch patterns but that significant changes are unlikely under most operating conditions. For example, it is expected that non-dispatchable resources will be loaded such as nuclear units and renewable resources, low-cost base-load coal units will also be loaded and hydro systems will likely be operated in a manner similar to today. This essentially leaves gas-fired units that are already being dispatched in a manner as to avoid transmission congestion. Again, the SIS recognizes dispatch patterns may change but does not expect the changes to be significant. Moreover, the SIS determined that it would be difficult to attribute any change in dispatch patterns solely to MRTU, as opposed to adverse hydro conditions,

new generation and/or transmission development and resultant changes in regional trading patterns.

All dispatch patterns affect unscheduled flows in the Western Interconnection and the Reliability Coordinators and Balancing Authorities will monitor system conditions—including under MRTU—with the charge to maintain the reliability of the system. In the event congestion management issues arise after implementation of MRTU, with credible data to suggest a connection to MRTU, the Reliability Coordinators and Balancing Authorities will address the issue in real-time and the SIS will be alert to any such occurrences. Existing reliability standards and procedures are sufficient to mitigate line or path overloads from impacting the reliability of the transmission system.

A principle deficiency of the existing USFMP is that it is implemented only for congestion relief on 7 of the 72 Qualified Transfer Paths. These are transmission paths that have demonstrated a history of congestion due to unscheduled flow. Any transmission element that develops congestion problems due to unscheduled flow must be loaded and experiencing schedule cuts for 100 hours before being eligible for consideration in the plan. The SIS recognizes the USFMP plan is the most successful of several methods that have been attempted over the years to address real-time unscheduled flow. However, the industry and available models and tools have evolved, and SIS believes an Interconnection-wide congestion management procedure that can only be made effective for seven transmission paths is deficient.

The SIS determined that real-time congestion management issues exist in the Western Interconnection today, are an interconnection-wide issue and are not specifically related to MRTU.

The SIS agreed that an evaluation of WECC-wide congestion management procedures is appropriate and within the scope of the SIS. Improvements in the coordination of data, operational information and development of the West-wide System Model represent opportunities for resolving concerns with the USFMP. The initial phase of the SIS evaluation will not be an attempt to rewrite the USFMP. It will be to evaluate and document the needs and potential benefits of a plan update as the basis for proposing solutions.

Exports from Resource Adequacy Resources

Since 2002, California has been developing and implementing Resource Adequacy requirements for Load Serving Entities (LSE). A critical component of those rules is the requirement that capacity designated as a Resource Adequacy Resource (RAR) be made available to the CISO for possible commitment and dispatch to serve California load. The primary purpose of these rules is to ensure that supply under contract and committed to serve California load is made available to the CISO to serve anticipated real-time load. The availability rules and resource commitment mechanics for RAR are detailed in the CISO's MRTU-related tariff language.

One such rule provides that the CISO has the ability to call on an RAR up to and through real-time. During the course of the CISO's MRTU proceeding, a number of parties raised issues with this rule as it pertains to exports from the CISO market. In particular, parties questioned the CISO's ability to distinguish between RA and non-RA capacity when potentially curtailing exports. The parties called into question whether any export purportedly supported by an RAR was indeed "firm" since it was potentially subject to curtailment.

In its September 21, 2006 order, the Federal Energy Regulatory Commission (FERC) conditionally approved the CISO's proposed rules and applicable tariff language. Subsequent to that order, a number of parties continued to voice concerns regarding the treatment and nature of RA-supported exports from the CISO market. Those issues were subsequently presented to the SIS for evaluation and discussion.

The SIS evaluated California's resource adequacy rules and requirements and the CISO plans to manage the RA requirements when MRTU is implemented. While acknowledging that resource adequacy issues are not directly related to MRTU, the SIS discussed the interface between California's resource adequacy requirements and the MRTU day-ahead and real-time market rules. Specifically, the SIS discussed the following:

- whether an RAR-backed export is subject to recall provisions inconsistent with good utility practices in the West
- the details and likelihood of a real-time recall of a CISO export schedule that is backed by an RAR
- whether an RAR-backed product can be considered "firm"

The SIS reviewed and discussed a paper presented by the CISO on the matter. The paper focused on how schedules are established in the day-ahead timeframe and how schedules are managed within the operating hour. The CISO paper stated that after day-ahead and hour-ahead schedules are finalized, all exports—whether backed by Resource Adequacy or non-Resource Adequacy Resources—are considered firm. The CISO paper further stated that all e-tags will indicate the schedule is "firm" and that no schedule will be curtailed outside normal contingency operations. At the SIS meeting on March 22, 2007, the SIS was satisfied with the statements and commitments of the CISO and that the CISO's management of export schedules is consistent with general operating practice in WECC.

On April 20, 2007, FERC issued an Order on Rehearing of its earlier MRTU order. In the order, FERC stated that exports of energy provided by Resource Adequacy capacity are "non-firm opportunity sales that should be subject to curtailment to prevent or alleviate a system emergency, as is consistent with NERC and WECC guidelines." Based on the Commission's statement, the SIS re-examined its previous discussion and conclusion regarding whether an export backed by a California Resource Adequacy Resource is subject to recall provisions inconsistent with good utility practices in the West. At the May 30-31, 2007 meeting, the SIS reviewed and discussed the corresponding passages of the Commission's April 20, 2007 Order on Rehearing. The SIS also reviewed subsequent filings made by the CISO; Southern California Edison (SCE); and jointly by the City of

Burbank, California (BURB) and the Turlock Irrigation District (TID); in response to the Commission's statements regarding exports supported by California Resource Adequacy Resources. In addition, the CISO prepared a revised version of the white paper presented on the matter at the SIS meeting on April 22, 2007. The revised white paper was discussed at the SIS meeting on May 30-31 2007 and is included in this report as **Attachment 1**.

After an exhaustive discussion, the SIS members reaffirmed their previous finding and agreed that all exports included in CISO *final schedules* are "firm." This position was confirmed by FERC on September 24, 2007 when they issued an order on rehearing addressing the filings made by the CISO, SCE, and Burbank/TID. In that order, FERC agreed with SCE and Burbank/Turlock that "exports supplied by RA capacity should not be considered non-firm opportunity sales but rather firm schedules subject to curtailment only during system emergencies."⁹ With respect to other RAR export transactions, the SIS concluded that "firm" bilateral sales that either were *not accepted* as part of the final Day-Ahead Market schedules or were arranged *after* the close of the Day-Ahead Market *but prior to the close* of the Hour-Ahead Scheduling Process (HASP), are firm only if included as part of the final schedules of the Hour-Ahead Scheduling Process. Such bilateral arrangements, regardless of their duration, are "Hourly Firm" transactions that must be finalized and "firmed up" on an hour-by-hour basis throughout the operating day.

In conclusion, the SIS is satisfied with the statements and commitments of the CISO that it will manage export schedules in a way consistent with general operating practice in WECC. Based on the above, the SIS members in attendance unanimously passed the following motion at the SIS meeting of May 30-31, 2007:

Based on the review process described above, it is the finding of the SIS that 1) the CISO's treatment of export schedules under MRTU is consistent with general operating practice in the WECC; 2) export schedules accepted in the CISO day-ahead Integrated Forward Market or Hour-Ahead Scheduling Process from RA resources in MRTU shall be considered firm for purposes of commercial transactions in the Western Interconnection. SIS concurs with the description of the treatment of RA capacity and exports in MRTU in the CISO's white paper dated May 25, 2007.

E-Tagging and Market Timing

The SIS considered several issues related to e-tagging and market timelines including whether MRTU will change the CISO adherence to all NERC and WECC standards and business practices related to scheduling and tagging of energy, and whether there are impacts of having different market timelines in different regions of WECC.

⁹ FERC "ORDER GRANTING IN PART AND DENYING IN PART REQUESTS FOR CLARIFICATION AND REHEARING, AND DENYING MOTION TO REOPEN THE RECORD" dated September 24, 2007, Dockets ER06-615-007 and ER02-1656-033, ordering paragraph 35.

The CISO has firmly stated they will adhere to all NERC and WECC standards and business practices related to scheduling and e-tagging of energy and no new seams issues related to these matters are created with the implementation of MRTU.

The SIS discussed whether it would be appropriate to ask the CISO to begin tagging internal schedules to help with assessing unscheduled flow and associated congestion management evaluations given the large geographical size of the CISO. It was noted that NERC and WECC standards and business practices do not require the use of tags for internal transactions. While improved data exchange of schedules within balancing areas may be a benefit when evaluating congestion, it is an Interconnection-wide topic to be reviewed under the SIS evaluation of ways to improve the WECC Unscheduled Flow Mitigation Plan.

The timing of the CISO market differs from the western bilateral markets. The CISO market accepts bids until 1000h (10:00 a.m.) Pacific Time and final schedules are released at 1300h. In the bi-lateral markets nearly all trading is complete by 0800h with prescheduling commencing immediately. The CISO indicated the 1000h deadline for submitting bids is the current practice and its stakeholders have not expressed any concerns with the 1000h deadline.

The SIS discussed e-tag timing when the CISO market publishes final schedules later than the scheduled close time of 1300h. The concern is to ensure entities have sufficient time to create and submit e-tags prior to the generally-practiced WECC preschedule deadline of 1500h Pacific Time as required by INT-BPS-003-0 (Interchange Prescheduling Calendar) B.WR1. The CISO presented an analysis of its operating logs that demonstrated the large majority of late market results have occurred when Scheduling Coordinators (SC) were late in submitting schedules and that the frequency of late market closings is decreasing over time. The need for balanced schedules, including balanced trades between SCs, has been the source of most of the late submissions. When SCs are late in balancing, the CISO has been unable to run its market on time. Under MRTU, the requirement to submit balanced schedules is eliminated, thus, further reducing the likelihood of this problem becoming a recurring issue.

The SIS concluded MRTU does not create any new seams issues related either to e tagging or market timelines.

Congestion Revenue Rights

Congestion Revenue Rights (CRR) are financial instruments that enable the CRR holders to manage the volatility in transmission congestion costs under MRTU, with location-based marginal pricing. The current CISO market utilizes Firm Transmission Rights (FTR) as the means to hedge transmission congestion costs. Therefore, potential seams issues between the CISO's financial markets and neighboring bilateral/physical markets are not new. The SIS evaluated the change from FTRs to CRRs in relation to potential seams issues with the understanding that Existing Transmission Contracts (ETCs) are

fully hedged from congestion costs through the ISO's "Perfect Hedge" mechanism. The following highlight some of the questions and associated findings.

CRRs as a Barrier to Interregional Interchange

CRRs are financial instruments not physical transmission rights. As financial instruments, CRRs entitle the holder to a stream of revenues or charges based on the difference in LMPs between the CRR source and CRR sink. This revenue stream is completely independent of whether the CRR holder schedules energy or ancillary services in the CISO markets.

There is no predominant reason why CRRs at the interties should create a "barrier" or disruption to energy flows between the CISO and its neighbors to the northwest and southwest. The CISO's CRR processes are designed to allow up to 100 percent of intertie capacity (after accounting for transmission ownership rights, existing transmission contracts, converted rights, and expected facility outages) to be released as CRRs over the complete sequence of the CRR release processes (annual and monthly allocations and auctions, and long-term allocation).

Stranded Energy at the CISO Borders

If an import is offered into the Day Ahead (DA) market, with an economic bid, which is not cleared in the Integrated Forward Market (IFM) all the demand in the IFM (including exports) has been economically cleared using other supplies. The import supplier who offered into the DA market, but was not cleared, will have met any bilateral supply obligation it had to the CISO market. By 1300h of the trade day the importer will know the results of tomorrow's DA market and their obligation to the CISO. This information will allow the importer to remarket its uncommitted energy to another buyer, offer it to the CISO's Real Time (RT) market, or opt not to generate the energy and save the operating costs. Alternatively, if the supplier wants certainty that its own supply will be delivered, it can self-schedule the import.

Limitation on Wheel-Through CRRs

Wheel-through seasonal CRRs will be available in the annual CRR auction process, and wheel-through monthly CRRs will be available in the monthly auction process. Load external to the CISO can participate in the CRR auctions on the same basis as other eligible auction participants. In addition, Out-of-Control-Area Load-Serving Entities (OCALSEs), can obtain an *allocation* of CRRs if they have qualified sources, as determined through an ongoing source validation process.

CRRs and Marginal Losses

As designed under the CISO's tariff, with the implementation of MRTU, the calculation of transmission line losses will change and CRRs will not provide a hedge for these losses. It should be noted that CRRs are not an appropriate instrument for managing losses and that no market in the country has developed such an instrument. Marginal losses are a function of much more stable and predictable conditions than congestion costs.

Conclusion

The SIS evaluation of Congestion Revenue Rights under MRTU has led to the conclusion that CRRs represent enough of a change from the current FTRs that market participants will need some time to understand how to effectively include CRRs in their portfolios. Moreover, the SIS acknowledged that certain parties have continuing concerns regarding CRRs, the application of and payment for marginal losses and the potential impacts on ETCs under the CISO's MRTU program. The SIS does not believe that these issues represent seams issues, but rather transition issues for which there are already established mechanisms and venues for addressing these concerns.

While the industry has varied opinions on the design and allocation of CRRs, the SIS does not find specific seams issues related to CRRs.

Parallel Operations during Cutover – Operating Committee Task Force Coordination

The purpose of this evaluation was to address concerns that MRTU may cause reliability problems severe enough to call for immediate mitigation or reversion to the pre-MRTU system because of dispatch patterns leading to high energy flows and associated voltage concerns throughout the Western Interconnection.

The Operating Committee created a task force to review any reliability concerns with implementation of MRTU. The principle area in which the SIS coordinated with the OC task force was whether any special monitoring is warranted for parallel operations upon MRTU implementation. To the extent MRTU causes previously unseen and unstudied dispatch patterns that alter flows throughout the Western Interconnection, it may be prudent to monitor for increased congestion, high energy flow or voltage issues. It is noted that the WECC Reliability Coordinators who have the wide-area view of the Interconnection will be monitoring system conditions as usual and will be fully aware of MRTU implementation.

The OC leadership determined special monitoring activities are not warranted and that it would not be spending time on MRTU concerns unless a “specific” reliability issue is identified and brought to the OC for evaluation. In the event a specific concern is identified, the OC will coordinate with the SIS on the evaluation. The OC leadership reported that, to date, no specific reliability issue has been identified. As stated in the Congestion Management section of this report, the SIS finding on this matter is that MRTU may bring refinements to current dispatch patterns but that significant changes are unlikely under most operating conditions and would be difficult to solely attribute to MRTU.

The SIS determined the current system monitoring processes in WECC are sufficient to maintain the integrity of the Interconnection. At this time, no specific reliability concerns regarding MRTU implementation have been brought to the OC for evaluation.

Contingency Plan for Software Failure

The SIS discussed what plans the CISO has in place to continue to operate reliably and support continued interchange in the event of a failure of the MRTU software.

The CISO is required to submit a Readiness Certification filing with FERC prior to implementation of MRTU. FERC stated the filing is to include “a contingency plan that addresses the failure of MRTU software systems to function as designed.” It is noted FERC did not require the CISO to develop the contingency plan through a collaborative process. However, the CISO stated it is creating an MRTU Cutover and Reversion Plan and would be seeking stakeholder input. At the June 13-14, 2007 WECC, MIC and OC meetings, the CISO presented its initial thinking regarding the plan and indicated they would be seeking stakeholder input and feedback over the course of the summer. The CISO stated that its objective is to finalize the plan by the end of 2007 for inclusion in the readiness certification filing to FERC.

The SIS is satisfied the FERC-required “Readiness Certification,” which will include a Cutover and Reversion Plan, should be sufficient to address concerns related to a failure of the MRTU software. When the filing is submitted, the SIS will review and comment if it deems necessary.

Clarification of CAISO Provisions Regarding Resource Adequacy Capacity and Exports under MRTU
For discussion at Seams Issues Subcommittee, May 30-31, 2007

Overview

1. This document explains the relationship, in the context of the CAISO's redesigned MRTU markets, between the status of generating capacity within the CAISO control area as Resource Adequacy (RA) capacity or non-RA capacity, and the treatment of exports being supplied by such capacity. In particular, this document is intended to affirm and clarify the fact that export schedules established in the MRTU markets – the day-ahead Integrated Forward Market (IFM) and the real-time Hour Head Scheduling Process (HASP) – are firm energy schedules consistent with the conventional meaning of “firm” as used in the western region.¹⁰ Once export schedules have been established in the MRTU markets they will be tagged as “firm.” Paragraphs 2-4 below summarize the basis for this fact; the remainder of the paper provides additional details.
2. Much of the misunderstanding around the matter of the firmness of energy schedules under MRTU stems from the need to distinguish two aspects of the treatment of exports.
 - a. The rules and procedures for establishing firm export schedules in the MRTU markets (IFM and HASP); and
 - b. For firm export schedules that have been established as part of a final IFM or a final HASP schedule, whether there are circumstances under which such schedules might subsequently be curtailed by the CAISO.

The distinction between RA and non-RA capacity is relevant for (A) but not (B). MRTU does specify certain rules affecting the ability to establish firm export schedules in the IFM and HASP, depending on whether an export bid submitted to one of these markets is linked to non-RA generating capacity offered into the same market. However, once an export bid clears the market and becomes part of a final IFM or HASP schedule, the distinction between RA and non-RA capacity has no relevance to the firmness of that schedule. All such final schedules are firm and will be tagged as such.

3. Regarding item (A), because RA capacity is paid for by load-serving entities (LSEs) who serve load within the CAISO control area, capacity that is under contract to meet RA requirements must be available to meet CAISO control area load and operational needs through participation in the Day Ahead Market (DAM), which includes both the Integrated Forward Market (IFM) and the Residual Unit Commitment (RUC), as well as the Real Time Market (RTM) which includes the Hour Ahead Scheduling Process (HASP). This principle and the distinction between RA and non-RA capacity will affect the ability of parties to establish firm export schedules in the IFM and in the HASP. In particular, certain special provisions in MRTU allow parties additional

¹⁰ The use of the terms “firm” and “firm schedule” in this paper refer only to firm energy transactions and schedules. There is no discussion of firm versus non-firm transmission because that is not the subject of this paper. It is important to recognize, however, that all transmission service offered by the CAISO, both in the current system and under MRTU, is firm. The CAISO does not today and will not under MRTU offer non-firm transmission service.

ATTACHMENT 1 TO ATTACHMENT F

flexibility to establish firm day-ahead (IFM) and hour-ahead (HASP) export schedules that explicitly rely on non-RA capacity.

4. Once the DAM has concluded and day-ahead export schedules are established, such export schedules are firm in the usual sense of the word regardless of whether they are served by RA capacity, non-RA capacity, or simply by “the market” which will typically include both RA and non-RA capacity. “Firm” in this case means that the CAISO carries required operating reserves to support these exports, and they are treated as fixed schedules and afforded the highest priority against any reduction in the subsequent RTM/HASP market processes. Similarly, once the HASP has concluded and hour-ahead export schedules are established, such export schedules are firm without regard to their reliance on RA or non-RA capacity, and they are supported by CAISO-procured reserves.

Background on Bid Submission: Economic Bids and Self Schedules

5. A “bid” is the generic name for the template that each Scheduling Coordinator (SC) submits to the CAISO – on a daily basis for the Day Ahead Market (DAM) and on an hourly basis for the Real Time Market (RTM) and Hour Ahead Scheduling Process (HASP).
6. Within a bid there are two main ways that energy supply (generation and imports) and demand (load and exports) can be submitted: (1) as an “economic bid” – having MWh quantities and a bid price associated with each quantity, or (2) as a “self-schedule” – having MWh quantities without any prices associated. In the RTM and HASP parties cannot submit self-schedule changes for internal load, so their actual RT load deviation (from DA schedule) is deemed to correspond to any self-scheduled supply changes in HASP.
7. The self-schedule provision was designed into MRTU to allow for the preference of some participants to serve their demand using their own resources or bilateral contracts, without buying or selling energy in the CAISO markets.
 - Under MRTU – in contrast to today’s CAISO markets – there is no requirement for submitted self-schedules to be balanced. Moreover, in almost all cases the market optimization does not recognize any linkage between the supply bids or self-schedules and the demand bids or self-schedules submitted by an SC. Rather, the optimization looks at the entire set of submitted bids and self-schedules for supply and demand, and clears the market as a whole and calculates energy prices at each grid location (LMPs) that are used for settlement. (One special case, of course, is the special treatment available for exports discussed in the next section.)
 - Even if an SC does submit balanced supply and demand self-schedules, such schedules are still using the CAISO grid and must settle for the costs of congestion and losses, even though they are not transacting energy in the markets. For an accepted self-schedule that has balanced quantities of supply and demand, settlement based on the LMP differential between the supply and demand locations will reflect the costs of congestion and losses. (See the separate presentation for detailed examples of how this works.)
8. When the market optimization runs, it will try to “clear the market” – that is, balance supply against demand plus losses for the system without violating any transmission

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constraints – using only the economic bids, that is, by treating all the submitted self-schedules as effectively fixed¹¹ and not making any adjustments to them.

9. If it is not possible to clear the market using only economic bids, then the optimization will make “non-economic” adjustments to submitted self-schedules in order to balance the system and eliminate congestion. When such adjustments are necessary, two rules apply:
 - a. First, the optimization follows a “scheduling priority” sequence among self-schedules. Starting with the LAST ones to be adjusted (that is, the highest scheduling priority), the order in the DAM is as follows:
 - Reliability Must Run (RMR);
 - Transmission Ownership Rights (TOR);
 - Existing Transmission Contracts and Converted Rights (ETC and CVR);
 - Regulatory Must Run and Regulatory Must Take; and
 - “Generic” energy self-schedules, the first to be adjusted. (See filed Tariff Sec. 31.4. Priority sequence for RTM/HASP is a little different; see Sec. 33.3.)
 - b. Second, within each priority level, the optimization will usually adjust the most effective self-schedules first in order to minimize the total MW amount of submitted self-schedules that are reduced.
10. Because self-schedules do not indicate the prices they are willing to accept for supply or the prices they are willing to pay for demand, accepted self-schedules are settled as price takers. As noted above, for an SC whose accepted self-schedule features a balanced quantity of supply and demand, the settlement based on the LMP differential between the supply and demand locations will reflect only the costs of congestion and losses.

Resource Adequacy (RA) Capacity and Exports in the DAM

11. In general, exports submitted as self-schedules in the DAM are “generic” self-schedules with respect to the scheduling priorities listed above.
12. Within the class of generic self-schedules, generic export self-schedules usually have lower scheduling priority than generic internal demand self-schedules. This means that if the market optimization cannot clear the market using only economic bids, because the amount of available supply in the market is not sufficient to cover both self-scheduled internal demand and self-scheduled exports, the self-scheduled exports will be reduced first.
13. The reason for establishing this priority is because LSEs serving load within the CAISO were required to procure RA capacity to meet a specified planning reserve requirement, and this capacity must be offered into the DAM. In the extreme situations where such capacity is not enough to meet self-scheduled internal

¹¹ The submitted self-schedules are effectively fixed relative to economic bids by using extremely high-priced extensions to form a bid curve around the self-schedule, to ensure that economic bid adjustments are made prior to non-economic adjustments to self-schedules.

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demand, the LSEs who paid for the RA capacity get the first opportunity to utilize the associated energy in the DAM.

14. There are two ways for a party to submit self-scheduled exports and receive scheduling priority in the DAM that is equal to the scheduling priority of generic internal demand.
 - a. Submit a wheeling schedule, in which the MW of self-scheduled exports are matched with equal MW of self-scheduled imports. The optimization will see the two sides of this self-schedule as matched and either will not adjust them at all or will adjust them in a balanced manner. Moreover, any such adjustment would only occur as a result of congestion, not for a supply-demand imbalance. The reason is that adjusting a wheeling schedule would always adjust supply and demand in equal quantities and thus would have no effect on relieving a supply-demand imbalance.
 - b. Submit an export self-schedule linked to an equal MW quantity of non-RA capacity that is offered – with either a self-schedule or economic bids – into the DAM (which may be used in the IFM or the RUC), and into the RTM if the unit is physically capable. In this case the market optimization might not even schedule energy from the non-RA capacity, but the fact that it was offered is sufficient to obtain scheduling priority for the self-scheduled export that is equal to the priority for self-scheduled internal load.
15. Once an export that is registered in the Master File as firm clears the DAM and is part of a final DA schedule, it is a firm schedule consistent with the conventional meaning of that term. Under current WECC MORC, this means the CAISO as the sending Control Area will ensure sufficient operating reserves are procured to support the firm export. In doing so, the CAISO expects such firm export to be tagged accordingly. Moreover, as a firm schedule that has cleared the DAM, the export also has the highest priority against any subsequent curtailment in the RTM/HASP processes, as described below.

RA Capacity and Exports in the HASP

16. Bids are submitted no later than T-75 to be used in the HASP and RTM processes.¹² In the HASP, all of the economically bid and self-scheduled supplies (generation and imports) are cleared against the CAISO's forecast of internal RT demand plus all the economically bid and self-scheduled exports.
17. As in the DAM, the market optimization tries to clear the market using only economic bids, treating all the submitted self-schedules as fixed. In this optimization, the final DA schedule is also treated as fixed and cannot be adjusted. If economic bids are not sufficient to clear the market in the HASP, then "non-economic" adjustments are applied to newly-submitted self-schedules in a manner analogous to the DAM, following the sequence of scheduling priorities.
18. Analogous to the DAM rule for "generic" self-schedules, export self-schedules in HASP have lower priority than the CAISO forecast of internal demand, which means

¹² Actually, the HASP is one of the several market processes that comprise the RTM. The best way to think about HASP is as the MRTU equivalent – with some additional functionality – of today's Real Time Pre-dispatch by which the CAISO procures Supplemental Energy from imports.

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that if there is not enough supply to meet the internal demand forecast, export self-schedules will be reduced.

19. As in the DAM, a party wishing to submit an export self-schedule in the HASP and receive equal scheduling priority to the internal demand forecast can submit either a wheeling self-schedule, or an export self-schedule that is linked to an equal MW quantity – that is offered into the RTM – of non-RA capacity or even to RA capacity that was not scheduled in the DAM (IFM or RUC).
20. As in the DAM, once an export clears the HASP and is part of a final HASP schedule, it is a firm schedule consistent with the conventional meaning of that term. Under current WECC MORC, this means the CAISO as the sending Control Area will ensure sufficient operating reserves are procured to support the firm export. In doing so, the CAISO expects such firm export to be tagged accordingly.

RA Capacity and Exports in the Real Time Operating Time Frame

21. Although the CAISO has tariff and operating provisions that allow it in principle to curtail exports in RT under contingency conditions, in practice the CAISO has consistently avoided such action because it is not viewed as an effective way to manage contingencies. That is, CAISO operators fully expect that any RT curtailment of exports would be promptly offset by a comparable curtailment of our imports, resulting in zero net impact.
22. The CAISO believes that its emergency provisions allowing curtailment of exports in RT are fully equivalent to the capabilities all western control area operators or balancing authorities have available to them to manage emergencies, and therefore should not be viewed as in any way degrading the firmness of established DAM or HASP export schedules.

CALIFORNIA ISO MARKET NOTICE

Requested Client Action: Information Only

Date of Distribution: August 1, 2007

Categories: Grid Operation, Market Operations

Subject: Tagging Under MRTU Presentation to WECC

Summary: On August 8, 2007, the CAISO will make a presentation to the Western Electricity Coordinating Council (WECC) Interchange Scheduling and Accounting Subcommittee (ISAS) meeting in Boise, Idaho to explain the CAISO rules and mechanics for e-tagging under MRTU. The presentation entitled Tagging Under MRTU, New Interchange Transaction Scheduling System for CAISO is posted on the CAISO website at <http://www.aiso.com/1c2c/1c2ce98146730.pdf>.

Main Text: On April 20, 2007, the Federal Energy Regulatory Commission (FERC) issued an Order Granting In Part and Denying In Part Requests for Clarification and Rehearing ("Order on Rehearing") of its September 21, 2006 order on the California ISO (CAISO) Market Redesign and Technology Upgrade (MRTU). The Order on Rehearing addressed a number of issues raised by parties on seams issues. Among other actions, the FERC Order on Rehearing disposed of a number of issues raised in parties' comments, directed the CAISO to address certain issues, and imposed certain procedural requirements.

In paragraphs 229 and 230 of the Order on Rehearing, FERC directed the CAISO to provide information to stakeholders on the mechanics of e-tagging interchange transactions. FERC further stated that it agrees with certain parties on the lack of clarity in the MRTU e-tagging requirements and mechanics. FERC stated that the, "Lack of clarity in transaction rules can create barriers to trade." FERC therefore directed the CAISO to include in its readiness activities a stakeholder process to further address concerns raised by parties about e-tagging rules and include a proposal on how it will address such issues in its next quarterly seams report.

In the CAISO first quarter 2007 FERC seams report filed on April 30, 2007, the CAISO stated that while it believes it has substantially addressed certain issues regarding e-tagging that have been raised before the WECC Seams Issues Subcommittee (SIS), "...the CAISO is prepared to further discuss its e-tagging rules and practices in the context of either the SIS Tagging Requirements work group, the WECC Interchange Scheduling and Accounting Subcommittee, or the WECC Market Issues Subcommittee's Prescheduling Evaluation Task Force."

The CAISO further stated that it will work with the appropriate WECC representatives to determine the appropriate venue and schedule a presentation and discussion of the CAISO e-tagging requirements. Once scheduled, the CAISO will work with WECC and issue a market notice so that all interested stakeholders can attend the WECC-facilitated meeting. The CAISO has now arranged to make a presentation on e-tagging at the next scheduled WECC ISAS meeting scheduled for Wednesday, August 8, 2007, in Boise, Idaho. The presentation entitled Tagging Under MRTU, New Interchange Transaction Scheduling System for CAISO is posted on

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the CAISO website at <http://www.caiso.com/1c2c/1c2ce98146730.pdf>. Details regarding the ISAS meeting are located on the WECC website at <http://www.wecc.biz>.

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The California ISO strives to be a world-class electric transmission organization built around a globally recognized and inspired team providing cost-effective and reliable service, well-balanced energy market