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May 17, 2006

VIA ELECTRONIC FILING

The Honorable Magalie R. Salas
Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

**Re: California Independent System Operator Corporation,
Docket No. ER06-615
Errata**

Dear Secretary Salas:

On May 16, 2006, my office e-filed Reply Comments in the above-captioned docket on behalf of the California Independent System Operator Corporation ("CAISO"). Due to an administrative error, the Table of Contents for the CAISO's Reply Comments was not included in the filing. I am therefore submitting this errata filing in order to provide the Commission with the Table of Contents. The text of the attached Reply Comments is identical to the previously submitted Reply Comments, differing only in that this version includes a Table of Contents. I request that the version of the CAISO's Reply Comments with the Table of Contents be placed on the record on this proceeding and that the Commission and any interested parties reviewing the record rely on the attached version of the CAISO's Reply Comments.

Please feel free to contact me if you have any questions. Thank you for your assistance in this matter.

Respectfully submitted,

/s/ Sean A. Atkins

Sean A. Atkins
Counsel for the California Independent
System Operator Corporation

cc: Official service list

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

California Independent System) Docket No. ER06-615-000
Operator Corporation)

**REPLY COMMENTS OF
THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION**

Dated: May 16, 2006

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

California Independent System) Docket No. ER06-615-000
Operator Corporation)

**REPLY COMMENTS OF
THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION**

On February 9, 2006, the California Independent System Operator Corporation (“CAISO”)¹ filed its Market Redesign and Technology Upgrade Tariff (“MRTU Tariff”) for Commission review under Section 205 of the Federal Power Act (“FPA”), 16 U.S.C. § 824d (“February 9 Filing” or “MRTU Tariff Filing”). A number of parties have submitted initial comments, protests, and requests for hearings or other procedures concerning the February 9 Filing.² Although many parties support substantial portions of

¹ Capitalized terms not otherwise defined herein have the meanings set forth in the Master Definitions Supplement, Appendix A to the MRTU Tariff or, to the extent these terms refer to the existing CAISO Tariff, have the meanings set forth in the Master Definitions Supplement, Appendix A to the currently effective CAISO Tariff.

² Initial comments or protests concerning the MRTU Tariff Filing were submitted by the following entities: Alliance for Retail Energy Markets (“AREM”); Arizona Electric Power Cooperative, Inc. and Southwest Transmission Cooperative, Inc. (jointly, “AEPCO/SWTC”); Bay Area Municipal Transmission Group (“Bay Area”); Bonneville Power Administration (“BPA”); California Department of Water Resources and Sempra Generation (“CDWR/Sempra”); the California Department of Water Resources State Water Project (“SWP”); the California Energy Resources Scheduling Division of the California Department of Water Resources (“CERS”); California Municipal Utilities Association (“CMUA”); the California Public Utilities Commission (“CPUC”); Calpine Corporation (“Calpine”); the Cities of Anaheim, Azusa, Banning, Colton, Pasadena, and Riverside, California (“Six Cities”); the City and County of San Francisco (“CCSF”); the City of Redding, California, the City of Santa Clara, California, and the M-S-R Public Power Agency (collectively, “Cities/M-S-R”); the City of Roseville, California (“Roseville”); the City of Vernon, California (“Vernon”); Constellation Energy and Mirant (“Constellation/Mirant”); the “Control Area Coalition” (consisting of Bonneville Power Administration, Imperial Irrigation District, Los Angeles Department of Water and Power, Sacramento Municipal Utility District, Salt River Project, Turlock Irrigation District, and the Western Area Power Administration); Coral Power, L.L.C. (“Coral”); Epic Merchant Energy LP and SESCO Enterprises LLC (“Epic/SESCO”); FPL Energy (“FPL”); the Golden State Water Company (“GSW”); the Independent Energy Producers and Western Power Trading Forum (“IEP/WPTF”); the Lassen Municipal Utility District (“Lassen”); the Los Angeles Department of Water and Power (“LADWP”); the “MRTU Staging Coalition” (consisting of SMUD, APS Energy Services, the California Manufacturers and Technology Association, and the California Large Energy Consumers Association); the Metropolitan Water District of Southern California

the MRTU Tariff, some of these parties raise concerns and criticisms with regard to specific terms and conditions of the MRTU Tariff. Other parties request that the Commission require the CAISO to make substantial alterations to provisions of the MRTU Tariff or direct the CAISO to pursue a market design that departs from the design approved in previous Commission orders on the CAISO's MRTU initiative.

Pursuant to the Commission's March 7 and April 19, 2006, Notices of Extension of Time, the CAISO hereby submits its Reply Comments in this proceeding. For the reasons explained below, the Commission should reject comments seeking substantial alterations to the MRTU Tariff and accept the MRTU Tariff with those clarifications and revisions the CAISO commits to make in the instant filing.

EXECUTIVE SUMMARY

The filing of the MRTU Tariff represents a critical milestone on the road to implementing a new market design for California. As explained in detail in the February 9 Filing,³ the CAISO submitted the MRTU Tariff in response to various Commission orders identifying flaws in the markets currently administered by the CAISO and

("MWD"); Modesto Irrigation District ("MID"); NRG Companies ("NRG"); Northern California Power Agency ("NCPA"); Pacific Gas and Electric Company ("PG&E"); Powerex Corporation ("Powerex"); Sacramento Municipal Utility District ("SMUD"); San Diego Gas & Electric Company ("SDG&E"); Southern California Edison Company ("SCE"); Strategic Energy ("Strategic"); Turlock Irrigation District ("Turlock"), the United States Department of Energy's Berkley Site Office ("DOE Berkley Office"), the United States Bureau of Reclamation ("Reclamation"); the Western Area Power Administration ("WAPA"); the "WestConnect Parties" (consisting of Arizona Public Service Company, El Paso Electric Company, Imperial Irrigation District, Nevada Power Company/Sierra Pacific, Public Service of New Mexico, Salt River Project Agricultural Improvement and Power District, Southwest Transmission Cooperative, Inc., Tri-State Generation and Transmission Association, Inc., Tucson Electric Power Company, and Western Area Power Administration); and Williams Power Company ("Williams").

³ In the instant filing, citations to the transmittal letter for the MRTU Tariff Filing will be to pages of the "MRTU Tariff Filing Letter," citations to testimony submitted in support of the MRTU Tariff will be to the appropriate exhibit number (e.g., "Exh. ISO-1"), and citations to the other lettered attachments to the MRTU Tariff Filing will be to those particular attachments.

directing the CAISO to modify the design of its markets.⁴ These flaws include a Congestion Management system that led to excessive Congestion costs and inefficient use of the CAISO Controlled Grid, a market structure that provided opportunities for manipulation and failed to ensure that the resources necessary for reliability would be made available through market mechanisms, and the lack of an adequate forward Energy market in California since the California Power Exchange (“PX”) ceased operation. The MRTU Tariff addresses existing market flaws through a comprehensive overhaul of the electricity markets administered by the CAISO and the adoption of a new network model that will accurately reflect the operational realities of the CAISO Controlled Grid.

As described in Attachment D to the MRTU Tariff Filing, the filing of the MRTU Tariff is the culmination of an extensive market redesign effort initiated by the CAISO in response to the Commission’s orders. As part of this redesign effort, the CAISO submitted multiple filings requesting that the Commission rule on conceptual elements of the MRTU design. Between 2002 and 2005, the Commission issued a series of more than a dozen orders (the “MRTU Orders”) accepting certain elements of the MRTU design developed by the CAISO and directing the CAISO to modify other elements of the MRTU design.⁵

⁴ See *California Independent System Operator Corp.*, 90 FERC ¶ 61,006, at 61,013-14 (“January 7, 2000 Order”), *reh’g denied*, 91 FERC ¶ 61,026 (2000); and *San Diego Gas & Electric Co. v. Sellers of Energy and Ancillary Services Into Markets Operated by the California Independent System Operator and the California Power Exchange, et al.*, 97 FERC ¶ 61,275 at 62,245 (2001) (“December 19, 2001 Order”).

⁵ These MRTU Orders include the following: *California Independent System Operator Corp.*, 100 FERC ¶ 61,060 (“July 17, 2002 Order”), *order on reh’g and compliance filing*, 101 FERC ¶ 61,061 (2002); *California Independent System Operator Corp.*, 105 FERC ¶ 61,140 (“October 28, 2003 Order”), *reh’g denied*, 105 FERC ¶ 61,278 (2003); *California Independent System Operator Corp.*, 107 FERC ¶ 61,274 (2004) (“June 17, 2004 Order”); *California Independent System Operator Corp.*, 108 FERC ¶ 61,254 (2004) (“September 20, 2004 Order”), *reh’g denied*, 110 FERC ¶ 61,041 (2005) (“January 24, 2005 Order”); January 18, 2005 Commission Staff Guidance Letter; *California Independent System Operator Corp.*, 110 FERC ¶ 61,113 (2005) (“February 10, 2005 Order”); *California Independent System Operator Corp.*, 111 FERC ¶ 61,384 (2005) (“June 10, 2005 Order”); *California Independent System Operator Corp.*, 112 FERC ¶ 61,007 (2005) (“July 1, 2005 ETC Order”); *California Independent System Operator*

The MRTU Tariff provides the detailed terms and conditions to implement the MRTU design, as revised to reflect the Commission’s findings and directives in the MRTU Orders. The MRTU Tariff also includes terms and conditions of additional features of the MRTU design that are complementary to the conceptual design approved by the Commission but have not been discussed in detail in prior filings. The filed MRTU Tariff reflects a comprehensive Locational Marginal Pricing (“LMP”) market design with balanced market power mitigation measures that is ripe for a decision by the Commission.

The terms and conditions of the MRTU Tariff reflect stakeholder input provided through hundreds of hours of stakeholder meetings conducted by the CAISO.⁶ The CAISO believes this stakeholder process has been successful in addressing many of the questions and concerns raised by stakeholders. One measure of that success is the general support for the elements of the MRTU Tariff offered by many parties commenting on the MRTU Tariff.⁷ These comments show that there is widespread support for the core elements of the MRTU design, including: (1) markets based on LMP; (2) the use of financial congestion rights (called Congestion Revenue Rights or “CRRs”) rather than physical transmission rights; (3) the settlement of LMP charges to much of the Demand in the CAISO Control Area to three Default Load Aggregation

Corp., 112 FERC ¶ 61,013 (2005) (“July 1, 2005 Market Design Order”); *California Independent System Operator Corp.*, 112 FERC ¶ 61,310 (2005) (“September 19, 2005 Order”); and *California Independent System Operator Corp.*, 113 FERC ¶ 61,151 (2005) (“November 14, 2005 Order”).

⁶ A description of the extensive MRTU stakeholder process that informed the development of the MRTU Tariff is set forth in Attachment E to the MRTU Tariff Filing.

⁷ See PG&E at 2 (“The MRTU program, and the Proposed MRTU Tariff, have much to commend them, and the CAISO’s achievement in this filing, which PG&E agrees represents “a significant milestone,” should be recognized and applauded.”); CPUC at 3 (“the CPUC supports the vast majority of the MRTU Tariff Filing and urges the Commission to approve many of its key elements in a timely manner”); SDG&E at 1 (“SDG&E urges the Commission to move with dispatch in approving implementation of the MRTU tariff by November 1, 2007”).

Points or “LAPs”; (4) a sequential market structure comprised of a Day-Ahead Market, which includes an Integrated Forward Market (“IFM”) that optimizes procurement of Energy and Ancillary Services and the management of transmission Congestion and a Real-Time Market (“RTM”); (5) Local Market Power Mitigation measures based on the measures employed by the PJM Interconnection (“PJM”), as approved by the Commission in the July 1, 2005 Market Design Order; and (6) full implementation of the Release 1 MRTU design on the first day of the new markets, rather than a “staged” implementation.

Despite this support for the core elements of the MRTU design, many commenters raise concerns about certain provisions of the MRTU Tariff or propose modifications to specific terms and conditions of the MRTU Tariff. Other commenters request that the Commission require the CAISO to make substantial alterations to the MRTU Tariff or direct the CAISO to pursue a market design that departs from the design approved in previous MRTU Orders. Still others request hearings, the filing of additional documentation, or other procedures that will delay the Commission’s order on the MRTU Tariff and ultimately impede the timely implementation of new wholesale electricity markets in California. The CAISO responds to these comments below. Section I of this reply addresses general issues and concerns raised in the initial comments; Section II addresses comments on specific provisions of the MRTU Tariff; and Section III addresses design features that some parties argue should be added to the initial release of the new markets.

As the Commission prepares to act on the MRTU Tariff Filing, the CAISO believes it is important to consider a few overarching reasons why the MRTU Tariff

should be approved with only those clarifications and revisions the CAISO commits to make in these Reply Comments.

First, many of the modifications requested by commenters are an attempt to revisit findings and directives made by the Commission in prior MRTU Orders. The CAISO acknowledges that the Commission indicated that conceptual design elements previously approved by the Commission might be subject to reconsideration when the CAISO filed the implementing MRTU Tariff language. The Commission should recognize, however, that a tremendous level of time, effort and funding has been expended by the CAISO to develop detailed market rules and software based on the Commission's prior conceptual approvals concerning the MRTU design. Those determinations should only be revisited by the Commission if a party identifies a compelling reason to do so. In general, the Commission should only revisit issues that have been validly preserved or where the details presented in the MRTU Tariff render a previously-approved conceptual design element unjust and unreasonable. The CAISO believes very few issues warrant such revisitation – the most significant of which is the CAISO's request that the Commission reinstate its original conclusion that the CAISO should be permitted to base its Market Power Mitigation run and Reliability Requirements Determination in the Day-Ahead Market on forecast Demand rather than bid-in Demand.

In particular, the Commission should disregard requests by some commenters to revisit core elements of the MRTU design. For example, the Commission approved the use of an LMP-based market design in California in 2003. This is consistent with the Commission's long-standing recognition of the beneficial features of LMP-based

markets. Numerous Commission orders on the MRTU design since 2003 are based on the premise that the CAISO will be adopting LMP-based markets. Nonetheless, a handful of parties claim that the CAISO should not be permitted to implement MRTU as planned because adoption of an LMP-based market design by the CAISO will create “seams” with neighboring Control Areas that have retained a physical transmission rights model and have not transitioned to organized wholesale markets. These differences between the CAISO and its neighboring Control Areas are not a reason to reject or alter the MRTU Tariff. Under MRTU, the CAISO will continue to coordinate operations, scheduling and other issues with its neighbors. As in the eastern independent system operators (“ISOs”) and Regional Transmission Organizations (“RTOs”) that have adopted LMP-based markets, the fact that neighboring Control Areas have chosen not to adopt organized, wholesale electricity markets does not render the Commission-approved LMP-based market design for California unjust and unreasonable.

Second, the Commission should recognize that the CAISO has provided extensive support for the MRTU Tariff, including over 750 pages of testimony and several hundred pages of additional supporting documentation. This documentation, along with the further discussion provided in these Reply Comments, provides a full explanation of why the MRTU Tariff satisfies the statutory standard established by Section 205 of the FPA. This documentation explains that the CAISO has balanced various competing concerns and interests in developing terms that are just and reasonable and that do not unduly discriminate against any entity subject to the MRTU Tariff. This documentation also explains why various proposed modifications to the MRTU Tariff, many of which are

designed to benefit one class of entities to the detriment of other participants, are not appropriate.

At over 1,000 pages, the MRTU Tariff includes extensive details as to how the new market design will be implemented. Some commenters have argued that the CAISO should include even more detail in the MRTU Tariff. For example, some commenters argue that certain details slated for inclusion in Business Practice Manuals (“BPMs”) should be moved to the MRTU Tariff while others argue that the BPMs themselves should be filed for Commission approval. Consistent with Commission precedent, described in Section I.D of these Reply Comments, the CAISO has endeavored to include those details that significantly affect rates, terms and conditions of service in the MRTU Tariff. The CAISO has already initiated the stakeholder process to obtain input on the development of BPMs. The CAISO will consider stakeholder input as to whether any details developed for inclusion in the BPMs should be included in the MRTU Tariff. The CAISO also proposes a technical conference to be scheduled later in 2006 to discuss any details in the BPMs that stakeholders propose for inclusion in the Tariff. Because the BPMs only provide background information, guidelines, business rules, and processes concerning the existing provisions of the MRTU Tariff, the Commission need not wait for completion of this process to act on the MRTU Tariff.

As discussed below, the CAISO commits to make certain clarifications and revisions to the MRTU Tariff in a compliance filing to address questions or concerns raised in some initial comments. The most significant revisions the CAISO commits to make in a compliance filing are: Tariff changes associated with the treatment of Ancillary Service self-provision including automation of the release of Energy from Self-

Provided Ancillary Service capacity in the LAP clearing process and lifting the restriction that Ancillary Service Bids must be accompanied by Energy Bids in the Day-Ahead Market; revisions that will allow Load-Serving Entities (“LSEs”) to better ensure they can fully utilize their available Resource Adequacy Resources in the IFM during times of supply shortage, while at the same time allowing for the self-scheduled exports that are being supported and sources from non-Resource Adequacy resources; revisions that would require advance scheduling of only those transmission Maintenance Outages that will have a significant impact on CRR revenue adequacy; the addition of detail on LMP calculations based on stakeholder input received during the forthcoming review of LMP Business Practice Manuals; exemptions from Unaccounted for Energy and neutrality for Transmission Ownership Right (“TOR”) Self-Schedules that are submitted for use of nodes on the TOR facilities in the CAISO’s Control Area; provisions clarifying the eligibility of pump resources for CRRs; clarifications to the Bid Cost Recovery mechanism and elimination of rescission of Bid Cost Recovery payments associated with Start-Up and Minimum Load Costs for non-performance; clarifications concerning payment of Ancillary Services from imports selected in the Day-Ahead Market and reduced in the Hour-Ahead Scheduling Process (“HASP”) due to a derate at the applicable intertie; and clarification of the physical validation requirements for Inter-Scheduling Coordinator Trades. These changes respond to significant concerns raised by commenters, but are wholly consistent with core elements of the MRTU design described above.

As discussed in the February 9 Filing and further discussed below, the CAISO also anticipates additional section 205 filings later in 2006 and in 2007 related to the

initial implementation of MRTU in specific areas, including: a process to be codified in the MRTU Tariff for obtaining stakeholder input on proposed changes to Business Practice Manuals; the methodology for allocating CRRs to merchant transmission projects; Tariff provisions modeled on approved provisions in other ISOs that will allow the CAISO to make price corrections in certain circumstances where market flaws, the MRTU software or equipment malfunctions produce anomalous results; and the rules for providing Bid Cost Recovery to Metered Subsystems. Although these filings will address important topics, none of them will alter the core elements of the MRTU design as reflected in the filed MRTU Tariff. As such, the Commission need not and should not wait for these filings to determine that the MRTU Tariff is just and reasonable.

Lastly, the Commission should recognize that the timing of all phases leading up to MRTU implementation is important. The Commission has already identified various flaws in the existing market structure that must be remedied. The process of developing a complete overhaul of the CAISO's market design and technology infrastructure has, by necessity, taken many years. Consumers will benefit, however, by the most timely possible implementation of the new market design. In order to remain on target for the proposed November 2007 implementation date, the CAISO is proceeding with development of the MRTU software while the MRTU Tariff Filing is pending before the Commission. Significant changes to the MRTU design at this point could have substantial impacts on the schedule and budget for implementation of the new markets. Some commenters have proposed hearings or other procedures that could delay a Commission order on the MRTU Tariff until the end of this year or later. Such a delay would significantly increase the risk that even minor modifications to the MRTU design

will deny consumers the benefits of the new market design until at least late 2008. For similar reasons, the Commission should deny the requests of some commenters for the addition of market features such as “Convergence Bidding” that may be desirable but are not essential for just and reasonable LMP-based markets. Such additions could delay MRTU implementation by as much as a year, and the incremental benefits of incorporating such features into Release 1 of MRTU would be more than offset by the adverse impacts of delaying the new markets. The MRTU markets should be implemented as soon as reasonably possible.

The CAISO believes that November 2007 is a reasonable target implementation date for the new markets as proposed in the MRTU Tariff. November 2007 is also a compelling target date for implementation of the MRTU Tariff as it is the earliest time at which Market Participants can begin to benefit from the efficiencies to be provided by the redesigned Congestion Management system. The CAISO recognizes the need to balance the obligation to remedy the inefficiencies of the existing market design with the requirement that the new market get off to a reliable start. In these Reply Comments, the CAISO wishes to again affirm to the Commission and stakeholders that the CAISO is committed to take all necessary measures to ensure that the new markets are ready for implementation. The CAISO commits that MRTU will become effective only after the CAISO’s new software and systems have been determined by the CAISO to be ready for implementation through the readiness process being developed by the CAISO in consultation with stakeholders.

For the reasons set forth below and in the MRTU Tariff Filing, the Commission should accept the MRTU Tariff with the clarifications and revisions that the CAISO

agrees to make in the instant Reply Comments and grant the requested effective date of the November 1, 2007 Trading Day subject to the CAISO's commitment to develop a readiness process as described below.

REPLY COMMENTS

I. General Issues Raised by Initial Comments

Before addressing comments on specific provisions of the MRTU Tariff, the CAISO believes it is appropriate to set forth certain general principles that are relevant to the consideration of many of the comments on the MRTU Tariff. In this section of the Reply Comments, the CAISO also responds to certain general arguments opposing the MRTU Tariff Filing.

A. The MRTU Tariff is Just and Reasonable

As an initial matter, it is important to recall that issues concerning the MRTU Tariff are not part of a hypothetical exercise to design a new market. The CAISO is the public utility that is responsible for implementing the new markets and administering the MRTU Tariff. The Federal Power Act recognizes that a public utility should have the right and the obligation to establish, in the first instance, the rates, terms and conditions of the services it will provide. Under Section 205 of the FPA, the CAISO is entitled to propose changes to the rates, terms, and conditions under which it provides service and is authorized to place the filed rates, terms, and conditions into effect unless the Commission finds that the CAISO has failed to demonstrate that the changes are just and reasonable. FPA, Section 205(d).

A number of commenters propose modifications to the MRTU Tariff. A handful of commenters even suggest that the Commission should require the CAISO to adopt alternative market designs that depart in significant respects from the conceptual design approved in the Commission's MRTU Orders. These commenters fail to recognize that these proposed modifications and alternatives should not even be considered unless the Commission determines that the MRTU Tariff fails to satisfy, in whole or in part, the statutory standard established by Section 205. In order to satisfy this standard, the CAISO is not required to show that the rates, terms and conditions of the MRTU Tariff are perfect or superior to alternatives proffered by some commenters. The rates, terms and conditions filed by the CAISO simply need to be just and reasonable.⁸

Thus, the modifications and alternative terms and conditions proffered by some commenting parties are not to be considered on the same basis as the terms and conditions filed by the public utility. The Commission should only consider alternatives or modifications if the Commission determines that the modified rates, terms and conditions proposed by the CAISO are not just and reasonable, or are unduly discriminatory or preferential.⁹

Various commenters propose changes to discrete provisions of the MRTU Tariff that are intended to address entity-specific concerns or desires. Individual provisions of

⁸ See *New England Power Co.*, 52 FERC ¶ 61,090 at 61,336 (1990), *reh'g denied*, 54 FERC ¶ 61,055 (1991), *aff'd Town of Norwood v. FERC*, 962 F.2d 20 (D.C. Cir. 1992); citing *City of Bethany v. FERC*, 727 F.2d 1131, 1136 (D.C. Cir.), *cert. denied*, 469 U.S. 917 (1984) (utility need only establish that its proposed rate design is reasonable, not that it is superior to alternatives); *OXY USA, Inc. v. FERC*, 64 F.3d 679, 692 (D.C. Cir. 1995) (“[T]he Commission may approve the methodology proposed in the settlement agreement if it is ‘just and reasonable’; it need not be the only reasonable methodology or even the most accurate.”).

⁹ The Commission's authority to prescribe terms and conditions for a public utility arises from Section 206 of the FPA, and under Section 206 the Commission can only exercise that authority following a finding that the proposed terms and conditions of service are unjust, unreasonable, or unduly discriminatory. 16 U.S.C. § 824e; *Sierra Pacific Power Co. v. FPC*, 350 U.S. 348 (1956).

the MRTU Tariff should not be considered in a vacuum. Literally hundreds of parties will be subject to the MRTU Tariff, including many classes of parties that have widely varying interests. These classes of parties include Load-Serving Entities (“LSEs”), Generation owners, marketers, and municipal and other governmental entities. As described in detail below and in the testimony submitted with the February 9 Filing, the MRTU Tariff reflects a deliberate effort on the part of the CAISO to balance these competing interests to ensure that the CAISO’s new tariff, taken as a whole, is reasonable. In determining whether the modified rates, terms and conditions proposed by the CAISO are just and reasonable, the Commission should therefore consider the MRTU Tariff in its entirety.¹⁰

It is also worth recalling that, although the MRTU Tariff contains extensive changes to the existing CAISO Tariff, certain terms and conditions from the current CAISO Tariff have been retained in the MRTU Tariff. Nonetheless, some commenters have proposed modifications to these existing terms and conditions. If a commenter wishes to challenge a term and condition that has been previously accepted by the Commission, then that party bears the burden of furnishing evidence sufficient to establish that the feature in question is unjust or unreasonable.¹¹

B. The Commission Should Avoid Revisiting Findings or Directives Made in Prior MRTU Orders

Several commenters argue that the filing of the MRTU Tariff should result not only in a Commission review of the terms and conditions of that tariff but also in a “*de*

¹⁰ *Cf. Public Service Comm’n v. Federal Power Comm’n*, 516 F.2d 746, 749 (D.C. Cir. 1975) (finding that under comparable provisions of the Natural Gas Act, a “rate order can be upheld even though it contains certain provisions that, taken by themselves, have discriminatory aspects, provided that the rate as a whole demonstrates an overall balance of effects and purposes that is in furtherance of the public interest”).

¹¹ *See Public Service Comm’n of New York v. FERC*, 642 F.2d 1335, 1345 (D.C. Cir. 1980).

novo” Commission review of the underlying MRTU market design.¹² Many commenters also request that the Commission reverse specific findings or directives made in the Commission’s prior MRTU Orders. For example (and as discussed in more detail in Section II of these Reply Comments), some parties request that the Commission reverse course on core elements of the MRTU design, such as the use of LMP-based markets with financial congestion rights or the adoption of Local Market Power Mitigation measures modeled on those used in PJM.

The CAISO acknowledges that the Commission has previously indicated that parties could revisit issues related to the MRTU design when the full MRTU Tariff was filed.¹³ The Commission should recognize, however, that substantial time and effort was spent in litigating the conceptual design issues that the Commission addressed in its prior MRTU Orders. Parties litigated these issues through the same process that applies to tariff filings, with the opportunity to submit comments and protests on the CAISO’s many conceptual design filings between 2002 and 2005. As such, parties have already had an appropriate administrative process to raise concerns with the findings and directives made in the Commission’s prior MRTU Orders.

The Commission should also recognize that the CAISO has devoted literally years of effort as well as substantial funds to develop detailed market rules and software specifications that comply with the Commission’s findings and directives in its prior MRTU Orders. Modifying any of these findings or directives at this point could have cascading impacts on the schedule and budget for MRTU implementation, potentially delaying implementation of the new markets significantly. As explained in Section I.H

¹² See Control Area Coalition at 12-14; CMUA at 6.

¹³ See, e.g., October 28, 2003 Order, 105 FERC ¶ 61,140 at PP 2, 24-25; July 1, 2005 Market Design Order, 112 FERC ¶ 61,013 at P 2.

of these Reply Comments, the CAISO strongly believes that the most-timely possible implementation of the new market design that corrects the flaws in the current markets will benefit consumers. In light of this, and in order to ensure that the time and effort spent on prior litigation of MRTU issues was meaningful, the CAISO urges the Commission to establish a very rigorous standard for revisiting the findings and directives in its prior MRTU Orders.

In general, the Commission should only revisit issues that have been validly preserved by the party seeking to modify a finding or directive from a prior MRTU Order through a rehearing request or where the details presented in the MRTU Tariff render a previously approved conceptual design element unjust and unreasonable. As noted above, the CAISO has identified one significant issue that satisfies this rigorous standard – the use of forecast Demand for the CAISO’s Market Power Mitigation run and Reliability Requirements Determination. To the extent the Commission does find any other issues satisfy this rigorous standard and revisits any findings or directives made in its prior MRTU Orders, the Commission should be cognizant of the fact that any changes could affect the feasibility of the market design and potentially result in a significant delay in MRTU implementation. The Commission should also consider whether a potential change could result in a market design that is not internally consistent, when taken as a whole. Moreover, as noted above, even an apparently minor change could have a domino effect on the schedule for MRTU implementation.

C. The Commission Should Reject Arguments that the Business Practice Manuals Must Be Filed.

The CAISO has developed the MRTU Tariff such that it contains all the necessary information regarding the rates, terms, and conditions of service for those that

take service under the tariff. In the MRTU Tariff Filing, the CAISO explains that, similar to the practices of other ISOs and RTOs, the CAISO is developing BPMs that, consistent with the rates, terms, and conditions contained in the tariff, will include the details for implementing these tariff provisions. The CAISO also established the procedure and schedule under which the initial BPMs will be developed with stakeholder input. This stakeholder process is now underway.

A number of commenters and protesters have contended that BPMs must be filed for Commission review.¹⁴ Certain protesters assert that the Commission required the CAISO to include its protocols as part of its tariff.¹⁵ This assertion, without a more complete explanation of the relevant history, is misleading. Although the Commission treated the CAISO informational filing of protocols as a filing under Section 205 of the FPA, and required a Section 205 compliance filing to incorporate Commission-directed modifications to certain protocols, the Commission explicitly recognized that many of the protocols did not need to be filed. The Commission encouraged the CAISO and

all interested parties . . . to review the Protocols to determine which provisions are more appropriately included in the Tariffs. We expect that as a result of that process, the ISO . . . will file to amend [its] respective Protocols and Tariffs under Section 205 to incorporate these changes. . . . If after this process, certain of the Protocols are truly “operating guidelines” that simply add details or procedures necessary to implement tariff provisions, the Commission will consider a future request to delete these Protocols from the rate Schedules.

Pacific Gas & Electric Company, et al., 81 FERC ¶ 61,320, 62,471 (1997). Through its recent effort to simplify and reorganize the pre-MRTU Tariff (the “S&R Tariff”), the CAISO merged the provisions of the protocols that are more appropriately tariff

¹⁴ Bay Area at 12; BPA at 8; Cities/MSR at 9-15; CMUA at 11; Coral at 24 n.30; IEP at 111; Lassen at 3-11; MID at 10-11, 25-31; SMUD at 53-58; Staging Coalition at 5; TANC at 10-13, 15-21; Trinity at 7; Turlock at 5, 24-26; Vernon at 2. *See also* Six Cities at 4, Williams at 14-15.

¹⁵ *See, e.g.*, Powerex at 32-33.

provisions, into the current CAISO Tariff. This revision of the S&R Tariff, which has been approved by the Commission, still includes vestiges of the protocols as attachments to the S&R Tariff. The CAISO intends to seek Commission approval to eliminate these materials from the CAISO Tariff as part of the development of BPMs in support of the MRTU Tariff.

More recent Commission precedent provides further clarification that ISOs and RTOs need not necessarily file BPMs or similar procedures. The Commission has consistently rejected arguments that Business Practice Manuals and operating procedures must be filed for Commission review.

In *Midwest Independent Transmission System Operator, Inc.*, the Commission noted:

[T]he Business Practice Manuals will provide background information, guidelines, business rules and processes established for the operations and administration of the different Midwest ISO markets; provisions of transmission reliability services and compliance with Midwest ISO settlements, billing and accounting requirements. In contrast . . . , the [tariff] is a much higher level document and contains only the rates, terms and conditions necessary to effectuate service.¹⁶

Citing its “rule of reason,” the Commission concluded that, even though the BPMs implicated the Commission’s jurisdiction, there was no reason to require that they be filed. Similarly, the Commission refused to direct the filing of the Operating Manuals for PJM, although it directed PJM to include in its Tariff any specific rates or terms of service that appeared only in the Operating Manuals.¹⁷ The Commission has also ruled that NEPOOL and the Southwest Power Pool need not file their Operating Procedures

¹⁶ 108 FERC ¶ 61,163 at P 650 (2004).

¹⁷ *Pennsylvania-New Jersey-Maryland Interconnection*, 81 FERC ¶ 61,257 (1997).

and Market Protocols, respectively, but has again required that certain matters proposed to be included in Operating Procedures be filed for Commission approval.¹⁸

The relevant question is thus not whether BPMs need to be filed; they do not. Rather, the question is whether certain material proposed for inclusion in the BPMs rather than the MRTU Tariff needs to be filed. This issue is discussed in the next section.

Strategic does not object to the material being proposed for BPMs, but asks that if the Commission approves the MRTU Tariff, the approval should be conditioned on Market Participants' final review and approval of the BPMs. It also asks that parties be able to bring any disputes regarding the BPMs directly to the Commission, bypassing the CAISO ADR process.¹⁹ AReM expresses similar concerns.²⁰

With regard to the latter concern, the CAISO notes that the ADR provisions of the MRTU Tariff explicitly preserve the right of Market Participants to file complaints with the Commission.²¹ Because Section 206 of the Federal Power Act addresses practices of a public utility as well as rates, Strategic does not need any special permission to bring a complaint regarding the BPMs to the Commission, bypassing the ADR process.

With regard to the former, the Commission should not require Market Participants' "approval" of the BPMs. Because significant consensus is very difficult to achieve on many matters in the California electric industry, such a provision would virtually ensure that the BPMs not be completed. Nonetheless, even though the BPMs need not be filed with the Commission, the CAISO is committed to a robust stakeholder process concerning the initial development of the BPMs. The CAISO hopes that Market

¹⁸ *New England Power Pool*, 95 FERC ¶ 61,253 (2001); *New England Power Pool*, 110 FERC ¶ 61,396 at PP 27-29 (2005); *Southwest Power Pool*, 114 FERC ¶ 61,289 (2006).

¹⁹ Strategic at 5.

²⁰ AReM at 11-12.

²¹ See Section 13.1.1.

Participants will contribute to the preparation of BPMs, and the CAISO will consider any comments raised in the context of that stakeholder process about specific provisions in the BPMs that parties believe should be incorporated into the MRTU Tariff.

IEP, which only seeks filing of the initial BPMs, requests a public process regarding procedures for amending the BPMs.²² SCE expresses similar concerns.²³ Although the general guidelines for a BPM change process are set forth in Section 22.11 of the MRTU Tariff, the CAISO recognizes that many stakeholders will become more comfortable with the use of BPMs to supplement the MRTU Tariff once a more detailed process for obtaining stakeholder input on proposed BPM changes is established. In response to these stakeholder concerns, the CAISO therefore commits to develop, with stakeholder input, a BPM change management process that will be incorporated into the MRTU Tariff.

Specifically, the CAISO will put forward a “straw proposal” for stakeholder review and comment that will detail the BPM change management process. The CAISO will initiate a stakeholder process regarding the proposal. Based on that stakeholder input, the CAISO will develop a final proposal for consideration by the CAISO Board of Governors. The process approved by the CAISO Board will then be submitted for Commission approval under Section 205 of the FPA.

D. The MRTU Tariff Filing Provides Sufficient Detail for the Commission to Act on the CAISO’s Filing

Some commenters contend that more detail is required for the Commission to act on the MRTU Tariff. These arguments ignore the massive amount of detail provided in the MRTU Tariff Filing. The MRTU Tariff Filing includes over 1000 pages of Tariff

²² IEP at 111.

²³ SCE at 8-10.

sheets, over 750 pages of testimony, and hundreds of pages of supporting documentation. Nonetheless, some commenters argue that the MRTU Tariff does not contain sufficient detail to permit FERC to determine whether it is just and reasonable.²⁴ To the extent that these parties generally contend that the CAISO has not provided adequate information regarding the filing, the argument is simply not credible in light of massive amount of detail provided in the filing.

The fact that the CAISO is in the process of developing implementation detail for the MRTU Tariff does not interfere with the Commission's ability to determine whether the provisions before it are just and reasonable based on the extensive backup provided. For example, the Commission approved tariff provisions to implement new LMP-based markets in New England while recognizing that certain implementing detail was still being developed and would be set forth in applicable operating procedures and manuals.²⁵

A related issue raised by these filings is whether certain provisions contemplated for the BPMs should be included instead in the MRTU Tariff.²⁶ To the extent relevant, the CAISO discusses these matters in the comments on specific issues below.

As a general matter, the Commission evaluates whether particular agreements and procedures must be filed according to a "rule of reason." As described in *Town of Easton v. Delmarva Power and Light Company*,²⁷ under the rule of reason the Commission "balance[s] [its] desire not to deprive utilities or groups of utilities of the flexibility they

²⁴ See IID at 42-43, Turlock at 25, Six Cities at 6-8. See also Burbank at 4-6; Con/Mirant at 6, Powerex at 14-15.

²⁵ *New England Power Pool*, 100 FERC ¶ 61,287 at PP 83-84 (2002).

²⁶ Cities/MSR at 47-49; CMUA at 3, 10-11; CPUC at 38-39; IEP/WPTF at 86-89; PG&E at 15-16, 51-54; 59; SCE at 6-10, 38-40, App. A; SDG&E at 3-4; SWP at 52-53.

²⁷ 24 FERC ¶ 61,251 at 61,531 (1983).

need to manage their own affairs by introducing substantial delay and layered decision-making into their operations . . . with the need for the full disclosure that furthers the purpose of having filing and posting requirements which provide real benefits to existing and potential customers or users of the services in question.” In its Prior Notice and Filing Requirements Under Part II of the Federal Power Act,²⁸ the Commission adopted the description offered by the U.S. Court of Appeals for the District of Columbia Circuit in *City of Cleveland v. FERC*:

[T]here is an infinitude of practices affecting rates and service. The statutory directive must reasonably be read to require the recitation of only those practices that affect rates and service *significantly*, that are realistically susceptible of specification, and that are not so generally understood in any contractual arrangement as to make recitation superfluous. It is obviously left to the Commission, within broad bounds of discretion, to give concrete application to this amorphous directive.²⁹

Thus, the Commission has excused the filing of:

- Procedures from a BPM for requests for information and challenges to confidentiality designations;³⁰
- Details regarding marginal loss calculations;³¹
- Procedures to ensure that pass-through charges are not assessed to Load that does not use the transmission grid;³²
- Criteria according to which the utility determined the availability of economy energy, the arrangement of sales of that energy, and the termination of such sales;³³
- Standard term and conditions and form contracts when the documents included prices and obligations to complete sales that were also included

²⁸ 64 FERC ¶ 61,139 (1993).

²⁹ 773 F.2d 1368, 1376 (D.C. Cir. 1985) (emphasis added).

³⁰ *Midwest Indep. Transmission System Oper.*, 113 FERC ¶ 61,081 at P 118 (2005)

³¹ *Northeast Util. Serv. Co. v. ISO New England*, 105 FERC ¶ 61,122 at P 21 (2003).

³² *California Indep. System Oper.*, 95 FERC ¶ 61,195 (2001).

³³ *Commonwealth Edison Company*, 21 FERC ¶ 61,096 (1982).

in the filed rates, as well as provisions that qualified customers for participation and typical contractual provisions;³⁴ and

- A framework for WSSC [now WECC] and its operating procedures relating to system security and general system reliability.³⁵

The CAISO believes that the level of detail included in the MRTU Tariff is generally comparable to that in other ISO and RTO tariffs and is acceptable under the Commission's rule of reason. The CAISO recognizes, however, as the Commission has recently affirmed in its order approving CAISO Tariff provisions regarding the CAISO's credit policy, that matters directly affecting rates, terms and conditions of service must be included in the Tariff,³⁶ and that some matters for which BPMs are contemplated might fall into this category. In recognition of this requirement, as discussed below, there are several topics on which the CAISO commits to add detail to the MRTU Tariff to the extent stakeholders identify detail in the development of initial BPMs that should be moved to the Tariff to comply with the Commission's rule of reason. For example, one area where the CAISO agrees greater detail may be warranted concerns the details of LMP calculation. There may be other matters that should be moved to the Tariff. The CAISO believes, however, that such issues should be resolved on a case-by-case basis. As noted, the CAISO has initiated a rigorous stakeholder process to develop the BPMs. To the extent that stakeholders believe that certain material should be included in the CAISO Tariff rather than the BPMs, they should raise their concerns during this process. In addition, the CAISO believes that it would be appropriate for the Commission to convene a technical conference late this year to review any unresolved issues regarding

³⁴ *Automated Power Exchange*, 85 FERC ¶ 61,232 (1998)

³⁵ *PacifiCorp*, 70 FERC ¶ 61,322 (1995).

³⁶ *California Indep. System Oper. Corp.*, 115 FERC ¶ 61,170 at PP 20-22 (2006).

the proper detail of the tariff and the BPMs. Following these processes, the CAISO can make a Section 205 filing to move appropriate material into the CAISO Tariff.

Consistent with the Commission's order in *Midwest Independent Transmission System Operator*³⁷, however, the process of evaluating whether additional detail from the BPMs could be added to the MRTU Tariff need not delay a comprehensive order on the MRTU Tariff as filed with the Commission. In that order, the Commission upheld its order conditionally accepting the Midwest ISO's Transmission and Energy Markets Tariff, notwithstanding the Commission's finding that additional detail slated for inclusion in the Midwest ISO's Business Practice Manuals should be added to the Tariff.³⁸ As discussed in Section I.H of these Reply Comments, the CAISO believes that the development of the BPMs can and will proceed in a manner that will not interfere with timely implementation of the MRTU by the CAISO. The CAISO has published a schedule for the development of the BPMs in a manner consistent with the proposed effective date for the MRTU Tariff.³⁹ The CAISO is complying with this schedule, having already published initial drafts of those BPMs most critical for the development of Market Participant systems and business practices. Six days of stakeholder meetings to discuss these draft BPMs begin on May 16, the same date these Reply Comments are being filed. There is no reason for the Commission to delay approval of the MRTU Tariff while this process goes forward.

One comment concerning the level of detail in the MRTU Tariff implicates a broad range of issues and is appropriately discussed in this section. PG&E recommends

³⁷ 109 FERC ¶ 61,157 (2004).

³⁸ *Id.* at PP 557-564.

³⁹ See the overall MRTU project schedule, including specific BPM milestones, at: <http://www.aiso.com/1784/1784e890151f0.pdf>

that an updated version of existing Appendix N (concerning settlements and billing) with current requirements, procedures, and formulas, be included in the MRTU Tariff rather than in a BPM. Inclusion of an updated Appendix N in the MRTU Tariff is unnecessary, will add additional bulk to the Tariff, and will just serve to complicate the task of ensuring that all tariff provisions are consistent. The billing determinants and responsible parties for all CAISO rates are fully described in the MRTU Tariff such that they control the CAISO's charges and alert all Market Participants to the charges. Appendix N merely sets forth data and formulae used to calculate those rates. The CAISO has already posted its initial draft of the MRTU-related material comparable to what is in the current Appendix N and is currently undergoing a stakeholder process to review the settlement equations for all CAISO charge types.⁴⁰ This document contains additional settlement equations that the CAISO is taking extensive measures to ensure are consistent with the settlement principles contained in the MRTU Tariff and it need not be filed as part of the MRTU Tariff.⁴¹

E. Differences Between the MRTU Wholesale Markets and the Rules Employed By Neighboring Control Areas Do Not Cause the MRTU Tariff To Be Unjust and Unreasonable

A number of commenters argue that the MRTU Tariff should either be rejected or substantially modified because the MRTU design is different from the wholesale tariffs administered by neighboring Control Areas.⁴² These commenters claim that the MRTU market design will create “seams” between Control Areas and that the Commission

⁴⁰ See <http://www.aiso.com/17e9/17e97b196bd30.html>.

⁴¹ Cf. *Northeast Util. Serv. Co. v. ISO New England*, 105 FERC ¶ 61,122 at P 21 (2003) (concluding that specific information on the NEPOOL website, including formulas, provided sufficient transparency regarding the calculation of marginal losses).

⁴² These commenters include the so-called “Control Area Coalition,” the following members of that coalition: WAPA, SMUD, BPA, and IID; the WestConnect Parties; and a number of municipal entities including MID, Cities/M-S-R, TANC, and Lassen.

should require the CAISO to resolve these seams issues before implementing MRTU. Although the CAISO acknowledges the importance of coordinating operations with its neighboring Control Areas and will continue to work with its neighbors on such coordination, the Commission should recognize that differences between the competitive wholesale markets administered by the CAISO and the rules employed by neighboring Control Areas have existed since CAISO start-up. The CAISO has continuously endeavored to work with its neighbors to address these seams and will continue to do so under the new market design. The implementation of the MRTU market design will address the flaws in the CAISO's existing market design and will not change this fundamental difference between the CAISO and the neighboring Control Areas that have not implemented transparent, organized wholesale markets. Indeed, many of the "seams problems" identified by commenters exist under the current Commission-approved CAISO Tariff. In addition, the types of seams issues identified by various commenters are no different from the issues that have been successfully addressed by eastern ISOs and RTOs that have moved to LMP-based markets but that border Control Areas without such markets. For all the reasons discussed below, the various commenters raising seams issues have not identified a shortcoming in the terms and conditions of the MRTU Tariff that renders that Tariff unjust and unreasonable; nor have they demonstrated that the move to the MRTU market design will cause the CAISO to treat entities in neighboring Control Areas in an unduly discriminatory manner.

First, the claim that the CAISO has ignored seams issues associated with MRTU implementation is flatly incorrect. The CAISO is and always has been fully committed to addressing coordination of operational, scheduling, and other issues with neighboring

Control Areas through the CAISO's participation in the Western Electricity Coordinating Council ("WECC"). The CAISO actively participates in several WECC committees including the Interchange Scheduling and Accounting Subcommittee ("ISAS"), the Operating Committee ("OC") and the Market Interface Committee ("MIC"). These are *fora* in which operational coordination issues can be discussed and proposed resolutions determined. The CAISO will continue to comply with WECC and North American Electric Reliability Council ("NERC") reliability criteria. Indeed, the implementation of improved Congestion Management systems and improved modeling of network constraints will improve the CAISO's ability to ensure reliability, thereby benefiting neighboring Control Areas.

In addition, the CAISO has entered into Interconnected Control Area Operating Agreements ("ICAOAs") with neighboring Control Areas, including the following members of the "Control Area Coalition:" the Los Angeles Department of Water and Power, SMUD, the Salt River Project, the Turlock Irrigation District, and WAPA (Desert Southwest Region). The purpose of these agreements is to coordinate operation and maintenance of applicable Control Area interconnections to satisfy NERC criteria and WECC Minimum Operating Reliability Criteria and Good Utility Practice. These agreements establish terms and conditions related to respective Control Area operational responsibilities, security coordination, scheduling and dispatch, outage coordination, emergency operation, and other matters related to the coordinated operations of neighboring Control Areas.

As noted above, many of the so-called "seams issues" identified by BPA, WAPA, the Control Area Coalition, and others exist today and are the result of the fact that,

unlike the rest of the West, California has enthusiastically pursued the development and implementation of transparent, organized wholesale markets that are consistent with the Commission's policy objectives. It is ironic to see the claim from BPA and other neighboring Control Areas that the CAISO's proposal did not address the seams issues with the neighboring "markets." Other portions of the West have not developed truly transparent and organized wholesale electricity markets. *Pro forma* tariffs based on Order No. 888⁴³ with business practices varying all over the map and that are controlled by vertically integrated non-jurisdictional entities do pose an additional challenge in the CAISO's attempts to coordinate with such Control Areas. For example, since 1996, the BPA has been instrumental in the start and failure of the Indego, RTO West, SSG-WI (the Seams Steering Group – Western Initiative), and Grid West initiatives.⁴⁴ In each case, the CAISO invested significant time and effort to coordinate with these proposals only to have these efforts prove fruitless as the regional transmission initiatives collapsed. BPA and others in the West are now pursuing a new initiative, "ColumbiaGrid." While the CAISO will be more than ready to coordinate with such an entity if it comes into existence, in the meantime, there is no organized market in the West with which to coordinate.

⁴³ *Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities and Recovery of Stranded Costs by Public Utilities and Transmitting Utilities*, Order No. 888, FERC Stats. & Regs. ¶ 31,036 (1996), *order on reh'g*, Order No. 888-A, FERC Stats. & Regs. ¶ 31,048 (1997), *order on reh'g*, Order No. 888-B, 81 FERC ¶ 61,248 (1997), *order on reh'g*, Order No. 888-C, 82 FERC ¶ 61,046 (1998), *aff'd in part and rev'd in part sub nom. Transmission Access Policy Study Group, et al. v. FERC*, 225 F.3d 667 (D.C. Cir. 2000), *aff'd sub nom. New York v. FERC*, 535 U.S. 1 (2002).

⁴⁴ *See Bonneville Power Administration, et al.*, 112 FERC ¶ 61,012, at P 7 (2005) (noting the statements of petitioners, including BPA, that "IndeGO collapsed for lack of support in 2000" and "the transmission owners decided in 2003 that they lacked the necessary public support to move forward with the RTO West proposal"); *see also* <http://rtowest.com> (containing press release issued April 11, 2006 announcing the pending dissolution of Grid West, and containing notice that the Grid West Internet site will be taken down on May 15, 2006).

A review of the WAPA, SMUD, and Control Area Coalition comments on seams issues seems to indicate that many of the seams that these parties want to resolve are the result of the CAISO's adoption of an LMP-based market design with financial congestion rights.⁴⁵ While the CAISO appreciates the need to continue to coordinate its seams under LMP-based markets, the need for such coordination is not a compelling reason to thwart the development of LMP-based markets in the West as is suggested by these parties. The Commission has generally found LMP to be a beneficial market design in other parts of the country and has specifically approved LMP for adoption in California.⁴⁶ The LMP-based markets in the Eastern United States border Control Areas that have retained Order No. 888-based tariffs with physical rights rather than wholesale markets with financial rights. The need to coordinate transactions among these Control Areas has not rendered the Eastern markets unjust and unreasonable or created reliability problems of the type some commenters suggest will be created by MRTU. For example, the Control Area Coalition expresses concerns that the CAISO "does not explain how it can fairly and transparently calculate LMP prices for nodes that are interfaces between it and other control areas."⁴⁷ PJM has been calculating such prices since April 1998 and the NYISO has been doing the same since November 1999. Experience at these ISOs demonstrates that LMP-based markets can be implemented in a just and reasonable manner that is not unduly discriminatory to neighboring Control Areas.

⁴⁵ For example, the Control Area Coalition's number one seams issue is "the CAISO's filing marks a further move from the physical rights model used in the rest of the Western Interconnection to a full LMP model." Control Area Coalition at 10. Similarly, SMUD's first seams issue is "LMP and financial rights." SMUD at 11-12.

⁴⁶ See the discussion in Section II.A of these Reply Comments.

⁴⁷ Control Area Coalition at 11.

The Control Area Coalition claims that the Commission’s decision not to adopt a standard market design rule was a “change of circumstances” that should have caused the CAISO to reconsider MRTU.⁴⁸ The Commission’s decision not to adopt this rule, however, did not alter its finding that LMP-based markets are generally beneficial and specifically appropriate in California.

Indeed, the CAISO notes that the decision of other portions of the West to continue to employ a physical rights model with the resulting limited ability to manage Congestion may cause neighboring Control Areas to retain operational challenges that could be resolved by a transition to LMP-based markets. Even if other Control Areas in the West do not elect to address Congestion concerns through LMP-based markets, the CAISO believes it will be able to safely and reliably coordinate with such Control Areas.

Commenters also suggest that the fact that the Release 1 MRTU design does not include longer-term transmission rights creates seams problems.⁴⁹ As explained in the CAISO’s comments on the Commission’s long-term firm transmission rights rulemaking in Docket No. RM06-8, the CAISO requests that the Commission continue its general approach of allowing independent entities like the CAISO sufficient regional flexibility in its Final Rule on Long-Term Firm Transmission Rights (“LT FTRs”) so that, first, entities like the CAISO will be allowed to design LT FTRs in a manner that best meets the needs of their participants and is consistent with the design of their markets, and second, the CAISO is not required to have LT FTRs in effect until at least one year after the implementation date for MRTU Release 1. The CAISO notes that its current market design does not have long-term transmission rights. In this respect, implementation of

⁴⁸ Control Area Coalition at 8-9.

⁴⁹ *See, e.g.*, Control Area Coalition at 11; SMUD at 11-12.

the MRTU Tariff does not create any new or additional seams issues that do not exist under the current Commission-approved CAISO Tariff.

As a general rule, the fact that the MRTU Tariff does not fully resolve a seams issue that exists today does not mean that the MRTU Tariff is flawed or should be modified. If a seams issue exists today and parties are nonetheless able to coordinate Control Area operations successfully, then the Commission should recognize that it is the lack of organized markets elsewhere in the West that is the “problem” rather than the proposed terms and conditions for MRTU. Several examples illustrate this principle.

Some of the Ancillary Service (“AS”) export issues raised by commenters are neither new nor unique to the MRTU. These limitations exist today. The CAISO agrees that efforts are needed to resolve reciprocity issues regarding the export of Ancillary Services from California. There is, however, no differential treatment of internal and external Market Participants either today or under MRTU in that neither can bid to buy AS from the CAISO's AS markets. The CAISO utilizes its Ancillary Service markets to procure Ancillary Services on behalf of Demand in the CAISO Control Area. These costs are allocated to entities in the CAISO Control Area. Thus, it would be inconsistent with the fundamental design of the CAISO’s Ancillary Service markets and the principles underlying the allocation of AS costs by the CAISO to allow entities to procure AS through the CAISO’s markets to satisfy requirements outside of the CAISO Control Area.

This does not, however, preclude bilateral sales of AS by California suppliers to entities in neighboring Control Areas. As is the case today, the MRTU Tariff does support on-demand obligations that allow bilateral transactions where a California

supplier could export energy and capacity to neighboring Control Areas that could be used to satisfy Ancillary Service requirements in those Control Areas.⁵⁰ The CAISO continues to be committed to support bilateral agreements that obligate the delivery of on-demand obligations.

Similarly, the requirement to schedule through a Scheduling Coordinator (“SC”) is not unique to MRTU. This was the fifth “seams” concern raised by the Control Area Coalition. In fact, under MRTU there will be fewer restrictions on scheduling due to the elimination of the “market separation rule” that requires a balanced schedule. Therefore the level of complexity is reduced from that of the existing process. Since the CAISO does operate a transparent market, it is imperative that the entities bidding and scheduling in the CAISO markets have financially binding relationships with the CAISO and thus with the rest of the market that relies on the CAISO for settlements.

WAPA expresses concerns about Section 16.5.1 of the MRTU Tariff, which permits the CAISO to issue operating orders that may conflict with the terms of Existing Contracts in the event of an “imminent or threatened” System Emergency.⁵¹ WAPA claims that the terms “imminent or threatened” are ill-defined under the MRTU Tariff. WAPA fails to recognize, however, that this is the standard applied under the Commission-approved CAISO Tariff today. Section 16.5.1 incorporates a provision that is in Section 4.2.1 of the current CAISO Tariff.⁵²

Some seams concerns appear to be based on a misunderstanding of the MRTU Tariff. Several commenters express concerns about the provisions in Section 40.6.11 that

⁵⁰ See Sections 8.2.3.2 and 8.4.7.2 of the MRTU Tariff.

⁵¹ WAPA at 19-21.

⁵² See the document “mapping” the MRTU Tariff to the current CAISO Tariff at: <http://www.caiso.com/1798/1798ea1b23080.html>

would allow the CAISO to curtail exports to prevent or alleviate a System Emergency.⁵³ Section 40.6.11 applies to curtailment of exports from Resource Adequacy (“RA”) Resources. These are resources that have committed to provide capacity to satisfy the needs of the CAISO Control Area. It is reasonable that resources that are providing RA Capacity to Load-Serving Entities in the CAISO should have an expected obligation to serve Load in the CAISO if necessary. This does not prohibit an RA Resource from exporting to the extent the CAISO Demand could be satisfied without curtailing such exports. The CAISO clarifies that, in the event of a System Emergency, it does not intend to curtail firm exports from resources other than those resources (*e.g.*, RA Resources) that are contractually obligated to provide capacity to satisfy the needs of the CAISO Control Area.

Commenters also claim that the fact that the MRTU Tariff, in some circumstances, treats entities outside the CAISO Control Area differently from entities within the Control Area is unduly discriminatory. This is not the case. It is appropriate for the CAISO to treat entities that have chosen to remain in the CAISO Control Area and fully participate in the CAISO’s markets, with the requisite costs and obligations, differently from those, such as SMUD, that have elected to leave the CAISO Control Area to avoid such costs and obligations. The CAISO notes that embedded Control Areas have the option of joining the CAISO Control Area and thereby obtaining the benefits of reserve sharing and optimal commitment and dispatch by a single system operator. If this does not occur, however, operators of separate Control Areas, including SMUD, have responsibilities as Control Area Operators and cannot reasonably expect to lean on the CAISO Controlled Grid to satisfy those responsibilities.

⁵³ See WAPA at 24-25; SMUD at 14.

Similarly, although the CAISO is fully committed to non-discriminatory access, in the event there is a conflict between providing additional flexibility to external entities and system reliability, the CAISO must ensure that it can fulfill its primary obligation of maintaining the security of the CAISO Controlled Grid. It is this primary obligation that justifies certain restrictions on the flexibility of external entities, such as the prohibition of Self-Schedules of exports in the HASP. This issue is discussed at greater length in Section II.H of these Reply Comments.

Lastly, the CAISO notes that claims that the CAISO failed to consult with neighboring Control Areas on the MRTU design are simply incorrect. The Control Area Coalition, SMUD, and others seem to suggest that the MRTU Tariff was developed in a vacuum with no opportunity for neighboring Control Areas to raise coordination concerns. To the contrary, the CAISO's process of developing its market design has been open and public with several years of extensive stakeholder consultation. Representatives of neighboring Control Areas had ample opportunities to participate in that process and did so. For example, representatives of various Control Area Coalition members were present at 25 of the approximately 30 stakeholder meetings on MRTU between March and December 2005. The CAISO believes it would have been monumentally inefficient to have two separate stakeholder processes for development of MRTU – one for entities within the CAISO Control Area and a separate process to solicit input from neighboring Control Areas. The existing stakeholder process provided these commenters with the chance to raise many of the concerns that are presented now to the Commission.

Overall, the Commission should recognize that the seams issues identified by various commenters are the inevitable result of transparent and organized markets bordering regions that have not adopted such markets. Commenters raising the need to “solve” these various seams issues have identified no fatal flaw with the MRTU Tariff that renders the CAISO’s filing unjust and unreasonable or unduly discriminatory. The CAISO has successfully coordinated with neighboring Control Areas since it commenced operations. The CAISO recognizes that there is a need to coordinate with neighboring Control Areas on the details of implementation of the MRTU Tariff and commits to do so in the future as it has done in the past.

F. Other Issues Raised in Initial Comments Do Not Cause the MRTU Tariff To Be Unjust and Unreasonable

1. There Is No Reason for the Commission To Adopt the Proposal to Delay Implementation of Key Commission-Approved Elements of the MRTU Market Design

Some commenters have suggested that the CAISO should be required to stage implementation of MRTU, implementing a full network model and other incremental changes to the existing CAISO market design.⁵⁴ A few of these commenters even propose a conceptual alternative to the CAISO’s MRTU Tariff Filing called the “Stage One” proposal.⁵⁵

As an initial matter, there is no need for the Commission even to consider the merits of this Stage One proposal unless the Commission determines that the MRTU Tariff – which is built on the foundation established by the Commission’s numerous MRTU Orders – is so fundamentally flawed that the MRTU design is unjust and

⁵⁴ See, e.g., the comments of WAPA at 7-16, the Control Area Coalition at 2 and n.3, and Lassen at 15-17.

⁵⁵ See generally the comments of the so-called “Staging Coalition” and SMUD.

unreasonable or unduly discriminatory.⁵⁶ Even if the Commission were to make such a shocking finding, dramatically changing course from nearly a dozen prior orders on the CAISO’s market redesign proposals, the proponents of the Stage One proposal have not shown that the Stage One concept is a just and reasonable alternative to the CAISO’s MRTU proposal. Indeed, an analysis of a similar staged or transitional implementation of LMP-based markets prepared by Charles River Associates at the CAISO’s request shows that such an approach would always be “second best” to the proposed MRTU design.

The Stage One proposal departs substantially from the Commission’s findings and directives in its prior MRTU Orders. Fundamentally, the proponents of the Stage One proposal oppose one of the core components of the MRTU design – the adoption of LMP-based markets. A review of the comments of the Staging Coalition reveals that their proposal is primarily an effort to prevent or delay the CAISO’s implementation of an LMP-based market design, contrary to the Commission’s prior orders generally supporting LMP-based market designs and specifically approving an LMP-based market as a core element of the MRTU design in California.⁵⁷

This opposition to LMP completely misses the point of MRTU and disregards the Commission’s orders initiating the CAISO’s market redesign efforts. The Commission has determined that the CAISO’s existing market design and, *in particular*, the existing

⁵⁶ See the discussion in Section I.A of these Reply Comments.

⁵⁷ Staging Coalition at 10 (“The risks and costs of the LMP-based elements of the CAISO market far outweigh the speculative benefits of the LMP proposal CAISO has filed.”); Exhibit No. SC-1 at 4 (“I oppose including locational marginal pricing (“LMP”) in the MRTU Release 1 proposal, particularly when it is being implemented simultaneously with such additional significant changes of the CAISO market. The LMP proposal is not currently needed and will add considerable, unnecessary complexity to the market redesign.”)

method of managing Congestion, is fundamentally flawed and must be revised.⁵⁸ LMP-based pricing is the proven, Commission-approved method that the CAISO has adopted to fix these flaws in the existing Congestion Management mechanisms. Thus, the move to LMP under MRTU is not a problem to be avoided, it is an essential component of the solution to the flaws identified by the Commission.

The proponents of the Stage One proposal claim that they do not oppose an eventual migration to LMP-based markets at some undefined future date, after Stage One has been implemented. This claim is, at best, unrealistic. If the CAISO were to change gears and pursue development of a “transitional” market design like the Stage One proposal, the CASIO would need to discard the progress made on detailing an LMP-based design over the past few years and return to a much earlier point in the market design process. In particular, the settlement rules under such an approach would be quite different, and the new ones would be controversial and time-consuming to work out. It could literally take years to get to the point where a new tariff could be developed to implement such a proposal. In the meantime, limited resources would require the CAISO to abandon completely the development of software and implementation plans for LMP-based markets. At best, this would force the CAISO and stakeholders back to the drawing board on LMP-based markets several years down the road, at which time there is

⁵⁸ See *California Independent System Operator Corp.*, 90 FERC ¶ 61,006, at 61,013-14 (2000) (“The ISO’s proposal does not address what the ISO has identified as a fundamental flaw in the overall congestion management scheme, *i.e.*, the intrazonal congestion program approved for ISO is premised on competitive market solutions and now the ISO has learned that there may never be a competitive market in any circumstance involving intrazonal congestion. This is certainly not a simple clarification. In fact, it is a recognition that a competitive solution may simply not be feasible for intrazonal congestion. This strikes at the heart of the existing approach and calls out for the design of a comprehensive replacement congestion management approach.”); and *San Diego Gas & Electric Co. v. Sellers of Energy and Ancillary Services Into Markets Operated by the California Independent System Operator and the California Power Exchange, et al.*, 97 FERC ¶ 61,275 at 62,245 (2001) (“we will direct the ISO to propose a plan for the creation of a day-ahead energy market; this submission must be filed by May 1, 2002, and should be integrated with the revised congestion management plan that is also to be filed on that date”).

no reason to believe those who currently oppose LMP-based markets would not continue to oppose it. The proponents of the Stage One approach have failed to demonstrate to what end the Commission should require such a drastic distraction and inefficient use of resources for all parties that engage in wholesale power transactions in California.

The CAISO does not believe there is a need to respond to the specifics of the Stage One proposal. The Commission, however, should be aware, that the CAISO specifically explored the possibility of a staged implementation of MRTU. In 2004, the CAISO investigated the advisability of a Transitional Alternative Pricing and Settlement (“TAPAS”) approach to LMP. The CAISO retained the services of Charles River Associates (“CRA”) to explore such an approach. CRA concluded that such a transitional approach to LMP implementation might be feasible, but would be far inferior in terms of consumer benefits to a market redesign approach that moved directly to LMP-based markets. Specifically, CRA concluded that:

A TAPAS-like market can “work” better than the current CA market BUT, any uniform-market price (UMP) market:

- Is no better than “second-best” compared to a “first-best” LMP market
- Requires judgmental, fact-based choices among unsatisfactory options, making disagreements inevitable even among reasonable people

In a UMP market:

- Short-run incentive compatibility requires both constrained-up and constrained-down payments (CUPs and CDPs)
- Not making CDPs creates perverse incentives and distortions that must be controlled in “third-best,” ad hoc ways that have their own serious problems

Using complex processes developed for a sophisticated LMP market to determine schedules, but basing settlements on a “simple” UMP:

- Can create large differences between ISO schedules and commercially optimal operations given the UMP

- Requires similarly complex processes to determine appropriate UMPs and CUPs/CDPs (or even just CUPs if CDPs are not made)⁵⁹

The Staging Coalition insists that their proposal is “not TAPAS” because it differs in some of the details. The CAISO believes that the CRA analysis finding major shortcomings with the TAPAS approach is equally applicable to the Stage One proposal because both proposals involve enforcing all the constraints in optimizing the Dispatch (in Day-Ahead and Real-Time) while pricing on a zonal or system basis, then paying for incremental and decremental Dispatches in some manner to clear Congestion. This was the basis for the CAISO staff’s presentation to the CAISO Board on the Stage One proposal.⁶⁰

Proponents of the Stage One proposal attempt to justify their alternative proposal by raising concerns as to the CAISO’s readiness to implement the MRTU design. It is not at all surprising that every implementation detail concerning MRTU has not been resolved a year and a half before the new market design is slated to be placed into service. Any concerns about the implementation of MRTU will be addressed by the CAISO’s development of a robust readiness process as discussed in Section I.H of these Reply Comments. In any event, the development of a market based on the “Stage One” proposal would present its own set of implementation concerns. Readiness concerns are no reason to require the CAISO to abandon years of effort on the MRTU design and to turn to a staged approach to LMP implementation of a type that has already been shown to be unsatisfactory and “second best” when compared to the CAISO’s MRTU design,

⁵⁹ Charles River Associates: *A Transitional Non-LMP Market for California: Issues and Recommendations* (October 15, 2004 presentation to stakeholders at 2). This presentation can be found at: <http://www.caiso.com/docs/2004/10/13/2004101313032113850.pdf>

⁶⁰ The allegation that the CAISO staff either never read the Stage One proposal or deliberately misled the CAISO Board is flatly incorrect and very troubling; it generally highlights the level of credibility that should be given the testimony containing this allegation. See Exhibit No. SC-1 at 8-9.

and would likely take longer to implement than the preferred option of implementing the CAISO's MRTU design.

2. There Is No Legal Basis for Arguing that Any Part of the MRTU Tariff Would Work an Unconstitutional Taking

IID, Turlock, and MWD assert that various parts of the MRTU Tariff constitute unconstitutional takings in violation of the Fifth Amendment of the Constitution. IID contends that CAISO's scheduling requirements for TORs and its ability to cut firm exports abrogate existing contracts and confiscate transmission capacity without compensation.⁶¹ MWD argues that CAISO's refusal to allow self-provision of AS over the interties results in an unreasonable taking of ETC contract rights.⁶² Turlock states that the prohibition against exporting Ancillary Services constitutes a regulatory taking.⁶³ While these assertions may provide a convenient rhetorical flourish, they are totally without legal value.

The Fifth Amendment (as well as its application to the States through the 14th Amendment) provides that private property shall not "be taken for public use, without just compensation." It has no application to the MRTU Tariff. As an initial matter, the "takings" prohibition of the Fifth Amendment applies only to state action.⁶⁴ The Fifth Amendment is not implicated by the actions of corporate entities such as the CAISO. That the CAISO was created pursuant to state law does not transform it into a state actor.⁶⁵ Nor does regulation by the Commission turn the CAISO Tariff into an

⁶¹ IID at 12-14, 39-41.

⁶² MWD at 23.

⁶³ Turlock at 23-24.

⁶⁴ See *Tulsa Professional Collection Services v. Pope*, 485 U.S. 478, 485-86 (1988).

⁶⁵ See *Flagg v. Yonkers Savings and Loan Assoc.*, 396 F.3d 178, 187 (2d Cir. 2005) (federal savings association is a private corporation, not a state agency).

instrument of the state. In order for the actions of a corporation to be attributed to the state, there must be a nexus of state action. Such a nexus occurs only when, *e.g.*, the state exercises coercive power, is entwined in the management of control of the private actor, or when the private actor is controlled by an agency.⁶⁶

None of these circumstances is present. As discussed above, it is the CAISO that determines and files its rates, terms and conditions of service. The sole role of the Commission is to decide whether the CAISO will be permitted to operate under this Tariff. The Commission's conclusion that the MRTU Tariff is consistent with the requirements of the Federal Power Act will not turn CAISO actions into those of the Commission.⁶⁷ Action by an entity that is authorized, but not compelled, by the government is not government action.⁶⁸

Even if the protesters could establish an adequate state nexus, however, they could not demonstrate an unconstitutional taking. Because the provisions of the MRTU Tariff do not effect a physical invasion of property or deprive the property owners of all economic value of their property, there can be no categorical taking.⁶⁹ The MRTU provisions would need to be evaluated as regulatory takings under the principles of *Penn Central Transportation Co. v. New York City*.⁷⁰ Such evaluations involve inquiries into the specific circumstances of the case. Courts give particular significance to three factors: (1) "the economic impact on the regulation on the claimant"; (2) "the extent to which the regulation has interfered with distinct investment-backed expectations"; and

⁶⁶ *Id.* (quoting *Cranley v. Nat'l Life Ins. Co.*, 318 F.3d 105, 112 (2d Cir. 2003)).

⁶⁷ *Id.*

⁶⁸ *Id.*

⁶⁹ *See Tahoe-Sierra Preservation Council, Inc. v. Tahoe Regional Planning Agency*, 535 U.S. 302, 332 (2002); *Lucas v. South Carolina Coastal Council*, 505 U.S. 1003 (1992).

⁷⁰ 438 U.S. 104 (1978).

(3) “the character of the governmental action.”⁷¹ Under these factors, the concerns of the protesters fall far short of unconstitutional takings.

In each case, the economic impact on protesters is speculative. None of the provisions cited require economic payments; rather all of the provisions simply affect the ability of the protester to arrange its purchases or sales of capacity or energy in a manner that might be more profitable.

Neither do the provisions interfere with reasonable investment-backed expectations. Regardless of whether the protesters are regulated, they are conducting business in a regulated field. They cannot complain if the governing scheme is altered in order to better achieve the purpose of regulation.⁷² IID cannot claim that it has a protected right, let alone a reasonable expectation, to import Energy from a Resource Adequacy unit that has contractually committed its capacity to address the reserve requirements of a Load-Serving Entity in the CAISO Control Area. Turlock cannot claim that it has a protected right, let alone a reasonable expectation, to sell Ancillary Services in a market that only exists by virtue of the same CAISO Tariff that TID asserts effects a taking. Neither IID nor MWD can claim a reasonable expectation that the contractual rights it cites are sacrosanct. Matters that are within the constitutional authority of the government to regulate cannot be removed from that authority by contract.⁷³ Regulation that modifies, even disregards or destroys, contractual rights does not necessarily constitute a taking.⁷⁴

⁷¹ *Id.* at 124.

⁷² *Cf. Connolly v. Pension Benefit Guaranty Corp.*, 475 U.S. 211, 227 (1986) (“Those who do business in the regulated field cannot object if the legislative scheme is buttressed by subsequent amendments to achieve the legislative end,” *quoting* *FHA v. The Darlington, Inc.*, 358 U.S. 84, 91 (1958).

⁷³ *Id.* at 223-24.

⁷⁴ *Id.* at 224.

Finally, with regard to the nature of the governmental action, the provisions of the MRTU Tariff do not appropriate any of the protesters' assets. They do not usurp any of the asserted rights for the government's use. Rather, the provisions arise from a scheme designed to ensure that the CAISO can provide services to Market Participants in a reliable manner, consistent with its responsibilities under state law and the Commission's regulations and policies for Independent System Operators. Under such circumstances, even if the CAISO's actions could be attributed to the Commission, there could be no legitimate claim of an uncompensated governmental taking.

3. The MRTU Markets Are Already Subject to Independent Oversight

Coral argues that the MRTU market design lacks transparency and accountability. Coral contends that, in order to satisfy the Commission's authority to oversee ratemaking, the Commission (or some independent entity that reports to the Commission) should be required to perform audits of the CAISO's software systems, grid models, and operating decisions, including specifically: (1) audits of reporting procedures under which Market Participants will be notified in a timely manner of the CAISO's out-of-market instructions that affect Dispatch, and (2) audits of internal CAISO actions that have a bearing on market outcomes.⁷⁵

First, as Coral acknowledges, the CAISO is already subject to audits of its finances, of compliance with operations policies and procedures, and compliance with the CAISO Code of Conduct.⁷⁶ Section 22.1.2.4 of the MRTU Tariff also permits Market Participants to request audits "for specific issues and concerns of Market Participants"

⁷⁵ Coral at 5-8.

⁷⁶ See Section 22.1 of the MRTU Tariff.

provided that the CAISO Audit committee determines that such issues are of “significant and critical magnitude to the CAISO.”

Coral’s request that the Commission impose additional auditing requirements related to MRTU implementation is unsupported and unnecessary. Contrary to Coral’s arguments, it is not an impermissible delegation of the Commission’s rate oversight authority under the FPA to permit an ISO or RTO to implement an LMP-based market. Eastern ISOs and RTOs are not subject to the type of Commission auditing proposed by Coral.

Coral’s claim that the CAISO inappropriately favors the interests of Load is incorrect. The Commission has already concluded that the CAISO is independent of the interests of Market Participants. The Commission’s July 1, 2005, order on CAISO governance issues largely confirms that the CAISO satisfies not only the independence requirements established by Order No. 888 but also the more rigorous independence standards applicable to RTOs under Order No. 2000.⁷⁷ That July 1 order “concludes that CAISO’s proposed Board selection process is acceptable for purposes of the Order Nos. 888 and 2000 independence requirements” and “that CAISO’s Board, as currently constituted, meets the independence requirements of Order No. 888 and Order No. 2000.”⁷⁸ The Commission would not have made such a finding if the systemic bias in favor of Load alleged by Coral existed. Indeed, the various comments of Load-Serving Entities in this proceeding taking issue with elements of the MRTU Tariff is

⁷⁷ *Regional Transmission Organizations*, Order No. 2000, 65 Fed. Reg. 809 (2000), FERC Stats. & Regs. ¶ 31,089 (1999), *order on reh'g*, Order No. 2000-A, 65 Fed. Reg. 12088 (2000), FERC Stats. & Regs. ¶ 31,092 (2000), *appeal dismissed*, *Public Utility District No. 1 of Snohomish County, Washington v. FERC*, 272 F.3d 607 (D.C. Cir. 2001).

⁷⁸ 112 FERC ¶ 61,010 at P 1 (2005).

further evidence that the CAISO does not favor the interests of Load over other Market Participants.

On market issues, the CAISO is also subject to scrutiny by its internal Department of Market Monitoring and the independent Market Surveillance Committee. For all these reasons, the CAISO is sufficiently independent to implement MRTU without additional auditing requirements proposed by Coral.

For the same reasons that the CAISO should not be subject to the additional auditing requirements proposed by Coral, there is no need to require the CAISO to submit quarterly reports after MRTU implementation, as proposed by PG&E.⁷⁹ The CAISO's Department of Market Monitoring and separate Market Surveillance Committee will, of course, be closely monitoring the performance of the new market design.

4. The MRTU Tariff Must Be Permitted to Evolve

WAPA argues that the CAISO should either be required to model its tariff on the Commission's *pro forma* OATT or be required to "lock in" the MRTU Tariff with limited flexibility to change it.⁸⁰ Such a requirement would be contrary to the FPA, which provides public utilities with the statutory right to modify the rates, terms, and conditions of service provided the modifications are just and reasonable.

In addition, such a requirement is contrary to the Commission's recognition that ISOs and RTOs must have the flexibility to modify their tariffs, rate schedules, and other governing documents as market and operational needs evolve. In Order No. 2000, the Commission adopted the principle of "open architecture" to allow RTOs to "improve

⁷⁹ PG&E at 21.

⁸⁰ WAPA at 72-73.

their organizations in the future in terms of . . . market support and operations to meet market needs.”⁸¹ Eastern ISOs and RTOs have also been required to update their tariffs continually to reflect changing operational and market needs without causing undue burden on those who participate in those markets. The CAISO envisions a similar need to update the MRTU Tariff to address changing needs and to add market features that may be desirable but are not essential for MRTU Release 1.

Requiring the CAISO to adopt a tariff more closely modeled on the Commission’s *pro forma* OATT is just another attempt at forcing the CAISO to revert to the physical rights model that much of the rest of the West has elected to retain. For the reasons discussed in Section I.E of these Reply Comments, this attempt should be rejected.

G. Commenters Have Not Demonstrated That There Are Material Issues of Fact That Warrant a Hearing on the MRTU Tariff

A handful of commenters request that the Commission set issues raised by the MRTU Tariff Filing for an evidentiary hearing. Many of these are parties who have stated their objective to delay or prevent the implementation of LMP-based markets in California.⁸² Others request hearings on the MRTU Tariff if certain parochial issues are not resolved to their liking.⁸³ None of these commenters have demonstrated that there are factual issues that warrant a hearing or that the Commission cannot act on the MRTU Tariff based on the record before it.

⁸¹ Order No. 2000 at 31,170.

⁸² See SMUD at 79-81; Control Area Coalition at 14-15; IID at 44-45.

⁸³ See Vernon at 3 (requesting a hearing if Metered Subsystem Agreements are not revised as they propose).

As courts have repeatedly upheld, the Commission is only required to provide a trial-type hearing if material facts are in dispute and cannot be resolved on the basis of the written submissions in the record.⁸⁴

In deciding whether to set issues for hearing, the Commission must first decide whether the issues raised by commenters are policy questions or factual questions. For the most part, the issues parties seek to set for hearing are policy questions, even where some parties have attempted to characterize them as factual questions. Indeed, many of these issues are policy questions, such as the efficiency of LMP-based pricing, that have long been resolved both in the context of the CAISO's MRTU design and in the context of other ISOs and RTOs.⁸⁵ For the reasons explained in Section I.E above, the "seams" issues that the Control Area Coalition and SMUD seek to set for hearing are essentially issues related to the CAISO's adoption of an LMP-based market design with financial congestion rights. As discussed, the coordination of Control Area operations and scheduling can be accomplished through existing coordination efforts. Hearings on these issues are not required for the same reason hearings on "seams" issues were not necessary when the Eastern ISOs and RTOs implemented such market designs but neighboring Control Areas did not move to transparent, organized markets.

Other issues that parties request be set for hearing, such as issues concerning the allocation of Residual Unit Commitment ("RUC") and Unaccounted for Energy ("UFE")

⁸⁴ 114 FERC ¶ 61,070 at P 31 and n.71, *citing Lomak Petroleum, Inc. v. FERC*, 206 F.3d 1193, 1199 (D.C. Cir. 2000) (*citing Conoco Inc. v. FERC*, 90 F.3d 536, 543 n.15 (*quoting Environmental Action v. FERC*, 996 F.2d 401, 413 (D.C. Cir. 1993))); *see also Central Maine v. FERC*, 252 F.3d 34 (1st Cir. 2001).

⁸⁵ *See* SMUD at 79 (seeking a hearing on the proposition that an "LMP system improves the efficiency of the market by enhancing price signals to customers").

costs,⁸⁶ are primarily policy questions that the Commission can address without the need for an evidentiary hearing.

Lastly, the extensive filings submitted by the CAISO and other parties in this proceeding provide the Commission with a sufficient record to the extent the Commission concludes there are any material issues of fact in dispute. Not only did parties submit approximately 2,000 pages of initial comments on the MRTU Tariff Filing, parties also have the opportunity to submit reply comments. The CAISO itself filed over 750 pages of testimony and several hundred pages of additional supporting documentation in support of the MRTU Tariff Filing. Parties were free to submit testimony of their own in response to any factual question that they believed needed to be resolved. Indeed, SMUD, one the primary commenters requesting hearings of the MRTU Tariff, submitted several hundred pages of its own testimony. In addition, the filings in the instant docket build on the thousands of pages of filings concerning the MRTU conceptual design that have been filed in Docket No. ER02-1656 since 2002. In light of this well-developed record, the Commission should have all the information it needs to act on the MRTU Tariff without an evidentiary hearing. To the extent the Commission elects to set any issues related to the MRTU Tariff for hearing, the CAISO urges the Commission to narrow the scope of any hearings to the minimum possible set of questions and determine that remaining provisions of the MRTU Tariff are just and reasonable to avoid the risk of parties attempting to litigate every parochial issue related to the MRTU market design.

A few commenters also request that the Commission suspend the MRTU Tariff nominally for one day to allow the Commission to order refunds at the conclusion of this

⁸⁶ See SMUD at 80; Turlock at 13.

proceeding.⁸⁷ There is no need for the Commission to suspend the MRTU Tariff because the Commission can determine that the Tariff is just and reasonable based on the record before it.

H. The Commission Should Accept the November 2007 Effective Date for the MRTU Tariff

1. The Commission Should Reject Efforts Directly or Indirectly to Delay MRTU Implementation

The CAISO continues to request that the MRTU Tariff be accepted to go into effect on the November 1, 2007 Trading Day. Several commenters representing a wide range of interests support the proposed November 2007 effective date.⁸⁸ Others either directly or indirectly oppose the proposed effective date.

As discussed above, the Commission has already recognized that the CAISO's existing market design has several significant flaws. In light of these flaws, the CAISO believes that the most expeditious implementation of MRTU design that allows for full testing and confidence in the new software and market structure will bring the maximum benefit to consumers. The November 2007 implementation date also has the virtue of allowing the CAISO and Market Participants to have many months of experience with new market design prior to the 2008 summer season.

Some commenters argue that implementation of the MRTU Tariff by November 2007 is not justified because the CAISO is not currently in a crisis mode.⁸⁹ Whether or not the markets are currently in crisis, the CAISO is entitled to file with the Commission a new set of rates, terms, and conditions for services the CAISO provides and is

⁸⁷ See, e.g., MID at 36; Cities/M-S-R at 50-51; TANC at 40-41.

⁸⁸ See PG&E at 3; CPUC at 3; IEP/WPTF at 12 (proposing modifications to the MRTU Tariff for the November 2007 implementation date).

⁸⁹ Control Area Coalition at 12-14; SMUD at 75-76.

permitted to place those rates, terms, and conditions into effect unless the Commission concludes that the filed tariff is unjust and unreasonable or unduly discriminatory.⁹⁰ Moreover, the Commission’s long-standing findings that the CAISO’s existing market design is flawed and must be redesigned include findings made in January of 2000 before the start of the California energy crisis.⁹¹ Thus, the requirement to redesign the CAISO’s markets is not directly tied to the energy crisis. Although the markets have stabilized since the energy crisis, the underlying flaws identified by the Commission remain and are being mitigated, in part, by interim measures such as the current “must-offer” requirement.⁹² By permanently fixing existing market flaws, the MRTU Tariff will lead to more rational market outcomes and will reduce the risk of market volatility of the type experienced during the California energy crisis.

Some commenters, including some who generally support the November 2007 MRTU implementation date, request additions or modifications to the MRTU Release 1 design that could result in a delay in MRTU implementation of a year or more.⁹³ For example, IEP/WPTF claims that the addition of features like Convergence Bidding would not delay MRTU implementation even though they offer no factual support or evidence to contravene the testimony of the CAISO’s MRTU Program Manager on this point.⁹⁴

As explained in Section III.A of these Reply Comments, it is difficult to fully assess the impact of the addition of a proposed market design feature on the overall implementation schedule until the specific rules and details for the feature are finalized.

⁹⁰ See Section I.A of these Reply Comments.

⁹¹ January 7, 2000 Order, 90 FERC ¶ 61,006, at 61,013-14.

⁹² See, e.g., *California Independent System Operator Corporation*, 108 FERC ¶ 61,022, at P 115 (2004).

⁹³ See Section III.A of these Reply Comments.

⁹⁴ IEP/WPTF at 46-47.

This process alone can take many months of stakeholder meetings and potentially longer if it is a controversial feature. Once these details are finalized, the CAISO must then determine the impacts of the feature on the software development schedule. Because all schedule contingencies in the MRTU Release 1 development process have already been consumed, any significant addition or modification has the potential to have a substantial impact on the MRTU Release 1 implementation date.⁹⁵

Due to the likelihood of delay associated with market design changes, requiring significant delays in the implementation of the new markets to add features, such as Convergence Bidding, that may be desirable but are not an essential element of LMP-based markets would be contrary to the best overall interests of consumers. This is consistent with the Commission's own findings concerning the benefits of the most expeditious possible implementation of the MRTU design. For example, in the July 1, 2005 Market Design Order, the Commission approved the HASP proposal, in part, based on concerns about the delay that would be created by requiring the CAISO to develop a full hour-ahead market as part of the MRTU design: "We find that the harm from further delaying the substantial benefits of MRTU would outweigh the net benefits gained from a full hour-ahead market."⁹⁶ The Commission therefore should provide consumers the substantial benefits of MRTU by permitting the CAISO to place the MRTU Tariff into effect on the November 1, 2007 Trading Day without modifications or additions to the MRTU design that could delay that effective date.

⁹⁵ See Exh. ISO-8 at 8-10.

⁹⁶ July 1, 2005 Market Design Order, 112 FERC ¶ 61,013 at P 67.

2. The CAISO Is Developing a Process to Determine the Readiness of the CAISO and Its Stakeholders to Implement MRTU

A number of commenters express concern that the CAISO must undertake a rigorous review of its MRTU software and systems to ensure that they will be ready to implement the new market design.⁹⁷ For example, PG&E suggests that the Commission should require the CAISO to establish a stakeholder process to develop specific and objective performance criteria for all critical elements of MRTU, to make a compliance filing to the Commission proposing those criteria as elements of a readiness certification by the CAISO, and to require the CAISO to submit that readiness certification after testing has been completed and results shared with stakeholders. Recently, a number of Market Participants submitted a letter to the CAISO expressing similar concerns about MRTU readiness.

The CAISO agrees that it is appropriate to develop a process that will allow both the CAISO and Market Participants to show their readiness to move to the new markets prior to implementing MRTU. The CAISO is committed to develop specific criteria for MRTU readiness through a collaborative process with active stakeholder participation.

These criteria will include criteria by which the CAISO can determine its readiness to implement the new markets. The CAISO believes that Market Participants should also satisfy their own MRTU readiness criteria. The details of these criteria will also be developed through the collaborative stakeholder process, but will likely include standards for completion of training in the new markets and participation in MRTU simulations. One very important way that Market Participants can ensure their own readiness is by participating in the market simulation exercises that the CAISO will be

⁹⁷ See, e.g., PG&E at 9-10, 19-21; NCPA at 10-11; CMUA at 11-13; TANC at 9.

conducting prior to MRTU start-up. As demonstrated by other ISOs and RTOs prior to market start-up, such readiness may require that CAISO insist on mandatory participation.

The CAISO will report on the development of both the CAISO and Market Participant readiness criteria in its monthly MRTU status reports to the Commission. The CAISO does not object to the Commission accepting the proposed November 2007 effective date for the MRTU Tariff conditioned upon the determination by the CAISO that the CAISO readiness criteria have been satisfied. The CAISO commits to file a statement confirming this readiness determination with the Commission for informational purposes as part of its monthly MRTU status reports to the Commission at least 30 days prior to MRTU implementation.

Some commenters are concerned that the MRTU implementation schedule, and particularly the schedule for finalizing BPMs, will not provide Market Participants with approximately 6 to 9 months to develop systems to participate in the new CAISO markets and market simulations.⁹⁸ The CAISO acknowledges that Market Participants will need time to develop systems and business processes to participate in the MRTU markets, but believes these systems and processes can be under development while the BPMs and other documentation of MRTU are being finalized. The CAISO has already published initial drafts of those BPMs that are most critical for Market Participants to develop the systems and business processes to participate in the MRTU markets. On May 8, 2006 the CAISO published initial drafts of the following BPMs, consisting of over 800 pages of background, examples and business rules building on the provisions of the MRTU Tariff: Market Instruments, Market Operations, Settlements & Billing, and Definitions &

⁹⁸ Strategic at 3-4; AReM at 14-16.

Acronyms. The CAISO has developed an extensive stakeholder schedule for input on these drafts, including stakeholder meetings from May 16-18 and May 23-25. Drafts of all 13 BPMS will be posted by July 31, to be followed by three weeks of stakeholder review meetings starting mid-August.

The CAISO urges the Commission and stakeholders to recognize that it is in the CAISO's best interests, as well as the best interests of Market Participants, to finalize the details of these BPMs as far in advance of market simulations as possible. The CAISO believes its existing BPM stakeholder process is well-structured to accomplish this result. The CAISO does not, however, have control over every variable that might require changes to the BPMs, such as an order modifying some element of the MRTU Tariff.

PG&E supports the CAISO's plan to propose additional tariff provisions to respond immediately to MRTU flaws as they may arise and argues that the Commission should make successful testing of the measures one of the conditions of FERC's final approval of an effective date for the MRTU Tariff.⁹⁹ As explained in the MRTU Tariff Filing, the CAISO intends to develop and file for Commission approval tariff provisions modeled on approved provisions in other ISOs that will allow the CAISO to make price corrections in certain circumstances where market flaws, the MRTU software or equipment malfunctions produce anomalous results.¹⁰⁰ The CAISO also anticipates that the trials of the MRTU markets prior to full implementation may identify circumstances where application of such provisions may be appropriate, although it is premature at this point to say whether such provisions would be tested as part of the MRTU trials.

⁹⁹ PG&E at 10-11.

¹⁰⁰ MRTU Tariff Filing Letter at 8.

I. The Commission Should Issue an Order on the MRTU Tariff Filing As Soon As Reasonably Practicable

Due to the benefits to consumers of implementing the improved market design as soon as possible, the CAISO has emphasized the significance of receiving an order sooner rather than later. Specifically, in the MRTU Tariff Filing, the CAISO had requested an order on the MRTU Tariff by June with an objective of addressing any implementation issues that might arise in response to a Commission order as early as possible in the software development cycle, limiting potential impacts on the schedule and budget for MRTU implementation.

Contrary to the allegations of some commenters, the CAISO is not attempting to hold the Commission at “gunpoint” by requesting an expeditious Commission order on the MRTU Tariff Filing.¹⁰¹ As explained in the CAISO’s April 18, 2006, Motion for Extension seeking additional time for all parties to submit Reply Comments on the MRTU Tariff Filing, the CAISO now recognizes that its request for a Commission order in June may be highly ambitious due to the scope of the issues raised in this proceeding. An order that resolves more issues and sets fewer, if any, issues for hearing is in the interest of all parties and the Commission. The CAISO also believes that the additional time the Commission has granted for Reply Comments will result in a better record in this proceeding that will make it less likely that the Commission’s order on the MRTU Tariff will require changes that would have a significant impact on the schedule and budget for MRTU implementation.

The CAISO continues to believe that a Commission order on the MRTU Tariff Filing as soon as reasonably practicable is important. Therefore, the CAISO respectfully

¹⁰¹ CMUA at 7.

requests that the Commission issue an order on the MRTU Tariff by the third quarter of 2006.

II. Issues with Specific Elements of the MRTU Design

A. Locational Marginal Pricing

1. The Commission Has Long Recognized That an LMP-Based Market Design Is Reasonable

As noted above, a number of commenters oppose the adoption of LMP as an essential component of the MRTU market design.¹⁰² These parties have not met the burden of demonstrating that LMP-based markets are not just and reasonable as applied in California. Nor could they meet this burden, given the Commission's long recognition of the benefits of such a market design.¹⁰³ The Commission has approved LMP-based markets in PJM, New York, New England, and the Midwest ISO and has recognized that LMP will promote efficient dispatch and use of the transmission grid.¹⁰⁴

The Commission specifically approved the implementation of an LMP-based design in California almost three years ago: "We approve the CAISO's adoption of LMP for managing congestion in its markets." October 28, 2003 Order, 105 FERC ¶ 61,140 at

¹⁰² See, e.g., the comments of SMUD at 11-12, Cities/M-S-R at 50; Bay Area at 31; Lassen at 19-20.

¹⁰³ "Each of the transmission organizations that exist today has implemented or is planning to implement an organized electricity market that uses locational pricing for electric energy. In most cases, the locational pricing system that is used is LMP." *Notice of Proposed Rulemaking: Long-Term Firm Transmission Rights in Organized Electricity Markets*, 114 FERC ¶ 61,097, at P 21 (2006). "Clearly, locational pricing and price-based congestion management provide the market participant with much of the information it needs to make cost effective decisions regarding energy consumption and use of the transmission system (as well as investment in new generation and transmission upgrades)." *Id.* at P 32.

¹⁰⁴ See, e.g., *New PJM Companies*, 107 FERC ¶ 61,271, at P 55 n.68 (2004) (quoting *PJM Interconnection LLC*, 81 FERC ¶ 61,257, at 62,253 (1997)) ("In approving the PJM market design, using market-based rates, the Commission found that this market design would produce efficient and coordinated dispatch: 'We believe that the LMP model will promote efficient trading and be compatible with competitive market mechanisms. In this regard, we find that the LMP approach will reflect the opportunity costs of using congested transmission paths, encourage efficient use of the transmission system, and facilitate the development of competitive electricity markets.'"),

P 50. The Commission's subsequent MRTU Orders built upon the Commission's initial acceptance of LMP in October 2003.¹⁰⁵ Reversing course on the CAISO's adoption of an LMP-based market design would result in an unprecedented waste of time, money, and resources.

Bay Area expresses concerns that, even if LMP works, it will not address the underlying need for transmission infrastructure investment in the Bay Area region.¹⁰⁶ The CAISO is not relying on LMP to address transmission investment needs. The CAISO already has an approved transmission process and has committed to develop enhancements to the planning process, which would allow the CAISO to take an even more proactive role in regional planning. LMP will provide price signals that promote the development of merchant transmission. The CAISO's transmission planning process does not rely on merchant transmission. That process identifies the transmission projects needed to maintain System Reliability and also considers transmission projects that will provide economic benefits. The move to LMP-based markets will provide more accurate price signals that should provide incentives for Generation to locate in the right places.¹⁰⁷ These price signals will also help the CAISO and transmission developers better to identify transmission projects that will provide economic benefits by relieving transmission constraints.

Although there should be no need for further support for LMP-based markets, the CAISO notes that the testimony of Dr. Scott Harvey explains why an LMP-based market

¹⁰⁵ See, e.g., June 17, 2004 Order, 107 FERC ¶ 61,274 at P 142 (accepting the CAISO's proposal to use marginal losses in its calculation of LMPs); July 1, 2005 Market Design Order, 112 FERC ¶ 61,013 at P 36 (accepting aggregated pricing for Load to address the impacts of implementing LMP in California).

¹⁰⁶ Bay Area at 19.

¹⁰⁷ Under the current design, the addition of Generation can create Generation pockets that are masked by the current zonal pricing of Congestion.

design is needed in California.¹⁰⁸ No party credibly rebutted the testimony of this recognized expert on market design issues.

2. The CAISO's Proposed Treatment of Marginal Losses Is Justified

Under MRTU, Marginal Losses are incorporated into LMPs. As the CAISO explained in the February 9 Filing, doing so is important for assuring least-cost Dispatch and for establishing nodal prices that accurately reflect the cost of supplying the Load at each node.¹⁰⁹ Several parties oppose the incorporation of Marginal Losses into LMPs, and some instead support the use of an average loss mechanism.¹¹⁰ Their opposition has no basis.

The incorporation of Marginal Losses into LMPs has long been a Commission-approved feature of MRTU. In the October 28, 2003 Order, the Commission noted that it was part of the CAISO's conceptual MRTU proposal and approved it in order to "assure a least-cost dispatch."¹¹¹ In contrast, the Commission rejected the use of an average loss mechanism because it "results in prices that produce a higher cost dispatch, and adds to uplift charges."¹¹² On rehearing of the October 28, 2003 Order, the Commission affirmed the use of Marginal Losses and stated that they should be considered in determining what supply sources can most efficiently serve customers.¹¹³ In the September 20, 2004 Order, the Commission noted several parties' objections on rehearing to the use of Marginal Losses in the California market, but stated that neither the CAISO nor any parties had

¹⁰⁸ Exh. ISO-3 at 23-31.

¹⁰⁹ MRTU Tariff Filing Letter at 17.

¹¹⁰ Bay Area at 34; Cities/M-S-R at 48-49; CMUA at 35-40; FPL at 10, 23; NCPA at 28-29; SMUD at 37-47.

¹¹¹ October 28, 2003 Order at P 77.

¹¹² *Id.*

¹¹³ June 17, 2004 Order at PP 142-43.

provided any evidence that undermined the use of Marginal Losses.¹¹⁴ In the MRTU Tariff Filing, the CAISO simply proposes to implement the use of Marginal Losses in LMPs as approved by the Commission. The rationales for incorporating Marginal Losses into LMPs – the assurance of least-cost Dispatch and the establishment of accurate nodal prices – have not changed.

FPL argues that the CAISO’s methodological description of Marginal Losses calculation is not sufficient to understand the calculations necessary to replicate the CAISO methodology.¹¹⁵ The CAISO believes the detail on calculation of Marginal Losses in Section 27 of the MRTU Tariff is sufficient to satisfy the Commission’s rule of reason.¹¹⁶ As discussed below, however, the CAISO is prepared to add more detail on LMP calculation based on stakeholder input from the BPM stakeholder process, and will consider adding details concerning Marginal Loss calculation.

Several parties note that the incorporation of Marginal Losses into LMPs will result in the over-collection of revenue by the CAISO.¹¹⁷ This is simply a consequence of using the Marginal Loss methodology as approved by the Commission. As CAISO witness Dr. Lorenzo Kristov explained in the MRTU Tariff Filing:

Incorporating marginal losses in the LMPs causes the CAISO to collect more money than is necessary to cover the actual cost of losses. Transmission losses are reflected in the IFM Schedules and in the Real-Time Dispatches by having more MWh of Supply than Demand in the power balance to compensate for the MWh lost in moving the Energy over the grid. Yet after the money is collected from the Demand and paid to the Supply, there is still net revenue in the hands of the CAISO due to the Marginal Loss components of the LMPs, so the CAISO must have a way

¹¹⁴ September 20, 2004 Order, 108 FERC ¶ 61,254 at PP 57-60.

¹¹⁵ FPL at 10, 23.

¹¹⁶ See Sections I.C and I.D of these Reply Comments.

¹¹⁷ BPA at 6; Cities/M-S-R at 48; FPL at 10; PG&E at 14-15; SMUD at 40.

to distribute this revenue in a manner that is equitable and does not compromise the effectiveness of the price signals.¹¹⁸

The important issue is not the unavoidable over-collection of revenues that takes place under the Marginal Loss methodology. The important issue is how to assure that the over-collected revenue is distributed in an equitable manner that does not compromise price signals.

As the Commission determined in a recent order concerning PJM's LMP-based markets, "Billing on the basis of marginal costs ensures that each customer pays the proper marginal cost price for the power it is purchasing. It therefore complements and reinforces PJM's use of LMP to price electricity."¹¹⁹ The Commission also determined that the need to determine how to allocate the over-collection of loss revenue did not change the benefits of such an approach.¹²⁰

In the MRTU Tariff Filing, the CAISO proposed a new method for allocating excess net loss charges. In previous conceptual filings, the CAISO had proposed to credit the net loss charges to the CRR Balancing Account and then distribute them to those entities that hold CRRs, ultimately reducing the Transmission Access Charges and Wheeling Access Charges paid by Demand and exports. Under the MRTU Tariff Filing, the CAISO proposes to eliminate the allocation of net loss charges to the CRR Balancing Account and to allocate the net loss charges to all metered Demand, plus exports.¹²¹

¹¹⁸ Exh. ISO-1 at 25-26.

¹¹⁹ *Atlantic City Electric Co., et al. v. PJM Interconnection, LLC*, 115 FERC ¶ 61,132 at P 22 (2006).

¹²⁰ *Id.* at P 23 ("Because the over collection would exceed the \$100 million per year reduction in the cost of meeting load, the opposing parties argue that market participants in the aggregate will be harmed by the marginal loss method. However, the over collection will be returned to market participants, since PJM is a not-for-profit entity, and cannot retain such over collections. Thus, the over collection will not offset the \$100 million cost savings in meeting load, and market participants in the aggregate would benefit from the marginal loss method.").

¹²¹ MRTU Tariff Filing Letter at 17-18.

PG&E argues that, if Marginal Losses are allocated to all metered Demand, plus exports, there will be unjust and unreasonable cost shifts.¹²² PG&E appears to be concerned because its average losses are higher than average losses in other portions of the CAISO Control Area and theorizes that PG&E could be required to pay significant Marginal Losses through LMP prices and that the excess revenues collected from PG&E could then be allocated to other Scheduling Coordinators under the CAISO's modified allocation proposal.

First, the Commission should recognize that the CAISO's proposal was designed to address the very real concerns of a number of Market Participants. In 2005, in response to stakeholder concerns by entities with ETCs and TORs (which would be charged Marginal Losses but would not be allocated CRRs and therefore would not receive the TAC reduction benefit) and other LSEs (which objected to the long delay between the time they incur charges due to the Marginal Losses collected by the CAISO and the time when they receive the benefit of the credit through a reduced TAC), the CAISO developed a modified proposal to track the net revenues on an hourly basis, and then to distribute the funds through the settlement statement of each Scheduling Coordinator ("SC") by crediting a fixed per-MWh amount to the total metered Demand plus Real-Time Interchange export Schedules of each SC. As the CAISO explained to stakeholders and the CAISO Governing Board, the revised proposal addresses the concerns raised by stakeholders as much as possible consistent with the need to retain the use of Marginal Losses in the calculation of LMPs under the MRTU design. Moreover, the revised proposal is consistent with the allocation of Marginal Loss surplus in Real-

¹²² PG&E at 14-15,-22-25.

Time implicit in the conceptual MRTU proposal approved by the Commission.¹²³ In addition, in the MRTU Tariff Filing, CAISO witness Dr. Farrokh Rahimi explained why the difficulties associated with allocating Marginal Losses based on average losses was a further reason why the CAISO chose to compute and allocate Marginal Loss surpluses system-wide, and did not choose to allocate Marginal Loss surpluses on a more granular basis.¹²⁴ Based on these rationales, the Commission should find that the revised proposal is just and reasonable and should therefore be approved.

PG&E has not provided evidence showing that any unjust and unreasonable cost shifts will result from the CAISO's proposal. As such, it has not refuted the testimony and documentation supporting the CAISO's proposal. Neither PG&E nor the CAISO has undertaken studies to determine whether PG&E's theoretical concern will materialize under the MRTU markets. Because PG&E's concerns are merely hypothetical, they should not be a basis for a finding that the CAISO's proposal is unjust and unreasonable.¹²⁵

SWP argues that the CAISO should refund excess charges for Marginal Losses based on Day-Ahead Schedules rather than to actual metered Demand and exports as proposed by the CAISO.¹²⁶ SWP's proposal should be rejected. The CAISO did not choose to allocate excess Marginal Loss revenues based on Day-Ahead Schedules as this would create an improper incentive for Market Participants to engage in Day-Ahead

¹²³ MRTU Tariff Filing Letter at 17-18; MRTU Tariff Filing, Attachment N-2 (Appendix A to October 12, 2005 Memorandum), at 49-50.

¹²⁴ Exh. ISO-4 at 55.

¹²⁵ See *Midwest Independent Transmission System Operator, Inc.*, 108 FERC ¶ 61,163, at P 492 n.286 (2004) ("The Commission will not address at this time LG&E's concern about a hypothetical situation in which the Commission denies termination to a provider of last resort. LG&E's argument is premature."); *Arizona Public Service Co., et al.*, 93 FERC ¶ 61,216, at 61,716 (2000) ("[A]s to any adverse impact resulting from purchased power, we note that, at this juncture, these concerns are hypothetical.").

¹²⁶ SWP at 35.

bidding and self-scheduling practices designed to maximize payments for excess Marginal Loss charges.

Coral argues that the MRTU Tariff should be modified to implement “Loss Revenue Rights” that would allow Market Participants to hedge against marginal losses.¹²⁷ The Commission should deny Coral’s request. As Dr. Rahimi explained in his testimony, the MRTU Tariff uses CRRs to hedge against Congestion costs only, and does not also use CRRs to hedge against marginal losses, because:

The CRR product as currently designed is based on balanced source and sink MWs. Using such CRRs to hedge both Congestion and marginal losses would result in revenue deficiency for CRR Holders. Theoretically, it is possible to design a different type of (unbalanced) CRRs to hedge against both Congestion and marginal losses, but such CRRs are in [the] experimental stage.¹²⁸

Thus, it is currently impractical to implement Loss Revenue Rights, which are still in the experimental stage. There is no other ISO or RTO that utilizes Loss Revenue Rights to hedge against Marginal Losses, as proposed by Coral. The CAISO’s consultant, Dr. Scott Harvey, advises the CAISO that he and Dr. William Hogan prepared an analysis of such a construct for the Midwest ISO, but the Midwest ISO did not pursue this construct in part because of certain problematic features identified by Dr. Hogan and Dr. Harvey.

3. The CAISO Will Consider Stakeholder Input and Add Details Concerning the Calculation of LMPs to the MRTU Tariff

A number of parties contend that the MRTU Tariff contains insufficient detail concerning the calculation of LMPs.¹²⁹ The CAISO believes that the level of detail the

¹²⁷ Coral at 8-13.

¹²⁸ Exh. ISO-4 at 104.

¹²⁹ FPL at 19-24; NCPA at 19-20; PG&E at 13, 43-46.

CAISO has provided in the MRTU Tariff concerning the calculation of LMPs is comparable to the level of detail provided in the PJM Tariff.¹³⁰ The CAISO recognizes, however, that the trend in recent years has been to include additional detail concerning LMP calculation in ISO Tariffs.¹³¹ The CAISO is in the process of developing BPMs, which are intended to include additional detail on LMP calculation. The CAISO believes it is appropriate for the CAISO and its stakeholders to consider augmenting the detail on LMP calculations in the MRTU Tariff based on the information developed through the BPM development process. The CAISO would then submit a compliance filing adding such additional detail to the MRTU Tariff.

In the meantime, the CAISO notes that additional details concerning LMP calculation are provided in the LMP study reports¹³² and MRTU tutorial¹³³ posted on the CAISO Website.

Cities/M-S-R expresses concerns that the Full Network Model (“FNM”) for Release 1 will not fully model embedded and adjacent Control Areas and contends that the CAISO should be required to specify the implications of these modeling deficiencies and its intentions to cure them.¹³⁴ As discussed during the MRTU stakeholder process, the CAISO’s decision to go with a radial rather than a looped equivalent network model for external Control Areas was driven by the current “contract path” based scheduling practice prevalent in the rest of WECC. While the CAISO is moving from a contract path-based (zonal/radial) network model to a full physical network model (including both current inter-zonal and intra-zonal constraints) of the CAISO Control Area, it could not

¹³⁰ See Section 2 of Attachment N to the PJM OATT.

¹³¹ See, e.g., *Midwest Indep. Transmission System Oper.*, 109 FERC ¶ 61,157 at P 560 (2004).

¹³² <http://www.aiso.com/docs/2004/01/29/2004012910361428106.html>

¹³³ <http://www.aiso.com/docs/2005/09/22/2005092212224714566.pdf>

¹³⁴ Cities/M-S-R at 21-22.

insist that external Control Areas to adopt similar scheduling practices. Radial external network modeling is the only meaningful option available to the CAISO given the current contract path scheduling practices of WECC and the lack of scheduling information from such Control Areas. In the future, if and when the rest of WECC adopts physically-based forward scheduling practices, the CAISO will adapt its external network accordingly. In fact, CAISO representatives were quite active in providing ideas (and a white paper) in the context of SSG-WI process to promote a unified approach to network modeling and scheduling across WECC. As discussed above, this is one of the many Western transmission/market initiatives that has since been abandoned.

In addition, as explained in the MRTU Tariff Filing, a software change order recently provided to the CAISO's vendor will ensure that the FNM will include embedded and adjacent Control Areas that are predominately within California to the extent the CAISO has sufficient data to do so. Due to the location of these Control Areas, the CAISO should have the information to more fully model embedded Control Areas and will have the information to develop a better model for adjacent Control Areas than for external Control Areas that do not border the CAISO Control Area. The CAISO recognizes that detailed stakeholder discussion and review will be needed to resolve technical issues and data issues associated with the modeling of such adjacent and embedded Control Areas.

NCPA claims that the CAISO has not provided LMP study data for the 8760 LMP 3B study, and that without this data, LSEs cannot estimate the range of LMP prices to expect, or assess whether CRRs might provide a sufficient hedge.¹³⁵ As announced on CAISO website in conjunction with LMP studies, although the aggregate results of these

¹³⁵ NCPA at 20-21.

LMP studies are published, the CAISO has been providing, and will continue to provide, interested stakeholders with CDs that contain hourly nodal prices from these studies at all nodes.¹³⁶ The only reason why this data is not posted is because of its large volume. These CDs are available to CAISO Market Participants upon request without restrictions such as the requirement to sign a non-disclosure agreement.

Trinity and WAPA express concerns with the concept of a negative LMP, which they claim could cause WAPA either to owe the CAISO money for generating or “game the market.”¹³⁷ Trinity and WAPA are incorrect. For an entity that is using either Existing Contracts or CRRs, to large degree negative LMPs are not an issue since such entities are hedged against the congestion price differential. A negative LMP implies that there is enough congestion or over-generation such that an entity is willing to pay to deliver energy. In such cases the CAISO has to pay others to take or export Energy. Therefore negative prices are appropriate price signals. In theory, an entity like WAPA could be charged for generating if the markets produce a negative LMP and WAPA was self-scheduling generation. If WAPA does not want to pay to deliver Energy in such circumstances, it can bid its generation at a sufficiently low positive price. For example, WAPA could submit \$0 bids indicating that they are not willing to produce for less than \$0. Such bidding practices will not be considered gaming. The CAISO encourages WAPA and other entities with concerns about negative LMPs to submit specific examples to the CAISO so that the CAISO can explain how appropriate bidding practices can address concerns about LMP.

B. Demand Settlement Under MRTU

¹³⁶ See <http://www.caiso.com/17ea/17eacf356fab0.pdf>

¹³⁷ Trinity at 7; WAPA at 43-45.

1. The Commission Should Accept the CAISO's LAP Proposal

Many parties support the CAISO's proposal to settle much of the Demand in the CAISO Control Area at three Default LAPs.¹³⁸ Only a few parties raise issues with this proposal. BPA and AEPSCO/SWTC express concerns that importers into the CAISO Control Area and entities outside the CAISO Control Area will be the only entities exposed to full LMPs under the CAISO's proposal.¹³⁹ These concerns are unfounded. Other ISOs and RTOs have implemented aggregated or zonal Demand settlement under an LMP-based market without undue discrimination to importers or entities outside their control areas.¹⁴⁰

Suppliers providing imports into the CAISO Control Area are paid nodal LMPs – as are suppliers from resources within the CAISO Control Area. Importers have the same opportunities to use Trading Hubs that suppliers within the CAISO Control Area will have. Export scheduling points serve as LAPs for external loads. Export Bids from Scheduling Coordinators representing external Demand are settled at the export nodal price. If this price is higher than the adjacent LAP price it reflects the higher price resulting from competition among external buyers. For the same reasons that it would not be appropriate to allow Demand in SCE's service territory to settle based on the price of the adjacent PG&E's LAP, it would be inappropriate to settle exports to a scheduling

¹³⁸ See CPUC at 16-18; CCSF at 14; PG&E at 5; Bay Area at 31.

¹³⁹ AEPSCO/SWTC at 3; BPA at 5.

¹⁴⁰ See *ISO New England, Inc.* 91 FERC ¶ 61,311 at 62,070-71 (2000) (conceptually approving an LMP market design where load within the NEPOOL Control Area is settled on a zonal basis and where "External nodes are used for pricing energy transactions by participants receiving energy from or delivering energy to neighboring control areas").

point such as the California-Oregon intertie to settle at the price of the adjacent PG&E's LAP.

Six Cities repeats previous objections to mandatory LAP pricing, claiming that such pricing exposes LSEs with internal resources to the risk of congestion charges for the use of their own resources to serve their own Load.¹⁴¹ Six Cities is essentially seeking rehearing of the Commission's November 14, 2005 Order finding that the CAISO should not be required to establish separate LAP zones for specific wholesale customers. The Commission's finding remains appropriate because otherwise Demand in low-priced LMP locations could opt out of LAP pricing, and as a consequence raise the LAP price for loads in high priced LMP areas that are the result of infrastructure development that never contemplated LMP-based markets. Six Cities offers no justification for reversing the Commission's orders on this issue that the Commission has not already considered and rejected. There is no reason for the Commission to reverse that decision now, especially in light of the substantial support for the CAISO's LAP proposal.

WAPA argues that the LAP proposal does not send the proper price signals and may result in the unnecessary curtailment of loads even when there is adequate transmission capacity available.¹⁴² WAPA is incorrect. The primary piece of evidence WAPA cites in support of its arguments is LECG's February 2005 critique of the CAISO's LAP proposal.¹⁴³ As explained in the MRTU Tariff Filing, the CAISO acknowledged LECG's concerns and made several modifications to the proposal to address these concerns. Based on these modifications and the results of the CRR studies,

¹⁴¹ Six Cities at 11-12.

¹⁴² WAPA at 46-51.

¹⁴³ WAPA at 47-48.

Dr. Harvey supports the CAISO's LAP proposal.¹⁴⁴ Moreover, in the same testimony, Dr. Harvey also makes it clear that MRTU implementation as proposed by the CAISO is a critical step in addressing the very concerns about infrastructure investment and forward contracting raised by WAPA:

The current California market design is fundamentally hostile to forward contracting because the incentives are wrong for every decision beyond the 10-minute dispatch. The incentives are wrong for unit commitment, generation siting, transmission expansion, and for LSEs to enter into contracts with generation behind transmission constraints. MRTU implementation is a critical first step in addressing these incentive problems and improving the environment for forward contracting in California.

Exh. ISO-3 at 30-31.

Other ISOs have implemented aggregated or zonal Demand settlement under an LMP-based market, and the Commission has not found that these regions muted price signals to generation developers. Moreover, although the price signals under MRTU will not incent transmission investment by themselves (other than merchant transmission), LMP price signals will provide the CAISO and transmission developers with information that highlights the benefits of relieving transmission congestion (as part of the overall congestion costs in a LAP), and these price signals can be considered as part of the CAISO's planning process. The CAISO already has an approved transmission process and has committed to develop enhancements to the planning process, which would allow the CAISO to take an even more proactive role in regional planning.

Although the CAISO does expect bilateral contracts to serve much Load in the CAISO Control Area under MRTU, it is not relying upon the LAP element of the MRTU design to provide incentives for such contracts. The MRTU market design reflects and

¹⁴⁴ Exh. ISO-3 at 7-8.

builds upon related changes that will promote forward contracting such as the implementation of resource adequacy requirements in California and the CPUC's long-term procurement proceedings.¹⁴⁵

Finally, WAPA argues that the LAP proposal should be rejected because of the LAP demand clearing issue identified by Doctors Kristov and Rahimi and discussed in the MRTU Tariff Filing Letter.¹⁴⁶ While the CAISO recognizes that the LAP-clearing issue may result in high Day-Ahead LAP prices, as explained by Doctors Kristov and Rahimi, the likelihood of this being an issue is slight and even so, the CAISO has taken adequate measures, including additional measures since the MRTU Filing, described herein to minimize any adverse impact should such an event occur.

The LAP-clearing issue could occur because, as explained by Doctors Kristov and Rahimi the Load Distribution Factors ("LDFs") used to distribute the submitted LAP Demand Bids and Self-Schedules to nodes are preserved in the clearing of Demand against Supply for the LAP. This, however, is an intentional feature incorporated by the CAISO because this will allow nodal LMPs and cleared nodal quantities to aggregate to a LAP price and quantity that is on the LAP Demand curve. Moreover, this is a modification to the Demand LAP design that addresses the number one concern identified by LECG in their February 2005 report critiquing the CAISO's prior LAP proposal. This feature has the potential, in what are expected to be rare circumstances, for a local transmission bottleneck in conjunction with insufficient local Supply Bids to shift scheduled LAP Demand from the IFM market-clearing process to subsequent

¹⁴⁵ See, e.g., the testimony of Dr. Keith Casey, Exh. ISO-6 at 3-4.

¹⁴⁶ MRTU Tariff Filing Letter at 22-23; Exh. ISO-1 at 36-39, Exh. ISO-4 at 22-28.

markets (the RUC and the real-time market).¹⁴⁷ This may lead to very high Day-Ahead LMPs at the locally constrained and Supply Bid deficient areas of the LAP.

As Dr. Rahimi notes, this may, however, be a largely hypothetical concern because the LAP clearing mechanism the CAISO has adopted is already in place at NYISO, and the CAISO is not aware of outcomes of this nature under the NYISO design. Moreover, Doctors Rahimi and Kristov explain that the MRTU design itself has features that should make it unlikely for this situation to occur in the CAISO markets. The MRTU design is based on a strong physical local Resource Adequacy program, as well as a strong obligation for Resource Adequacy Resources to offer capacity to the CAISO, which should minimize the occurrence of local Bid insufficiency conditions.

If such conditions were to occur, there are two inter-related but separate issues involving LAP clearing and LAP pricing. The main concern with LAP clearing is to ensure large amounts of Load are not curtailed at the LAP to address a local Bid insufficiency issue. The three-step results verification and (to the extent warranted) market re-run procedure explained in detail in Dr. Rahimi's testimony address this issue.¹⁴⁸ The main concern with LAP pricing is that the CAISO's proposal should not cause unduly large LMPs (much higher than the bid cap) at supply locations with Bid insufficiency, or quench the LMP at supply locations with supply shortage. The three-step procedure for LAP clearing and the associated pricing runs described in Dr. Rahimi's testimony also are designed to ensure that this does not occur.

Dr. Kristov also notes that, even if the CAISO did not settle Demand at the LAP level under the MRTU design, high LMPs in a load pocket can occur in any LMP-based

¹⁴⁷ Exh. ISO-1 at 37-39; Exh. ISO-4 at 23-33.

¹⁴⁸ Exh. ISO-4 at 24-28; *see also* Section 31.3.1.2 of the MRTU Tariff.

market when supply into that load pocket is severely constrained. This is one reason why all LMP-based markets have effective local market power mitigation to minimize the impacts of such conditions on Demand.¹⁴⁹

Since the CAISO filed its MRTU Tariff on February 9, 2006, the CAISO has investigated whether it is feasible to adopt an automated mechanism that would allow it to employ the first step in the three-step LAP-clearing verification process proposed by the CAISO in its MRTU Filing. The first step would become automatic through the CAISO's ability to automatically include in its DAM or RTM optimization any conditionally qualified self-provided Ancillary Services. The CAISO had initially settled for a manual process for the release of self-provided Ancillary Services from resource adequacy and RMR resources. The CAISO has recently determined that it is likely to be feasible, without too much modification of its current software design specifications, to allow for automation of this first step. The CAISO is, however, still working with its vendors to determine whether such a change is feasible, cost-effective, and non-disruptive to meet its November 1 start-up date.

Upon finalizing this evaluation, the CAISO commits to informing the Commission and stakeholders whether this automation will be feasible within Release 1. The CAISO maintains, however, that the just and reasonableness of its LAP-clearing verification proposal is not dependent on the results of this evaluation as the CAISO has found it feasible to release the requisite self-provided ancillary services through a manual procedure to arrive to the same end. The automotive feature would render this process more efficient and automatic, and as discussed in Section II.I of these Reply Comments

¹⁴⁹ Exh. ISO-1 at 38.

addressing Ancillary Service issues below, would also relax the requirement to submit Energy Bids along with Ancillary Services Bids in the DAM.

C. Congestion Revenue Rights

1. The CRR Proposal Recognizes and Properly Reflects the Very Real Differences Between Internal and External Load.

The Commission should recognize that the CAISO's CRR Allocation proposal is consistent with approaches used by other ISOs and RTOs with LMP-based markets and in particular strikes the appropriate balance in the manner in which it will allocate CRRs to entities serving external Load and those entities serving Load internal to the CAISO Control Area.¹⁵⁰ It was necessary to find this balance in the treatment of these differently situated entities because each entity has different going-forward obligations with respect to use of transmission in the CAISO Control Area and paying the associated costs on a going-forward basis.

Comments on the CAISO's proposal have been strongly divergent. On one end of the spectrum, the CPUC and SCE comment that CRRs should not be allocated to entities serving external load at all.¹⁵¹ At the other end of the spectrum, several entities that serve Load outside the CAISO Control Area claim the CAISO's proposal is unduly discriminatory because they, too, pay the embedded costs of the transmission grid and thus deserve the same allocation of CRRs made to Load inside the CAISO Control Area. These parties assert that they have historically paid for the embedded costs of the grid and, though they are outside the CAISO Control Area, deserve the same treatment as

¹⁵⁰ The MRTU Tariff allows Load external to the CAISO Control Area to be eligible for allocation of CRRs if they fulfill two basic conditions: (1) the entities must be able to demonstrate a legitimate need for the CRRs based on ownership of or contracting with Generation inside the CAISO Control Area; and (2) such entities must pre-pay certain Transmission Access Charges. Internal LSEs are not required to meet these conditions provided they meet the source validation and other eligibility requirements for inside-the-CAISO Control Area Load.

¹⁵¹ CPUC at 18-21, 40; SCE at 41-43.

internal Load.¹⁵² Some further argue that the CAISO’s proposal is designed to discourage entities serving external Load from seeking an allocation of CRRs.¹⁵³

This is not the first time such arguments have been voiced. Indeed, the CAISO has heard many of these juxtaposed arguments regarding the allocation of CRRs to external Load throughout the CAISO’s lengthy stakeholder process on CRRs. The CAISO believes the most appropriate approach is to strike the proper balance between providing open and non-discriminatory access to the grid to all parties while not undermining the rights and protections that must accrue to internal Load, which is much differently situated than all external Load. As stated in the MRTU Tariff Filing Letter, the external Load proposal captured in the MRTU tariff balances these concerns by ensuring that entities serving external Load are eligible for CRR allocations to the extent that they can prove a legitimate need and take on an obligation to pay the embedded costs of the transmission in the CAISO Control Area during the CRR allocation period by prepaying the appropriate transmission access charges.

a. Treating Internal Load and External Load Differently Is Not Unduly Discriminatory

The CAISO believes it necessary to address the foundational argument that distinguishing between internal and external Load is somehow unduly discriminatory. A claim of undue discrimination must necessarily rest on the premise that two entities being treated differently are in fact so similarly situated that disparate treatment is unfair.¹⁵⁴ In the case of external Load, the CAISO’s CRR program recognizes and rests upon the very

¹⁵² SMUD at 16-33; CMUA at 3, 31-34; Roseville at 3-4; NCPA at 27-28; MID at 14-21; TANC at 24-40.

¹⁵³ SMUD at 17.

¹⁵⁴ See, e.g., *Alabama Elec. Cooperative, Inc. v. FERC*, 684 F.2d 20, 28 (D.C. Cir. 1982) (emphasizing that Section 205(b) of the Federal Power Act “proscribes only any *unreasonable* difference in rates and any *undue* preference or advantage” (emphasis in original)).

real differences between its obligations to entities serving Load inside the CAISO Control Area and those serving Load outside the CAISO Control Area. As articulated in the Direct Testimony of Lorenzo Kristov, the fundamental difference between internal and external Load is the degree to which they are obligated to pay the embedded costs of the transmission in the CAISO Control Area during the CRR Allocation period. As Dr. Kristov notes, “the key question for eligibility is the extent to which [Load-Serving Entities] will continue to pay access charges during the term of the allocated CRRs.”¹⁵⁵ Entities that serve external Load are fundamentally different because they are free to avoid access charges by contracting around the CAISO Controlled Grid.

It is that fundamental difference that underlies the CAISO’s program; this is hardly undue discrimination. The CAISO has gone to great lengths to ensure that, to the extent those external entities are reliant on the CAISO Controlled Grid and can demonstrate that they satisfy appropriate criteria, they can nominate and receive allocated CRRs. In light of this accommodation, claims that the CAISO’s proposal to allocate CRRs to external Load is unduly discriminatory cannot withstand scrutiny.

b. Prepayment of Access Charges Treats All External Load Uniformly

SMUD and NCPA take issue with the CAISO’s plan to require prepayment of Access Charges. SMUD goes so far as to call this aspect of the CRR program a “sham” designed to discourage external Loads from nominating CRRs. To the contrary, the prepayment of Access Charges is designed to ensure that CRRs that are allocated directly to external Loads committed to a continual payment for the embedded costs of the system. As Dr. Kristov notes in his testimony, the pre-payment of Access Charges is

¹⁵⁵ Exh. ISO-1 at 91.

warranted “because otherwise the LSE serving external Demand could obtain the CRR and then avoid paying any WAC or Congestion charges by not scheduling Exports from the CAISO grid, so that their allocated CRRs would become pure financial assets rather than needed hedging instruments.”¹⁵⁶ In this regard it is important to realize that an external Load who obtains a CRR under the terms of the CAISO’s proposal and then schedules energy utilizing the same source and sink and number of megawatt as the awarded CRR in each hour of the term of that CRR will incur Wheeling Access Charges exactly equal to the amount of its prepayment for the CRR. In light of this realization, SMUD’s inflammatory criticism of the CAISO’s proposal is patently absurd.

Moreover, the requirement for pre-payment of Access Charges for external Load to receive an allocation of CRRs is consistent with prior Commission orders where the Commission found that historical support for the embedded costs of the grid does not justify allocation of financial congestion rights, rather that entities must pay the embedded costs of the transmission system on a prospective and long-term basis to receive an allocation of financial congestion rights.¹⁵⁷

c. The CAISO Proposal for Allocation of CRRs to External Load Accounts for the Fundamental Differences Between Internal and External Loads

Notwithstanding the fundamental differences between external and internal Load articulated above, SMUD argues that the CAISO’s premise that external Load- Serving Entities have a choice of whether to use CAISO Controlled Grid is a fiction as applied to SMUD. SMUD asserts that because its Control Area is geographically embedded within the CAISO Control Area, SMUD is highly dependent on CAISO transmission to meet its

¹⁵⁶ *Id.*

¹⁵⁷ *New England Power Pool, et al.*, 100 FERC ¶ 61,287 at P 85 (2002).

Load. As an independent Control Area, SMUD's dependency on the CAISO transmission grid should be no greater than any other adjacent Control Area to the CAISO. The CAISO does not intend to challenge SMUD on the degree to which SMUD is or is not dependent on the CAISO Controlled Grid, but only seeks to remind the Commission that the CAISO's responsibility as an independent Control Area operator is to reliably provide open, non-discriminatory access to the grid. The movement to a Congestion Management system that is based on LMPs does not prevent SMUD from accessing resources in or out of the CAISO Control Area. The CAISO's proposal for allocation of CRRs to external Load furthers this goal, without unduly burdening internal Load that is entirely dependent on the CAISO Controlled Grid.

SMUD's argument that, unlike other external Loads, it actually has no choice regarding its use of the CAISO Controlled Grid due to its geographic isolation within the CAISO Control Area is not sufficient reason for treating it differently than any other external Load. Quite the contrary, the situation SMUD describes would seem to make it all the more likely that SMUD would actually incur Wheeling Access Charges at least as great as its pre-payment for CRRs, in which case the CAISO's proposal should not impose much if any burden on them. SMUD's argument appears to try to obscure the fact that SMUD's situation vis-à-vis the CAISO Control Area is a result of its own strategic choices.¹⁵⁸ Unlike internal LSEs who are totally dependent on the CAISO Controlled Grid for all their transactions, SMUD continues to have strategic choices, yet demands that the CAISO give it preferential treatment through allocated CRRs for any choice it *may* make. Unlike entities serving outside of Control Area Load that have

¹⁵⁸ SMUD made the strategic choice to separate from the CAISO and become its own Control Area with full understanding of the implications of its and the CAISO's grid topology.

contracted with or built Generation facilities within the CAISO Control Area, entities that commit to wheeling power through the CAISO Control Area do not demonstrate the same level of commitment to pay for the embedded cost of the system as have entities that have invested in internal Generation through contract or ownership.

In reality, SMUD has three supply choices. SMUD can: (1) serve its Load from sources internal to its Control Area; (2) serve its Load from resources in the CAISO Control Area; and (3) serve its Load from resources outside both Control Areas. To the degree SMUD contracts for the procurement from resources inside the CAISO Control Area, the CAISO's proposal for allocation of CRRs to outside of Control Area Load is sufficiently flexible to allow SMUD to make a showing of legitimate need and nominate all the CRRs it needs that offset LMP-based congestion charges for using those resources. To the extent it chooses to contract with resources outside CAISO's Control Area and wheel power across the CAISO Controlled Grid, SMUD is free to address its congestion exposure by acquiring CRRs at auction.

Because wheel-throughs require both imports and exports through the CAISO Control Area, the CAISO suspects that one of SMUD's concerns is its ability to acquire sufficient CRRs for imports into the CAISO Control Area. As Dr. Harvey and Dr. Pope explain, the CAISO has proposed to reserve 50 percent of the residual import capacity so that some capacity would be available in the auction for parties that cannot participate in the allocation process but are importers into CAISO Control Area.

SMUD would also have the Commission believe that it is being denied CRRs altogether. This is simply not the case. As Doctors Harvey and Pope point out in their

testimony, in addition to allocated CRRs for legitimate needs, CRRs are available at auction for any party that does not qualify for such an allocation:

Q. IS THE CAISO’S TREATMENT OF EXTERNAL LSES IN THE CRR ALLOCATION PROCESS EQUITABLE?

- A. Yes. LSEs serving loads external to the CAISO can purchase CRRs hedging congestion charges on prospective wheeling through or out transmission usage in the CAISO’s CRR auctions without incurring the cost of CAISO membership or being required to purchase firm transmission service on the CAISO transmission system. This is much more favorable treatment than is available to CAISO LSEs on transmission systems external to the CAISO.

Exh. ISO-2 at 139. Doctors Harvey and Pope further note that making CRRs available to external Load in the auction process is consistent with the practices of the Eastern ISOs.¹⁵⁹

SMUD argues that the CAISO’s program is punitive in nature and ignores SMUD’s unique circumstances. SMUD’s unique geography and level of dependence on the CAISO Controlled Grid is not relevant to the issue at hand. The MRTU Tariff does not discriminate among the class of external Loads – to treat SMUD any differently than any other entity serving external Load would require such discriminatory treatment. Between CRRs allocated to SMUD for its imports from the CAISO Control Area and CRRs available to SMUD at auction for its wheel-throughs, the CAISO is able to fully maintain non-discriminatory treatment of all external Loads, while providing such entities with sufficient opportunities to offset LMP-based congestion charges.

The CAISO does not believe it should create disparate treatment for members of the external Load class, nor does the CAISO believe that internal LSEs and external Loads should be afforded the same treatment. The CAISO does not claim that the CRR

¹⁵⁹ Exh. ISO-2 at 140.

program affords equal treatment to external Load and internal LSEs. Indeed, as noted above, it should not and it was never intended to do so because the two groups are not similarly situated. As detailed in the testimony of Doctors Harvey and Pope, the CAISO would place an unfair burden on its internal LSEs by affording external Load the same access to CRRs afforded to internal LSEs.¹⁶⁰

2. The CRR Allocation Process Strikes a Proper Balance Between Equity and Efficiency

a. The CRR Allocation/Auction Combination Is More Appropriate Than a Full Auction.

Some commenters express a preference for a straight auction rather than the allocation/auction process the CAISO has presented in the MRTU Tariff.

Constellation/Mirant suggests the Commission should direct the CAISO to develop a schedule pursuant to which it will transition its CRR market to a full auction model.¹⁶¹

The CRR Allocation program detailed in the MRTU Tariff has been a centerpiece of the market design throughout the CAISO's various conceptual filings with the Commission. The Commission approved allocation of CRRs in the October 28, 2003 Order.¹⁶² The CAISO has been consistent throughout the development of its market design that Loads within the CAISO Control Area should be afforded some level of protection from congestion charges associated with LMP pricing and that such Loads should not have to compete at auction for that protection.

Importantly, in 2005, the CAISO and its stakeholders and took a step back to evaluate the CRR proposal in light of less complex alternatives. In response to a request

¹⁶⁰ Exh. ISO-2 at 139-140; *see also id.* at 118.

¹⁶¹ Constellation/Mirant at 13.

¹⁶² October 28, 2003 Order, 105 FERC ¶ 61,140 at P 171.

from the CAISO Governing Board, the CAISO asked its stakeholders through a public comment process if there was support for moving to either: (1) a complete CRR Auction; or (2) a more simplified CRR Allocation process. The result of that inquiry was that a majority of stakeholders supported the allocation/auction proposal developed to that point and reflected in the filed MRTU Tariff. The limited number of protests recommending the movement to alternatives to the allocation of CRRs indicates that the majority of stakeholders endorse the approach taken by the CAISO to start MRTU with an allocation/auction of CRRs.

b. The Priority Nomination Process Balances the Need for Certainty in CRR Holdings with the Need for Flexibility to Allow the CAISO to Meet Evolving Customer Needs.

Some entities take issue with the scope of the CRR Priority Nomination Process, through which the CAISO grandfathers certain CRR holdings. Various entities express concern that the Priority Nomination Process is overly restrictive and does not provide sufficient opportunities for renewal of CRR holdings.¹⁶³ Other entities express concern that the process may not be restrictive enough. Even though it generally supports grandfathering, NCPA is concerned that these provisions could be used by LSEs to lock up the most valuable CRRs for long periods of time. NCPA argues that allocation of long-term FTRs may be the best way to proceed.¹⁶⁴ AReM and Strategic believe that grandfathering adversely affects those LSEs gaining Load.¹⁶⁵ Other parties request that the CAISO increase the percentage of CRRs received in the initial allocation that will be eligible to receive a priority.¹⁶⁶

¹⁶³ CERS at 8-9; Cities/M-S-R at 36-37.

¹⁶⁴ NCPA at 22-23.

¹⁶⁵ Strategic at 7-8; AReM at 3-6.

¹⁶⁶ SCE at 24; CPUC at 18-21, 40; PG&E at 27-28.

The CAISO understands the concern of AReM and other entities that the CAISO's CRR Allocation process should not place LSEs gaining new Load at a disadvantage. The CAISO also believes, however, that the overall equities of the proposal and the need for a degree of long-term certainty in CRR holdings are better served by incorporating provisions to mitigate the concerns rather than by eliminating the grandfathering feature. By limiting the quantity of CRRs that can be grandfathered and including provisions to ensure that customers who exercise retail choice and change LSEs have the ability to acquire CRRs for that Load (or transfer CRRs allocated to existing LSEs for that Load), the CAISO believes that its design has sufficient flexibility to reflect Load changes while protecting the long-term value of renewing CRRs on a priority basis.

The CAISO disagrees that the Priority Nomination Process should allow a greater percentage of grandfathered CRR holdings. While there is concern among potential CRR Holders that priority nomination percentages are too low (some request priority status for 100% of CRR holdings), the CAISO believes that the percentages in the MRTU Tariff are appropriate because they achieve a balance between the need to allow and encourage long-term contracting and the need to maintain some flexibility of all participants to acquire CRRs to meet evolving customer needs. There is a fundamental tradeoff between assuring LSEs that they will be able if they wish to continue to hold the CRRs they have held in the past and assuring LSEs that they will be allowed to designate new CRRs for new Generation sources. If no transmission constraints are binding, LSEs can be awarded all the CRRs they request. If transmission constraints are binding, however, LSEs can be awarded new CRRs for new Generation sources only by taking CRRs away from LSEs that were previously awarded CRRs. Similarly, once a CRR has been

purchased on a long-term basis by an LSE to hedge its use of an existing resource, the transfer capability is not available for CRRs to be allocated to another LSE. NCPA and CERS appear to want a system that simultaneously assures them that they will be able to retain the CRRs they were previously awarded, and that allows them to be able to designate new CRRs if they decide they want them. This is not a feasible outcome under any non-discriminatory allocation or auction system.

c. The CAISO's Proposed Historical Period for Source Verification Properly Guards Against Inflating CRR Eligibility.

Both Strategic and AReM propose shifting the historical period used for source verification to June 1, 2006-May 31, 2007.¹⁶⁷ AReM claims the period of September 1, 2004 to August 31, 2005 proposed by the CAISO is “extremely problematic because it does not account for the difference between the stability of IOU Load and the variability of ESP Load [*i.e.*, electric service providers in retail direct access market].”¹⁶⁸ Both argue that the proposed historical period does not account for the contracting that will take place in compliance with the CPUC's resource adequacy proceeding. The CAISO firmly disagrees with the proposal to shift the historical period forward. As the CAISO has detailed consistently throughout its stakeholder process, the objective of the CAISO's choice of historical period is to ensure that entities do not have an incentive to strategically contract for or schedule Generation or imports so as to increase their eligibility to be allocated valuable CRRs. Given the stability and certainty in future CRR holdings provided by the Priority Nomination Process, a Market Participant could knowingly engage in strategic purchases during a 2006-2007 historical period that would

¹⁶⁷ Strategic at 8-9; AReM at 7-8.

¹⁶⁸ AReM at 7.

result in higher than needed CRR allocations and risk long-term revenue adequacy of CRRs.

As explained in the Direct Testimony of Doctors Scott Harvey and Susan Pope, the consideration underlying the choice of the historical period is that, by basing the CRR allocation on a period that has already occurred, the CAISO avoids the potential for the allocation process to distort going-forward contracting or operating incentives. The end date of the historical period was therefore chosen to correspond to the time frame in which the proposed validation rules were described to Market Participants.¹⁶⁹

Moreover, it must be recognized that the relevance of the historic period is for the first-year verification processes only, to provide a basis for equitably allocating CRRs among eligible LSEs while striking a reasonable balance between verification requirements and free choice in nominating CRRs. After the first year, the combination of the limited Priority Nomination Process with opportunities for LSEs to freely choose new CRR source nominations will enable all LSEs to obtain a CRR portfolio that best meets their needs, subject of course to the requirement of simultaneous feasibility.

3. CRR Properties

a. CRRs Are Designed to Provide Parties with a Tool to Manage Congestion Costs, Not to Eliminate Them Altogether.

A number of commenters plead that CRRs, as designed, are inadequate, incomplete, and generally do not completely offset all congestion costs.¹⁷⁰ The

¹⁶⁹ Exh. ISO-2 at 111.

¹⁷⁰ CMUA at 32; MID at 14; TANC at 24-40; Bay Area at 29; Lassen at 29-30 (CRRs are inadequate because they only apply to the Day-Ahead Market and CRR Obligations are inherently more risky); Six Cities at 14. (MRTU CRR proposal in its current state provides no assurance that CRRs will provide an effective hedge against the expanded price risks under LMP); CCSF at 16 (proposal fails to provide a meaningful hedge against expected increases in congestion costs to load).

observation that CRRs only offset congestion costs up to the transfer limits of the transmission system is correct. This is not, however, a limitation of CRRs as a mechanism to offset congestion charges. The reality is that the transmission system only allows one to provide sufficient protection against the cost of meeting Load with high cost Generation to the extent that there is sufficient transfer capability to meet Load with low cost Generation. In the circumstance in which Load exceeds the transfer capability of the transmission system, some Load must be met with potentially high cost Generation inside the Load pocket. This is true under the current CAISO market design, it is true under a physical/contract path rights design, and it is true under LMP. Financial rights such as CRRs simply cannot and should not pretend to eliminate physical grid limitations that can only be mitigated through infrastructure investment.

The significant benefit of MRTU, however, is that under an LMP-based market design, all of the transfer capability of the transmission system is available to support CRRs. This is an important advantage relative to a physical rights/contract path system under which a portion of the true transfer capability of the grid goes unscheduled Day-Ahead and unused in Real-Time due to contract path fictions and the lack of Real-Time congestion management. In addition, under LMP, LSEs have an incentive to enter into contracts with Generation within the Load pocket to offset congestion charges for the portion of their Load that cannot be met with imported Energy. This is an advantage relative to the current market design under which there is a disincentive to enter into such Generation contracts because the out-of-merit dispatch costs are socialized. The out-of-merit costs of dispatching high cost Generation to meet Load are still incurred under the present system, however, there is just no incentive under the current market design for

LSEs to enter into Generation contracts to offset such costs. A fundamental benefit of the MRTU market design is that it will enable LSEs to protect themselves against congestion costs through a combination of CRR holdings, Generation ownership, and contracts. This objective of enabling LSEs to protect themselves against congestion charges through Generation ownership and contracts as well as CRR holdings is also essential to support the CPUC resource adequacy design.

Responding to these arguments requires a brief step back to review the purpose of CRRs and congestion charges generally in an LMP-based market. Congestion charges provide the signals to Scheduling Coordinators regarding which parts of the transmission system are experiencing congestion in hopes that Scheduling Coordinators will make alternative, less congested, less expensive scheduling decisions. The purpose of CRRs is not to distort those signals or otherwise eliminate congestion charges. Rather, CRRs exist to offset congestion costs associated with changes in the level of LMP-based congestion charges incurred in scheduling Energy from these resources to meet their Load in the Day-Ahead Market for Market Participants that have long-term Load serving obligations and resource commitments. Further, the number of CRRs that can be awarded are necessarily limited by transmission capability and the need to ensure revenue adequacy of the awarded instruments. As Doctors Harvey and Pope noted in their testimony:

[T]he award of financial transmission rights such as CRRs is intended to be limited by the transfer capability of the transmission system. The number of CRRs awarded is limited by a simultaneous feasibility test to ensure that the awarded CRRs do not exceed the transfer capability of the transmission system. The reason for this link between the award of CRRs and the transfer capability of the transmission system is that payments to CRR holders must be funded. These payments are intended to be funded by the congestion charges collected by the

CAISO in settling the day-ahead market, not by uplift charges paid by market participants or from CRR auction revenues.

Exh. ISO-2 at 14-15.

The CAISO does not agree that the use of CRR Obligations makes the CRR program less valuable or provides less of a hedge. To the contrary, CRR Obligations allow the CAISO to award a larger number of CRRs in both megawatt and dollar terms than would be the case if LSEs were awarded CRRs defined only as options. As Doctors Harvey and Pope note in their testimony:

The reason for this expectation is that CRRs defined as obligations can provide counterflow that relieves otherwise binding constraints in the simultaneous feasibility test, while CRRs defined as options do not provide counterflow in the simultaneous feasibility test.

Exh. ISO-2 at 64.

The Commission approved the use of both CRR Obligations and CRR Options in its October 28, 2003 Order.¹⁷¹ Also, as Doctors Harvey and Pope note in their testimony, the Eastern ISOs have successfully deployed obligation instruments and in some cases option instruments have also been made available.¹⁷²

The assertion that CRRs are inadequate because they apply only to Day-Ahead Market congestion charges is also mistaken. CRRs are settled only in the Day-Ahead Market and are settled at Day-Ahead prices, but any CRR used to support a schedule in the Day-Ahead Market becomes a Real-Time financial right that is effectively a Real-Time CRR. If an LSE decides to submit a schedule in the Day-Ahead Market matching its CRR holdings, it is effectively turning its CRR into a Real-Time financial right. That

¹⁷¹ October 28, 2003 Order at P 177.

¹⁷² Exh. ISO-2 at 19-21.

is, the LSE is protected against Real-Time congestion charges on real-time transmission usage matching its Day-Ahead schedule.¹⁷³

If an LSE decides not to submit a schedule in the Day-Ahead Market matching its CRR holdings, it is effectively selling that CRR in the Day-Ahead Market at Day-Ahead prices. Once having sold the CRR in the Day-Ahead Market, the LSE is no longer protected in Real-Time, but that was the choice of the LSE. The operative principle is simply that an LSE can't simultaneously sell and not sell the same CRR in the Day-Ahead Market; it must either sell it or not sell it. Moreover, an LSE that does not have a CRR matching its intended Real-Time use of the transmission system in effect buys a Real-Time congestion hedge by scheduling its transmission use in the Day-Ahead Market and paying Day-Ahead LMPs. If LSEs holding CRRs that they did not schedule in the Day-Ahead Market were permitted to change their mind in Real-Time and use the CRR they did not schedule in the Day-Ahead Market to hedge Real-Time congestion, then the real-time financial rights of entities that did submit schedules in the Day-Ahead Market but did not hold CRRs would have to be taken back. Such a system would make it commercially infeasible for LSEs to adjust their intended use of the transmission system in the Day-Ahead Market, which would make everyone worse off. Moreover, such a system would obviously give rise to inefficient incentives to submit misleading schedules in the Day-Ahead Market and change them in Real-Time.

b. Seasonal CRRs Are the Appropriate Instrument for the Annual Allocation and Auction.

CERS and PG&E argue that annual CRRs should cover 12 monthly periods, rather than four seasonal periods.¹⁷⁴ For the sake of clarity, there is not an “annual CRR”

¹⁷³ Also like a CRR the portion of the Day-Ahead schedule that does not match Real-Time transmission usage is settled at Real-Time prices.

per se. The annual allocation and auction processes distribute Seasonal CRRs. The CAISO chose Seasonal CRRs as the annually-distributed instrument because a seasonal instrument adequately accommodates the differences in Load levels and supply patterns between various seasons of the year and lessens the administrative burden on Market Participants and the CAISO as compared to an annual allocation of CRRs that covers 12 distinct months of a 12-month period.

c. The Financial Rights Model of CRRs is the Appropriate Mechanism for an LMP Pricing Scheme

As discussed above, some commenters take issue with the financial nature of CRRs and argue that CRRs are inferior to physical rights.¹⁷⁴ The CAISO recognizes these concerns but continues to believe the financial right-based CRR is the proper mechanism for managing congestion costs in an LMP market. The financial right, in the CAISO's case, the CRR, is being used successfully in LMP markets in other organized energy markets throughout the country and has been demonstrated to be the best model for managing congestion in LMP-based markets. As Doctors Harvey and Pope note in their testimony:

A CRR is financially equivalent to a firm transmission right for transactions scheduled in the day-ahead market because the holder is able to inject power at A and withdraw power at B without paying for congestion. CRR ownership provides the financial equivalent of firm point-to-point transmission service if the transmission usage the CRR holder schedules in the day-ahead market matches its financial rights.

Exh. ISO-2 at 13-14.

d. The CRR Proposal Properly Accommodates Load Growth and Migration.

¹⁷⁴ PG&E at 28; CERS at 9-10.

¹⁷⁵ Trinity at 4-7; WAPA at 17, 18.

SCE asserts that the CAISO's proposal to reallocate CRRs as Load migrates is technically infeasible, will result in perpetual disputes, and needs to be corrected.¹⁷⁶ SCE proposes an alternative through which Load migration be reported through the monthly CRR allocation process. Strategic, on the other hand, voices strong support for the CAISO's accommodation of retail Load shifts.¹⁷⁷

SCE misunderstands the nature and the scope of the CAISO's proposal to accommodate Load migration. The CAISO simply proposes that Load-Serving Entities negotiate compensation with each other for any Load shifts between the two and report any changes in CRR holdings to the CAISO via the Secondary Registration System. As a threshold matter, it is important to note that the Load migration feature is critical to maintaining the equitable allocation of CRRs to Load. Because SCs for Load-Serving Entities hold CRRs as custodians for the Load they serve, the CRRs must follow the Load if it shifts to the greatest extent practicable. The CAISO proposes a straightforward method for doing so. Contrary to what SCE suggests, the MRTU Tariff already uses the monthly CRR Allocation to effectuate Load migration from month to month; Load forecasts submitted by Scheduling Coordinators (and considered in the CRR Allocation process) should reflect Load shifts. The MRTU Tariff, however, also has a mechanism to update Seasonal CRR holdings to reflect Load shifts. In this case, the MRTU Tariff provides two options for the Load-losing LSE to compensate the Load-gaining LSE, transfer of CRR holdings or an equivalent financial payment that reflects the increased congestion exposure due to taking on additional Load. If CRRs change hands as a result of the Load transfer, that change in holdings must be registered on the CAISO's

¹⁷⁶ SCE at 25.

¹⁷⁷ Strategic at 6.

Secondary Registration System. The MRTU Tariff places a duty on the Load-Serving Entities to ensure that any Load shifts are properly reported in Load forecasts, but leaves it to the Load-Serving Entities themselves to effect the appropriate compensation required under Section 36.8.5.1.1.¹⁷⁸

The CAISO proposes that one clarification is required in section 36.8.5. The last sentence is inconsistent with the two options the CAISO is proposing, as provided for in Section 36.8.5.1.1.¹⁷⁹ The CAISO now proposes to replace that sentence with a sentence that directs the reader to the applicable requirements in Section 36.8.5.1.1.

e. The CAISO's Proposal to Both Allocate and Auction CRRs at the Interties Is Equitable

Some commenters question the equity of the CAISO's plan to both allocate and auction CRRs for imports at the interties. Powerex claims that the CAISO's proposed methodology for allocating intertie import CRRs is biased in favor of internal LSEs and that the CAISO has not justified abandoning the existing approach of the full auction of CRRs at the interties.¹⁸⁰ On the other hand, SCE argues that the all intertie CRR capacity should be made available to Load-Serving Entities in the allocation rather than at auction.¹⁸¹ NCPA argues that the CAISO should remove the 50 percent reservation of

¹⁷⁸ SCE's alarm at the concept of load migration is unfounded. The CAISO notes that PJM operates a load migration system through which FTRs are relinquished and re-assigned between load-serving entities on a daily basis to reflect retail load shifts. The CAISO does not propose such a program and instead relies on Load-Serving Entities to negotiate compensation.

¹⁷⁹ The last sentence of Section 36.8.5 reads as filed on February 9, 2006 reads as follows: "In addition, an LSE that loses load through load migration is required to make a cash payment to the LSE that acquires that load, in an amount equal to the value of a pro rata share of the first LSE's current holdings of Seasonal CRRs for the remainder of the current annual CRR cycle from the date the load migration takes effect." This statement clearly omits the CRR-transfer option provided for in 36.8.5.1.1.

¹⁸⁰ Powerex at 7-13. Under today's system, Firm Transmission Rights (FTRs) are not allocated to LSEs, but are only available through the auction process.

¹⁸¹ SCE at 27.

residual intertie capacity for the auction so that all existing commitments involving import capacity can be protected.¹⁸²

The CAISO believes that the 50 percent set-aside of intertie import capacity for the CRR Auction strikes a reasonable balance between the needs of Load-Serving Entities and auction participants. The CAISO proposal balances the need to allow internal LSEs an opportunity to offset congestion charges associated with their imports as well as give other market participants that are not LSEs but contractually responsible for the imports at the interties an opportunity to acquire CRRs at the interties in the auction. Internal LSEs are, of course, also eligible to participate in the auction if they wish to acquire CRRs utilizing the reserved 50 percent of import capacity.

The CAISO believes that the proposed reservation at the interties is just and reasonable as it provides an appropriate opportunity for entities serving Load inside the CAISO Control Area and other Market Participants to receive CRRs that will allow them to offset congestion charges at the interties. The CAISO recognizes that through the CRR dry run the CAISO has recently begun, the CAISO and Market Participants may learn additional information regarding practices at the interties that may warrant some adjustment to the proposed 50 percent level.

4. The Development of Long-Term Firm Transmission Rights Is Properly Addressed in the Commission’s Ongoing Rulemaking Proceeding.

Various parties raise the issue of long-term firm transmission rights (“FTRs”) under the MRTU market design. Some argue that the CAISO should have included long-term FTRs in the Release 1 market design.¹⁸³ SMUD in particular takes issue with what

¹⁸² NCPA at 27.

¹⁸³ CMUA at 3, 13-17. *See also* TANC at 21; Bay Area at 14-16; Six Cities at 14 Lassen at 11, 24-27.

it views as unnecessary delay in including a long-term rights program.¹⁸⁴ WAPA argues for a return to physical rights in California and claims that the CAISO's CRRs do not provide a sufficient long-term hedge against congestion.¹⁸⁵

PG&E supports the CAISO's request in Docket Nos. RM06-8-000 and AD05-7-000 that the Commission allow the CAISO an extension of time to fully comply with the Commission's forthcoming rule on long-term transmission rights. PG&E has requested that the CAISO begin a stakeholder process to allow initiation of long-term transmission rights as soon as practicable after commencement of MRTU.¹⁸⁶

The CAISO is fully cognizant of the ongoing rulemaking proceeding the Commission has employed to implement Section 1233 of the Energy Policy Act of 2005. The CAISO, as well as most commenters in the instant MRTU proceeding, has submitted both comments and reply comments in the long-term FTR proceeding. The CAISO has expressed several concerns regarding implementing long-term FTRs without considering the impact on MRTU. In its reply comments in that proceeding, the CAISO noted:

“[T]he CAISO has three primary concerns regarding the implementation of LT FTRs. First, the CAISO should not be required to implement, prior to the start-up of the MRTU markets, a hybrid instrument that would have to work effectively both in the zonal markets that exist today and in the LMP markets that will be in place once MRTU is implemented. Second, it is critical that the CAISO be given sufficient time to discuss with stakeholders their needs for long-term CRRs and the pros and cons of alternative designs. Third, the CAISO should not be required to implement long-term CRRs before having at least one year of experience with the LMP markets. The aforementioned concerns derive directly from the fact that the CAISO and its stakeholders are now fully engaged in preparing to implement, on November 1, 2007, a comprehensive redesign of the CAISO's markets based on the LMP paradigm.”¹⁸⁷

¹⁸⁴ SMUD at 28-35; Ingwers Testimony at 6-8.

¹⁸⁵ WAPA at 17, 18, 37-39.

¹⁸⁶ PG&E at 26-27.

¹⁸⁷ See Long-Term Firm Transmission Rights In Organized Electricity Markets, Docket Nos. RM06-8-000 and AD05-7-000, Reply Comments of the California Indep. Sys. Operator at pp 2-3. (Apr. 3, 2006).

The CAISO therefore requested that it not be required to implement long-term FTRs before one year after the MRTU market is implemented. Given the ongoing consideration of important issues in the long-term FTR rulemaking proceeding, the CAISO believes that docket is the most appropriate venue for the discussion of these issues.

The CAISO does wish to note that participants in the MRTU market will benefit greatly from a more thoughtful inclusion of long-term rights rather than a haphazard attempt at fashioning such rights for day one of MRTU. Because the MRTU design represents a significant change in the structure of energy markets in California, it would be improper and ill-advised to prematurely issue long-term instruments that carry significant long-term financial consequences until the MRTU market is up and running and participants are fully aware of the consequences of the redesign on their contracting decisions.

5. The Level of Detail in the MRTU Tariff Regarding CRRs is Extensive; No BPMs are Necessary to Determine Whether the CAISO's CRR Program is Just and Reasonable.

Several entities claim that the CRR proposal is not complete until the CAISO's Business Practice Manual for CRRs is filed with the Commission. SCE argues that the CAISO should provide additional detail on the modeling of CRRs for ETCs, Converted ETCs, and TORs in the SFT.¹⁸⁸ Cities/M-S-R assert that the CAISO's CRR proposal is deficient and should not be accepted until the BPMs are filed and market participants have sufficient opportunity to review and provide comments.¹⁸⁹

¹⁸⁸ SCE at 81-82.

¹⁸⁹ Cities/M-S-R at 36. *See also* TANC at 34-35; Bay Area at 28.

The CAISO disagrees with this assessment. The CAISO conducted an exhaustive stakeholder process on CRRs that resulted in an MRTU Tariff containing extensive details of the CRR program, including the characteristics of the instruments and how, when, and to whom they will be allocated and auctioned. The CRR BPM that is being developed, will be a helpful user’s guide to the CAISO’s CRR systems and procedures but will not contain any jurisdictional rates, terms and conditions of service not addressed in the MRTU Tariff. As such, the provisions of the MRTU Tariff governing CRRs satisfies the Commission’s rule of reason concerning the level of detail that must be included in jurisdictional Tariffs.¹⁹⁰

IEP expresses concerns with Section 36.7.3 of the MRTU Tariff, which references a requirement that “CRR Holders must report to the CAISO by way of the Secondary Registration System all bilateral CRR transactions consistent with the terms of this Tariff and the [BPMs].” IEP is concerned that such a requirement is unworkably vague. The CAISO believes no modification is necessary. The BPMs will simply provide the technical guidelines to the Secondary Registration System and its user interface. The duties of what the CAISO requires to be reported and when such reports are required are contained in the MRTU Tariff.

6. Other CRR Issues

a. The CAISO Does Not Propose to Establish CRR Concentration Limits

¹⁹⁰ See Section I.D of these Reply Comments.

IEP expresses concern that the CAISO is proposing to regulate CRR ownership concentration and questions the need for the CAISO to do so. IEP further argues that the CAISO should not require parties to notify the CAISO when CRRs change hands.¹⁹¹

To be clear, the MRTU Tariff contains no provisions for limiting CRR ownership concentration levels and the CAISO has no plans to do so. To suggest that the CAISO will “control” the secondary market is to ignore the MRTU Tariff language in Section 36. The CAISO simply uses the Secondary Registration System to track who holds CRRs so the CAISO can settle CRRs with the appropriate parties.

The CAISO strongly disagrees with IEP that the CAISO has no need to register changes in CRR holdings. The MRTU Tariff simply requires that: (1) CRR transactions in the secondary market are timely reported to the CAISO; and (2) all CRR Holders are sufficiently creditworthy. The CAISO needs to know who holds CRRs for settlement of CRR payments and charges. Absent registration of a CRR transfer in the SRS, the CAISO cannot redirect the CRR settlement to the new CRR Holder. IEP is also misguided when it suggests that parties should be able to choose whether to report CRR transactions to the CAISO. Not only does the CAISO have a responsibility to make the appropriate payment to the holder of record of a given CRR, but in some instances need to collect payments *from* the CRR Holder *to* the CAISO when a CRR Obligation so requires. The CAISO must know who exactly it is dealing with and have reasonable assurances that those parties are creditworthy. To do less would jeopardize the financial stability of all CAISO Market Participants. In light of the extremely small burden of this reporting requirement, IEP’s concerns are unfounded. IEP must realize, moreover, that the CAISO cannot prevent Market Participants from making outside agreements that are

¹⁹¹ IEP at 107.

equivalent to non-registered CRR transfers if that is what they wish to do. Of course, such agreements will not be reflected in the CAISO's settlement of the relevant CRRs.

b. The Secondary Market Provides CRR Holders Opportunities to Modify CRR Holdings.

IEP also requests that the functionality be added to allow CRR Holders to sell CRRs at the CRR Auction. The CAISO understands that there is some stakeholder support to add this functionality. Therefore, the CAISO plans to consider the development of this functionality for possible inclusion in MRTU Release 2. In the meantime, CRRs can be transferred in the secondary market. SCE further asks the CAISO to clarify that bilateral transactions cannot create a CRR.¹⁹² The CAISO confirms that the MRTU Tariff only vests creation of CRRs in the CAISO. Of course, the CAISO cannot prevent parties from entering bilateral agreements that are the financial equivalent of a CRR, i.e., an agreement by one party to pay another party the value of the hourly IFM congestion charge between two PNodes.

c. The Details of Merchant Transmission Proposal Will Be Further Developed with Stakeholders.

FPL raises concerns about the CAISO's treatment of merchant transmission projects in the CRR program. FPL argues that the CAISO offers little substance regarding its Project Sponsor CRR allocation mechanism in the MRTU Tariff Filing and that the level of detail on this topic in the MRTU Tariff is generally inadequate.¹⁹³

The CAISO notes that the fundamental compensation scheme for merchant transmission is in place and described in Section 36.11 of the MRTU Tariff. As described in Dr. Kristov's testimony:

¹⁹² SCE at 82.

¹⁹³ FPL at 14-15.

The basic choice the merchant sponsor has to make is between regulated recovery of its investment cost through CAISO access charges, and an allocation of CRRs. If it chooses the first there is no allocation of CRRs. If it chooses CRRs, then the CAISO will offer the sponsor's choice of CRR Options or CRR Obligations, in a quantity and geographic source and sink pattern that is commensurate with the transfer capacity the sponsor's project adds to the CAISO grid, as determined based on engineering studies.

Exh. ISO-1 at 94.

In addition, as the CAISO stated in its MRTU Tariff Filing Letter, the CAISO intends to continue stakeholder development to implement the details of this plan. Once this process is complete, if the details of this program rise to the level of jurisdictional rates, terms and conditions of service, the CAISO will file any appropriate revisions to the MRTU Tariff with the Commission in a separate 205 filing. Given the limited number of parties this proposal affects and the CAISO's commitment to continue policy development in this area, the Commission should not withhold action on the MRTU Tariff as a whole pending the further development of this policy.

d. CRRs Will Be Allocated to Wholesale Loads.

MWD voices concern that the CAISO's definition of "LSE" would exclude the State Water Project's pump Loads from the CRR Allocation. MWD requests that the CAISO revise Section 36.8 of the MRTU Tariff to clarify that pump Loads are eligible for the CRR Allocation. The CAISO agrees that SWP's pumps are eligible to participate in the CRR Allocation for its wholesale Load and intends to make appropriate tariff language changes in a compliance filing.

Further, MWD asks that the MRTU Tariff reflect the unique characteristics of the SWP pumps as they relate to CRRs – namely that the pumps will be scheduled and settled nodally (rather than at the LAP) and that basing eligibility on the prior year's use

does not capture significant pump Load fluctuations based on hydrology.¹⁹⁴ As explained in the MRTU Tariff Filing, for MRTU Release 1, Participating Loads, including pumps, will be modeled in the same manner as Pumped-Storage Hydro Units. As a result, SWP's Participating Load resources will be scheduled and settled at the individual nodal level rather than at the Default LAP level.¹⁹⁵ Regarding the historical Load data for the pumps, the CAISO disagrees that year-to-year Load fluctuations are problematic because the monthly CRR Allocation will act as a true up based on Load forecast. All Loads will see some discrepancy between their historical Loads and actual Loads for the subject year. By using monthly Load forecasts, the CAISO uses the monthly CRR Allocation to ensure that Load-Serving Entities and other eligible Loads are hedged as close to their actual Load data as possible.

e. Timing of Initial CRR Allocation

Strategic, AReM asks the CAISO to clarify its schedule for implementation of the initial CRR Allocation.¹⁹⁶ The MRTU Tariff Filing Letter stated that the initial CRR Allocation will occur between July and October 2006. The CAISO clarifies that the initial CRR Allocation will occur, as Strategic requests, closer to market implementation – July to October 2007.

f. CRR Settlements

SCE raises several questions regarding settlement of CRRs. First, SCE argues that, to minimize CRR payment shortfalls, CRR Holders that owe money must pay in full, regardless of shortfalls elsewhere.¹⁹⁷ As explained more fully by Dr. Rahimi in his

¹⁹⁴ SWP at 45-48.

¹⁹⁵ MRTU Tariff Filing Letter at 87.

¹⁹⁶ Strategic at 8.

¹⁹⁷ SCE at 61-62.

testimony, after discussions with its stakeholders on this issue, the CAISO concluded that the proration of both payables and receivables in the event of net revenue deficiencies is the approach most consistent with the logical expected properties of CRRs.¹⁹⁸ Dr. Rahimi explains that, because of the way CRRs are configured, one would expect that an entity that has equal amounts of CRR Obligations from point A to B and B to A should have net zero charges/payments regardless of the hourly net IFM Congestion revenue. If the CAISO were not to prorate the receivables, this net zero charge/payment outcome would not hold. Dr. Rahimi further explains that another necessary logical property of CRRs is that, if a party has a CRR Obligation from A to B and another CRR Obligation from B to C, the rights that accrue under these CRRs should be equivalent with CRR Obligations from A to C.¹⁹⁹ Dr. Rahimi provides an example in his testimony that illustrates that if one leg of this triangle is a charge while the others are payments and if, in the face of revenue shortfall, only the payments are prorated, then the required logical property breaks down.²⁰⁰ These logical properties are not just nice features to have, they are essential principles of financial consistency that must be preserved if CRRs are to be meaningfully traded in the secondary market. Therefore it is appropriate to prorate both charges and payments when there is a revenue shortfall in any given hour of the IFM.

Second, SCE asks the CAISO to clarify whether the CRR Balancing Account will have subaccounts for carrying forward of shortfalls and surpluses, and if so, what the number and structure of the subaccounts will be.²⁰¹ The CAISO will not have subaccounts, but any interest income of the CRR Balancing Account will only augment

¹⁹⁸ Exhibit No. ISO-4 at 91-92.

¹⁹⁹ Exhibit No. ISO-4 at 92.

²⁰⁰ *Id.*

²⁰¹ SCE at 62-63.

the account and increase the probability of clearing the shortfalls and surpluses, with the remaining amount paid to the Participating TOs at the end of the year. The CAISO will track individual CRR Holder shortfalls and surpluses for monthly and annual true-ups.

Third, SCE contends that the yearly clearing of the CRR Balancing Account should not forgive debt of counterflow CRR Holders.²⁰² The CAISO disagrees with SCE and reiterates that, to the extent the CRR Balancing Account is short at the end of the year, the CAISO will not pay and will not charge (*i.e.*, will “forgive”) the amounts due to or from CRR Holders. This is consistent with the logical financial consistency principles stated above.²⁰³

Finally, SCE requests revisions to Section 11.2.4.5 of the MRTU Tariff to include the concept of revenue shortfalls that would be accumulated and to delete the concept of accumulating surplus revenue from the yearly clearing.²⁰⁴ The CAISO agrees that this clarifying change is consistent with surrounding provisions and will make that change in a compliance filing.

g. Other CRR Allocation Eligibility Issues

MWD raises an issue regarding the modeling of TORs in the CRR studies and is concerned that the modeling is not properly taking into account bidirectional TOR rights.²⁰⁵ The CAISO notes these concerns and plans to take into account modeling issues identified by stakeholders in the context of its upcoming CRR dry run. As stated previously, to the extent that the dry run highlights enhancements that the CAISO concludes, based on stakeholder input, should be made to Release 1 of the new markets,

²⁰² SCE at 63-64.

²⁰³ Exh. ISO-4 at 96-97.

²⁰⁴ SCE at 64.

²⁰⁵ MWD at 31.

the CAISO will make a filing to make appropriate revisions to the MRTU Tariff. The resolution of this issue will have no impact on the ability of MWD to exercise their rights to use their facilities; it only concerns the revenue adequacy of CRRs released to other parties.

SCE asks that the CAISO clarify that the monthly CRR Eligible Quantity, which is based on load forecast, should be based on the same forecast submitted to comply with the resource adequacy section of the Tariff.²⁰⁶ The CAISO agrees that using the same load forecast for CRRs and Resource Adequacy is appropriate to avoid the incentive to understate load for Resource Adequacy purposes and overstate Load for CRR purposes. This is already addressed by Section 36.8.6 of the MRTU Tariff.

SCE asks the CAISO to define the duration of what is considered a long-term transmission outage for the purposes of inclusion in the modeling of Seasonal Available CRR Capacity.²⁰⁷ The CAISO will continue to consider this question with stakeholders and will address it in the appropriate Business Practice Manual. Transmission outages and derates, even when accurately planned, will generally not coincide precisely with the defined terms of CRRs. Therefore it will require some careful analysis to determine how best to represent outages in the network model for CRRs so as to balance the objectives of releasing as much capacity in CRRs as possible while minimizing the risk of revenue shortfall for settling CRRs in the hourly IFM markets. The CAISO intends to conduct such analysis in the course of the CRR dry run, and will fully engage stakeholders in these discussions. SCE asks the CAISO to be more specific as to when the CAISO may reassess the net projected obligation determinations for determining the creditworthiness

²⁰⁶ SCE at 43-44.

²⁰⁷ SCE at 80-81.

of CRR Holders.²⁰⁸ The MRTU Tariff states that the CAISO may reassess net projected obligation “at any time,” and the CAISO hereby clarifies that the CAISO needs that flexibility in order to ensure creditworthiness of the parties with which it interacts.

SCE asks the CAISO to define what is meant in the MRTU Tariff by the term “fixed CRRs” in Section 36.8.1. The CAISO clarifies that the language simply refers to the fact that CRRs for merchant transmission will be input into the network model as CRRs already in existence and not adjustable for the purpose of simultaneous feasibility of other nominations. The CAISO will make this clarification in a compliance filing.

SCE asks the CAISO to clarify whether the training class for CRR Holders is a one-time or recurring requirement.²⁰⁹ The CAISO hopes that Market Participants will avail themselves of all training sessions they need to appropriately participate in the CRR Allocations and CRR Auctions. At this time, the CAISO anticipates that the CRR training will be required at least once prior to participation in the CRR Allocation or CRR Auction. In light of changes that may occur, it may be necessary to change these requirements to ensure that parties are prepared to participate in the allocation or auction. Therefore, Section 36.7.2 appropriately provides CAISO the ability to require additional training as necessary. Such training benefits both the individual candidate CRR Holder and all other Market Participants as it is intended to prepare the participant for the allocation or auction. Over the next year, the CAISO will further clarify the training requirements as it unrolls its CRR dry run process and the development of a BPM for CRRs.

²⁰⁸ SCE at 71-72.

²⁰⁹ SCE at 82.

D. Market Power Mitigation

1. The Commission Should Allow the CAISO to Base Market Power Mitigation on Forecast Demand Rather Than Bid-in Demand

As explained in the MRTU Tariff Filing,²¹⁰ the CAISO is requesting that the Commission reverse its most recent finding concerning the use of forecast Demand rather than bid-in Demand as the basis for the CAISO's Market-Power Mitigation run and Reliability Requirements Determination (together referred to as the "MPM-RRD"). Indeed, this is the most significant issue the CAISO has identified that meets the rigorous standard the CAISO proposes for revisiting a determination made in a prior MRTU Order. The CAISO is simply requesting that the Commission return to its original findings on this issue. In its July 1, 2005 Market Design Order, the Commission approved the CAISO's revised market optimization process, which included the CAISO's proposal to base the Day-Ahead MPM-RRD on forecast Demand as opposed to bid-in Demand.²¹¹ On rehearing, the Commission modified this approval and directed the CAISO to base the Day-Ahead LMPM procedures on bid-in Demand.²¹² Consistent with the CAISO's request for rehearing of the Commission's November 19, 2005 Order, the CAISO believes that it is more appropriate to base the MPM-RRD on forecast Demand for MRTU Release 1. The CAISO explained that this was appropriate because: (1) MRTU Release 1 could be delayed by as much as 10 to 14 months after the targeted November 2007 MRTU implementation date if the CAISO is required to base the Day-Ahead MPM-RRD on bid-in Demand; and (2) the Commission's findings in the

²¹⁰ MRTU Tariff Filing Letter at 34-35.

²¹¹ 112 FERC ¶ 61,013 at P 162.

²¹² *California Independent System Operator Corp.*, 112 FERC ¶ 61,310 at P 69 (2005) ("September 19, 2005 Order").

September 19, 2005 Order appear to be based on the erroneous premise that the CAISO's proposed approach for MRTU Release 1 contains a systemic bias toward over-mitigation and that significant over-mitigation will occur if the CAISO identifies the Supply Bids subject to mitigation during the pre-IFM runs based on CAISO forecasted Demand rather than bid-in Demand.

A few commenters oppose this aspect of the MRTU Tariff's market power mitigation provisions.²¹³ IEP/WPTF argues that the Commission should require the CAISO "to justify" its explanation of the potential delay to MRTU implementation resulting from the use of bid-in Demand. As the Commission is well aware from years of experience, there are many factors that can affect the schedule for development, testing and implementation of new market software. Taking this uncertainty into account, and based on the best information available to the CAISO and discussions with the CAISO's software vendors, Brian Rahman, the CAISO's MRTU Program Manager, submitted testimony explaining that:

. . . the CAISO cannot incorporate this change into MRTU Release 1 without substantially delaying MRTU implementation. This change affects the foundational database of the MRTU market systems and alters the objective function of the Market Power Mitigation and Reliability Resource Determination runs of the market prior to the IFM. . . . Vendor estimates of the impact of this change on the overall MRTU project schedule are between 10 and 14 months.

Exh. ISO-8 at 11-12. IEP/WPTF does not explain what further "justification" could be provided to aid the Commission's review of the implementation rationale for CAISO's request to use forecast Demand as the basis for MPM-RRD.

²¹³ See IEP/WPTF at 57-58; Constellation/Mirant at 8.

Moreover, none of the parties opposing the CAISO's request refute Dr. Casey's testimony correcting the misunderstandings that seem to be reflected in the November 19, 2005 Order and explaining why the CAISO's proposal is justified from a policy perspective.²¹⁴

IEP/WPTF argues that the use of forecast Demand in the MPM-RRD is inappropriate because it will reduce any market discipline on Demand bids.²¹⁵ As discussed in greater detail in Section III.B of these Reply Comments, the notion of "under-scheduling" of Demand is not a problem under the MRTU design as it is in the current CAISO market design, which has a balanced schedule requirement. Under MRTU, the CAISO can call upon Resource Adequacy resources and the RUC procedure to ensure that real-time Demand is satisfied.

2. The CAISO's Local Market Power Mitigation Procedures are Reasonable And Provide Appropriate Revenues to Units Critical for Local Reliability

IEP/WPTF argues that the CAISO's local market power mitigation procedures are too restrictive and fail to provide suppliers with a reasonable opportunity for compensation. Coral and Constellation/Mirant similarly argue for a weakening of the local power mitigation measures of the MRTU Tariff. The CAISO responds to a number of their specific arguments on these issues in the paragraphs that follow. In general, however, the Commission should recognize that many of the market power mitigation provisions that IEP/WPTF opposes are part of the approach to market power mitigation that the Commission expressly approved in its July 1, 2005 Market Design Order. As the Commission recognized in that order, the CAISO's approach to local market power

²¹⁴ See Exh. ISO-6 at 30-34.

²¹⁵ IEP/WPTF at 19.

mitigation is based on the proven mitigation measures employed by PJM. The more detailed market power mitigation provisions in the MRTU Tariff implement that Commission-approved approach and were developed through an extensive stakeholder process described in the testimony of Dr. Keith Casey, submitted with the MRTU Tariff Filing. In that testimony, Dr. Casey explains at length how the MRTU Tariff implements PJM-style local market power mitigation in a reasonable manner and more specifically why the MRTU Tariff includes appropriate mechanisms for ensuring that units critical for local reliability earn sufficient revenues on average over a reasonable period of time to cover their going forward fixed costs.

a. Issues With Default Energy Bid Options

IEP/WPTF takes issues with the CAISO's Variable Cost option, arguing that "historical evidence demonstrates" that the CAISO's proposal for a 10% adder is "fallacious" but offering none of this historical evidence to support its claim.²¹⁶ The 10% adder, as applied to one of a number of Default Energy Bid options, is based on the PJM local market power mitigation provisions and was specifically approved in the Commission's July 1, 2005 Market Design Order.²¹⁷ In addition, the Commission's order approving the 10% adder as applied to PJM did not limit the justness and reasonableness of that adder to facts specific to PJM.²¹⁸ There is no reason why the Commission should now require modifications to the 10% adder previously approved for both the CAISO and PJM.

Coral argues that the Default Energy Bid mechanism does not provide sufficient opportunities to recover natural gas dispatch costs, penalties, and for daily and hourly

²¹⁶ IEP/WPTF at 22.

²¹⁷ July 1, 2005 Market Design Order at P 122.

²¹⁸ See 86 FERC ¶ 61,248 (1999).

balancing requirements.²¹⁹ The CAISO notes that the variable cost option has a component for the recovery of natural gas costs as well as a 10% adder that can address miscellaneous costs such as penalties. Suppliers also have the option of choosing the LMP option or the negotiated option, each of which should provide alternative avenues for cost recovery. Indeed, it was the CAISO's adoption of this multi-option approach currently utilized by PJM that led to the Commission's approval of the CAISO's MRTU bid mitigation proposal in the July 1, 2005 Market Design Order.²²⁰ Commenters have not presented evidence that options proposed by the CAISO do not provide sufficient compensation to cover miscellaneous costs under the MRTU design as these options are designed to do under the PJM markets.

IEP/WPTF argues that the proposed \$2/MWh O&M adder under the Variable Cost option should be rejected and that the Commission should adopt a \$6/MWh adder based on the wholly different mitigation measures put in place by the Commission in 2001 at the height of the California energy crisis.²²¹ In the alternative, IEP/WPTF argues that the \$6/MWh adder should be applied to gas-fired steam units.

Dr. Casey's testimony explains why the \$6/MWh adder is not justified under MRTU.²²² First Dr. Casey provided a background of the orders cited by IEP/WPTF. In generating the proxy bids as part of the 2001 mitigation orders, the Commission initially

²¹⁹ Coral at 24-25.

²²⁰ July 1, 2005 Market Design Order at P 122 ("Previously, the CAISO departed from the PJM model and limited a resource owner's bid mitigation options to cost-plus-10 percent; however, the CAISO proposes in the instant filing to allow a resource owner to choose between three bid mitigation options, as is allowed in PJM. Because the CAISO has mirrored PJM's approved market design package, the Commission approves the CAISO's concepts for local market power mitigation measures.").

²²¹ IEP/WPTF at 23.

²²² Exh. ISO-6 at 45-48.

required the use of a \$2/MWh O&M adder in its April 26, 2001 Order.²²³ However in the June 19, 2001 Order, the Commission increased this amount to \$6 on the grounds that \$2 was not sufficient for all generators, while \$6 was sufficiently generous that all generating units would be able to recover their O&M costs at this rate.²²⁴ The Commission recognized that previous Commission decisions as well as industry studies had found \$2 to be reasonable, however such a low rate would not allow the marginal units to recover their costs.²²⁵ The Commission also stated that “The California market primarily consists of older oil and gas-fired steam plants.”²²⁶

The first reason the CAISO believes the \$6 adder is no longer appropriate is that the circumstances under which the Commission’s original decision was made have long since ceased to exist. The June 19, 2001 Order put in place a mitigation system that itself is no longer operational, despite the longevity of one of its constituent parts. Far from having the mitigation system ordered in 2001 that was based on variable cost bidding during Stage 1 emergencies, the CAISO’s MRTU Tariff will include a PJM style mitigation approach for LMPM and a bid cap for system market power mitigation. Curiously, IEP/WPTF’s arguments in favor of a \$6/MWh adder cite to CAISO filings in 2002 supporting a \$250 bid cap to dispute Dr. Casey’s testimony and to claim that the CAISO views today’s markets as “uncertain” and still recovering from the energy crisis. The fact that this is a dated reference that is not an accurate representation of the CAISO’s current perspectives on the market is evidenced by the recent increase of the bid cap to \$400, among other things.

²²³ *San Diego Gas & Electric Company v. Sellers of Energy and Ancillary Services*, 95 FERC ¶ 61,115 ("April 26, 2001 Order"), *order on reh'g*, 95 FERC ¶ 61,418 ("June 19, 2001 Order").

²²⁴ 95 FERC ¶ 61,418 at 62,562-63.

²²⁵ *Id.*

²²⁶ *Id.* at 62,563.

IEP/WPTF also reference the document cited in the June 19, 2001 Order as a basis for concluding the long-term O&M costs of a steam unit to be \$6.²²⁷ The Commission further reasoned that, at the time of the order, these units would be on the margin in California. The document cited by IEP/WPTF is Table 3 of “Trends in Power Plant Operating Costs” by J. Alan Beamon and Thomas J. Leckey found at http://www.eia.doe.gov/oiaf/issues/power_plant.html. The CAISO contacted one of the authors of this document at the Energy Information Administration (“EIA”), and he indicated that the document is dated and is not being updated any time soon. The CAISO believes that better data is now available. There have also been substantial generation additions of new Combined Cycle Gas Turbines (“CCGTs”) to the California generating mix since 2001. While it is still true that during the summer the older gas-fired units are on the margin, for much of the rest of the year this is not true. The CAISO does not believe that the O&M characteristics of a minority of units should be used to determine the O&M values for all units during all hours of the year. Moreover, because the data in this table, which cover the period from to 1981 to 1997, will be more than a decade out of date when MRTU is implemented, the CAISO does not believe this table serves as an appropriate basis for an O&M adder applicable to even a subset of gas-fired steam units starting at the end of 2007. Lastly, and perhaps most importantly, Section 39.7.1.1 of the MRTU Tariff makes it clear that the \$2/MWh O&M adder is a default value and that resource-specific values for an O&M adder can be negotiated with the Independent Entity charged with calculating Default energy Bids. In light of this resource-specific option, gas-fired steam units will have the opportunity to recover their actual O&M costs, and there is no need to establish an additional higher default value for such units.

²²⁷ 95 FERC ¶ 61,418 at 62,563 n.71.

Constellation/Mirant argues that the CAISO does not specify the natural gas price index that will be used to calculate the variable cost Default Energy Bid.²²⁸ They are incorrect. Dr. Casey’s testimony specifies that “The calculation of the DEB will use input costs including a proxy gas index calculated as the simple average of four published gas price indices (Platts Gas Daily, Btu Daily Gas Wire, NGI’s Daily Gas Price Index, the ICE index) for each region and will include proxy figures for intra-state gas transport costs based on the posted tariff rates of the gas carriers.”²²⁹

Some commenters argue that the Commission should direct the CAISO, in calculating the variable cost option Default Energy Bid, to utilize a gas price which is not more than two days prior to the operating day and to provide a true-up to the actual gas price incurred to meet dispatch.²³⁰ These comments pertain to two issues, both of which were thoroughly discussed during the stakeholder process. First, because of the timing of when gas indices are published, the daily gas price indices used to calculate the Default Energy Bid will be at least two days old. While the CAISO agrees with stakeholders who would have preferred a one-day lagged index, this is not possible in practice given the publication times. In addition, because of the publishing schedules of these gas indices, the CAISO may, on occasion, be required to use a gas index that is more than two days old. For example, during the Thanksgiving holiday, the last quoted price will be on a Wednesday, and the CAISO may have to use that price through the following week when prices are published again. Second, the possibility of after-the-fact true-ups based on actual gas costs also was discussed in the stakeholder process and was determined to be unworkable given the complexity it would introduce, particularly if the mitigated bids

²²⁸ Constellation/Mirant at 9.

²²⁹ Exh. ISO-6 at 36-37.

²³⁰ IEP/WPTF at 24-25; Coral at 25.

subject to true-ups set LMPs. The CAISO notes that there is no reason to think that the use of the proposed indices would create a systematic bias in any direction, so a true-up could cut both ways.

IEP/WPTF argues that the 50% limitation on the LMP option does not present generators with a meaningful choice, and that the CAISO should be required to allow this option regardless of the extent to which a unit has been mitigated.²³¹ Under the CAISO's proposed competitive screen for the Default Energy Bid LMP Option, a unit must have at least 50% of the MWh dispatched over the prior 90 days not mitigated for local market power. This provision was approved in concept by the Commission in its July 1, 2005 Market Design Order.²³² Dr. Casey provides further support for this approach in his testimony.²³³ IEP/WPTF presents no arguments to modify this approach which have not already been considered and rejected by the Commission.

IEP/WPTF argues that the Commission should require the CAISO to use an independent third party to calculate Default Energy Bids, or to sufficiently justify why it should be afforded this authority, and that the Commission should hold for itself, rather than ceding to the CAISO, the decision as to whether the CAISO should be allowed to determine Default Energy Bids.²³⁴ There is no reason why the CAISO itself cannot exercise the discretion permitted under the MRTU Tariff with respect to determination of Default Energy Bids, including negotiations under the negotiated option. The use of an independent third party to calculate reference prices under AMP was based on concerns the Commission had previously raised about the CAISO's governance structure. The

²³¹ IEP/WPTF at 26-27.

²³² 112 FERC ¶ 61,013 at PP 118, 22.

²³³ Exh. ISO-6 at 40.

²³⁴ IEP/WPTF at 28.

Commission has determined that the CAISO itself is sufficiently independent to satisfy independence criteria for either an ISO or RTO.²³⁵ As with any other ISO or RTO, to the extent any party has specific issues with the CAISO's exercise of independent discretion, they can raise those issues with the Commission.

b. Adders for Frequently Mitigated Units

IEP/WPTF takes issue with the 80% threshold test for determining which units should be eligible for the Frequently Mitigated Unit option.²³⁶ As the Commission has previously recognized, “the 80 percent test is a useful administrative benchmark for determining what units should be eligible for higher bid caps.”²³⁷ IEP/WPTF also argues that the CAISO's own data demonstrates that the 80 percent threshold is infeasible. The flaw in IEP/WPTF's argument is that the presentation IEP/WPTF relies upon, cited in footnote 41 of its comments, explicitly excludes RMR units, which are generally the units that are most critical to ensuring local reliability, and thus, absent appropriate mitigation measures, have the greatest opportunity to exercise locational market power. The fact that non-RMR units failed to have out-of-sequence dispatches in 80% or more of all hours is not a flaw in the 80% threshold. It simply suggests that non-RMR units are unlikely to be frequently mitigated for local market power. To the extent any of these units do not continue to have RMR contracts after MRTU implementation, the Frequently Mitigated Unit option will be important to contribute to the continued operation of such units.

IEP/WPTF argues that the CAISO has provided insufficient justification for the \$24/MWh default adder for FMUs. As explained in Dr. Casey's testimony, the default

²³⁵ 112 FERC ¶ 61,010 at P 1 (2005).

²³⁶ IEP/WPTF at 28-29.

²³⁷ *PJM Interconnection LLC*, 110 FERC ¶ 61,053 at P 106 (2005).

value of \$24/MWh was calculated using the same formula used by PJM to calculate PJM's default Bid Adder value, where the per MWh dollar value is calculated as the ratio of Annual Avoidable Fixed Cost to Annual Expected Energy Production.²³⁸

A number of commenters request that the Commission reject the CAISO's FMU adder or direct that units with such bid adders not be permitted to set market prices.²³⁹ The CAISO believes the proposed FMU bid adders are appropriate and that units with these bid adders should be permitted to set market clearing prices, because this is consistent with the PJM model upon which the MRTU local market power mitigation provisions are based.

3. The CAISO's Proposal to Designate Competitive Transmission Paths Is Justified.

The CAISO has developed a balanced proposal for determining competitive transmission paths. While some parties, such as PG&E would prefer a more stringent test that would examine the competitiveness of existing inter-zonal paths, others such as IEP/WPTF and Williams would prefer an approach that would allow more paths to be designated as competitive on MRTU Day One.

Williams and IEP/WPTF both argue for modifications to the CAISO's three-pivotal supplier test.²⁴⁰ Dr. Casey provided extensive testimony explaining why the CAISO's three-pivotal supplier test is reasonable.²⁴¹ As Dr. Casey explains, the CAISO's proposal is based on a careful review of the methodologies applied by other ISOs and RTOs. The CAISO's overall proposal is consistent with the consensus of a

²³⁸ Exh. ISO-6 at 80.

²³⁹ See CPUC at 13-16; SCE at 85-86; PG&E at 18.

²⁴⁰ Williams at 12; IEP/WPTF at 35-26.

²⁴¹ Exh. ISO-6 at 52-61.

majority of stakeholders and had almost unanimous agreement within the stakeholder work group developed to review methodology options for the competitive path assessment. The proposal is intended to balance the objectives of simplicity, transparency, consistency, market efficiency, and market performance risk.

IEP/WPTF argues that the CAISO should be required to make seasonal assessments of the competitiveness of transmission paths.²⁴² This issue was discussed in the MRTU stakeholder process. As Dr. Casey explains, while such an approach might be appropriate after the CAISO gains some significant operational experience under LMP, it is more reasonable for the CAISO to take a more cautious approach for the first year of LMP operation and provide a single designation for the entire first year. The risks associated with a seasonal delegation are highlighted by the fact that, to the best of the CAISO's knowledge, no other ISO or RTO is performing a seasonal designation.²⁴³

IEP/WPTF argues that the provisions in Section 39.7.2.1 of the MRTU Tariff that allow the CAISO to perform additional competitive constraint assessments if "market outcomes are observed that are inconsistent with competitive market outcomes" are too vague to be just and reasonable.²⁴⁴ The CAISO disagrees. It is impossible to anticipate in advance every market indicator that might raise concerns as to whether a given transmission path is competitive. The basis for any such reassessment will be publicized at the time the CAISO non-competitive market outcomes are observed. In addition, any such reassessment would be made using a standard methodology described in a BPM, and the results of this analysis would need to indicate that the path was not competitive

²⁴² IEP/WPTF at 35

²⁴³ Exh. ISO-6 at 61

²⁴⁴ IEP/WPTF at 36.

based on specific criteria included in the BPM in order for any path to be re-designated as non-competitive.

IEP/WPTF argues that Dr. Casey's discussion of the Market Surveillance Committee's position on the CAISO's competitive path assessment proposal does not fully place the MSC's opinion in context.²⁴⁵ This criticism is misplaced because the CAISO provided the MSC opinion itself as Attachment O to the MRTU Tariff filing, so any party reviewing the filing can review the full MSC opinion without relying on Dr. Casey's testimony to place it in context.

4. The Commission Has Approved the CAISO's Adoption of PJM-Style Market Power Mitigation.

IEP/WPTF and NRG argue that the Commission should require the CAISO to abandon the previously approved PJM-style approach to market power mitigation and adopt a conduct and impact type approach to market power mitigation based on the procedures adopted by the NYISO. Other commenters, including PG&E, support the CAISO's adoption of PJM-style market power mitigation. The CPUC more specifically conditions its support for the market power mitigation provisions of the MRTU Tariff on Commission approval of PJM-style mitigation as opposed to a NYISO-style conduct and impact test.²⁴⁶

The Commission approved the CAISO's adoption of PJM-style market power mitigation in the July 1, 2005 Market Design Order.²⁴⁷ PJM's local market power mitigation measures have worked effectively for several years. Indeed, the Commission has recognized that PJM's measures for mitigating local market power "serve to

²⁴⁵ IEP/WPTF at 37-28.

²⁴⁶ CPUC at 5-10.

²⁴⁷ 112 FERC ¶ 61,013 at P 122.

minimize opportunities for the sustained exercise of market power.” *Atlantic City Electric Co., et al.*, 86 FERC ¶ 61,248 at 61,902 (1999). Dr. Casey provides additional explanation as to why the CAISO’s adoption of PJM-style market power mitigation is not only reasonable but is also responsive to concerns raised by Commission staff in early 2005.²⁴⁸ There is no reason for the Commission to reverse its finding that PJM-style mitigation procedures are a reasonable element of the MRTU market design.

The CPUC expresses concerns that the CAISO is modifying the MRTU software requirements so that the software would allow the CAISO to implement NYISO-style local market power mitigation as an alternative and contends that the CAISO should cease expending resources on this software functionality.²⁴⁹ The CAISO believes such flexibility is appropriate to address an unlikely but potentially significant concern identified by LECG with respect to application of PJM-style mitigation to the MRTU design. This concern is discussed in pages 64 to 67 of Dr. Casey’s testimony. Dr. Casey describes a hypothetical where a steam unit with a relatively low Default Energy Bid could be economically withheld from the market through the market power mitigation process, forcing the LMP to go to the next highest cost alternative such as a higher Bid from a gas turbine unit. As explained by Dr. Casey, the CAISO and its Market Surveillance Committee have concluded that the concern raised by LECG is unlikely to be common. In addition, as Dr. Casey explains, “the problem [identified by LECG] would have to be severe before considering the NYISO-like option because, as discussed earlier in my testimony, a significant downside of the NYISO-like approach is that the bid conduct and market impact thresholds themselves provide all generating units that

²⁴⁸ Exh. ISO-6 at 23-25.

²⁴⁹ CPUC at 8-10.

have local market power an opportunity to exercise that market power up the level of the thresholds.²⁵⁰

5. Other Market Power Mitigation Issues

SCE states that the MRTU Tariff should be explicit that Energy Bids below negative \$30/MWh will be paid only after they are cost-justified, consistent with the bid cap provisions of the existing CAISO Tariff.²⁵¹ The CAISO agrees and commits to make this change in a compliance filing. The CAISO also believes it is appropriate as part of this compliance filing to incorporate into the MRTU Tariff the tariff language governing cost-justification set forth in Section 39.3 of the current CAISO Tariff.

SCE also proposes addition of the phrase “to the extent the Export Bids are selected in the MPM-RRD process” to Sections 31.2 and 33.2 of the MRTU Tariff.²⁵² The CAISO agrees that this would be a helpful clarification of the filed provision and agrees to make this change in a compliance filing.

SCE proposes one further change related to market monitoring that the CAISO opposes. SCE proposes the removal of one of the MRTU Tariff’s categories of behavior that may warrant mitigation.²⁵³ Section 39.2.1 lists as conduct that may warrant investigation item (4), which states, "Bidding practices that are contrary to the principle of price convergence between the Day-Ahead and Real-Time markets." To the extent parties engage in bidding practices that appear designed to promote price divergence, the CAISO believes it may be appropriate to investigate such practices as a form of potential market manipulation. Ultimately, the determination of whether any behavior constitutes

²⁵⁰ Exh. ISO-6 at 67.

²⁵¹ SCE at 56-57.

²⁵² *Id.* at 78, 80.

²⁵³ *Id.* at 83-84.

market manipulation or otherwise violates CAISO or FERC market rules is made by the Commission. However, the CAISO agrees that this provision should be clarified to more clearly define the conduct that may warrant mitigation. The CAISO therefore agrees to replace item (4) with the following language in a compliance filing: “Bidding practices that distort prices or uplift charges away from those expected in a competitive market.”

WAPA states that, as a federal agency, WAPA is immune from sanctions under the MRTU Tariff absent a waiver of its immunity.²⁵⁴ As WAPA notes in its comments, Section 22.9(b) of the MRTU Tariff establishes procedures for the CAISO to follow in the event that sanctions would be applicable to a federal entity but for federal law, including reports to the appropriate Departmental Secretary and requests for such Departmental Secretary to take the steps necessary to give effect to provision of the MRTU Tariff that are otherwise not enforceable against the federal entity. The CAISO will follow these procedures if such circumstances arise.

E. Day-Ahead Market

1. Providing Special Scheduling Priority in the IFM for Balanced Self-Schedules Undermines a Fundamental Objective of the CAISO’s Market Redesign and Potentially Creates Severe Market Inefficiencies, However, the CAISO Proposes to Address Concerns Relating to this Issue by Implementing a Procedure for Release 1 that Preserves California Resource Adequacy Resources to serve California Load, While Allowing Unencumbered Resources to be Exported

PG&E and SCE express a concern that when supply in the IFM is insufficient to meet Demand, the IFM will allow supplies procured by resource-sufficient California LSEs to be scheduled to meet export Demand or the Demand of resource-insufficient LSEs while some of the Demand of the resource-sufficient LSEs is curtailed. As a result,

²⁵⁴ WAPA at 70-71.

PG&E and SCE assert, resource-sufficient LSEs cannot be assured that they obtain the full benefits of their supply resources. To address this concern, PG&E and SCE propose that the CAISO define a special level of scheduling priority in the IFM for balanced self-schedules. PG&E contends that the IFM should differentiate between “self-schedules and unbalanced price-takers to support supply,” such that, in the event non-economic adjustments are required, Market Participants who provide balanced load and resource schedules are given scheduling priority.²⁵⁵ Similarly, SCE claims that the Day-Ahead market structure does not provide LSEs with assurance that energy from their resources will serve their loads when supply is insufficient to meet market demand.²⁵⁶ SCE argues that the scheduling priority, which does not distinguish between balanced and unbalanced schedules, allows an LSE’s Demand to be curtailed while its supply resources are dispatched to serve other load.²⁵⁷ SCE argues that the MRTU Tariff administrative rules should be adjusted to ensure that LSEs who bring supply to serve their self-scheduled load are curtailed only *after* SCs who simply bid demand without “matching” generation.²⁵⁸ More specifically, SCE suggests the CAISO modify the IFM scheduling priority in Section 31.4 to require that “Other Self Scheduled Load reduction subject to Section 31.3.1.2” be adjusted before “Day-Ahead Regulatory Must-Run and Regulatory Must-Take.”²⁵⁹ Additionally, SCE requests that “Other Self Scheduled Supply reduction” be broken down into the following three categories ordered by priority from last to be curtailed to first to be curtailed: (1) Matched Supply (Self-Scheduled plus bid-

²⁵⁵ PG&E at 11-12.

²⁵⁶ SCE at 19-23.

²⁵⁷ *Id.*

²⁵⁸ *Id.* at 19-20.

²⁵⁹ *Id.* at 22-23.

in Supply) and Self-Scheduled Load reductions; (2) Unmatched self-scheduled supply reductions; and (3) Unmatched self-scheduled load reductions.²⁶⁰

The CAISO acknowledges the concern expressed by PG&E and SCE, but is concerned that their proposed remedy will create incentives and unintended consequences that potentially create severe inefficiencies in the CAISO markets. PG&E and SCE are correct that the combination of (1) eliminating today's balanced schedule requirement and market separation rule, plus (2) according virtually all self-scheduled demand in the IFM the same scheduling priority,²⁶¹ will preclude the IFM, in situations where supply is insufficient to serve all self-scheduled Demand, from distinguishing the Demand of those LSEs who bring sufficient supply to the IFM from the Demand of those who do not. This concern has been raised and discussed at various stakeholder meetings over the course of developing the MRTU market design, without yielding a solution that addresses the underlying concern without having undesirable side-effects. In particular, establishing a special scheduling priority for balanced self-schedules would create incentives for parties to self-schedule supply resources rather than bid them into the IFM. If this practice is adopted by a significant share of the total supply in the IFM – which the proposed priority could encourage – it can undermine one of the most important benefits of the CAISO Market, namely the ability to optimize the use of supply resources to meet Demand, provide reserves and clear congestion. The CAISO is concerned that substantial self-scheduling of supply resources will tend to drive the IFM into frequent recourse to non-economic adjustments to clear congestion, thus largely defeating the

²⁶⁰ *Id.* at 22-23.

²⁶¹ MRTU does retain the balanced schedule requirement and differential priorities on self-schedules to manage the transmission rights of TOR, ETC and CVR holders. These exceptions to the design of the MRTU markets are necessary to honor the special rights these parties hold, and represent a relatively small share of the utilization of the CAISO grid.

purpose of the CAISO's market redesign. The CAISO submits, therefore, that the solution proposed by PG&E and SCE amounts to throwing out the baby with the bathwater because instead of focusing narrowly on the problem to be solved, it creates broad market impacts.

The CAISO would argue further that PG&E's and SCE's concern arises primarily from the equal priority given to self-scheduled exports and internal Demand. As the Commission is well aware, the various resource adequacy activities in which the CAISO is participating are developing requirements that will affect all LSEs with Load within the CAISO Control Area, including both CPUC-jurisdictional and non-CPUC jurisdictional entities. By the time MRTU is implemented, concern about some internal LSEs leaning on other internal LSEs should be largely moot. No applicable resource adequacy requirements are anticipated, however, for external parties who wish to purchase Energy in the IFM. Thus, when supply resources are short in the IFM, self-scheduled exports have the same priority as self-scheduled internal Demand and thus will be able to take advantage of the supplies procured by internal LSEs. This suggests one obvious solution to the problem, namely, to give self-scheduled internal Demand higher priority in the IFM than self-scheduled exports. This solution does not require self-scheduling of supply and therefore avoids the severe market impacts described above. At the same time, in recognition of the interdependence between California loads and external suppliers, the CAISO has tried carefully to avoid differential treatment of exports except where clearly appropriate and necessary.

Another point relevant to this discussion is that the CAISO believes it is appropriate to implement market rules that preserve resources procured and paid for by

loads within the CAISO control area to ensure reliable operation of the grid and to avoid curtailing internal Demand. For this reason, the CAISO has proposed that export Demand in the HASP must be submitted as an Economic Bid rather than a Self-Schedule, as a way to prevent exporters from taking advantage of RUC capacity or available resource adequacy capacity which the CAISO expects to need to meet real-time demand. Several parties have taken issue with this proposal in their comments, to which the CAISO provides a more detailed response elsewhere in this reply. Analogously, it is appropriate to give internal LSEs reasonable assurance that the supplies they own or procure to meet their resource adequacy requirements will be scheduled in the IFM to meet their needs, especially at times when supply is short. The flip side of this coin is that export Demand should be able to compete on equal footing with internal Demand to purchase or to self-schedule energy from supply capacity that was not procured to meet resource adequacy requirements or, in the case of HASP, was not procured in the previous day's RUC process.

The CAISO had intended to implement a feature that could support what may well be the optimal solution to the set of problems and competing concerns discussed above. That is, to allow export Demand to self-schedule in the IFM or HASP as long as it is matched by supply capacity that is neither resource adequacy nor RUC capacity (often referred to as "unit-contingent exports" or "wheel-out" transactions). Such export Self-Schedules would have the same priority as internal Demand Self-Schedules, but export self-schedules not matched by such supply capacity would have inferior priority to internal Demand Self-Schedules. Unfortunately the necessary functionality to recognize and verify such export Self-Schedules was not possible to implement in Release 1, and

therefore has been added to the list of Release 2 candidates that the CAISO will discuss with stakeholders later this year. The CAISO notes further that the special scheduling priority proposed by PG&E and SCE for balanced Self-Schedules would also be complex to implement and could not be available in Release 1 on the current schedule.

In reconsidering this matter, however, in the course of preparing this Reply the CAISO has concluded that the inability of sufficiently-resourced LSEs to ensure they can fully utilize their resource adequacy resources in the IFM during times of supply shortage is too important to defer for resolution to Release 2. The CAISO therefore proposes to implement the preferred solution described above, which consists of two elements. First, in the IFM self-scheduled CAISO Demand will have higher scheduling priority than self-scheduled exports that are not otherwise being supported by a corresponding amount of Energy scheduled from non-RA generation resources. Second, the CAISO will work to develop a manual procedure to enable exports, in both the IFM and the HASP, to self-schedule energy for exports that are served by generation from non-RA capacity (IFM), or by non-RA/non-RUC capacity (HASP). Such Self-Schedules would have the same scheduling priority as self-scheduled internal Demand in the IFM, and as the CAISO demand forecast in the HASP. The CAISO believes that a manual procedure will be the only way to implement this feature in Release 1, but will still include this item in the Release 2 agenda to develop an integrated software solution.

In summary, the CAISO acknowledges the concern raised by PG&E and SCE, which can arise in situations of supply shortage in the IFM, but must oppose – primarily for its potentially severe side effects but also for its difficulty in implementation – the resolution they propose. The CAISO proposes instead to address the concern with the

more targeted solution described above, which does not have the troublesome side effect of potentially removing substantial quantities of generation from the IFM optimization. The CAISO believes that this approach both addresses the concern PG&E and SCE have raised, and also provides non-discriminatory opportunity for external parties, who are not subject to the resource adequacy requirements that apply to entities serving load within the CAISO Control Area, to enjoy the same level of scheduling priority as internal Demand in both the IFM and the HASP when they self-schedule Energy to support the export from non-RA, non-RUC generating capacity.

F. Residual Unit Commitment (RUC)

1. As Appropriately Reflected in the Tariff, the RUC Procurement Target Will Depend on Load Forecasts and Available Day-Ahead Resources; Details Will Follow in a Business Practice Manual

Several parties complain that the MRTU Tariff is incomplete because it lacks an explicit methodology for setting the RUC procurement target.²⁶² This is simply not an accurate representation of what is in the MRTU Tariff with respect to the RUC procurement target.

The MRTU Tariff clearly stipulates what are the decisive elements in fashioning the RUC procurement target: the next day's hourly CAISO Forecast of CAISO Demand less the Energy scheduled in the Day-Ahead Schedule.²⁶³ To the extent that the CAISO Forecast of CAISO Demand cannot be met by the Supply Bids submitted to the Day-Ahead Market, the shortfall is precisely what the CAISO will use RUC to procure. That

²⁶² IEP/WPTF at 86-89; Exh. SMD-3 at 20-21; SDG&E at 3-4. Other entities are concerned that the inclusion or exclusion of Participating Intermittent Resources in the RUC procurement target may lead to over or under-procurement of RUC Capacity. CPUC at 35-36; FPL at 19.

²⁶³ See Section 31.5.3 of the MRTU Tariff.

fundamental formula is already contained in the MRTU Tariff. The CAISO also understands that some stakeholders would like to see additional detail concerning the RUC procurement target methodology. The process of developing more details on the RUC procurement target is underway and will be the subject of a complete stakeholder process and those details will be set forth in a Business Practice Manual. However, because all parties understand the basic construct of RUC process, the role it plays, and the basic formula the CAISO will use, there is no need to wait for the BPM process to unfold before the Commission finds the RUC process is just and reasonable as part of the MRTU design. As the MRTU Tariff Filing Letter noted, the CAISO has not closed the door to a future Section 205 filing to provide the Commission with a more detailed methodology for determining RUC procurement if the methodology resulting from the stakeholder process rises to the level of jurisdictional rates, terms, and conditions of service. At this time, however, the CAISO sees no need for additional detail in the MRTU Tariff regarding the RUC procurement process.

The CAISO believes it may have inadvertently created unnecessary apprehension among stakeholders by implying that there exists an explicit formula for the procurement of RUC Capacity that the CAISO has developed and decided to keep under wraps. This is simply not the case. Rather, the CAISO will be simply forecasting CAISO Demand (Demand, not including exports, in the CAISO Control Area) at granularity that will likely be down to a UDC level. This forecast may be adjusted for 1) expected HASP Self-Schedules; 2) entities that have opted-out of RUC; and 3) expected deliveries from intermittent resources that have been scheduled less than the Day-Ahead best forecast to avoid potential over-procurement or adjustment to account for intermittent resources that

have been scheduled above the Day-Ahead best forecast of deliveries to avoid under-procurement. The ultimate adjusted forecast will be distributed using Load Distribution Factors as used in the IFM. RUC will then determine what if any resources/capacity, above and beyond what was committed and scheduled in the IFM (including RMR), that needs to be committed or available to meet the forecasted Demand. Therefore the "RUC procurement target" is not expressed in terms of megawatt value of RUC Capacity but rather the target is the adjusted Demand Forecast. The details that will be developed in the BPM process is the methodology that will be used for determining the adjustments to the raw Demand Forecast to avoid over or under procurement.

2. The Definition of RUC Zones is Additional Detail that will Be Developed through the BPM Process

Both PG&E and SCE take issue with the level of detail in the MRTU Tariff regarding RUC zones. The process by which the CAISO will identify specific RUC zones are implementation details that are being explored in an ongoing stakeholder process and the details will be committed to a Business Practice Manual.

3. RUC Properly Considers Physical Resource Characteristics and Incorporates Imports as Possible.

Several entities raise concerns about the use of imports in the RUC. IEP/WPTF argues that the CAISO fails to provide equal treatment to different types of units with different start-up-time requirements in RUC.²⁶⁴ Others claim the CAISO has not justified the rule that Non-Dynamic System Resources cannot provide RUC capacity.²⁶⁵

The CAISO disagrees that limiting RUC Bids from certain imports is problematic; in fact it is driven by reliability. With regard to Non-Dynamic System

²⁶⁴ IEP/WPTF at 84.

²⁶⁵ Powerex at 28-29; SCE at 52; BPA at 3-4.

Resources that are not designated as RA Capacity, the CAISO will not have the ability to validate where the RUC capacity will be physically coming from and cannot certify delivery of RUC service from such units. Such a resource would then have the ability to earn a RUC Availability Payment as well as have an opportunity to submit an energy Bid with no physical limitation on the quantity of Energy even though the RUC capacity may in fact be undeliverable because the transmission capacity is not set aside for the RUC Award. In addition, System Resources that are not designated as RA have never been certified for deliverability as a result of being allocated import capacity for the purpose of RA accounting. Lastly, such a System Resource is able to submit Bids in the Real-Time Market and is eligible to be pre-dispatched for the hour.

4. RUC Cost Allocation Is Just and Reasonable Because Reliability is a Concern to All Grid Users

SMUD and Turlock raise the issue of RUC cost allocation to external load. SMUD argues that the proposed Tier 2 RUC cost allocation is improper because it applies to all Measured Demand, regardless of whether that Demand is internal or external to the CAISO Control Area. Turlock suggests that the proposed RUC cost allocation should be rejected.²⁶⁶

The Commission has already determined that the CAISO's proposed RUC cost allocation is just and reasonable. In its June 17, 2004 Order, the Commission approved the CAISO's RUC cost allocation proposal and expressly rejected SMUD's argument regarding RUC cost allocation:

We reject SMUD's claim that it should not be assessed RUC charges by the CAISO. We find it appropriate for the CAISO to assess the costs associated with the over-procurement of capacity to metered load and exports because the RUC

²⁶⁶ Turlock at 15.

procurements are made in order to acquire the resources necessary to reliably operate the grid.

June 17, 2004 Order at P 58.

By employing a two-tier cost allocation program for RUC, the CAISO follows principles of cost causation and allocates residual costs to those who benefit from reliability of the CAISO Controlled Grid.

Finally, the CAISO sees no merit in SMUD's collateral attack on the RUC process in which it argues that SMUD should be afforded MSS status and be able to opt-out of RUC.²⁶⁷ First, the MSS concept was created to accommodate the historic operations of governmental utilities operating within the CAISO Control Area. Rather than obtain the benefits of MSS status while remaining in the CAISO Control Area, SMUD has chosen to form a separate Control Area, which renders it ineligible for MSS status. Moreover, to allow SMUD to "opt out" of RUC would be to allow it to cherry-pick certain aspects of MSS status without accepting the responsibilities that come with being a MSS, including, but not limited to, Load following deviation penalties and other provisions of the MRTU Tariff and MSS Agreement applicable to MSSs.

5. Rescission of RUC Availability Payments is Just and Reasonable.

IEP/WPTF argues that the CAISO's proposal to rescind the entire RUC Availability Payment for Uninstructed Deviations or unavailability has not been shown to be just and reasonable, and is duplicative of other penalties proposed by the CAISO or already contained in the Tariff.²⁶⁸ The CAISO disagrees with IEP/WPTF's argument. Ensuring that generators deliver the capacity they are paid to deliver is perfectly just and

²⁶⁷ Exh. SMD-3 at 18.

²⁶⁸ IEP/WPTF at 90-92.

reasonable. As IEP/WPTF reminds us, the Commission has approved the concept of paying the RUC Availability Payment regardless of *dispatch*. In other words, the RUC Availability Payment pays for just that – availability. However, if a resource does not respond to Dispatch Instructions, its “availability” does not exist in practice and is therefore a fiction. Such “phantom availability” should not be compensated with a RUC Availability Payment. Withholding RUC Availability Payments for capacity that is not actually available to the CAISO is perfectly reasonable.

In addition, the CAISO disagrees that withholding the entire RUC Availability Payment for any deviation outside the tolerance band is unjust and unreasonable. Undelivered RUC capacity has severe consequences on the market, including placing the CAISO in a position to have to procure additional resources in Real-Time at increased costs. Some sort of proportional rescission of RUC Availability Payments would not recognize the resulting cost impact of failure to deliver promised capacity.

The CAISO also disagrees that this rescission is somehow overly punitive or duplicative of UDPs. First and foremost, UDPs will not go into effect until approved by the Commission so they cannot be relied upon at the start of the MRTU markets. Second, the purpose of rescinding RUC Availability Payments is compensatory in nature while the UDP is designed to discourage deviations from schedule. The RUC Availability Payment is offered for the availability of resources *within* the tolerance band. A resource is not entitled to compensation if it fails to make capacity available in a manner that complies with the CAISO’s RUC requirements. The two mechanisms play different roles and are not duplicative.

6. Other RUC Issues

FPL asks the CAISO to clarify that the availability obligation pursuant to RUC selection applies solely to those hours for which the resource-specific import was selected in the Day-Ahead Market.²⁶⁹ As noted in Section 31.5 of the MRTU Tariff, RUC procurement is a Day-Ahead Market function that occurs for each distinct Trading Hour of the following day.

Constellation/Mirant argues that the fact that Bids accepted from RUC units are not reflected in the Day-Ahead clearing prices if those Bids are higher than the clearing prices that result from the pre-RUC dispatch insulates LSEs from any ramifications of under bidding their load, resulting in inaccurate price signals.²⁷⁰ The CAISO disagrees with this argument. In fact, the MRTU design incorporates a financial disincentive to underbidding Demand by allocating Tier 1 RUC costs first to those Scheduling Coordinators who do not bid all of their Real-Time Demand in the Day-Ahead Market. Moreover, as discussed in Section III.B of these Reply Comments, the MRTU design does not have a “balanced schedule” requirement that requires a Scheduling Coordinator to submit Bids for all (or a substantial portion) of its Demand in the Day-Ahead time frame.

SCE asks the CAISO to confirm that RUC capacity cannot be self-scheduled.²⁷¹ The CAISO explained in the MRTU Tariff Filing Letter that there was not sufficient support from stakeholders to develop RUC self-provision in Release 1 of MRTU, nor were there sufficient indicia from the Commission that RUC self-provision was a necessary feature at this point in time.²⁷²

²⁶⁹ FPL at 8.

²⁷⁰ Con/Mirant at 8.

²⁷¹ SCE at 75.

²⁷² MRTU Tariff Filing Letter at 46-47.

PG&E argues that a vertical demand curve for RUC without any provisions for the mitigation of market power for RUC capacity bids, other than the Bid cap itself, does not provide adequate protection to the market, even given the adoption of system and local RA requirements.²⁷³ The concept of local mitigation of RUC Availability Bids was rejected by the Commission as “complicated and intrusive” in its July 1, 2005 Market Design Order.²⁷⁴ The Commission found that concerns about the exercise of market power in RUC Capacity were better addressed in the CPUC’s resource adequacy proceeding. Accordingly, the MRTU Tariff does not include market power mitigation for RUC Availability Bids.

G. Extremely Long-Start Resources

SCE requests clarification as to how the CAISO will determine the commitment of Extremely Long Start Resources.²⁷⁵ As the CAISO explained the MRTU Tariff Filing Letter at 46-47, Section 27.4.1 of the MRTU Tariff calls for the CAISO to use its Security-Constrained Unit Commitment (“SCUC”) algorithm on a 48-hour basis to commit Extremely Long Start Units that can respond in that timeframe:

There are a number of resources with long start-up times, for which commitment in the DAM does not provide sufficient time to start-up and be available to supply Energy during the next Trading Day. The CAISO has explored a multi-day unit commitment process to be incorporated into the IFM and the associated MRTU software. After consultation with the CAISO’s software vendor, however, the CAISO has determined that a multi-day unit commitment could not be implemented for MRTU Release 1. In accordance with Section 27.4.1 of the MRTU Tariff, however, the CAISO will utilize the SCUC algorithm on a two-day-ahead basis to commit these resources, called “Extremely Long-Start Resources.” The CAISO also intends to explore a multi-day unit commitment

²⁷³ PG&E at 17.

²⁷⁴ July 1, 2005 Market Design Order at P 136.

²⁷⁵ SCE at 74.

IFM and/or longer than 48-hour RUC commitment after the initial MRTU release. This approach will allow for a coordinated evaluation of the software systems prior to implementing a multi-day IFM unit commitment.

MRTU Tariff Filing Letter at p. 47.

To the extent SCE, or any other party has more specific questions concerning the commitment of Extremely Long Start Resources under MRTU Release 1, the CAISO encourages them to submit questions through the MRTU implementation mailbox at: MRTUImplementation@caiso.com.

H. Hour-Ahead Scheduling Process

1. The Difference Between HASP Products Available to Internal and External Units is Reasonable, Given the Different Constraints Faced by Internal and External Resources

IEP/WPTF contends that the CAISO's proposed HASP design should be modified in order to offer comparable products for both internal and external units. IEP/WPTF claims that without such modifications, the HASP design will lead to an "unnecessary divergence in the rates and terms of [Ancillary Services] sales as between internal resources and imports."²⁷⁶

IEP/WPTF's argument should be rejected. Under HASP, imports are eligible to provide an hourly AS product, and to be settled at HASP prices (as opposed to Real-Time prices) because, due to current practices for scheduling hourly interchanges between the CAISO and neighboring control areas, imports cannot be dispatched on a five-minute basis except as needed to respond to a contingency. Thus, imports do not have the option of choosing between hourly pre-dispatch and participating in the five-minute imbalance market. Instead, they must be pre-dispatched for an entire hour. The Commission

²⁷⁶ IEP/WPTF at 74-75.

recognized this fact in its decision concerning mitigation of imports in the California refund proceeding.²⁷⁷ Import energy does play a valuable role in the CAISO's ability to meet demand in the CAISO Control Area, and thus, participation of imports in the CAISO's markets should be encouraged. Therefore, the CAISO has proposed a HASP design that recognizes the special limitations of imports, and therefore facilitates their participation in the CAISO markets.

However, it does not follow that because the CAISO has made provisions in its HASP design in order to accommodate import participation in the CAISO's MRTU markets, that those provisions should be extended to internal resources. As noted above, imports and internal resources are different in practice, and that difference justifies differing treatment. Although the CAISO would prefer to have all resources dispatched and settled on a five-minute basis, this simply is not feasible for many imports. But this in no way means that internal resources, which do not face the same limitations as imports in this regard, should be permitted to participate and settle on an hourly basis. Doing so would be tantamount to creating a full hour-ahead market. The HASP proposal was specifically designed to avoid the need to create a full hour-ahead market, and the Commission accepted the HASP proposal as part of the overall MRTU design with that understanding in mind. Moreover, the Commission specifically recognized and rejected the contention that HASP discriminates against in-state generators.²⁷⁸ IEP/WPTF adds nothing new to bolster this argument in its comments, and the Commission should reject it once more.

²⁷⁷ See *San Diego Gas & Electric Co. v. Sellers of Energy and Ancillary Services, et al.*, 105 FERC ¶ 61,066 at P 54 (2003) (noting that unlike other types of energy, imports must be dispatched for a minimum of one hour).

²⁷⁸ See July 1 2005 Market Design Order at P 79.

2. The Restrictions on the Self-Scheduling of Exports in HASP are Just and Reasonable, and Will Not Adversely Impact the Ability of Market Participants to Effectively Manage their Resources

Several commenters take issue with the CAISO's proposal to prohibit self-scheduling of exports in the HASP. These parties argue that this rule is unjust, unreasonable, and unduly discriminatory because it will adversely affect their ability to manage their resources.²⁷⁹

These parties are mistaken, the concerns they express are exaggerated, and moreover, the CAISO is committed to implementing an additional Release 1 feature that will address the legitimate element of their expressed concerns. First, it is important to understand the basis of the CAISO's proposed requirement that exports submit economic bids in HASP and not Self-Schedules. Far from being discriminatory, this requirement is necessary to ensure that Supply resources procured by LSEs serving Load within the CAISO Control Area under their resource adequacy requirements, and RUC capacity procured by the CAISO as part of the Day-Ahead Market, are fully available to meet the CAISO's forecast of CAISO Demand (*i.e.* internal Demand excluding exports) for the upcoming Trading Hour. The proposed requirement that exports submit Economic Bids is merely a device that ensures, when available real-time Supply is insufficient to meet both the forecast of CAISO Demand and the Bids of exporters, that CAISO Demand will have priority.

Second, exports can submit Economic Demand Bids at the price cap, and any differential treatment of such price-cap export Demand Bids *vis-a-vis* internal CAISO

²⁷⁹ See NCPA at 20-31; Roseville at 4; Turlock at 15-21.

Demand as a result of the CAISO's bidding requirement will apply only when the Supply scarcity just described occurs. In hours when Supply is sufficient to meet both CAISO Demand and export Demand, there will be no difference between the treatment of price-cap export Demand and CAISO Demand.

Third, the CAISO recognizes that the inferior scheduling priority of export Demand *vis-a-vis* CAISO Demand should not apply in circumstances when the export Demand is served by a generation Self-Schedule from non-RA/non-RUC capacity. The CAISO therefore proposes to implement a mechanism to enable SCs to Self-Schedule exports in HASP matched by generation from non-RA/non-RUC capacity, and to enjoy the same level of scheduling priority on such Self-Schedules as CAISO Demand.

Although the CAISO had previously determined that it would not be feasible to implement such a feature in Release 1 and had intended to defer this to Release 2, the CAISO now recognizes that this matter is important and should be addressed in Release 1. The CAISO must point out, however, that it will probably have to create a manual procedure for Release 1 to implement this feature, and then wait until Release 2 to install an integrated software solution. Please see the interrelated discussion of this issue in Section II.E above devoted to the Day Ahead Market.

Given the additional Release 1 feature the CAISO proposes that will address the one valid point of these commenters' expressed concerns, their "unjust, unreasonable, and unduly discriminatory" argument should be dismissed. In particular, the implementation of resource adequacy requirements on LSEs who serve load within the CAISO control area means that CAISO Demand and export Demand are differently situated and therefore should be treated differently with respect to access to Supply

resources that have been procured under resource adequacy requirements or through the CAISO's RUC procedure. What the "unduly discriminatory" argument boils down to is an apparent desire on the part of certain entities to "have their cake and eat it too," by enjoying all of the benefits of CAISO membership, without actually participating and bearing the attendant costs of participation.²⁸⁰ Such an expectation is clearly unreasonable. Although the CAISO is committed to providing non-discriminatory access to the CAISO Controlled Grid, the CAISO's first responsibility must necessarily be to ensure the reliable operation of that grid. To do otherwise would violate the requirements of both federal and state law. It is thus not only reasonable, but necessary to comply with the CAISO's legal mandates, that wherever there is a conflict between the needs of external buyers and CAISO System security, that the CAISO address the latter first.

3. The CAISO did not Violate the Commission's July 1 2005 Market Design Order by Not Performing an Additional Cost/Benefit Analysis of the Merits of HASP Versus a Full Hour-Ahead Market

Coral argues that the CAISO's MRTU Tariff Filing ignores the Commission's directive in the July 1, 2005 Market Design Order that the CAISO provide a study of the costs and benefits of its proposal to eliminate the hour-ahead market. Coral's argument is spurious. The July 1, 2005 Market Design Order contains no such mandate. In the July 1, 2005 Market Design Order, the Commission found that the CAISO had not "fully compl[ied]" with the Commission's prior order to submit, as part of the May 2005 filing, a study on the benefits and costs of a full hour-ahead market versus HASP.²⁸¹ The Commission noted that failure to comply in the future could result in the rejection of the

²⁸⁰ Neither NCPA, Roseville nor Turlock is part of the CAISO Control Area.

²⁸¹ June 17 2004 Order, 107 FERC ¶ 61,274 at PP 92-93.

filing. Coral seems to have interpreted this admonition as a direct mandate to the CAISO to perform additional cost/benefit studies on the HASP proposal. However, given that the Commission approved the CAISO's HASP proposal in principle in the July 1 2005 Market Design Order, and nowhere else referenced any discrete requirement to perform additional studies, the more sensible interpretation of this phrase is as a warning that failure to comply with any future Commission directives could result in the Commission rejecting the filing at issue. This interpretation is supported by the paragraph of the order cited by Coral, where the Commission noted that, notwithstanding the fact that the CAISO did not submit a cost-benefit study on HASP, "we [the Commission] conclude that the advantages outweigh the disadvantages of implementing HASP at this time."²⁸²

4. The CAISO should not be required to modify the scheduling timelines in HASP based on scheduling timelines found in neighboring Control Areas

WAPA contends that the CAISO's 45-minutes before the hour timeline for issuing binding HASP instructions is inconsistent with the scheduling timelines in neighboring control areas, and recommends that the CAISO modify this timeline so as to be consistent with the timelines in neighboring control areas.²⁸³ The crux of WAPA's argument appears to be that the CAISO's 45-minute HASP timeline will create inconvenience for entities who wish to schedule imports and exports between the CAISO Control Area and neighboring control areas. As discussed above in Section I.E with respect to seams issues generally, such issues should not be permitted to trump the CAISO's MRTU design when that design represents an improvement over the current market design. The HASP timelines, in fact, do represent a substantial improvement over

²⁸² *Id.* at P 71.

²⁸³ WAPA at 21-23.

the CAISO's previous market design, because they allow for the scheduling of imports and exports up until 75 minutes prior to the operating hour, which is an hour longer than under the CAISO's current market design. The fact that the HASP timelines may not perfectly mesh with the practices in other control areas is not sufficient reason to require modifications to such timelines. As with other seams issues discussed above, the CAISO is confident that WAPA's concerns with respect to this issue can be addressed by coordination between the CAISO and its neighboring control areas.

Moreover, the fact that the CAISO has incorporated the flexibility to issue binding HASP instructions on a 45-minute timeline into the Tariff does not mean that the CAISO will not issue binding HASP instructions earlier than 45 minutes prior to the operating hour. In fact, the CAISO intends that most, if not all, HASP instructions will be issued by 60 minutes prior to the operating hour, consistent with the timeframe requested by WAPA. However, it is important that the CAISO have the flexibility to, if necessary, issue binding HASP instructions up to 45 minutes prior to the operating hour. For these reasons, the Commission should reject WAPA's request to modify the CAISO's timeline for submitting binding HASP instructions.

5. The CAISO's proposed provisions addressing the substitution of AS, including the limitations thereon, are just and reasonable

In their comments, IEP/WPTF and Coral argue that the CAISO has failed to provide, in the MRTU Tariff Filing, the AS substitution functionality that it promised in its conceptual HASP proposal. Specifically, Coral and IEP/WPTF take issue with: (1) the requirement that suppliers that wish to substitute AS resources in HASP to first declare an outage of the original resource; (2) the requirement that the substitute resource

clear HASP; and (3) exposing the substitute resource to the price difference between the applicable ASMPs, or the ASMP and the user rate.²⁸⁴ Coral and IEP/WPTF argue that the CAISO should be required to conform its Tariff language with the design proposal described in the CAISO's May 2005 conceptual MRTU filing.

The CAISO did originally propose, based on stakeholder discussions, to implement the type of AS substitution requested by IEP/WPTF and Coral. However, because of constraints associated with the development of the CAISO's MRTU software, the broad sort of AS substitution functionality requested by IEP/WPTF and Coral will not be available in Release 1. The CAISO informed its stakeholders that this functionality would not be available in Release 1 when it became aware of this fact in mid-2005. Moreover, the CAISO has committed to stakeholders to include this item in the list of candidate upgrades to include in MRTU Release 2, under the more general heading of a multi-settlement market for AS, as recommended by LECG. The CAISO agrees that the functionality requested by IEP/WPTF represents an improvement of the HASP design. However, the lack of such functionality does not render the CAISO's Release 1 MRTU proposal unjust and unreasonable, and neither IEP/WPTF or Coral demonstrates to the contrary.

6. Concerns with Respect to Rebidding Supply in HASP not Selected in the Real-Time Market

SCE notes that under MRTU, a party may rebid into HASP any portion of their supply that was not selected in the IFM. SCE expresses concern, however, that because parties are allowed to change their unselected bids in HASP, the residual Day-Ahead bid

²⁸⁴ Coral at 22-24; IEP/WPTF at 75-77.

curve combined with the HASP bid curve may not be monotonically increasing.²⁸⁵ SCE presents an example of a 100 MW unit that bids in the Day-Ahead market, with 70 MW clearing IFM at a price of \$85. The unit then rebids the remaining 30MW in HASP at \$10. SCE states that it is unclear how the HASP and Real-Time Market will treat the price discrepancy between the 70MW level at \$85 and the additional 30MW bid at \$10.²⁸⁶ SCE also requests that the CAISO clarify what is actually rebid in HASP in this case, the entire 100MW, or just the 30MW that did not clear in the IFM? SCE also asks what would happen if a party does nothing, “what does the CAISO use a HASP/Real-Time bid?”²⁸⁷

First, in the example presented by SCE, there will not be any issues with the monotonicity of the resource’s bid curve because, in HASP, the CAISO will assign a Bid price of \$-30/MWh to the range of the resource between 0 and 70 MW (*i.e.* the portion that was selected in the Day-Ahead Market). What is actually rebid in HASP in this case is only the 30 MW that did not clear the IFM. Finally, what happens if a party does nothing depends on the nature of the resource. If the resource is obligated to offer in Real-Time because it is an RA resource but no bid is submitted, the CAISO will assign a “proxy” bid to the resource for the range between 70 and 100 MW. If the resource is not an RA resource, then the CAISO would not dispatch the additional 30 MW of energy, as that energy was not bid into any of the CAISO’s markets.²⁸⁸

I. Ancillary Services Under MRTU

²⁸⁵ SCE at 76-77.

²⁸⁶ *Id.* at 77.

²⁸⁷ *Id.*

²⁸⁸ The one exception to this is the CAISO could potentially dispatch this additional 30 MW pursuant to the CAISO’s Exceptional Dispatch authority.

Notwithstanding a number of comments to the Ancillary Services provisions, the Commission should find the provisions for Ancillary Services under the MRTU Tariff are just and reasonable and with the further amendments agreed to (discussed herein). The Ancillary Services provisions of the MRTU Tariff in large part include the same principles with respect to procurement of Ancillary Services, the determination of Ancillary Services obligations, and the allocation of costs related to the provision of Ancillary Services as the Ancillary Services provisions of the CAISO's existing Tariff. The changes proposed in the MRTU Filing are necessary to ensure that procurement of Ancillary Services continues to be done reliably under the MRTU market design, with the requirement that Ancillary Services will now be co-optimized with Energy through the DAM and RTM optimizations.

1. Self-Provision of Ancillary Services

The Commission should approve the provisions for self-provision of Ancillary Services under MRTU, subject to the amendment to Section 8.4.5 as agreed to by the CAISO below. Section 8.4.5 of the MRTU Tariff, in part, provides that a Scheduling Coordinator is responsible for ensuring that resources that are providing AS are able to receive and implement CAISO Dispatch Instructions. SCE suggests that Section 8.4.5 of the MRTU Tariff be modified to include those resources that are self-providing AS (*i.e.*, an SC whose Submission to Self-Provide an Ancillary Service has been accepted by the CAISO). In the MRTU Tariff, the CAISO uses the term "schedule" to connote something issued by the CAISO and the term "Bid" to indicate something submitted to the CAISO; the change noted by SCE was the result of editing to not use the word "schedule" when referring to submissions by SCs. The change was not intended to

change the requirements in Section 8.4.5 for those entities self-providing ancillary services; those entities must be able to receive and implement CAISO Dispatch Instructions. Consequently, the CAISO agrees with SCE's suggestion and proposes to revise the sentence as follows: "A Scheduling Coordinator that has provided a Submission to Self Provide an Ancillary Service, has submitted a Bid in or contracted for Ancillary Services shall ensure that the Generating Unit, System Unit, Load or System Resource concerned is able to receive and implement Dispatch Instructions." The CAISO commits to make this change in a compliance filing.

In its comments, SMUD discusses the requirements to self-provide AS contained in Sections 8.6.1 and 8.6.2 of the Tariff and asserts that that the MRTU Tariff "unnecessarily precludes from self-provision Ancillary Services that, while not bid with the CAISO, stand ready to meet an SC or SC customer's Ancillary Services needs."²⁸⁹ SMUD concludes stating that the Commission should order the CAISO to clarify its tariff to allow AS provided pursuant to a contractual obligation to be treated as self-provision under the MRTU Tariff.²⁹⁰ The provisions of the MRTU Tariff allow (as requested by SMUD) AS provided pursuant to a contractual obligation to be treated as self-provision under the tariff. All that an entity is required to do to self-provide AS is to provide a Submission to Self Provide an Ancillary Service in the Day Ahead or Real Time Markets and have the CAISO accept that submission. Acceptance by the CAISO of a Submission to Self Provide an Ancillary Service in the Day Ahead or Real Time Markets means "that the CAISO has determined the submission is feasible with regard to resource operating characteristics and regional constraints and is qualified to provide the Ancillary Service

²⁸⁹ SMUD at 65.

²⁹⁰ *Id.*

in the market for which it was submitted.”²⁹¹ Presumably, the contractually-provided AS will be feasible with regard to resource operating characteristics and regional constraints.

Moreover, the CAISO agrees with SMUD’s statement that if an “SC customer or SC is contractually required to maintain a certain level of reserves, it would be inefficient for the CAISO to ignore such commitment and act like there is an Ancillary Services shortfall.”²⁹² Indeed, the MRTU Tariff explicitly provides that the CAISO’s procurement of AS will not ignore self-provided AS. First, the evaluation of a Submission to Self Provide an Ancillary Service in the Day Ahead or HASP/Real Time Markets occurs *before* evaluation of bids.²⁹³ Second, the MRTU Tariff is clear that the competitive procurement of AS is net of self-provided AS. The MRTU Tariff provides in relevant part that:

Those Ancillary Services which the CAISO requires to be available but which are not being self-provided will be competitively procured by the CAISO from Scheduling Coordinators in the Day-Ahead Market, the Hour Ahead Scheduling Process (the hourly HASP Ancillary Service Awards) and the RTM consistent with Section 8.3.

* * * *

The amount of Ancillary Services procured in the IFM and HASP and in the Real-Time Market is based upon the CAISO Forecast of CAISO Demand plus HASP Intertie Schedule for the Operating Hour net of Self-Provided Ancillary Services from generation internal to the CAISO Control Area. The CAISO will manage both CAISO procured and Self-Provided Ancillary Services as part of the Real-Time Dispatch.

Section 8.1 of MRTU Tariff (emphases added). The CAISO respectfully requests the Commission find that the clarification proposed by SMUD is unnecessary.

To the extent SMUD is arguing that: (a) it should not have to comply with the requirements regarding informing the CAISO of self-provided AS, or (b) the CAISO

²⁹¹ See definition of “Self-Provided Ancillary Services” in Appendix A of the MRTU Tariff.

²⁹² SMUD at 65.

²⁹³ See definition of “Self-Provided Ancillary Services” in Appendix A of the CAISO Tariff.

should not examine the feasibility of submissions to self-provide AS before accepting those submissions, their comments on this issue should be rejected in their entirety. If a Market Participant has an obligation to provide ancillary services under a contractual arrangement, it is a reasonable requirement that the Market Participant submit a Submission to Self-Provide an AS to the CAISO. In addition, if the proposed Submission to Self-Provide an AS is not feasible, it would be unreasonable for the CAISO to treat the submission as if it were feasible.

2. Imports of Ancillary Services

Various Market Participants comment on the limitation on the self-provision of imported AS from outside the CAISO Control Area.²⁹⁴ The CAISO recognizes that this aspect of MRTU limits functionality available under the existing (pre-MRTU) CAISO Tariff. The CAISO noted in its filing that the reason for the initial limitation on imports of self-provided AS is a software limitation with the MRTU Release 1 software.²⁹⁵ In addition, the CASIO committed to investigate allowing self-provision of AS over the interties; the issue was on the list of items to be considered as part of the Release 2 of MRTU software.²⁹⁶

The main reason for the limitation is that allowing imports of self-provided AS with the Release 1 software would lead to an inefficient allocation of intertie transmission capacity. With MRTU, Energy and AS imports are co-optimized and compete for transmission capacity on the interties.²⁹⁷ In order to accept imports of self-provided AS

²⁹⁴ See comments of SWP at 50-51, Six Cities at 10, Vernon at 6, and MWD at 23 (discussing Section 8.1 of MRTU Tariff).

²⁹⁵ See MRTU Tariff Filing Letter at 53; Testimony of Dr. Rahimi, Exh. ISO-4 at 117.

²⁹⁶ MRTU Tariff Filing Letter at 95-96.

²⁹⁷ See, e.g., Testimony of Lorenzo Kristov at 47 (describing how MRTU will allow use of import transmission capacity to import Energy and AS in an economically optimal manner).

with MRTU's co-optimization of Energy and AS, the CAISO effectively would have to reserve transmission capacity for imports of self-provided AS prior to the market optimization of bid-in imports of Energy and AS. The result would give imports of self-provided AS a higher priority regarding the use of intertie transmission capacity and would be an inefficient allocation of intertie transmission capacity.²⁹⁸

While it is not identical to being able to self-provide AS via an import, SCs that otherwise would plan to import self-provided AS, however, will have the option of bidding the imports of AS into the market at \$0 (or a negative) price.²⁹⁹ As noted by Dr. Rahimi, depending on the relationship between the ASMP and the user rate, an entity Bidding its capacity into the AS market as a price taker (*i.e.*, Bidding a \$0 or negative price) may end up paying more or less than an entity that decided to self-provide AS via imports.³⁰⁰

Furthermore, under the MRTU market design (and the existing, pre-MRTU design), an SC with firm imports into the CAISO control area receives credit for the AS (*i.e.*, the Operating Reserves) from the sending Control Area. The MRTU design enhances this functionality by allowing an SC to receive a credit for Operating Reserves behind firm Imports even if the importing SC has no Load obligation and even if the SC does not engage in an Inter-SC trade of Energy or AS.³⁰¹

²⁹⁸ This issue does not arise with the design of the current (*i.e.*, pre-MRTU) markets because the CAISO runs congestion management prior to the running of the AS markets. In other words, with the design of the current markets, the CAISO knows the amount of transmission capacity that is available on the Interties for imports of AS and can accept self-provision of AS accordingly.

²⁹⁹ See Testimony of Dr. Rahimi at 117-118.

³⁰⁰ *Id.*

³⁰¹ It is important to note that the credit for such "negative Operating Reserves," is limited to the amount that Operating Reserve credits that offset positive AS obligations in the CASIO control area. See Sections 11.10.3 and 11.10.4 of the MRTU Tariff.

Given: (a) the inefficient allocation of intertie transmission capability that would occur if self provision of imported AS were allowed with the Release 1 software, (b) the ability of SCs to mitigate the effects of being unable to import self-provided AS via either bidding in AS capacity or getting credit for Operating Reserves associated with firm imports into the CAISO control area, (c) the CAISO's commitment to investigate allowing self-provision of AS over the interties as part of the Release 2 MRTU software, and (d) the market improvements and benefits attendant with the initial implementation of MRTU (*e.g.*, the cost efficiencies associated with co-optimization of Energy and AS and the clearing congestion in an integrated manner; and the use of the Full Network Model with its elimination of the "infeasible schedules" problem), the CASIO respectfully requests that the Commission approve the initial limitation on imports of self-provided AS capacity.

The CASIO notes that there is an error in Section 8.3.2 of the MRTU Tariff. The second sentence of Section 8.3.2 notes that Scheduling Coordinators are allowed to bid, (but not self-provide) Regulation from resources located outside the CAISO Control Area by dynamically scheduling such resources. However, the next sentence erroneously provides that: "Each System Resource used to bid *or self-provide* Regulation must comply with the Dynamic Scheduling Protocol in Appendix X." The words "or self-provide" should be removed. The CAISO will provide the conforming changes to the MRTU Tariff in a compliance filing.

Powerex asserts that the CAISO should credit Day-Ahead AS imports that

are Undispatchable with the Real-Time congestion price when the Intertie capacity can be allocated to other Resources.³⁰² Powerex accepts the consequences when import capacity becomes unavailable within the operating hour because there is no time or market opportunity available to reallocate the transmission released by the amount of the undispachable import Ancillary Services.³⁰³ However, Powerex claims that if awarded imports of AS were unavailable due to a transmission derate and if this were to occur prior to operating hour and prior to the publishing of the HASP schedules and awards (*i.e.*, T-45), the curtailment of the import Ancillary Services schedule will result in intertie transmission being freed up for use in the HASP. Under these circumstances, Powerex requests that the CAISO provide a credit equal to the hour-ahead congestion price on the undispachable portion of the AS import award; the hour-ahead congestion price would be the shadow price of the Intertie transmission constraint in the HASP.³⁰⁴ In an effort to ensure that the proposed settlement treatment does not create a disincentive for import Ancillary Service providers to perform, Powerex suggests the CAISO or intervening transmission provider would have to verify that a derate caused the import Ancillary Service provider's failure to perform. Powerex states that a further alternative to address any disincentive to deliver AS is to credit the import AS provider with the lower of the Day-Ahead or Hour-Ahead congestion price.³⁰⁵

The CAISO believes Powerex has identified a legitimate concern and agrees to make Tariff revisions to address Powerex's concern as described below. If a Day-Ahead import of AS becomes Undispatchable due to a transmission derate and it frees up

³⁰² Powerex at 23-25.

³⁰³ *Id.* at 23-24.

³⁰⁴ *Id.* at 24.

³⁰⁵ *Id.*

transmission capacity on the intertie, the CAISO agrees to pay the SC the lower of the Day-Ahead and HASP congestion shadow price on the intertie. It is important to note that the CAISO's revision to address Powerex's concern is only when there is a derate and not when the import AS Award is reduced by an entity for economic reasons. The CAISO will provide the conforming changes to the MRTU Tariff in a compliance filing.

BPA contends that the CAISO should not charge congestion for imports of AS unless the CAISO charges congestion for AS within the CAISO Control Area.³⁰⁶ BPA states that it is not credible for the CAISO to assume that AS within its control area will never compete with Energy for available transmission capacity, *e.g.*, Path 26 experiences occasional congestion that could affect AS deliverability.³⁰⁷ BPA contends that, if the CAISO calculates AS congestion costs throughout its system, the congestion charge for within-control area AS will be zero if the system operates as the CAISO expects, but will indicate congestion costs where appropriate.³⁰⁸ The CAISO respectfully requests that the Commission reject BPA's implication of undue discrimination or unequal treatment between the congestion costs paid by entities importing AS and entities supplying AS internal to the CAISO Control Area. The short answer is that, while the CAISO co-optimizes Energy and AS both for supply offered internal to the Control Area and for the Energy and AS that are offered over the interties, the entities supplying Energy and AS internal to the CAISO Control Area are not similarly situated with entities supplying Energy and AS over the interties. For internal resources, the transmission congestion internal to the CAISO Control Area does not affect the co-optimization. Since Energy and A/S constraints are independent for internal AS and Energy procurement, there is no

³⁰⁶ BPA at 2-3.

³⁰⁷ *Id.*

³⁰⁸ *Id.*

competition for transmission between them; rather, the competition for transmission occurs at the resource level, *i.e.*, whether the resource capacity is used for AS or Energy.

In contrast, since the constraints on the interties jointly affect the co-optimization of Energy and AS, the ASMP at an intertie is influenced not just by the opportunity cost of energy at the scheduling point, but also by the shadow price of tie congestion.

However, as shown in the testimony of Dr. Rahimi, after reducing the intertie ASMP by the intertie congestion price, the entity providing the AS import will still receive its bid price or better.³⁰⁹

SCE contends that the MRTU Tariff allows parties to separate and sell the AS associated with firm imports, citing to Sections 11.10.3 and 11.10.4, and that, at least for existing contracts, this can create an avenue for sellers to attempt to get paid twice for the AS associated with the firm energy.³¹⁰ SCE recommends that CAISO eliminate this explicit payment for AS associated with imports.³¹¹ SCE states that at a minimum, for existing contracts, the CAISO should treat firm imports as they do today (that is not allow the AS to be separately sold off but simply reduce the SC's AS requirement as the Import is scheduled against load).³¹²

SCE is correct that under that the CAISO's current (pre-MRTU) Tariff (and based on existing WECC rules), firm Imports are backed by Operating Reserves (Spinning and Non-spinning reserves) from the sending Control Area and the SC with scheduled load can use the AS associated with the firm Import to reduce the SC's AS requirements. In addition, an issue arises either if the Operating Reserves behind a firm Import exceed the

³⁰⁹ See Testimony of Dr. Rahimi, Exh. ISO-4, at 146-153.

³¹⁰ SCE at 68-69.

³¹¹ *Id.*

³¹² *Id.*

operating reserve requirements of the SC's load, or if the SC with the firm Import has no load. Under the current CAISO Tariff, an SC with an excess of Operating Reserves associated with a firm Import receives a credit for such reserves if, and only if, that SC sells the AS to another SC with a positive Load obligation (through an inter-SC trade of AS). If the SC with no Load that imports firm Energy sells only the Energy and fails to sell the AS, it receives no credit of any kind.³¹³ Under the MRTU design, an SC will receive a credit for Operating Reserves behind firm Imports even if the importing SC has no Load obligation and the SC does not engage in an Inter-SC Trade of Energy or AS. However, the credit for these "negative Operating Reserves" under MRTU is limited to the amount that offsets positive AS obligations net of qualified self-provision system-wide.³¹⁴ In short, it is reasonable to compensate Imports for the reduction in overall AS procurement that they allow. The limitation of credits to the amount usable by the CAISO to meet its Operating Reserve requirements is reasonable as well, importers should not be paid for services that are not useful to the CAISO Control Area.

Regarding SCE's double counting concerns, with the CAISO's proposed procedure, there is neither double payment nor, underpayment for AS behind firm Imports. For an ETC, the ETC schedule must be balanced, which means the firm Import cannot exceed the ETC load. Therefore the AS behind the firm Import cannot exceed the ETC's AS load obligation. In addition, if an ETC rights holder were to self-provide additional AS from other resources in its portfolio, it deserves to get paid the user rate for the excess self-provision to the extent it is needed by the CAISO. In other words, the CAISO's proposal ensures there will be no double payment by counting the self-provided

³¹³ See Exh. ISO-4 at 169-172.

³¹⁴ *Id.* at 171.

AS against the SC's obligation first, and pro-rating the AS behind the firm Imports if that sum exceeds the CAISO's AS requirements.

3. Exports of Ancillary Services

IEP/WPTF makes a general assertion of a "loss of parity" between importing and exporting of AS and states that CAISO has excluded the capability to export AS.³¹⁵ However, IEP/WPTF provides no citation to the MRTU Tariff sections supporting its allegation.

Turlock cites to Section 8.4.7.2 of the MRTU Tariff for its contention that the Tariff unjustly prohibits Exports of ancillary services.³¹⁶ The sentences Turlock refers to read as follows: "There is no provision for exports with regard to Ancillary Services Bids. The functionality necessary to accept such Bids does not exist in the CAISO scheduling software."³¹⁷ The language to which Turlock refers is existing language in current (pre-MRTU) CAISO Tariff. The MRTU-related changes to this language simply replaced the words "external exports" with "exports" and capitalized the word "Bid" in the first sentence quoted above. The existing (pre-MRTU) language in Section 8.4.7.2 comes from the Schedule and Bids Protocol Section 5.1 that was merged into the Simplified and Reorganized Tariff. In short, the MRTU edits to the sentence in Section 8.4.7.2 that allegedly prohibits Exports of AS did not change the ability of market participants with regard to Exports of AS.

More importantly, Turlock is incorrect in its claim that the CAISO is "permitted to trap generation in its Control Area" and can allegedly deprive entities in neighboring

³¹⁵ IEP/WPTF at 104.

³¹⁶ Turlock at 24.

³¹⁷ Section 8.4.7.2.

control areas of their ownership or contract rights.³¹⁸ First, as a general matter, the CAISO Control Area relies on imports from other control areas to meet its needs and the CAISO has a keen interest in cooperating with its neighboring control areas. If the CAISO were to prohibit load serving entities in other control areas from importing generation from the CAISO Control Area, the reciprocal treatment by other control areas would be more detrimental to the CAISO than vice-versa. Second, the MRTU language changes added at the end of Section 8.4.7.2 explicitly indicate that SCs can serve on-demand obligations to serve loads outside of the CAISO Control Area provided that the SC is using available export transmission capacity in real time and the capacity resource serving the on-demand obligation is not under an RMR or Resource Capacity obligation and has not been paid a RUC availability payment for the Trading Hour.³¹⁹

SCE recommends that sales of interruptible exports as Non-Spinning Reserve be prohibited.³²⁰ SCE is concerned that this issue did not receive enough stakeholder discussion and fears that Section 8.3.4 of the MRTU Tariff creates a “money machine” in which an SC may sell an “Interruptible Import” and then schedule an “Interruptible Export” and collect a Non-Spinning reserve payment. While the substance of the tariff language in Section 8.3.4 to which SCE refers (*i.e.*, that Non-Spinning reserves can be provided from “interruptible exports”) was not changed by MRTU,³²¹ SCE states that if the CAISO interrupts the export, the SC would interrupt the import with the result that

³¹⁸ See Turlock at 25t.

³¹⁹ See Section 8.4.7.2 (last sentence).

³²⁰ SCE at 60.

³²¹ The changes to the relevant sentence in § 8.3.4 eliminated the use of the term “Replacement Reserves” and limited self provision of Non-spinning reserves from System Resources to bid-in capacity; the changes did not change the notion that Non-Spinning reserves can be provided from “interruptible exports.”

the CAISO would receive no reliability benefit from interrupting the export.³²² SCE recommends that “[u]ntil all of the cost allocation and reliability issues are resolved, the MRTU Tariff should not allow Interruptible Exports to sell Non-Spinning reserve.”³²³

The CAISO believes SCE has identified a legitimate concern and accepts SCE’s suggestion to prohibit the eligibility of interruptible exports to provide Non-Spinning Reserves to the CAISO Control Area. The CAISO will provide the conforming changes to the MRTU Tariff in a compliance filing.

4. Ancillary Service Procurement

SWP claims the CAISO should not be allowed to reverse the Commission’s holding that the CAISO is not authorized to acquire AS for transactions that may be within the CAISO Control Area, but do not use the CAISO Controlled Grid.³²⁴

The CAISO is not reversing holdings as described by SWP (*i.e.*, that, according to SWP, the CAISO is not authorized to acquire AS for transactions that may be within the CAISO Control Area, but do not use the CAISO Controlled Grid). The CAISO is responsible for ensuring that there are sufficient Ancillary Services available to maintain the reliability of the CAISO Controlled Grid consistent with WECC and NERC criteria.³²⁵ This requirement is unchanged by the MRTU Tariff.

Moreover, many of the minimum operating reliability criteria (“MORC”) are Demand-based requirements based on control area demand. For example, automatic generation control (AGC) is required to provide Regulation Up and Regulation Down

³²² SCE at 60.

³²³ *Id.*

³²⁴ SWP at 49-50 (citing to MRTU Tariff Sections 8.2.3.2 and 8.3.3, and *California Independent System Operator Corp.*, 107 FERC ¶ 61,152 at P 28 (May 10, 2004), *reh’g denied*, 111 FERC ¶ 61,078 (Apr. 18, 2005), *order denying motions for clarification*, 113 FERC ¶ 61,133 (Nov. 4, 2005)).

³²⁵ See Section 8.1 of the MRTU Tariff.

capacity and the WECC criteria states that: “Each control area shall operate sufficient generating capacity under automatic control to meet its obligation to continuously balance its generation and interchange schedules to its load. It shall also provide its proper contribution to Interconnection frequency regulation.”³²⁶ The same is true for Operating Reserves. WECC criteria state that Contingency Reserve shall be at least the greater of: (1) The loss of generating capacity due to forced outages of generation or transmission equipment that would result from the most severe single contingency (at least half of which must be spinning reserve); or (2) The sum of five percent of the load responsibility served by hydro generation and seven percent of the load responsibility served by thermal generation (at least half of which must be spinning reserve).³²⁷ In short, meeting the WECC criteria based on control area Demands (or load responsibilities) are crucial to maintaining the reliability of the CAISO Controlled Grid. Contrary to SWP’s implication: (a) meeting WECC and NERC reliability criteria is synonymous with ensuring that the requisite AS is available (either purchased or self-provided) based on control area demands, and (b) the obligation to meet WECC criteria (and the criteria themselves) were provisions in the existing (pre-MRTU) Tariff and have not been altered by MRTU.

³²⁶ Western Electricity Coordinating Council Minimum Operating Reliability Criteria (April 2005) at 4 (emphasis added); *see also* § 8.2.3.1 of the CAISO Tariff (unchanged by MRTU) stating that “The CAISO shall maintain sufficient Generating Units immediately responsive to AGC in order to provide sufficient Regulation service to allow the CAISO Control Area to meet WECC and NERC control performance criteria by continuously balancing Generation to meet deviations between actual and scheduled Demand and to maintain interchange schedules” (emphasis added).

³²⁷ Western Electricity Coordinating Council Minimum Operating Reliability Criteria (April 2005) at 2 (emphasis added); *see also* the first sentence of § 8.2.3.2 of the CAISO Tariff that places the obligation on the CAISO to meet the WECC MORC. Furthermore, the substance of the first sentence of § 8.2.3.2 of the CAISO Tariff is unaltered by MRTU (the only editorial change was to move the placement of two parenthetical clauses for the purpose of clarity).

In addition, section 8.3.3 of the MRTU Tariff cited by SWP sets forth the proposed use of Ancillary Service Regions, however, despite the use of the new terms (e.g., “System Region” and “Expanded System Region”), the section does not change the CAISO’s obligation to ensure that WECC and NERC AS criteria are met (based on CAISO Control Area demands) in order to ensure the reliability of the CAISO Controlled Grid.

SCE, IEP/WPTF and Cities/MSR contend that the details concerning how the CAISO establishes sub-regions for AS procurement should not reside in BPMs; rather, the details should be placed in the MRTU Tariff (including the methods the CAISO will use to determine the AS regions, and the periodicity under which the CAISO will consider changing the AS regions).³²⁸ SCE adds that suppliers within the Region or Sub-Region should not be given AS market-based rates until FERC has analyzed the competitiveness of the locations.³²⁹

While using new terms, the CAISO’s approach in MRTU of assuring that NERC/WECC AS requirements are met is consistent with the existing authority to procure regionally where and when system conditions dictate. For example, the existing (pre-MRTU) tariff language on locational procurement of AS is as follows:

Locational Quantities of Ancillary Services.

For each of the Ancillary Services, the ISO shall determine the required locational dispersion in accordance with ISO Controlled Grid reliability requirements. These standards shall be used as guidance only. The actual location of Ancillary Services on a daily and hourly basis shall depend on the locational spread of Demand within the ISO Control Area, the available transmission capacity, the locational mix of Generation, and historical patterns of transmission and Generation availability.

³²⁸ See Cities/M-S-R at 47-48; WPTF/IEP at 103-104; and SCE at 34-36.

³²⁹ SCE at 35-36.

Section 8.2.4 of the current CAISO Tariff. The CAISO intends to provide more details on locational procurement of AS with MRTU than exists in current CAISO Tariff. However, these details are appropriately placed in BPMs. The MRTU Tariff contains requisite details on rates, terms, and conditions of service with regard to AS requirements sufficient to satisfy the Commission’s “rule of reason.”³³⁰

With regard to SCE’s comment regarding market power concerns, the CAISO will not establish AS Regions that create new market power concerns. First, with the initial implementation of MRTU, the CAISO has committed not to specify AS Regions any more granular than the present Congestion Management zones which should help to ensure that the exercise of local market power in the AS markets is not a problem.³³¹ Second, the CAISO will continue to use its Local Area Reliability Service criteria and the designation of Reliability Must Run resources to address local reliability concerns. In addition, it is expected that the resource adequacy programs and the local capacity requirements established by the CPUC and Local Regulatory Authorities will assist in addressing any market power concerns of AS suppliers. In sum, the CAISO will not create AS market power concerns with the implementation of MRTU and the CAISO has ample tools to address any concerns that arise in the future.

SCE claims there is conflict between Section 8.3.1 of the MRTU Tariff which provides that “In the Day-Ahead Market, the CAISO procures one-hundred (100) percent of its Ancillary Service requirements based on the Day-Ahead Demand Forecast net of Self Provided Ancillary Services” and Section 8.3.5 of the Tariff which states that, “The CAISO shall procure Regulation Up, Regulation Down, Spinning, and Non-Spinning

³³⁰ See Section I.D of these Reply Comments.

³³¹ See Exh. ISO-1 at 56.

Reserves on a daily, hourly and Real-Time basis in the IFM, HASP and RTM respectively³³² There is no conflict between the two Tariff provisions cited by SCE. While it is true that Section 8.3.1 provides that the CAISO will procure 100% of its AS requirements in the Day Ahead Market or IFM, it is also true that there can be incremental AS needs to be met in the HASP and Real-Time Market.

PG&E claims that it is unreasonable for the CAISO to procure 100% of the expected requirements for AS in the Day-Ahead Market. PG&E contends that the requirement should be to procure AS at projected least cost, in either the Day-Ahead or the HASP.³³³ The CAISO respectfully requests that the Commission reject PG&E's comments. The issue PG&E raises was raised previously in a conceptual MRTU filing submitted prior to the MRTU Filing and the Commission accepted the CAISO's proposal.³³⁴ PG&E has presented no new evidence that would have the Commission revisit its earlier decision.

Moreover, the CAISO believes it can procure 100% of forecasted requirements Day-Ahead and not excessively drive up the cost of the procured AS for two reasons. First, the Resource Adequacy "must offer obligation" stipulates that RA capacity from resources that bid Energy into the Day-Ahead Market can be optimally scheduled for Energy or awarded AS, even if the resource does not explicitly submit capacity Bids for AS. If a resource does not submit capacity Bids, the optimization will occur using proxy capacity Bids at \$0 per MW, up to the quantity of capacity that can meet the performance requirements for each AS. In other words, the Day-Ahead IFM should have a considerable pool of potential AS capacity in all hours except under extreme

³³² SCE at 60.

³³³ PG&E at 57.

³³⁴ See *California Independent System Operator Corp.*, 107 FERC ¶ 61,274 (2004) at P 107.

circumstances.³³⁵ Second, the IFM optimization is configured to assign greater priority to the award of AS than to scheduling Energy, up to 100% of the CAISO's daily AS procurement target. Therefore, if there is not enough Supply bid into the Day-Ahead Market to clear both Energy Demand and meet the AS requirement, the IFM will procure the AS first and schedule less Demand if necessary.³³⁶

5. Ancillary Service Cost Allocation

IEP/WPTF and SCE both contend that the CAISO's proposed collective AS provisions lack cost-causation and artificially create difference in the value of AS being provided between bid-in AS and self-provided AS, and that this will create both unnecessary cost shifts and perverse incentives.³³⁷

SCE states that in its procurement of AS, the CAISO will enforce a series of constraints that will dictate how much AS are procured in each AS region. Because of the constraints, different AS regions will likely have different AS clearing prices.³³⁸ Parties that buy AS for the CAISO or that self-provide AS are charged or credited the user rate for AS.³³⁹ Assuming all procurement is done in the Day-Ahead Market, the user rate is the procurement weighted average price of all AS procurement zones.³⁴⁰ Because, according to SCE, the CAISO does not enforce any constraints during self-provision, SCE claims this provides incentives for SCs to "over" self-provide from low cost AS regions, and shift the costs of the resulting AS procurement cost to other SCs.³⁴¹

³³⁵ See Exh. ISO-1 at 55.

³³⁶ *Id.*

³³⁷ See SCE at 66-68; WPTF/IEP at 101-102.

³³⁸ SCE at 66-67.

³³⁹ *Id.* at 67.

³⁴⁰ *Id.*

³⁴¹ *Id.*

While using a different example, IEP/WPTF reaches a similar conclusion.³⁴² IEP/WPTF recommends that AS costs be allocated to loads regionally based on the actual procurement costs in that region. Such a design would eliminate both cost shifts and unbalanced incentives to self-provide versus bid-in AS.³⁴³ IEP/WPTF claims that the CAISO has no basis for allocating the cost of regional procurement over the entire CAISO Control Area and asks the Commission to direct the CAISO to align AS cost allocation with AS procurement cost by allocating regional procurement costs to load within the region.³⁴⁴

The CAISO respectfully disagrees with commenters' suggestions on this issue. Regarding SCE's statement concerning AS self-provision, the CAISO does limit (pre-qualify or disqualify) AS self-provision based on AS Regional limits. Regarding system-wide cost allocation of AS (through the user rate), the CAISO recognizes under the current CAISO Tariff the Control Area can be split for AS procurement (*e.g.*, NP15 and SP15) and that in the settlement of the AS markets, regional procurement costs are allocated regionally. However, as discussed in more detail below, with the MRTU functionality and design it is reasonable to allocate AS procurement costs to all loads on a system-wide (or Control Area) basis.

First, as noted by Dr. Rahimi, AS requirements satisfied in a smaller AS Region satisfy or count towards the AS requirement in a larger AS Region (*e.g.*, the System Region which is the CAISO Control Area).³⁴⁵ In other words, regionally-procured AS counts toward meeting the AS requirements for the larger, System Region for the

³⁴² See WPTF/IEP at 101-102.

³⁴³ *Id.* at 102.

³⁴⁴ *Id.*

³⁴⁵ See Testimony of Dr. Rahimi, Exh. ISO-4 at 114.

particular service.³⁴⁶ Under MRTU all AS is optimized together (as opposed to sequential optimization today), across all regions (as opposed to zonal procurement when AS procurement is split today) and along with Energy for a most efficient market outcome. Therefore, whether and where AS capacity is awarded depends on co-optimization that minimizes both Energy and AS bid costs and meets the Energy and AS needs of the system.

Second, the AS requirements in the MRTU Tariff are based on WECC and NERC standards and are System Region or Control Area wide requirements. The requirements do not vary as they relate to loads; the same requirements apply to all loads in the CAISO Control Area. In short, the AS requirements for a particular service are “system” requirements and it is reasonable to allocate costs of meeting these system requirements on a system basis to load in the CAISO Control Area.

Finally, it is worth noting that in terms of cost allocation, the result is similar to the postage stamp pricing in which the costs of the Transmission Access Charge are allocated to users of the high voltage transmission system. That is, all the system costs of the high voltage transmission system are allocated among all the users of the transmission system despite differences in the high voltage transmission costs across the CAISO Control Area.³⁴⁷ A transmission customer serving load in NP15 with generation in NP15, pays the costs of the entire system. This is true notwithstanding the fact that a higher portion of the transmission costs recovered by the TAC could be located in SP15. Similarly, it is just and reasonable with regard to recovery of the costs of satisfying the

³⁴⁶ *Id.*

³⁴⁷ While it does not diminish the analogy to postage stamp pricing, the CAISO notes that currently postage stamp pricing only applies to a portion of the high voltage transmission costs due to the phase-in period for the methodology.

Control Area wide AS requirements that each SC pays its proportionate share of those costs. This is true notwithstanding the fact that a greater or lesser percentage of the system costs may take place in a particular region in a particular settlement period.

As noted earlier in these Reply Comments, the legal standard is not whether there are other methods of recovering AS procurement costs for the CAISO Control Area, the issue is whether the method proposed by the CAISO in the MRTU Tariff is just and reasonable.³⁴⁸ The CAISO respectfully requests that the Commission reject the suggestions of commenters and accept the proposed method of allocating AS costs as just and reasonable.

6. Other Ancillary Service Issues

CAISO notes that as a result of implementing its proposed changes to co-optimize conditionally qualified self-provided ancillary services as described in Section II.B of these Reply Comments above, the CAISO is also proposing to eliminate the requirement that AS bids must be accompanied by an associated Energy Bid (as specified in Section 30.5.2.6 of MRTU Tariff).³⁴⁹ Assuming the CAISO is able to automate the first step of the three-step verification process for LAP-clearing constraints, AS bidders would remain free to include an associated Energy Bid, however, the CAISO proposes to no longer require that such an Energy Bid be included. It is important to highlight, however, that under the CAISO's proposal all Awarded AS and all accepted Submissions to Self Provide AS must submit associated Energy bids in HASP/Real-Time. There are several reasons for this proposed change.

³⁴⁸ See Section I.A above.

³⁴⁹ This change is conditional on the outcome of CAISO's evaluation of its ability to automate the first step of the three-step verification process for LAP-clearing constraints. As discussed above, the CAISO will inform the Commission and its stakeholders of the resolution of this evaluation and whether such changes will be feasible for Release 1.

First, there is already an exception to the requirement that AS bids must have an associated Energy bid -- Self-Provided AS in the Day Ahead IFM is not required to submit an associated Energy Bid in the Day Ahead Market.³⁵⁰ The CAISO's proposal is to extend this exception to all AS Bids.

Second, the requirement is unnecessary for resources that are under obligation to offer Energy bids (*i.e.*, RA and RMR resources) since they will have an Energy bid inserted for them if they do not include one. Furthermore, if a resource that is not otherwise under obligation to submit an Energy bid nonetheless fails to submit an Energy Bid in HASP/Real-Time for AS that it either sold or self-provided in the IFM, the resource's Proxy Energy Bid will be inserted up to the amount of AS capacity. In addition, since the entire Bid must be monotonic, the inserted Bid prices would be no lower than any Energy Bid prices submitted for HASP/RT from that resource.³⁵¹

Third, the elimination of the requirement that AS bids must be accompanied by an associated Energy Bid will assist in the implementation of *other* sections of the MRTU Tariff, *i.e.*, Section 8.6.2 - Right to Self Provide AS, and Section 31.3.1.2 - Reduction of LAP Demand. A Submission to Self Provide AS is "conditional" under Section 8.6.2 if, pursuant to a contractual obligation, the capacity may be called on for Energy in the MPM-RRD process. Under Section 31.3.1.2, if Load at a LAP would otherwise be reduced as a result of a non-competitive transmission constraint, the CAISO may schedule the Energy from Self-Provided AS from capacity under an obligation to offer an Energy Bid (*e.g.*, RA and RMR resources). Eliminating the requirement to provide an

³⁵⁰ See Exh. ISO-4 at 122. Even though Self-Provided AS in the Day Ahead IFM does not have to submit an associated Energy bid, it must submit an Energy bid later in the HASP/Real-Time submission time frame. See *id.*

³⁵¹ The entire Real-Time Bid, however, is subject to local market power mitigation in HASP/Real-Time.

associated Energy Bid with AS Bids is consistent with the conditional nature of Self-Provided AS for certain resources under Sections 8.6.2 and 31.3.1.2. As discussed above in Section II.B of these Reply Comments, the CAISO will inform the Commission and stakeholders of the results of its evaluation of the feasibility of the automation process, and if it turns out to be indeed feasible for Release 1, the CAISO commits to provide the conforming tariff changes in a compliance filing.

SCE alleges that Section 8.3.1 of the MRTU Tariff misleadingly states that the CAISO is required to procure Regulation Up and Regulation Down in the Real-Time market.³⁵² SCE's and Six Cities' comments are based on the last sentence of the second paragraph of Section 8.3.1 that CAISO "will procure" Regulation Up and Regulation Down in the RTM. The CAISO agrees with SCE and Six Cities and will remove the last sentence of the second paragraph of Section 8.3.1 in a compliance filing.

Six Cities also recommends that Section 8.6.1 regarding AS Obligations should cross reference Section 11.10 of the MRTU Tariff which contains greater detail on AS obligations. The CAISO agrees to put a cross reference in Section 8.6.1 to the AS obligations of SCs set forth in Sections 11.10.2, 11.10.3, and 11.10.4 of the MRTU Tariff and will make this change in a compliance filing.

SCE also states that that formula for an SC's hourly obligation for Non-Spinning Reserves in the first paragraph of Section 11.10.4.2 is incorrect.³⁵³ SCE requests that the language of Section 11.10.4.2 be modified to parallel the provisions of the first paragraph of Section 11.10.3.2, which SCE states is the correct formula for an SC's hourly obligation for Spinning Reserves. The CAISO accepts SCE proposal and will change the

³⁵² See SCE at 59-60; see also Six Cities at 10-11.

³⁵³ SCE at 69-70.

language in section Section 11.10.4.2 in a compliance filing with further clarifying changes to read as follows:

Each Scheduling Coordinator's hourly net obligation for Non-Spinning Reserves is determined as follows: the Scheduling Coordinator's total Ancillary Services Obligation for Operating Reserve for the hour (and if negative, multiplied by NOROCAP) multiplied by the ratio of the CAISO's total Ancillary Services Obligation for Non-Spinning Reserves in the hour to the CAISO's total Operating Reserve obligations in the hour, reduced by the accepted Self-provided Ancillary Services for Non-Spinning Reserves, plus or minus any Non-Spinning Reserve Obligations for the hour acquired or sold through Inter-SC Trades of Ancillary Services.

In addition, the CAISO believes that further clarity would be added to the Tariff if the titles to Sections 11.10.2.1.3, 11.10.2.2.2, 11.10.3.2, 11.10.4.2 were changed to be "Hourly Net Obligation for Regulation Down Reserve," "Hourly Net Obligation for Regulation Up," "Hourly Net Obligation for Spinning Reserves," and "Hourly Net Obligation for Non-Spinning Reserves," respectively.

SCE claims that supply that wins AS should not be allowed to rebid the associated energy and therefore SCE recommends that Section 30.5.1(b) should be clarified to indicate that energy associated with winning AS capacity bids cannot be rebid.³⁵⁴ The CAISO respectfully requests that the Commission reject SCE's proposed modification. The Commission has previously determined that energy associated with an AS Award can be re-bid.³⁵⁵

Powerex claims that the MRTU Tariff fails to establish specific ramp rate standards.³⁵⁶ Powerex claims that specifying a minimum ramping rate has several advantages, including ensuring: (a) that providers of Regulation service perform up to

³⁵⁴ SCE at 76.

³⁵⁵ *September 20, 2004 Order* at P 25; *see also January 24, 2005 Order (Order on Reh'g)*, at PP 21, 22.

³⁵⁶ Powerex at 20.

pre-defined standards designed to meet the system's needs, and (b) that resources that are truly responsive are the resources providing Regulation service. Without a minimum ramping rate, Powerex claims that units with very low ramp rates in their Regulation Bids could obtain Regulation payments while providing little or no reliability benefits. Entities seeking to provide Regulation must provide a regulating ramp rate.³⁵⁷ The CAISO does not believe there is need to establish a specific regulating ramp rate standard.

Powerex also recommends that AS Bids should consist of multiple price and quantity segments like energy bids.³⁵⁸ As proposed in the MRTU Tariff, AS bids will consist only of a single bid segment. *See* Section 30.5.2.6 of the MRTU Tariff. Powerex states that multi-segment AS bids would allow bidders to submit bids that reflect the marginal variable production costs at various output levels of the generators or System Resources.³⁵⁹ At a minimum, Powerex argues that the CAISO should allow multi-segment AS bids for Dynamic System Resources that represent more than one Generating Unit.³⁶⁰ The CAISO believes the suggestion by Powerex is an unnecessary complication. Ancillary Services are unloaded capacity and the operating cost (\$/MW/h) of providing AS should not depend on how much of the capacity is unloaded (particularly considering that Start-Up and Minimum Load Costs can be specified separately). Therefore, the main cost variation to keep more or less capacity unloaded is the “opportunity cost” of energy. However, this is offered through the Energy Bid curve, which is not restricted to have a single segment, so a single economic bid segment for AS

³⁵⁷ See Section 30.5.2.6 of the MRTU Tariff.

³⁵⁸ Powerex at 22.

³⁵⁹ *Id.*

³⁶⁰ *Id.*

capacity suffices. Moreover, the functionality in the existing (pre-MRTU) CAISO Tariff uses a single price segment for AS Bids.

Six Cities states that Section 8.2.3.2 of the MRTU Tariff requires Operating Reserves for exports to be self-provided and “appears to require” that such operating reserves consist of 100% Spinning Reserve.³⁶¹ Six Cities state that: (a) this apparent requirement exceeds WECC requirements and ISO requirements for operating reserves (which allow 50% of operating reserves to be provided by Non-spinning Reserves) and (b) the imposition of a 100% Spinning Reserve requirement for exports unreasonably discriminates against LSEs that have firm off-system obligations.³⁶²

Six Cities’ comments are based on the elimination of the last two sentences in Section 8.2.3.2, which stated that additional Operating Reserves could be Non-Spinning Reserves. However, Section 8.2.3.2 (even with the elimination of the last two sentences) does not require all additional operating reserves to be Spinning Reserves. The CAISO did not impose the requirement postulated by Six Cities, and the CAISO will include a statement in Section 8.2.3.2 in a compliance filing that additional Operating Reserves can be Spinning Reserves.

Six Cities recommends that the CAISO revise Section 8.6.3 to allow self-provision of Black Start services stating that there is no reason to not allow SCs to self-provide this service.³⁶³ However, the change that Six Cities recommend is unrelated to MRTU Tariff changes; the existing (pre-MRTU) Tariff does not allow self-provision of Black Start service and MRTU does not alter this fact. Black Start service currently is

³⁶¹ Six Cities at 10.

³⁶² *Id.*

³⁶³ Six Cities at 11.

procured through individual contracts with Scheduling Coordinators for RMR units and other Generating Units with Black Start capability.³⁶⁴

PG&E claims the specific performance requirements in Appendix K, which refer to ASRP for Regulation, Spinning Reserve, and Non-Spinning Reserve, no longer have meaning as the pertinent parts of what had been the ASRP protocol have been eliminated.³⁶⁵ PG&E is incorrect; the pertinent parts of the ASRP have not been eliminated, they have been incorporated into Section 8.3.3 of the MRTU Tariff, which refers to Appendix K.

Coral alleges that procurement of Operating Reserves under MRTU is inadequate to ensure reliability for load pockets.³⁶⁶ Specifically Coral claims that the proposed market design provides for procurement and payment of Operating Reserves on a zonal basis rather than load pocket basis (as well as no longer including Replacement Reserves) and that this fails to provide uniform reliability and increases the possibility of load dropping within discrete load pockets, solely to lower the costs paid by the LSEs. Coral requests that the Commission direct the CAISO to procure both Operating Reserves and Replacement Reserves on a load pocket basis.³⁶⁷

Coral is incorrect. In contrast to Coral's comments the CAISO will consider the ancillary service needs of load pockets within the CAISO Control Area. Coral's comments ignore the use of RMR contracts to provide ancillary services within load pockets. Under Section 41.1 of the MRTU Tariff, the CAISO may call on RMR generation to provide Ancillary Services to ensure that the reliability of the CAISO

³⁶⁴ See Section 8.3.1 of the Tariff.

³⁶⁵ PG&E at 62.

³⁶⁶ Coral at 20.

³⁶⁷ *Id.* at 21.

Controlled Grid is maintained.³⁶⁸ Regarding Coral’s comments about continuing to require or procure Replacement Reserves, this requirement is unnecessary under the MRTU market design. Under MRTU, the must-offer obligation for RA resources and the RUC process will ensure that sufficient capacity is available to meet Real Time needs and make it unnecessary for the CAISO to procure Replacement Reserves.³⁶⁹

J. Bid Cost Recovery

1. The CAISO’s Proposal to Net Market Revenues Against Costs For a 24-Hour Period is Just and Reasonable

IEP/WPTF and Constellation/Mirant take issue with the CAISO’s proposal to determine costs eligible for recovery under the Bid Cost Recovery (“BCR”) mechanism by taking the net of a resource’s market revenues and costs over a 24-hour period. These parties contend that the 24-hour netting approach will adversely affect a resource’s ability to recover revenue to cover costs beyond its short-run marginal costs, and is inconsistent with prior findings by the Commission addressing recovery of Minimum Load Costs and Start-Up Costs for must-offer resources.³⁷⁰

The CAISO’s proposed netting of market revenues is consistent with prior orders and ensures a just and reasonable level of recovery for resources. First, as IEP/WPTF recognizes, the Commission has already approved the concept of using a 24-hour netting approach to determine costs eligible for recovery in its order on Amendment No. 54. Therein, the Commission rejected Duke’s protest of the 24-hour netting approach, noting that, although the Commission would revisit this issue if necessary when California has

³⁶⁸ See also Section 34.8 (where CAISO may issue instructions to dispatch Energy from units providing Ancillary Services including units dispatched in accordance with an RMR Contract).

³⁶⁹ See Exh. ISO-4 at 107-108.

³⁷⁰ IEP/WPTF at 94-95; Constellation/Mirant at 12-13.

concluded its resource adequacy proceeding, in the interim the CAISO's proposal "balances the need to meet load and adequately compensate flexible and constrained resources."³⁷¹ IEP/WPTF appears to overlook this approval by stating that California still lacks a capacity market and that there remains uncertainty about when one will be implemented. The Commission found that the CAISO's 24-hour netting approach was reasonable pending the outcome of California's RA proceeding, and that it would, if necessary, revisit this determination *when that proceeding had concluded*. Neither IEP/WPTF nor Constellation/Mirant present any substantive rationale as to why the Commission's finding that this approach is just and reasonable was in error, and therefore, there is no reason now to revisit the Commission's prior findings that such an approach is just and reasonable.

Given the Commission's explicit approval in the Amendment No. 54 Order, IEP/WPTF and Constellation/Mirants' reliance on prior orders addressing cost recovery for must-offer resources under the pre-MRTU market design is misplaced. These decisions do not support abandoning the 24-hour netting approach because there is a fundamental difference between BCR as proposed in MRTU and the cost recovery mechanisms for units that are under FERC's must offer obligation. Under BCR, a resource is eligible to recover its Start-Up, Minimum Load, and Bid Costs so long as it is committed by the CAISO; that is, the resource is not operating pursuant to a Self-Schedule. This contrasts with the pre-MRTU must offer obligation established by the Commission under which resources not operating under a waiver are *required* to offer their capacity into CAISO markets. Under MRTU, only RA units continue be under a

³⁷¹ *California Independent System Operator*, 105 FERC ¶ 61,091 (2003) at P 94 ("Amendment No. 54 Order").

contractual obligation to offer their capacity. Fixed costs for RA units will be recovered through applicable contracts. It is, therefore, simply not appropriate to use the BCR mechanism to ensure the recovery of such units' fixed costs.

As explained in Dr. Rahimi's testimony, a resource that might be constrained in some intervals, and thus unable to recover its costs, will be provided an opportunity to benefit from those solutions that increase the amount of infra-marginal Energy dispatched and settled in other intervals. Under these circumstances, it is appropriate that, if a resource is being compensated via an uplift payment when the resource is extra-marginal (*i.e.*, not recovering its costs), such resource internalize the uplift payments before spreading such costs to the rest of the market.³⁷²

Finally, other ISOs that have cost compensation mechanisms similar to the CAISO's BCR mechanism also employ a 24-hour netting approach. Specifically, the ISO-New England and the Midwest ISO use a 24-hour netting approach to determine a resource's eligibility for cost recovery.³⁷³

2. The CAISO's Proposal to Make BCR Payment Contingent Upon a Resource's Operation Within a Certain Threshold is Just and Reasonable With the Modifications Proposed Herein

IEP/WPTF also takes issue with the CAISO's proposal to rescind a resource's BCR payment for a given hour if the resource engages in Uninstructed Deviations beyond a tolerance band. IEP/WPTF states that the Commission has already rejected this

³⁷² Exh. ISO-4 at 194-195.

³⁷³ See Midwest Independent System Operator OATT, Sections 39.2.9(f), 40.2.13; New England Independent System Operator OATT, Section 3, Market Rule 1, Appendix F, Sections III.F.2.1.4, III.F.2.1.14.

approach, and should do so once more in the context of the CAISO's MRTU Tariff Filing.³⁷⁴

The CAISO recognizes that in prior orders the Commission rejected the CAISO's pre-MRTU proposal to eliminate bid cost recovery payments for resources operating outside a tolerance band.³⁷⁵ The Commission's rationale for rejecting the CAISO's proposed tolerance band approach was that the CAISO's UDP, along with the Commission's market behavior rules, would be adequate to deter Uninstructed Deviations. However, there is a separate and compelling rationale for applying a tolerance band to BCR under MRTU, which justifies the Commission accepting the CAISO's proposal to include such a tolerance band in the MRTU Tariff. As explained in the testimony of witness Dr. Rahimi, absent the imposition of a tolerance band under MRTU, a resource owner with a bilateral contract who declares its contractual obligation via a Self-Schedule will be disadvantaged compared to another owner who does not disclose its obligation, simply waits to be committed by the CAISO, and then engages in an Uninstructed Deviation to meet its contractual obligation. Because the CAISO has no other way of knowing whether a unit is operating pursuant to a bilateral contract obligation other than through the self-scheduling mechanism, the elimination of the tolerance band will effectively encourage owners to deviate because they will be eligible for a BCR payment from the CAISO.³⁷⁶

Moreover, under MRTU Real-Time Dispatch will be performed based on the where the resource is actually operating in real-time as measured by direct telemetry. This is a fundamental difference as compared to the Phase 1B design, in which dispatch

³⁷⁴ IEP/WPTF at 95-96.

³⁷⁵ *California Independent Sys. Operator Corp.*, 111 FERC ¶ 61,342 (2005).

³⁷⁶ Exh. ISO-4 at 202-203.

is based on the CAISO's prior dispatch, regardless of the resource's actual operating level. Consequently, under the MRTU design, a resource could conceivably ignore Dispatch Instructions interval after interval and subsequently receive a Dispatch Instruction based on where the resource is telemetered even though that resource is actually operating at a level in which the resource's Bid is greater than the LMP for the resource. In such cases, the resource has elected not to follow the Dispatch Instructions and as a result should not be incented to continue to ignore the Dispatch Instructions knowing it will receive Bid Cost Recovery in such intervals. BCR is not intended to create incentives for resources to ignore Dispatch Instructions. BCR is intended to ensure that a resource can recover its costs when considering its physical and other intertemporal constraints such as ramp-rates and minimum run times that have been registered with the CAISO. Therefore it is appropriate to provide a mechanism that would discourage such behavior and not provide BCR payment for differences in the Energy Bid Costs versus LMP prices when a resource is deviating from its Dispatch Instructions outside of a specified tolerance band.

SCE does not object to the tolerance band concept, but expresses concern that the CAISO's current BCR proposal could result in excessive penalties to resources because, under the CAISO's proposal, a resource's recovery for a Settlement Interval is set to zero upon exceeding the tolerance band.³⁷⁷ SCE requests that the BCR provisions be modified so as to limit the maximum penalty in any interval to the amount of recovery that would have been paid in that interval but-for the excessive deviation.³⁷⁸

³⁷⁷ SCE at 53-54

³⁷⁸ *Id.* at 54.

The CAISO acknowledges SCE's concern, and in an effort to strike a balance between the need to ensure sufficient recovery of costs for units committed by the CAISO while having adequate mechanisms in place to discourage deviations from Dispatch Instructions under MRTU as described above, the CAISO commits to making the following changes to the MRTU Tariff in a compliance filing. The CAISO would amend Section 11.8 such that for deviations from Dispatch Instructions outside the tolerance band specified in Section 11.8, the CAISO: (1) would rescind Energy Bid costs in the IFM and RTM; (2) would not rescind fixed cost recovery for Start-Up and Minimum Load Costs in the IFM, RUC and RTM; and (3) would not rescind the RUC Availability Bid.

3. Application of BCR to MSSs

In its comments, SCE requests two clarifications concerning the application of BCR to MSSs. First, SCE requests that the MRTU Tariff be clarified to ensure that Bid Cost Recovery for an MSS that elects the load following option is only for any generation provided to CAISO markets and is not available for the generation that is used by an MSS to follow its own load.³⁷⁹ The CAISO agrees with SCE's request, and commits to make this clarification in a compliance filing.

SCE also requests that the BCR provisions in the MRTU Tariff make clear that any remaining uplift charges generated by a load-following MSS should be allocated to load-following MSSs, rather than the market at large. SCE at 49. The CAISO does not agree that this clarification would be appropriate. If this change were to be made, then reciprocity would suggest that load-following MSSs should then be exempted from uplift charges that are allocated on a system-wide basis, such as Tier 2 BCR charges. The

³⁷⁹ *Id.* at 48-49.

CAISO submits that this would introduce needless additional complexity into the BCR mechanism, with no increased benefit to the market as a whole.

4. Other Bid Cost Recovery Issues

SCE argues that recovery of Start-Up Costs in the IFM should not be limited to 24 hours. Instead, SCE requests that the Start-Up Costs should be divided by the total runtime of the unit even if that runtime exceeds 24 hours.³⁸⁰ The CAISO agrees, in principle, that the change SCE proposes would enhance the CAISO's proposal. The CAISO cannot, however, implement this change for MRTU Release 1. The CAISO will, however, consider this issue for inclusion in the list of Release 2 items. Even without this enhancement, the CAISO's proposal provides a reasonable mechanism for recovery of Start-Up Costs during the 24 hour time period in which those costs are first incurred. The CAISO also notes that, if the CAISO ultimately adopts a multi-day unit commitment process, SCE's concern will be intrinsically resolved as part of that process.

Coral argues that the CAISO has ignored the requirement in the July 1 2005 Market Design Order to guarantee that a generator can recover its Minimum Load and Start-Up Costs if it selected to provide AS in HASP.³⁸¹ Coral is mistaken. Such units are eligible to recover their Start-Up and Minimum Load Costs under the CAISO's BCR proposal.

SCE contends that the CAISO should not permit BCR for Non-Dynamic Resource-Specific System Resources. SCE claims that allowing such units the opportunity to recover their costs through BCR would be inappropriate, because the CAISO has no visibility of units outside of its Control Area and therefore no way of

³⁸⁰ SCE at 65-66.

³⁸¹ Coral at 19-20.

verifying that such units have actually started up and performed in a manner so as to be eligible for Bid Cost Recovery.³⁸² The CAISO agrees with SCE insofar as the CAISO recognizes that it must have sufficient data in order to verify that Non-Dynamic Resource-Specific Resources meet the BCR performance eligibility requirements set forth in the MRTU Tariff. Therefore, the CAISO commits to revise the BCR provisions of the MRTU Tariff in a compliance filing to add a requirement that any Non-Dynamic Resource-Specific Resources that wish to be eligible to recover their Start-Up and Minimum Load Costs under BCR must submit revenue-quality meter data to the CAISO demonstrating that they have performed in accordance with their CAISO commitments. Such meter data, along with interchange schedules, will allow the CAISO to appropriately verify whether these units have met the BCR performance eligibility requirements necessary to recover Start-Up and Minimum Load Costs.

Finally, IEP/WPTF and SCE note that the MRTU Tariff provisions addressing BCR require “cleanup.”³⁸³ The CAISO agrees that the provisions on BCR require additional review to ensure consistency between definitions, Section 11.8, and other provisions that address or point to BCR. In addition, the CAISO believes that the Section should be modified to ensure that resources that are committed by the CAISO do not eliminate Minimum Load Cost recovery via the BCR process during time periods that the resource is synchronized to the grid and is operating at level lower than its established Minimum Operating Level during starting up or shutting down prior to or subsequent to a CAISO Commitment Period. The CAISO agrees to make these changes in a compliance filing.

³⁸² SCE at 55-56.

³⁸³ IEP/WPTF at 96-103; SCE at 66.

K. Resource Adequacy

1. Section 40 Appropriately Balances State and Local Authorities' Long-Term Resource Adequacy Planning with the CAISO'S Responsibilities to Maintain Short-Term Reliability and To Reliably Manage the Grid

Section 40 forms the foundation upon which the new market design rests. The best models and Congestion Management practices are irrelevant if the resources necessary to meet the needs of End Use Customers are not available to the CAISO for Dispatch. Section 40 of the MRTU Tariff properly recognizes the oversight of State and Local authorities over generation planning, siting, and procurement as well as the CAISO's mandate to operate the grid reliably.

California authorities recognize the need to transition from reliance on the must-offer obligation fashioned by the Commission as a remedy to the California energy crisis of 2000-2001.³⁸⁴ California Assembly Bill ("A.B.") 380³⁸⁵ directed the CPUC to establish, in consultation with the CAISO, new resource adequacy requirements for LSEs that are under the CPUC's jurisdiction. As described in A.B. 380, the CPUC's resource adequacy program must ensure that each LSE:

maintain physical generating capacity adequate to meet its load requirements, including, but not limited to, peak demand and planning and operating reserves. The generating capacity shall be deliverable to locations and at times as may be necessary to provide reliable electric service.³⁸⁶

In addition, A.B. 380 required each of California's local publicly owned electric utilities to "procure resources that are adequate to meet its planning reserve margin and peak

³⁸⁴ As the CPUC has stated, "[i]t appears that the MOO and associated waiver mechanism may discourage contracting, provide inadequate compensation, and fail to foster a stable investment environment." Cal. Pub. Util. Comm'n Decision 05-10-042 at 33 (October 27, 2005) ("D. 05-10-042").

³⁸⁵ CAL. PUB. UTIL. CODE § 380 (2006).

³⁸⁶ *Id.*

demand and operating reserves, sufficient to provide reliable electric service to its customers.”³⁸⁷

A.B. 380 did not repeal or otherwise affect the CAISO’s responsibility under A.B. 1890 to maintain the reliable operation of the transmission grid consistent with planning and operating reserve criteria no less stringent than those established by the WECC and NERC.³⁸⁸ Indeed, A.B. 1890 directed that the necessary filings be made with the Commission “to give the [CAISO] the ability to secure generating and transmission resources necessary to guarantee achievement of [those] planning and operating reserve criteria.”³⁸⁹

Section 40 and the rest of Article V of the MRTU Tariff represents an evolution – not a revolution. The resources procured by LSEs under A.B. 380 must be made available to the CAISO in a manner that supports the reliable operation of the transmission grid to meet CAISO Control Area Demand. As stated by the CPUC, “it is pointless to design a regulatory system that encourages investment in order to create capacity unless that capacity is actually available to the grid operator to serve load where it exists in day-ahead, hour-ahead, and real-time circumstances.”³⁹⁰ To achieve the underlying goal of resource adequacy, the CAISO must have confidence that resources will be available when needed, that units can be counted on to produce the Net Qualifying Capacity they are assigned, and that their output will be deliverable to meet Real-Time Demand. This in turn, requires that capacity be made available in a manner consistent with the CAISO’s bidding and dispatch systems. Moreover, this process must

³⁸⁷ CAL. PUB. UTIL. CODE § 9620 (2006).

³⁸⁸ See Assembly Bill 1890, ch. 2.3 art. 3, §§ 345-46.

³⁸⁹ *Id.*

³⁹⁰ CPUC Decision No. 05-10-42 at 10.

be conducted in a non-discriminatory manner that ensures the resource adequacy obligation is shared and no entity can lean on the resources procured by others. Finally, the CAISO must preserve its ability to assign RMR units and to engage in backstop procurement in order to ensure compliance with its statutory obligation to meet WECC and NERC planning and operating reserve criteria.

a. It Is Within the Commission’s Authority to Approve the CAISO’s Resource Adequacy Proposal

A number of parties assert that Section 40 of the MRTU Tariff improperly oversteps jurisdictional bounds³⁹¹ and that it falls short of a reasonable balance between assuring operational reliability of the grid and the boundaries of the CAISO and the Commission’s authority in this area.³⁹² They contend that the Commission should reject Section 40 and allow the state and local authorities to implement resource adequacy programs “without interference.”³⁹³ The CPUC states the Commission should reject the provision and order the CAISO to work with stakeholders to develop a tariff section that reflects the state’s authority.³⁹⁴ The CAISO appreciates the sensitivity of this issue and has proposed provisions that respect the appropriate roles of State and Local Regulatory Authorities (“LRAs”) in overseeing the procurement practices of LSEs under their respective jurisdictions. Accordingly, the CAISO focuses on its own responsibility under its enabling legislation and Commission-approved tariff to operate the CAISO Control

³⁹¹ Bay Area at 36-37.

³⁹² Six Cities at 15-18.

³⁹³ Cities/M-S-R at 39. *See also* NCPA at 33-34 (alleging that the result of the CAISO’s requirements would be a uniform, federalized procurement protocol applicable to all LSEs, whether or not FERC jurisdictional, doing business in the CAISO markets); Lassen at 32 (stating that the MRTU tariff improperly federalizes Resource Adequacy); and CCSF at 6-7 (arguing that the CAISO is attempting to have FERC inappropriately assert jurisdiction that properly belongs with LRAs, and is seeking to impose, through its FERC jurisdictional tariff, requirements that the CPUC cannot impose directly on municipal entities, which are already required to be resource adequate by state law).

³⁹⁴ CPUC at 27-29.

Area in a prudent and reliable manner in compliance with NERC and WECC criteria. The CAISO does this by requiring Scheduling Coordinators for LSEs to select from comparable options, as a condition of access to the CAISO Controlled Grid, that demonstrate each LSE serving Load in the CAISO Control Area has secured sufficient capacity to avoid unduly leaning on the resources of others.

Going as far back as the mid-1970s, the Commission has found it appropriate to approve capacity obligations imposed on LSEs participating in power pools (and more recently ISOs and RTOs).³⁹⁵ In approving a capacity obligation for NEPOOL LSEs, the Commission stated that “[s]uccessful operation of NEPOOL requires that to the greatest extent possible each participant should develop sufficient capacity to meet its load.”³⁹⁶

The CAISO also notes that, on several occasions, the courts have upheld Commission decisions approving capacity or reserve obligations on LSEs (or deficiency charges for failure to maintain capacity obligations) in connection with integrated power network operations.³⁹⁷ Further, the Supreme Court has recognized that the Commission

³⁹⁵ *New England Power Pool Agreement*, 56 FPC 1562 (1976) (approving Capability Responsibility obligations on NEPOOL’s electric utility participants based on each participant’s system peak compared to the aggregate peaks of all participants).

³⁹⁶ *Id.* A consistent line of judicial precedent supports the Commission’s authority to approve the terms of pooling and coordination agreements of an integrated power system (which the ISO is). See *Mississippi Industries v. FERC*, 808 F.2d 1525 (D.C. Cir. 1987) (“Mississippi Industries”). The Supreme Court has found that the integration of utilities is a “practice” as defined under the FPA, and the Commission has the authority under FPA Sections 205 and 206 to determine the terms suitable to such integration of utilities. *Pennsylvania Water & Power Company v. FPC*, 343 U.S. 414 (1952). In particular, the Commission has the authority to order a purchase or sale of power where such order is consistent with the integration of a power pool or network. See *Mississippi Industries, supra* (affirming a Commission decision which required a utility to purchase a specified percentage of high-cost nuclear power from another affiliate of the holding company). The Supreme Court has recognized the Commission’s jurisdiction to order allocations of power under certain circumstances and ruled that states may not alter such allocations of power. *Mississippi Power & Light v. Mississippi*, 487 U.S. 354 (1988).

³⁹⁷ See, e.g. *Ohio Power Co. et al. v. FERC*, 668 F.2d 880 (6th Cir. 1982); *Cent. Iowa Power Coop., et al. v. FERC*, 606 F.2d 1156 (D.C. Cir. 1979); *Municipalities of Groton, et al. v. FERC*, 587 F.2d 1296 (D.C. Cir. 1978).

has the “responsibility to the public to assure reliable, efficient electric service.”³⁹⁸

Section 40 is consistent with such Commission responsibility.

As the Commission staff stated to the CAISO, “[e]ach ISO has incorporated resource adequacy requirements into its wholesale market tariff and has standard obligations for all participating LSEs.”³⁹⁹ Further, the Commission has approved capacity obligations for LSEs in each of the eastern ISOs.⁴⁰⁰ For instance, in its order granting PJM RTO status, the Commission ruled that PJM, under the Reliability Assurance Agreement, has the authority to set region-wide capacity reserve requirements.⁴⁰¹ The New York State Reliability Council, established under a Commission-approved tariff, is responsible for setting the annual statewide Installed Capacity Requirement in order to ensure adequate resource capacity.⁴⁰²

³⁹⁸ *Gainesville Utils. Dep’t, et al. v. Fla. Power Corp.*, 402 U.S. 515, 529 (1971). The Supreme Court’s decision regarding the appeal of Order No. 888 recognized that the Commission has broad authority over the interstate transmission of electricity. *New York, et al. v. FERC*, 535 U.S. 1 (2002). This decision further supports the Commission’s authority to approve the IRPP proposal.

³⁹⁹ Letter from Daniel Larcamp to Charlie Robinson dated January 18, 2005 in Docket No. ER02-1656.

⁴⁰⁰ *PJM Interconnection LLC and Allegheny Power*, 96 FERC ¶ 61,060 at 61,212-14 (2001) (“PJM West”) (approving PJM West’s ACAP requirement, which imposes a daily capacity obligation on LSEs equal to 106 percent of the total day-ahead estimated load requirement coincident with the zone peak for that LSE); *ISO New England*, 91 FERC ¶ 61,311 at 62,080 (2000) (LSEs must acquire generation capacity equal to their peak load plus a reserve margin); *Pennsylvania-New Jersey-Maryland Interconnection, et al.*, 81 FERC ¶ 61,257 (1997), *order on clarification*, 82 FERC ¶ 61,008 (1998), *order on reh’g*, 92 FERC ¶ 61,282 (2000) (approving Reliability Assurance Agreement which requires each LSE to own or purchase capacity resources greater than or equal to the load that it serves, plus a reserve margin); *New York Independent System Operator, Inc.*, 90 FERC ¶ 61,319 (2000), *amended*, 96 FERC ¶ 61,251 (2001) (approving an ICAP obligation on LSEs utilizing a UCAP methodology). The CAISO also notes that the Commission accepted an agreement between the New York ISO and the New York State Reliability Council (“NYSRC”) which, *inter alia*, gives the NYSRC the authority to establish state-wide installed capacity requirements consistent with NERC and NPCC requirements. *Central Hudson*, 83 FERC ¶ 61,352 at 62,411-13 (1998). The agreement requires that any revisions to the installed capacity requirements be filed with the Commission. *New York State Reliability Council*, 90 FERC ¶ 61,313 (2000) (“NYSRC”). The Commission recognized that the New York ISO had primary responsibility for ensuring short-term reliability of transmission grid operations subject to its control and that the agreement between the New York ISO and the NYSRC covered the short-term reliability matters that were the subject of ISO Principle No. 4. *Id.*

⁴⁰¹ *PJM West*, 96 FERC at 61,212-61,214 (2001).

⁴⁰² *Cent. Hudson Gas & Elec. Corp.*, 83 FERC ¶ 61,352 (1998), *order on reh’g*, 87 FERC ¶ 61,135 (1999). A NYISO Operating Committee report dated March 26, 2006 stated that under expected load and

It is important to note that the Commission’s authority in this area was *expanded* by the passage of the Electricity Reliability Act of 2005.⁴⁰³ While the Act did not authorize the Commission to “order the construction of additional generation or transmission facilities or to set and enforce compliance with standards for adequacy or safety of electric facilities or services,” Section 1211 and the revised Section 515 of the FPA did give the Commission authority to oversee the establishment and enforcement of reliability standards designed to ensure reliable operation of the bulk-power system to prevent instability, uncontrolled separation, or cascading failures. The “bulk-power system” is defined as facilities and control systems necessary for operating an interconnected electric transmission network and electric energy from generation facilities needed to maintain transmission system reliability. The Electricity Reliability Act did not detract from the authority under which the Commission had previously approved the resource adequacy programs of other regional transmission providers, but rather expanded the scope of the Commission’s oversight of reliable grid operations, including “electric energy from generation needed to maintain transmission system reliability.”

On February 3, 2006, the Commission issued its rules concerning certification of the Electric Reliability Organization and procedures for the establishment, approval, and

resource conditions and an adopted statewide installed reserve margin of 18% will be able to meet the NYSRC/NPCC LOLE criteria of one day in ten years for the 2006 – 2007 Capability Year. The report also found that New York City and Long Island are the only two zones within the NYCA which need to have locational ICAP requirements for the 2006 – 2007 Capability Year (99% of the peak load for the Long Island zone and 80% of the peak load for the New York City zone).

⁴⁰³ Pub. L. No. 109-58, 119 Stat. 594 (to be codified at 16 U.S.C. §§ 824, *et seq.*) (2005) (“Energy Policy Act”). An October 7, 2005 letter from the Western Governors’ Association signed by Governor Schwarzenegger recognized that “the Energy Policy Act of 2005 has directed the Commission to step well outside its traditional role as an ‘economic regulator.’” October 7, 2005 letter in Docket No. RM05-30 at 3.

enforcement of Electric Reliability Standards.⁴⁰⁴ The Commission concluded that “Resource adequacy is a fundamental aspect of reliability.”⁴⁰⁵ The Commission provided respect for the responsibilities of State and Local authorities, but recognized that reliable operation of the bulk-power system will require uniform minimum standards applicable to all users:

We recognize that states have important reliability responsibilities and these generally include, and are not necessarily limited to, requiring franchise utilities to make adequate investment in new generation, distribution, and transmission infrastructure, and in many cases to develop adequate demand response as needed to help keep generation and load in balance. We do not, however, agree with the characterization made by some commenters that section 215 of the FPA restricts a Reliability Standard to addressing an issue clearly outside the jurisdiction of a state. Instead, section 215 generally permits a state to take action that addresses the safety, adequacy and reliability of electric service within the state, as long as such action is not inconsistent with a Reliability Standard. We intend to respect these important state government functions, and we agree with commenters that state authorities and our new authorities should be complementary and work in unison to ensure reliable electric service for our nation’s electricity customers.

Regarding the Missouri Commission’s request that we clarify the ERO and state roles regarding generation and transmission planning standards in particular, we do not believe it is possible or desirable to try to develop generic guidelines on planning roles in this proceeding. If the ERO proposes a Reliability Standard, whether on planning or any other topic, we will consider carefully at the time when a specific Reliability Standard is before us whether it falls within the ERO’s and the Commission’s statutory area of responsibility. . . .

The statute explicitly bars preemption of any authority of any state to take action to ensure the safety, adequacy and reliability of electric service within the state, as long as such action is not inconsistent with a Reliability Standard. The Commission anticipates that conflicts between a state requirement and a Reliability Standard will be rare, if any occur at all. We expect that any potential conflict between a proposed Reliability Standard and an existing state requirement will be resolved as the Reliability Standard is developed, and parties may raise any such conflict before the Commission when a proposed Reliability Standard is submitted to us for

⁴⁰⁴ 114 FERC ¶ 61,104 (2006), 71 Fed. Reg. 8662 (Feb. 17, 2006) (“Order No. 672”).
⁴⁰⁵ Order No. 672 at P 806.

approval. Similarly, if a state agency is considering an action that could possibly conflict with a Reliability Standard already in effect; we expect that parties will bring this to the attention of the state agency for resolution. If, however, such an inconsistency should occur, the statute and our regulations provide a criterion and a procedure for resolving the conflict.⁴⁰⁶

The Commission has recognized not only that it has the authority to approve the Resource Adequacy program under Section 40 as filed by the CAISO, but also that such criteria are a vital component of reliable operation of the bulk-power system. The protests arguing that the CAISO has overstepped its bounds in the MRTU filing are misplaced and should be rejected.

b. Under Its Enabling Legislation and Commission-Approved Tariff, the CAISO Has Already Been Undertaking Actions To Ensure Planning and Reserve Requirements Are Met, Locational Capacity Is Sufficient, and Backstop Procurement Is Performed When Necessary

As noted above, under A.B. 1890, required that the necessary filings with the Commission be made “to give the [CAISO] the ability to secure generating and transmission resources necessary to guarantee achievement of planning and reserve criteria no less stringent than those established by the [WECC] and the [NERC].” This mandate is fully consistent with ISO Principle 4 in Order No. 888, that an ISO has primary responsibility for ensuring the short-term reliability of grid operations.⁴⁰⁷

Under NERC/WECC criteria, ensuring reliability involves both maintaining the security of the transmission system *and* ensuring the adequacy of supply in the control area.⁴⁰⁸ It is fundamental that the use of reserve criteria (planning and operating) is

⁴⁰⁶ Order No. 672 at PP 813-815.

⁴⁰⁷ See *Cent. Hudson Gas & Elec. Corp.*, 83 FERC ¶ 61,352 at 62,410 (1998).

⁴⁰⁸ See WECC Reliability Criteria at 26 (April 2005) (noting that overall reliability, *i.e.*, adequacy and security, is to be maintained by adherence to NERC Planning Standards and to each Region’s Planning Criteria).

crucial to maintaining reliability. In its power supply assessment for 2005, the WECC explained the use of reserve margins stating:

Reserve Margin is a measure of resource capability in excess of demand requirement. The industry commonly refers to two kinds of reserve margin, namely, operating reserve margin for day-to-day operations, and planning reserve margin for short term or long term planning purposes. A planning reserve margin is generally higher than an operating reserve margin since it must account for all of the uncertainties. A planning reserve margin includes the margin for an operating reserve margin plus an additional margin for planning purposes.⁴⁰⁹

Ensuring short-term supply adequacy (*i.e.*, by complying with short-term planning reserve criteria) in advance of real time operations is crucial to maintaining short-term reliability (and to doing so in an efficient and cost-effective manner).

Indeed, the CAISO has an existing obligation under the current tariff to meet the NERC/WECC reliability criteria for short-term supply adequacy purposes.⁴¹⁰ If NERC/WECC reliability criteria cannot be met, the CAISO is authorized (acting in accordance with Good Utility Practice) to take other steps to ensure compliance.⁴¹¹

In short, having sufficient short-term generation supply has been and will continue to be crucial to fulfilling the CAISO's duty to ensure the short-term reliability of the electric system operated by the CAISO. The resource adequacy programs of the CPUC and LRAs (and the CAISO's reliance on those programs) will vastly improve the

⁴⁰⁹ WECC 2005 Power Supply Assessment at 42 (May 31, 2005).

⁴¹⁰ See Section 40.3.1 of the existing CAISO Tariff, which has been renumbered as MRTU Tariff Section 42.1, requiring the CAISO to produce and publish a twelve-month forecast of generation capacity and demand so that the CAISO can meet WECC/NERC reliability criteria. As discussed below, several parties, including the CPUC, mistakenly believe that Section 42 of the MRTU Tariff is a new provision. This is not the case. These are longstanding CAISO responsibilities that have been an important part of the CAISO's role to ensure Applicable Reliability Criteria are met and to engage in backstop procurement when necessary.

⁴¹¹ See Section 40.3.1.5 of the current Revised and Simplified CAISO Tariff or Section 42.1.5 of the MRTU Tariff.

ability of the CAISO to ensure that short-term supply sufficiency needs are met well ahead of real time operations.

2. The Scope of the Applicability of Section 40 Is Reasonable

a. Non-CPUC Jurisdictional Entities Are Appropriately Included

According to Trinity, MRTU seeks to force upon Trinity regulations promulgated by the CPUC despite the fact that California law does not grant the CPUC jurisdiction over Trinity.⁴¹² Cities/M-S-R argues that local deference is illusory, as the standards developed under the direction of LRAs is subject to CAISO review and possible rejection.⁴¹³ These criticisms are unwarranted. The CAISO agrees that local control over supply planning should not be removed. Consistent with this view, the CAISO has developed different types of participation in recognition that not all Market Participants are similarly situated. These various types of participation provide an equivalent level of responsibility.

The CAISO has provided three options for SCs for Load Serving Entities to meet their obligation to make resources available to the CAISO to ensure system reliability.⁴¹⁴

⁴¹² Trinity at 8.

⁴¹³ Cities/M-S-R at 41.

⁴¹⁴ Scheduling Coordinators are free, under the direction of their Local Regulatory Authority, to choose to participate as either a Reserve Sharing LSE or a Modified Reserve Sharing LSE. The only option that has membership limitations applied by the CAISO is the Load-following MSS category. The Commission has found recognition of specific circumstances of MSSs to be reasonable:

We find that the provisions of Amendment No. 46 are not unduly discriminatory. The issues addressed by Amendment No. 46 are necessary to permit municipal utilities to participate in California ISO operations. NCPA, Roseville and Silicon Valley are vertically integrated municipal utilities which have the ability to self-supply and follow load from both generation internal to their MSS Operator area and bilateral contracts and can be metered off of the California ISO grid. While the California ISO's treatment of these utilities is, in some instances, different from that of the California ISO's treatment of PTOs like Sempra and the California [Department of Water Resources ("DWR")], those differences are not undue. Sempra and the California DWR are not similarly situated.⁴¹⁴

The three options are: Reserve Sharing, Modified Reserve-Sharing and Load-following MSS. Each is based on a different premise in an attempt to avoid a one-size fits all approach. The Load-following MSS option recognizes existing incentives in the Load-following MSS Agreement, namely, significant Real-Time imbalance energy penalties, which promote the procurement of sufficient resources by the Load-following MSS. The Modified Reserve Sharing approach was developed based on comments from non-CPUC jurisdictional entities. In contrast to the Reserve Sharing option, which relies on a monthly peak value to determine the obligation, the Modified Reserve Sharing approach involves a planning timeframe, monthly and annual, and an operational timeframe, Day-Ahead.

Further, under Section 40.4.1 of the MRTU Tariff, the CAISO proposes to defer to the criteria of the Local Regulatory Authority to determine the Qualifying Capacity values for resources. As discussed below, the CAISO is in the best position to make non-discriminatory judgments as to Net Qualifying Determinations based on assessments of performance, testing, and deliverability assessment.

Therefore, Section 40 properly recognizes the needs of individual Local Regulatory Authorities to exercise control over LSEs under their jurisdiction and the CAISO's need to implement a comprehensive approach that requires all End Users to bear comparable responsibilities.

b. The CAISO Will Work With the State Water Project To Address Its Unique Facilities and Responsibilities

California Indep. Sys. Operator Corp., 100 FERC ¶ 61,234 at P 45 (2002); *aff'd*; *California Indep. Sys. Operator Corp.*, 102 FERC ¶ 61,146 at P 14 (2003).

SWP recognizes that, consistent with A.B. 380, Section 40.1 of the MRTU Tariff “appropriately requires SWP to work with the CAISO to establish that SWP is self-sufficient, and does not lean on the resources of other market participants” and commits to “provide to the CAISO SWP’s strategies to meet and manage the power needs of the SWP; associated SWP operations, power resource, demand, water delivery and storage operations; and SWP strategic power resources development plans and power portfolios.”⁴¹⁵ SWP, however, objects to being considered a “Load-Serving Entity” and also contends that, consistent with the needs of dedicated purpose water management resources, SWP resources serving as Resource Adequacy Resources should not be subject to availability requirements.⁴¹⁶

According to its comments, the SWP is the CAISO’s largest single transmission user, representing approximately 5% of the load on the CAISO Controlled Grid.”⁴¹⁷ SWP serves as its own SC. The definition of Load-Serving Entity includes an SC serving as the representative for End Users. The definition of Load-Serving Entity is meant to be comprehensive, applying to all loads consuming power either directly from the CAISO Control Grid or off Distribution Systems in the CAISO Control Area. It would leave a significant hole to have 5% of the Load unaccounted for. The CAISO believes that the definition of “Load-Serving Entity” appropriately includes SWP.

As to SWP’s contention that their water management responsibilities should exempt them from the requirements in Section 40 that resources be made available to the CAISO for dispatch, the CAISO strongly disagrees. The CAISO must have the assurance that the SWP will be appropriately securing supply that can be called upon by the CAISO

⁴¹⁵ SWP at 43.

⁴¹⁶ SWP at 42-45.

⁴¹⁷ SEP at 3.

to meet the system Demand, including that imposed by SWP. The CAISO does, however, respect the SWP's need to manage the distribution of water in California. For that reason, the CAISO has committed to work with SWP to ensure that the requirements of both parties are satisfied.⁴¹⁸ SWP correctly notes that hydroelectric resources have been exempted from the Commission's must offer requirements. Nevertheless, these and other potentially Use-Limited Resources are addressed in the more comprehensive program established in Section 40 that is designed to make full utilization of Use Limited resources, but that still recognize the CAISO's full-time reliability responsibilities. Just like any other entity, the SWP's loads must be backed by resources subject to the CAISO Dispatch.

c. The CAISO Needs To Have a Comprehensive Program that Includes Smaller Load Serving Entities Regulated By the CPUC

GSW states that the CAISO should preserve flexibility to ensure deference to CPUC's forthcoming adoption of requirements for the state's smaller and multi-jurisdictional IOUs.⁴¹⁹ The CAISO recognizes that the CPUC is in the process of determining the resource adequacy requirements applicable to the smaller LSEs under its jurisdiction.⁴²⁰ At this time, the CAISO is not aware of changes that need to be made to the proposed MRTU Tariff to accommodate these entities. If circumstances change, the CAISO will consider them at that time. Nevertheless, all LSEs, including those that do

⁴¹⁸ SCE states that requirements for CDWR should be filed with FERC and CDWR should be treated separately from SCE for purposes. (SCE App. A, at 8). The CAISO agrees that CDWR should be treated separately for purposes of Resource Adequacy requirements. The CAISO agrees that the requirements for CDWR needs to be transparent to Market Participants and should be filed.

⁴¹⁹ GSW at 6-12.

⁴²⁰ *Order Instituting Rulemaking to Consider Refinements to and Further Development of the Commission Resource Adequacy Requirements Program*, R.05-12-013 (Dec. 20, 2005) at 5-6.

not represent significant numbers of customers must bear their fair share of the reserve obligation.

d. WAPA and Reclamation Should Not Be Exempt From Section 40 of the MRTU Tariff

WAPA argues they should be “exempt” from the reliability requirements of Section 40 “for reasons similar to those that exempt SWP.”⁴²¹ As discussed above, SWP is not exempt. Rather, under Section 40.1, SWP will be “required to develop, in cooperation with the ISO, a program that ensures it will not unduly rely on the resource procurement practices of other Load Serving Entities.” Moreover, WAPA is not being subjected to regulatory oversight, but rather non-discriminatory requirements necessary for the CAISO to meet its own reliability requirements due to the fact that WAPA serves Load in the CAISO Control Area. If WAPA did not provide resources to meet their Load, the Demand would need to be met by the CAISO calling on resources from other entities to maintain system reliability.

Reclamation also requests that its “projects to be exempted from the Resource Adequacy requirements of MRTU, as has already been done for the SWP.”⁴²² Reclamation protests that the MRTU Tariff would allow CAISO to direct CVP generation to meet CAISO demand, which could potentially violate the CVP’s congressional authorization and the Supreme Court decrees in *Arizona v. California*.⁴²³ The CAISO notes that certain of the issues that will require it to work with SWP to develop a comparable resource adequacy program based on its combination of water management, pumping load requirements, and supply bidding arrangements are present

⁴²¹ WAPA at 51-56.

⁴²² Reclamation at 2.

⁴²³ Reclamation at 8-9.

with Reclamation’s responsibilities under Federal Law. The CAISO would propose to treat Reclamation in a similar manner to the SWP – not to exempt them from all responsibility, but to work with Reclamation to develop an acceptable approach and make this change to the MRTU Tariff in its compliance filing. Simply showing that an entity has statutory obligations, however, does not justify that such an entity should be completely exempt from resource adequacy obligations.

e. Section 40 Appropriately Incorporates the Existing MSS Agreements

Cities/M-S-R contend that Load-following MSSs should be exempt from all resource adequacy obligations given strong financial incentives and contractual obligations to meet their loads are already in place.⁴²⁴ NCPA claims the CAISO has sufficient contractual protections through the MSS Agreement to ensure that these entities will meet their load obligations or pay significant penalties, without the need to apply RA requirements to these entities.⁴²⁵ The CAISO has attempted to preserve the beneficial operating relationship established in the MSS Agreements and has crafted Section 40 so as not to modify the basic requirements as to how Load-following MSSs will schedule to meet their loads and the penalties to which Load-following MSSs will be exposed if their resources are insufficient.

These commitments are reflected in Section 40.1 of the MRTU Tariff, which states that a “Scheduling Coordinator for a Load-following MSS is not required to make an election under this Section 40. SCs for Load-following MSSs are subject solely to Section 40.2.3 and 40.3.” These provisions require only that the MSS submit Resource Adequacy Plans and meet Local Capacity Area Resource Requirements. It is important

⁴²⁴ Cities/M-S-R at 39-40.

⁴²⁵ NCPA at 34

that these requirements be imposed on a comprehensive basis across all SCs, including those representing MSSs. The Resource Adequacy Plans provide the CAISO with necessary information on the resources that will be used to meet the MSS's Load.⁴²⁶ This data helps the CAISO validate that the same resources are not being relied upon by other SCs to meet their own resource adequacy obligations. In addition, the MSS should be responsible for meeting its proportionate share of any Local Capacity Area Resource Requirements under Section 40.3 of the MRTU Tariff.⁴²⁷ It would be discriminatory if the MSS could rely solely on less expensive, remote resources and rely on other entities to procure the local capacity needed to satisfy Applicable Reliability Criteria.

3. The Differences Between the 2006 Interim Reliability Filing and the MRTU Tariff Filing Are Warranted

PG&E contends that the recent filing in Docket No. ER06-723 provides a better fit with CPUC policy than the proposals in the MRTU Tariff.⁴²⁸ Vernon also suggests that the CAISO should grant LRAs the same autonomy to set planning reserve margins and set demand forecasts as it did in the Interim Reliability Requirements Program (“IRRP”) filing.⁴²⁹ The CAISO disagrees that the approach taken for the IRRP is

⁴²⁶ NCPA states that some of the MRTU provisions proposed by the CAISO could be better adapted to work with the MSS Agreement and claims that the requirement that Scheduling Coordinator's for load-following MSS entities provide an annual RA plan (Section 40.2.3) is redundant of Section 13.9 of the MSS Agreement. NCPA at 36-37. The CAISO is seeking to have a consistent reporting obligation applicable to all Scheduling Coordinators serving Load in the CAISO Control Area. To the extent that this requirement is consistent with other requirements then there is no additional burden. To the extent of an inconsistency, the CAISO believes that the benefit of uniformity and consistency for a program as important as Resource Adequacy greatly outweigh and minimal additional burden imposed on the Scheduling Coordinator.

⁴²⁷ NCPA states that the MRTU proposal goes too far in allowing the CAISO to have direct involvement in LSE procurement decisions. NCPA at 35-36. This allegation is unsupported. The CAISO would only engage in backstop procurement for an MSS if the MSS fails to procure its proportionate share of Local Capacity Area Resource Requirements. If the MSS meets its obligation, the CAISO would have no direct involvement in its procurement.

⁴²⁸ PG&E at 13, 30.

⁴²⁹ Vernon at 4.

appropriate for MRTU. What is acceptable for a temporary, transitional program does not serve as a proper foundation for a long-term market design.

In the IRRP, the CAISO proposed a “default” Reserve Margin to be implemented only if the Local Regulatory Authority completely failed to act. In MRTU, the CAISO has proposed a minimum Reserve Margin of 15%. The CAISO explains in the next section of these Reply Comments why this level is appropriate. That section also discusses a primary reason that a generic standard applicable to all SCs is necessary. It would be inappropriate if certain LSEs could adopt Reserve Margins that are inadequate – thereby minimizing their own procurement costs and leaning on the resources procured by other market participants. The minimum margin is consistent with that adopted by the CPUC after its extensive recent proceedings. Moreover, the CAISO must have consistency in the responsibilities across all LSEs in the CAISO Control Area. The CAISO has planning responsibilities in accordance A.B. 1890 and with WECC requirements and must have assurance that all entities will be able to meet their resource adequacy responsibilities, including those SCs participating as Modified Reserve Sharing LSEs where the other requirements are more focused on short-term compliance.

The IRRP also continued to exempt certain types of resources – hydroelectric facilities and QFs – from the must-offer obligation, a continuation of the Commission’s market power mitigation program. While this is acceptable on an interim basis due to the need to utilize existing CAISO processes and systems, the CAISO needs to implement a program that addresses all types of resources. If capacity from QF units and hydroelectric facilities is being used to satisfy the Net Qualifying Capacity obligation, these facilities must be made available to the CAISO to meet Demand. Since the CAISO

is operating a Security Constrained Dispatch in the DA IFM under the MRTU market design, it is more critical that the Day-Ahead schedule reflect as best as possible the expected deliveries for all resources, including QFs and Hydro facilities.

4. A 15% minimum Reserve Margin Is Appropriate

WAPA and one of its customers, the DOE labs, protest the CAISO's proposed 15% reserve requirement.⁴³⁰ The CAISO's proposed minimum planning reserve margin of 15% is consistent with: (i) the WECC's recommended minimum levels of installed and planned generating reserves, (ii) the CAISO's existing responsibilities to meet NERC/WECC reliability criteria, and (iii) Good Utility Practice. Accordingly, the CAISO respectively requests that the Commission reject the requests to remove the proposed planning reserve margin of 15%.

In performing its Annual Power Supply Assessment, the WECC uses recommended minimum levels of installed and planned generating reserves.⁴³¹ The WECC provides for three alternative minimum recommended criteria.⁴³² The criteria of "Monthly Reserve Capacity After Deducting Scheduled Maintenance" has a minimum standard of either the greater of a reserve amount or the largest risk plus 5% of load responsibility. The reserve amount is calculated using a 15% criterion for all monthly non-hydro generating capability after deducting scheduled maintenance.⁴³³

⁴³⁰ DOE at 3; WAPA at 56-62. Six Cities notes that WECC is proposing to change the way Operating Reserves are calculated to a fixed 5% of Load and that this is lower than the 15% Reserve Margin proposed by the CAISO. Six Cities at 16. The two percentages serve different purposes. The 5% Operating Reserve is what must be readily available in Real-Time to immediately respond to changes in Demand or unplanned contingencies. If there is a need to call on the Operating Reserve, additional resources must be available to bring it back to the minimum margin. The 15% is a longer-term planning figure that allows for outages, forecast error, and other factors.

⁴³¹ See Attachment 2 to the WECC 2005 Power Supply Assessment (Power Supply Design Criteria).

⁴³² *Id.* at 3-5.

⁴³³ *Id.* at 5

Even though State regulators and the LRAs have primary responsibility for Resource Adequacy, it is reasonable, prudent and consistent with the CAISO's responsibility to ensure the short-term reliability of the electric system that there be a minimum, Planning Reserve standard in the CAISO Tariff.

WAPA notes that it currently maintains a Planning Reserve Margin of 5%.⁴³⁴ This statement confirms the need to establish general minimum Reserve Margins in the CAISO Tariff. Under the WECC's MORC requirements, the CAISO in real time must demonstrate that it has sufficient Operating Reserves equal to five percent of the load served by hydroelectric resources and seven percent served by thermal generators. In effect, WAPA is proposing that its Reserve Margin be set at a level that assumes 100% of its demand will be met by hydroelectric facilities running 100% of the time. Anything less would result in WAPA leaning on the reserves supplied by other Market Participants. This is obviously unfair. The Reserve Margin needs to be set at a level that incorporates a mix of resources with appropriate assumptions for outages, forecast error, load growth, and other factors.

If the WECC or a Commission-approved Electric Reliability Organization establishes a different Reserve Margin, the minimum criteria in the tariff will be adjusted accordingly. In addition, any Local Regulatory Authority can establish a higher, more-protective requirement. The CAISO's establishment of a uniform, generally-applicable minimum Reserve Margin is consistent with Commission precedent for other RTOs. The specific level of 15% is reasonable.

5. The Program for Qualification of Resources and Determination of Net Qualifying Capacity is Reasonable

⁴³⁴ WAPA at 59 (stating that the CAISO's proposal results in a jump from 5% to 15% for WAPA).

a. The CAISO Determination of Net Qualifying Capacity Does Not Create Uncertainty But Rather Helps Ensure Resources will Actually Be Available

Six Cities argues that the CAISO should be bound by the determination of the Local Regulatory Authority with respect to the determination of Net Qualifying Capacity.⁴³⁵ Others are more concerned about the timing of any CAISO adjustments. For example, IEP/WPTF states that the CAISO should not be permitted to make intra-period adjustments to Net Qualifying Capacity, as such adjustments would introduce unhedgeable replacement cost risks for both buyers and sellers of Net Qualifying Capacity.⁴³⁶

The CAISO disagrees with Six Cities that determinations as to Net Qualifying Capacity should be left up to the individual Local Regulatory Authorities. The CAISO is in the best position to ensure non-discriminatory treatment of resources. The CAISO will have the most comprehensive data set of unit test results, relative unit performance factors, and deliverability modeling of the transmission grid.

As to the issue of timing, the CAISO stated in its Answer in Docket No. ER06-723 that it recognizes that the determination of Net Qualifying Capacity must be transparent and implemented in a manner that does not obstruct efficient commercial resource adequacy transactions. This analysis should be conducted annually in a timeframe that is consistent with procurement obligations and assessment should only impact the Net Qualifying Capacity during the subsequent compliance year. The specifics of the calendar, however, should be left to the appropriate BPM.

⁴³⁵ Six Cities at 16.
⁴³⁶ IEP/WPTF at 70.

(i) The CAISO Recognizes the Need To Develop Performance Criteria for Resource Adequacy Resources

IEP/WPTF argues that there is an urgent need for the CAISO to finalize the development of performance and availability criteria for resource adequacy, and claims that this cannot await full deployment of MRTU.⁴³⁷ IEP/WPTF recommends the unforced capacity construct utilized the Eastern markets.⁴³⁸ The CAISO appreciates the importance of this issue and is examining whether it can accelerate development of performance and availability criteria from the date discussed in the MRTU testimony. The CAISO hopes in the near future to submit comments to the CPUC with regard to a proposal to measure performance on the basis of how the resource make itself available after being denied a must-offer waiver.

(ii) The CAISO Is Developing Testing and Performance Criteria

SCE requests that the CAISO conduct a stakeholder process to develop testing and performance criteria and then file the criteria as part of the MRTU Tariff.⁴³⁹ The CAISO is committed accelerating the performance standards and will incorporate them in the tariff through a subsequent filing when they are developed.

(iii). The CAISO's Proposed Deliverability Analysis Is Reasonable

Cities/M-S-R argues that the CAISO criteria for the annual technical study referenced in Section 40.3.1 of the MRTU Tariff, and the results of the study should be filed with and approved by the Commission, and the standards to be used to determine

⁴³⁷ IEP/WPTF at 69-70.

⁴³⁸ IEP/WPTF at 71.

⁴³⁹ SCE at 11-12.

deliverability in Section 40.4 should be filed with the Commission.⁴⁴⁰ PG&E requests that the MRTU Tariff should be revised to restrict binding deliverability analyses on an annual basis and should require those analyses to be provided sufficiently in advance to allow LSEs adequate time to procure accordingly.⁴⁴¹

The CAISO should not be required to file the study. The CAISO has conducted studies associated with its grid planning responsibilities and for its local area reliability services (“LARS”) process resulting in the designation of RMR units. These studies are posted on the CAISO Website, and stakeholders are given the opportunity to review them and provide comments. Moreover, they are always subject to review by the Commission if they are suspected to be unjust and unreasonable. The CAISO agrees with PG&E that the deliverability analysis should be conducted on an annual basis and in a timeframe that is consistent with LSE procurement obligations, and this will be reflected in the greater detail of the applicable BPM.

b. Liquidated Damage Contracts Should Be Phased Out

PG&E recommends that the MRTU Tariff be revised to note the phase-out of liquidated damages other than CDWR contracts and the cut-off dates beyond which such contracts can no longer be used for resource adequacy purposes.⁴⁴² DOE is concerned, however, that the elimination of liquidated damages contracts will retroactively undermine the value of such contracts entered into by DOE.⁴⁴³

The CAISO acknowledges that firm liquidated damage contracts are useful instruments to hedge spot energy prices. However, as noted, the objective of resource

⁴⁴⁰ Cities/M-S-R at 41-43.

⁴⁴¹ PG&E at 39. *See also* SCE at 12-13.

⁴⁴² PG&E at 41.

⁴⁴³ DOE at 3.

adequacy is more foundational and constitutes a prerequisite to achievement of just and reasonable energy prices – namely ensuring the availability of physical, deliverable capacity to produce energy when and where needed to meet customer Demand. The CAISO agrees with the CPUC that liquidated damage contracts are “fundamentally incompatible with the objectives of a physical capacity-based RAR program” because the failure to identify a specific resource that backs a capacity obligation could undermine the integrity of the RAR program.⁴⁴⁴ The CAISO, therefore, agrees with PG&E that the use of non-import liquidated damage contracts should be phased out. Nevertheless, the MRTU Tariff, as proposed, defers to the determination of the CPUC or applicable Local Reliability Authority as to the eligibility of specific classes of resources.

The CAISO’s proposed deference is not unconditional. Indeed, the CAISO intends to actively work with non-CPUC jurisdictional LSEs to phase-out the use of non-import liquidated damage contracts as part of their resource adequacy portfolio. To the extent such liquidated damages contracts are not voluntarily phased-out and their eligibility contravenes the effectiveness of resource adequacy to maintain and ensure just and reasonable wholesale prices, the CAISO will affirmatively seek to exclude such contracts from meeting Section 40 requirements.

6. The Local Capacity Requirement Is a Vital Aspect of Ensuring System Reliability

a. The Proposed Process for Establishment of the Requirement Is Reasonable

Several parties raise issues with the CAISO’s authority to establish Local Capacity requirements and the manner in which the CAISO has proposed to develop those requirements. PG&E suggests that the Commission should defer to the ongoing

⁴⁴⁴ California Pub. Util. Comm’n, Decision 05-10-042 (October 27, 2005).

CPUC proceeding to establish local resource adequacy requirements.⁴⁴⁵ Six Cities and NCPA seek additional explanation and support for the development and allocation of Local Capacity Area Resource requirements discussed in Section 40.3.⁴⁴⁶

The CAISO believes that Local Capacity Area Resource requirements are a fundamental aspect of grid reliability. Section 40.3 permits the CAISO to ensure compliance with Applicable Reliability Criteria, while respecting the roles of the CPUC and other LRAs in setting the standards for service to End-Use Customer. For example, Section 40.3.1 requires the CAISO to “collaborate with the CPUC and LRAs within the CAISO Control Area, and other market participants to establish the parameters, assumptions, and other criteria to be used in the technical study.” The CAISO contemplates putting the details of this collaboration in the applicable BPM. Nevertheless, the general parameters of this collaborative effort can be clarified. As the entity responsible for operating the CAISO Controlled Grid in compliance with NERC and WECC requirements, the MRTU Tariff identifies the CAISO as the party responsible for studying and publishing one or more levels of capacity sufficient to achieve the relevant performance standards. However, through the MRTU Tariff-mandated cooperation, the CAISO intends to work with Participating TOs and others to identify feasible operating solutions acceptable to the CAISO, that can be implemented to reduce the needed capacity requirement reflected in the final study results. In this regard, the CAISO will allow the CPUC and other LRAs to select or reject those operating solutions, such as Remedial Action Schemes, that result in manual or automatic shedding of firm

⁴⁴⁵ PG&E at 12, 29-30. *See also* Strategic at 14-15.

⁴⁴⁶ Six Cities at 18-19. NCPA complains that Section 40.3.1 fails to describe how the annual technical study of minimum Resource Adequacy Resources will be performed, or what assumptions will be used. NCPA at 37. *See also*, SCE at 17-19.

Load, where permitted under NERC and WECC standards, to achieve the Applicable Reliability Criteria. As such, the CAISO intends to respect the role of the CPUC and LRAs in determining acceptable levels of End-Use Customer service reliability. In other words, the CPUC and LRAs may satisfy the CAISO's identified local reliability needs by exercising their jurisdiction over LSEs to compel procurement of generation resources or demand response products to meet the needed Local Capacity, which already reflects CPUC or LRA decisions regarding whether LSEs within their respective jurisdiction can utilize controlled Load interruption options to ensure Grid reliability in accordance with Applicable Reliability Criteria.⁴⁴⁷ Further, under Section 40.3.2, the CAISO would defer to the CPUC with respect to its allocation of the Locational Capacity Resource Obligation for all CPUC-Load Serving Entities.

Again, the CAISO emphasizes its view that the MRTU Tariff is not the place for a detailed description of the technical requirements and process applicable to the Local Capacity study. The parameters of the study, which must be done in advance of the timeframe for purchasing and must meet Applicable Reliability Criteria in accordance with Good Utility Practice, should be transparent. Publication of the study, the criteria, and the base assumptions is sufficient to ensure a robust discussion of its accuracy and

⁴⁴⁷ To the extent a load shedding solution proposed by a Participating TO, and deemed operationally feasible by the CAISO, is isolated solely in the service territory of a CPUC load serving entity, the CAISO contemplates deferring to the CPUC's determination of the appropriateness of reliance on such operating procedure as part of the service level. Alternatively, if a non-CPUC jurisdictional entity proposes a load shedding solution that is isolated to the non-CPUC jurisdictional entity, and deemed operationally feasible by the CAISO, the CAISO will defer to the relevant LRA the appropriateness of relying on such an operating procedure. However, to the extent a load shedding solution proposed by either a Participating TO or a non-CPUC jurisdictional entity is not isolated to the territory of the Participating TO or LRA, respectively, the CAISO will not approve a load shedding operating procedure affecting multiple jurisdictions unless all impacted LRAs and/or the CPUC are in agreement. The details and the procedures for this process will be set forth in the applicable BPM.

fairness. This is consistent with the CAISO's past practice, as the CAISO's Locational Capacity Study was filed with the CPUC and is available on the CAISO Website.⁴⁴⁸

In addition, PG&E states that Section 40.3.4 correctly notes the need to allocate credit for capacity procured through the CAISO backstop mechanism among those LSEs that were charged the cost of the backstop procurement, but contends the section only allocates capacity credit toward the local obligation and that it should allocate the credit for LSE's demonstrations of both local and system capacity, as any resource providing local capacity will necessary have to provide system capacity as well.⁴⁴⁹ The CAISO agrees with PG&E's comment and would propose to reflect this clarification in a compliance filing.

b. CAISO Must Have the Authority To Engage in Backstop Procurement of Local Capacity If Necessary In Addition To Its Authority To Designate RMR Units

A number of parties raise issues concerning Section 40.3.4, the CAISO's proposal to undertake backstop procurement of Local Capacity Area Resources for SCs that fail to demonstrate they have secured their allocated share of the requirement.⁴⁵⁰ For example, Six Cities argues the Commission should require the CAISO to modify Section 40.3.4 so as to avoid unnecessary procurement of capacity.⁴⁵¹ These concerns are without merit.

The CAISO must have a means to procure Local Capacity Area Resources where SCs fail to act. Furthermore, the CAISO intends to employ safeguards to minimize its need to engage in procurement activities. First, the CAISO intends to only procure Local Capacity sufficient to ensure compliance with Applicable Reliability Criteria in

⁴⁴⁸ This study is available at <http://www.aiso.com/17e2/17e2851b23400.pdf>.

⁴⁴⁹ PG&E at 38.

⁴⁵⁰ Bay Area at 38-40; Lassen at 33; Cities/M-S-R at 44.

⁴⁵¹ Six Cities at 20.

accordance with the study results. Second, consistent with the procedures negotiated in the RCST Offer of Settlement in Docket No. EL05-146, the CAISO will allow deficient SCs an opportunity to procure resources to eliminate any difference between the amount of Local Capacity allocated to the SC and the SC's showing. Third, the CAISO will analyze any revised showings and will evaluate this final portfolio of resources to ensure that sufficient and effective generation or demand response capacity is secured to address all contingencies in a Local Capacity Area, including consideration of load interruption offered to meet the reliability service level adopted by the CPUC or other Local Regulatory Authority. The CAISO will perform this determination by taking into account all resources reflected in any year-ahead showings, including RMR resources, if any, that will be made available to the CAISO, whether or not any of those resources are located in the local capacity area. Finally, to the extent procurement remains necessary after the foregoing analysis, the CAISO will provide a report setting forth the quantity and basis for the need for additional generation capacity. This will provide regulators and Market Participants sufficient information to assess the reasonableness of any CAISO backstop procurement activities, while furnishing the CAISO with backstop authority commensurate with its ultimate responsibility to ensure operational reliability. However, as noted above, the CAISO believes each of these process particulars is more appropriately communicated through the BPM, rather than detailed in the MRTU Tariff itself.

With respect to the CAISO's backstop procurement authority, SCE states that any RMR procurement and any Local Capacity Area Resource procurement activities must be

integrated.⁴⁵² The CAISO agrees that the timing of these two activities needs to be coordinated to ensure that procurement is done efficiently. In large part, the timing of Local Capacity Area Resources will turn on procedures to be adopted shortly by the CPUC for its local capacity requirement. The CAISO is working with the CPUC and other parties to ensure the desired coordination. Again, the CAISO anticipates that the process for procurement will be set forth in the applicable BPM once greater clarity is provided by the CPUC.

7. The Allocation of Import Capacity Must Support Forward Contracting in a Just and Reasonable Manner

a. The Timing of the Allocation Must Be In Advance of the Deadline for Submission of Plans

The CPUC proposes that MRTU Tariff Section 40.4.6.2, which allocates import capacity among LSEs for Resource Adequacy purposes after the CAISO performs its annual deliverability study, should be revised such that all import capacity is allocated at the same time and on the same basis.⁴⁵³ The CAISO agrees that the allocation should be done for all entities at the same time and on a non-discriminatory basis. In particular, the existing capacity purchase agreements of all parties must be respected. Again, the CAISO believes that the specifics of the calendar should be left to the appropriate BPM.

b. The CAISO Approach to Allocation of Import Capacity for Resource Adequacy Determinations is Not Discriminatory

Parties raise several issues with regard to the CAISO's proposed allocation of import capacity for resource adequacy planning purposes. WAPA contends that the provisions give unfair preference to CPUC jurisdictional entities.⁴⁵⁴ Vernon and

⁴⁵² SCE App. A at 10.

⁴⁵³ CPUC at 38.

⁴⁵⁴ WAPA at 63-65; *see also*, Cities/M-S-R at 43.

Southern Cities state that the CAISO’s proposal fails to preserve for the New Participating Transmission Owners the full use of their FTRs.⁴⁵⁵ Strategic argues that the reference to “identical allocation priority” in Section 40.4.6.2 is ambiguous,⁴⁵⁶ and PG&E requests that the CAISO should adopt the CPUC’s intertie allocation process for application to all entities subject to MRTU Tariff Section 40.⁴⁵⁷

The CAISO agrees with Strategic that there needs to be an equitable approach for dividing intertie capacity between the CPUC and non- CPUC jurisdictional LSEs and that this should be done on an annual basis.⁴⁵⁸ Section 40.4.6.2 attempts to achieve this result by honoring existing commitments. Specifically, this provision honors the existing terms of ETCs, Encumbrances and TORs, and the resource commitments entered into by October 27, 2005. After the intertie capacity requirements of these existing arrangements have been met, all LSEs, both CPUC-jurisdictional, and non-CPUC jurisdictional are eligible for any remaining capacity on an equal basis. The CAISO does not believe that it is appropriate to withhold additional capacity for the New Participating Transmission Owners. While these entities will continue to be protected by the “perfect hedge” for their actual use of the grid, all resource adequacy planning allocations should be done on a non-discriminatory basis.

The CAISO has committed to develop the detailed implementation process for the future import capacity allocation for resource adequacy purposes with stakeholders and would propose that the Commission hold a technical conference for that purpose. The

⁴⁵⁵ Vernon at 5; Six Cities at 20-23.

⁴⁵⁶ Strategic at 12-13.

⁴⁵⁷ PG&E at 34-36.

⁴⁵⁸ Strategic at 13-14.

outcome of the conference would be reflected in a BPM or, if necessary, through an amendment to the MRTU Tariff.

8. The CAISO Reporting Requirements for Annual and/or Monthly Plans Are Reasonable

a. It Is Necessary and Appropriate for the CAISO To Receive Resource Adequacy Plans and Supply Plans

(i) Plans from Scheduling Coordinators for Load Serving Entities Are Necessary and Do Not Impinge on the Authority of LRAs

Strategic suggests that the CAISO should be required to remove the requirement that LSEs submit plans and data to the CAISO that are already being provided to the CPUC.⁴⁵⁹ Six Cities argues that the CAISO should honor the format for the provision of information established by the Local Regulatory Authority.⁴⁶⁰

The CAISO is seeking basic information in a timely, consistent, and comprehensive manner. The CAISO notes, however, that it interacts with SCs and there is not necessarily a one-for-one relationship between SCs and LSEs. The CAISO must be able to track which SCs are responsible for particular Loads. The CAISO disagrees with Six Cities that the CAISO should be bound by the form and content of each of the potentially multiple formats for resource adequacy reporting for numerous LRAs. To avoid undue complexity and administrative paralysis, and to ensure that the information is obtained in a comprehensive and consistent manner, the CAISO should have the final say as to format. The opposition to these basic requirements is without foundation. This is readily-accessible data on resources and Load forecasts. The CAISO will continue to

⁴⁵⁹ Strategic at 10-11.

⁴⁶⁰ Six Cites at 16.

work with stakeholders on the specific reporting format, but this is a level of detail that can be specified in a BPM.

(ii) Supply Plans from Scheduling Coordinators for Generators Serve an Important Purpose

Williams repeats the contention it raised in Docket No. ER06-723 that the CAISO's requirement for suppliers to submit Supply Plans is redundant and unnecessary.⁴⁶¹ The CAISO strongly disagrees. For this minimal reporting burden on SCs for suppliers, the CAISO obtains greater assurance that the commitments reported by SCs for LSEs will be available to meet CAISO Control Grid reliability requirements. The CAISO will use the supplier's Supply Plans to verify the Resource Adequacy Plans it receives from SCs for LSEs both in terms of the reported commitments of a single SC and to ensure that resources are not over-committed across the portfolios of multiple SCs. Further, the Supply Plan ensures that the capacity indicated by an LSE is being confirmed by the SC representing the owner of a Resource Adequacy Resource. Without such a validation, it is very possible for LSEs to reflect in their plans Resource Adequacy Capacity for which the resource owner has no intent to provide. Thus, leaving the CAISO in the position of trying to resolve the discrepancy during a given month rather than an orderly resolution prior to the operational month.

9. The Specifics of Demand Forecasts Can Be in the BPM

PG&E requests that the MRTU Tariff should be revised to provide that the CAISO will follow the California Energy Commission forecasts of weekly generation capacity and weekly peak demand and include more specificity regarding the purpose of

⁴⁶¹ Williams at 13.

this forecast and its level of detail.⁴⁶² The level of detail regarding forecasts is consistent with the level currently reflected in the CAISO Tariff.⁴⁶³ It is appropriate to specify the additional detail in the BPM.

10. The CAISO's Proposed Availability Requirements Are Just and Reasonable

a. Use of a Resource Adequacy Default Bid Is Appropriate

IEP/WPTF states it has the same concerns with respect to using default bids for Resource Adequacy Resources as it has with use of default bids for market power mitigation purposes.⁴⁶⁴ These are really two very different issues in this regard. First, should the CAISO be permitted to use a Generated Bid, as defined in Section 30.7.3.4, if a Resource Adequacy Resource fails to participate and second, the appropriate level of the Bid. As to the appropriateness of using a Generated Bid, the CAISO submits that, by definition, Resource Adequacy Resources are those units designated by Scheduling Coordinators as being available to the CAISO to meet Demand. Absent notification of an outage, the CAISO has a reasonable expectation that these resources can and will be made available.

Second, as to the appropriate level of the Bid, the CAISO notes that the Generated Bid for Resource Adequacy Resources that have failed to participate is not the same as the Default Energy Bid for market power mitigation purposes in Section 39. The critical difference is that Generated Bids can be avoided by the SC by complying with the Bid requirements under Section 40. Further, under Section 30.7.3.4, as incorporated into Section 40, Generated Bids rely entirely on data from the Master File.

⁴⁶² PG&E at 42.

⁴⁶³ *See for example* Section 42 of the current CAISO Tariff.

⁴⁶⁴ IEP/WPTF at 74.

b. The CAISO Agrees To Make the Modification to Section 40.6.7.1 Regarding Long Start Units Suggested By IEP/WPTF

IEP/WPTF suggests that the CAISO remove the phrase “or other restrictions” from Section 40.6.7.1 of the MRTU Tariff, and should not include it in the BPMs, operating manuals, or other CAISO instruments.⁴⁶⁵ The generator owner will know on their own if there are physical limitations that would prevent them from selling voluntarily after the CAISO has granted a waiver. Accordingly, the CAISO agrees that this phrase need not be included in the MRTU Tariff and agrees to delete the phrase in a compliance filing.

c. Real-Time Offer Obligation of Short-Start Resource Adequacy Resources

IEP/WPTF raises several issues about the obligation of Resource Adequacy Resources to be available in Real-Time and suggests that needed Resource Adequacy Capacity should only be committed in the RUC. The CAISO disagrees with IEP/WPTF’s characterization and arguments regarding the resource adequacy obligation.

First, IEP/WPTF specifically takes issue with the CAISO’s requirement that Short-Start Units be made available in the Real-Time Market even if it has not been committed in RUC.⁴⁶⁶ IEP/WPTF incorrectly describes the resource adequacy offer obligation placed on Short-Start Units. Section 40.6.3 applies only to Short-Start Units that have been designated as Resource Adequacy Capacity. Thus, the Real-Time offer obligation is only placed on Short Start Units to the extent they have voluntarily entered into resource adequacy contracts with an LSE. It is important to remember that, the current FERC must-offer requirement requires *all* Short Start Units to be available in

⁴⁶⁵ IEP/WPTF at 71-72

⁴⁶⁶ IEP/WPTF at 83-85.

Real-Time today. Under MRTU, Short Start Units that have not entered into resource adequacy contracts do not have to bid into the Real Time Market. In addition, Section 40.6.3 provides for a waiver process through which units, that are required to bid, may be relieved of the Real-Time resource adequacy offer obligation.⁴⁶⁷

Second, IEP/WPTF requests that the CAISO clarify that the obligation for Resource Adequacy Resources, even Resource Adequacy Resources partially committed Day-Ahead, must be limited to capacity which is awarded a RUC schedule and not be required to remain available into Real-Time.⁴⁶⁸ This request directly undermines the reliability function of resource adequacy. Replacing the Commission-established must-offer requirement with a program driven by advanced contracting by LSE takes several steps forward in decreasing the pressure on the Real-Time Market and ensuring that resources are appropriately compensated for their availability under contracts they negotiate. Under MRTU, committed units that are physically capable of being called upon in Real-Time are to make remaining Resource Adequacy Capacity available under their voluntary agreements. Uncommitted Resource Adequacy Capacity from committed units that the CAISO deems is not required in Real Time will not be called upon by the CAISO. It is appropriate, however, that the CAISO would have access to Resource Adequacy Capacity in Real-Time in order to ensure grid reliability. The CAISO wishes to be clear that, unlike the Commission's must-offer obligation, the Resource Adequacy program under MRTU greatly depends on *voluntary* contracting of units with load-serving entities and a commitment from those parties to make the sufficient capacity in

⁴⁶⁷ To the extent that IEP/WPTF is concerned about certain Qualifying Facilities that are not subject to the current FERC must-offer, they too would only carry a Real-Time offer obligation under MRTU to the extent they contract as Resource Adequacy Capacity.

⁴⁶⁸ IEP/WPTF at 85.

Real-Time under those voluntary contracts. In addition, this capacity may be marketed externally and is eligible to re-bid so therefore there are no lost opportunities that exist. Thus, IEP/WPTF greatly overstates the nature of the Real-Time offer obligation.

c. QFs and Hydro and Intermittent Resources Must Be Made Available To the CAISO

PG&E requests that the MRTU Tariff be revised to provide that resources that cannot reasonably be expected to meet availability requirements, but which are valid Resource Adequacy Resources that contribute meaningfully be given an exception from those requirements, citing the example of QFs, demand response, intermittent resources and resources under CDWR contracts.⁴⁶⁹

The CAISO disagrees that these resources should not have any availability requirements. There must be a nexus between a resource being counted as providing Net Qualifying Capacity for resource adequacy purposes and that capacity actually being bid into the CAISO markets and being available for Dispatch. The CAISO has tried to accommodate the physical operating restrictions, and, in the case of demand response programmatic restrictions, on different types of resources. In particular, the CAISO has, with stakeholder input, attempted to construct a program that recognizes the contribution to resource adequacy made by Use-Limited resources by providing means for Scheduling Coordinators to inform the CAISO when the Use-Limited resource is available for Dispatch.

PG&E notes that the filed MRTU Tariff requires an intermittent resource being counted as part of a resource adequacy demonstration to bid its full Net Qualifying Capacity into the MRTU Day-Ahead Market, but that this will expose the unit to

⁴⁶⁹ PG&E at 40-41

deviation penalties since the PIRP only offers protection in HASP/Real-Time.⁴⁷⁰ The CAISO agrees with PG&E that this should be modified and that the Resource Adequacy Resources that are intermittent resources should be permitted, but not required, to submit Bids in the Day-Ahead Market. The CAISO will remedy this issue in a compliance filing.

With regard to PG&E's request that the MRTU Tariff be revised to adopt the CPUC rules stating how qualifying capacity is to be determined for wind and solar resources in cases where there is less than three years of operating history,⁴⁷¹ the CAISO notes that the criteria it has proposed is a default criteria that would only apply if the CPUC or another Local Regulatory Authority failed to act. The CAISO adopted the criteria based on comments during the stakeholder process and believes they are an appropriate way of developing the data, absent sufficient historical data.

d. The MRTU Tariff Appropriately Addresses Energy Limited Resources

PG&E suggests that the MRTU Tariff be revised to limit the quantity of resources with less than "all-hours" availability that can be counted for resource adequacy purposes.⁴⁷² The CAISO understands the concern and proposes to monitor the submissions to see if any SC is overly relying on such resources. The CAISO notes that this position is appropriate given that the CPUC has attempted to address this concern in its program elements and any action taken in the CAISO's MRTU Tariff poses an issue of being inconsistent.⁴⁷³

⁴⁷⁰ PG&E at 56.

⁴⁷¹ PG&E at 41-42.

⁴⁷² PG&E at 37.

⁴⁷³ The CAISO further notes that this concern is not applicable to Modified Load Sharing LSEs that are required to satisfy an obligation based on their daily load curve. To the extent non-CPUC jurisdictional

IEP/WPTF also states that Section 40.6.4.2 does not indicate whether an SC is required to adjust its use plan to accommodate system reliability needs and contends that, to the extent that an SC shifts Energy production based on the CAISO's assessment of the system's reliability needs, the CAISO should compensate that SC for any opportunity costs that shifting Energy will incur.⁴⁷⁴ Under Section 40.6.4.2, the CAISO has the ability to *suggest* revisions to a proposed Use Plan, but the CAISO has not sought the authority to require such revision. The CAISO does not believe that opportunity costs are warranted for a voluntary action. Moreover, compensation for Resource Adequacy Capacity is to be a matter of contract between the generator and the LSE on behalf of whose Load the resource is supplying Net Qualifying Capacity. Finally, if the CAISO were to make such a suggestion, the CAISO would be proposing to shift utilization to the period of greatest need which should typically have a higher cost.

IEP/WPTF also requests that the MRTU Tariff provide additional detail as to the criteria that Market Participants must satisfy, and the CAISO must honor, in order to qualify a resource as a Use-Limited Resource.⁴⁷⁵ The CAISO does not believe that adding such additional detail is consistent with the Commission's "rule of reason" standard. The CAISO does not anticipate that there will be significant disagreement as to whether or not a facility should be considered Use-Limited. To the extent any such disputes occur, they can be resolved in accordance with the existing dispute resolution mechanisms under Section 13 of the MRTU Tariff.

**e. The Resource Adequacy Provisions of the MRTU Tariff
Appropriately Addresses Imports**

LSEs select the Reserve Sharing LSE option, the CAISO believes, as noted above, that the appropriate action at the present time is to monitor the situation.

⁴⁷⁴ IEP/WPTF at 72-73.

⁴⁷⁵ IEP/WPTF at 72

PG&E requests that the MRTU Tariff be revised to impose “meaningful” obligations for imports and demand response.⁴⁷⁶ SCE contends that the CAISO should honor block obligations on System Resources, unless otherwise prohibited under the Qualifying Capacity rules of the CPUC or other Local Regulatory Authority, and further contends that the CAISO should not impose Real-Time must-offer obligations on Resource Adequacy System Resources.⁴⁷⁷

The CAISO agrees with PG&E that imports “play a large role in Resource Adequacy in California, and pertinent obligations to ensure that they perform consistently with reliability requirements are both prudent and appropriate.”⁴⁷⁸ Section 40 imposes significant requirements with respect to System Resources that are supplying Qualifying Capacity. PG&E does not specify what additional obligations are necessary.

In response to SCE, the CAISO’s unwillingness to honor multi-hour block constraint for imports in RUC is largely an optimization time-horizon issue. In contrast to the DA-IFM, which is able to perform multi-hour block energy decisions, RUC does not make energy commitments. Rather, RUC simply commits the System Resource in order to make the resource available (bid) into HASP/RT. Therefore, other than DA-IFM, it is only in HASP that energy decisions regarding hourly System Resources are made and such decisions are performed on an hourly basis. Therefore, even if RUC were to commit to a multi-block availability, the actual energy decision after the IFM is performed on an hourly basis. The HASP software does not have the ability to consider multi-hour block energy commitments because the optimization is only looking out to the

⁴⁷⁶ PG&E at 38.

⁴⁷⁷ SCE at 14.

⁴⁷⁸ PG&E at 38.

next Trade Hour. That is why the MRTU Tariff indicates that, if the System Resource is committed in RUC for any hour, it must be dispatchable in Real-Time. If RUC does not select the System Resource for any hour of the block, then a block-limited System Resource should be released from having to offer in real-time. Moreover, once the System Resource is “on” as a result of optimization in the IFM, the System Resource should also be available in HASP and Real-Time for any remaining capacity. In essence, the block obligation of a System Resource will be respected in the IFM optimization, but cannot be used to limit the CAISO’s ability to use the System Resource if it is identified as necessary for a particular hour in the RUC.

Powerex states that the CAISO does not explain or justify the distinction between Dynamic and Non-Dynamic System Resources providing Resource Adequacy Capacity as regards the quality of intervening Control Area transmission service that must be secured and suggests the following modification to Section 40.8.1.12:

40.8.1.12.2 Non-Dynamic System Resources

For Non-Dynamically Scheduled System Resources, the Scheduling Coordinator must demonstrate that the Load Serving Entity upon which the Scheduling Coordinator is scheduling Demand has an allocation of import ~~capacity allocation~~ at the import Scheduling Point under Section 40.4.6.2 of the CAISO Tariff that is not less than the Resource Adequacy Capacity from the Non-Dynamic System Resource. The Scheduling Coordinator must also demonstrate that the Non-Dynamic System Resource is covered by Operating Reserves, unless, unit contingent, in the sending Control Area ~~and cannot be curtailed for economic reasons~~. Eligibility as Resource Adequacy Capacity would be contingent upon a showing by the Scheduling Coordinator of the System Resource that it has secured transmission through any intervening Control Areas for the operating hours that cannot be curtailed for economic reasons or bumped by higher priority transmission of securing in any intervening Control Areas transmission for the operating hours making use of highest priority transmission offered by the intervening Transmission Operator that cannot be curtailed for economic reasons. With respect to Non-Dynamic System Resources, any inter-temporal constraints such as multi-hour run blocks,

must be explicitly identified in the monthly Resource Adequacy plan, and no constraints may be imposed beyond those explicitly stated in the plan.⁴⁷⁹

The CAISO agrees with Powerex and will make the change in the compliance filing.

Powerex also requests that Section 40.6.5 should be clarified to allow SCs for System Resources that are Resource Adequacy Resources to submit new, revised energy bids in the HASP if their bids are not selected in the DAM:

In the IFM, the multi-hour block constraints of the System Resource are honored in the optimization. The CAISO anticipates that multi-hour block System Resources that are Resource Adequacy Resources must be capable of hourly selection by the CAISO if not fully committed in the IFM. If selected in the RUC, the System Resource must be dispatchable in those hours in the HASP and Real Time Market. A Scheduling Coordinator for a System Resource may revise the Energy bid it had submitted in the IFM when it submits its bid in the HASP and Real Time. For existing System Resources with a call-option that expires prior to the completion of the IFM, such System Resources listed on a Resource Adequacy Plan must be reported to the CAISO for consideration in any CAISO multi-day RUC/unit commitment process.⁴⁸⁰

The CAISO agrees with Powerex that SCs for System Units that are Resource Adequacy Resources can submit revised Energy Bids in the HASP if their Bids are not selected in the Day-Ahead Market and will make the proposed change in a compliance filing.

BPA argues that the CAISO's resource adequacy structure does not accommodate practices that could enhance availability of responsive import hydro capacity, such as exchanges or advance/return energy.⁴⁸¹ The CAISO disagrees. Nothing in the CAISO's

⁴⁷⁹ Powerex at 16. See also Cities/M-S-R at 45 protesting that the limitations on non-dynamic system resources in Sections 40.8.1.12.1 and 40.8.1.12.2 are unreasonable, as there is no basis for applying a different standard to the two types of system resources.

⁴⁸⁰ Powerex at 14-15.

⁴⁸¹ BPA at 5-6.

proposal would prevent an LSE from entering into an exchange agreement and counting the capacity it had under contract for the times of the exchange.

f. The Requirements for Modified Reserve Sharing LSE Are Reasonable

Six Cities argues that imposing an inflexible mandatory offer obligation on LSEs could exacerbate rather than help to avoid resource deficiencies in the CAISO Control Area.⁴⁸² In particular, Six Cities protest the requirement that Modified Reserve Sharing LSEs bid all Local Capacity Area Resources that are capable of operating which Six Cities contends eliminates the ability of the entity to manage the use of those resources and would prevent them from developing a resource adequacy program based on load duration curves.⁴⁸³ Six Cities' concerns are unfounded. Section 40.5.2 notes that to the extent a Modified Reserve Sharing LSE's Generating Resource or Local Capacity Area Resource is a Use-Limited Resource, the provisions of the MRTU Tariff governing the restrictions on Use-Limited Resources will apply. This is appropriate as Local Capacity Area Resources are being relied on to meet the specific needs of the CAISO in areas where there may be limited transmission capacity. Furthermore, Section 40.5.2 does not prevent the use of load duration curves. As CAISO witness Mr. Rothleder explains:

The Modified Reserve Sharing LSE option requires the Scheduling Coordinator to submit a daily Demand forecast and schedule or offer resources sufficient to meet 115% of its forecast Demand for every hour instead of requiring the Scheduling Coordinator to schedule or offer all of its physically available resources it identified to meet 115% of its peak monthly Demand.⁴⁸⁴

⁴⁸² Six Cities at 18.

⁴⁸³ *Id.* at 16-18

⁴⁸⁴ Exh. ISO-5 at 33.

Thus, Six Cities has the flexibility each day to specify for each hour the mix of resources that will satisfy their obligation. Under Section 40.5.2, only the resources so designated are “deemed Resource Adequacy Resources.”

Six Cities also raises the following four issues with respect to Section 40.5.5: (1) the provision in Section 40.5.5(1) that imports at a scheduling point that exceed the Modified reserve Sharing LSE import allocation will not count unless the import schedule clears is unreasonable; (2) the last sentence of the section, providing that Energy scheduled in the HASP cannot be used as a credit to correct a failure to fulfill the Day Ahead scheduling obligation is inconsistent with the replacement mechanism in Section 40.5.2(3), which allows a Modified Reserve Sharing LSE to replace a Resource Adequacy Resource that suffers a forced outage up to the next HASP bidding opportunity, plus one hour; (3) the reference in that sentence to Section 40.5.3 is incorrect, as that section deals with Demand Forecast accuracy; and (4) the proposed 200% penalty for failure to replace a scheduled resource that becomes unavailable due to a forced outage is too severe and disproportionate to any burden the CAISO is likely to incur.

First, to the extent there is any limitation on the use of imports in Section 40.5.5(1), the limitation is to the use of imports *above* the proportional allocation for that Scheduling Coordinator. It would be irrational to establish a program of allocating import capacity for resource adequacy purposes only to have that allocation be considered irrelevant for measuring compliance on the part of Modified Reserve Sharing LSEs. What Section 40.5.5(1) does is give the Modified Reserve Sharing LSE an

additional approach to make up capacity if necessary – the possibility that additional imports above the allocated level could clear in the Day-Ahead Market.

Second, the CAISO agrees that Section 40.5.5 should be clarified in a compliance filing to address the situation where a Modified Reserve Sharing LSE replaces a Resource Adequacy Resource bid in the Day Ahead Market that suffers a forced outage up to the next HASP bidding opportunity, plus one hour. The CAISO’s intent was to give the entity up to the next HASP plus one hour to make up for only a forced outage.

Third, the CAISO agrees there is a typo in Section 40.5.5 and that the reference should be to Section 40.5.2 and not 40.5.3. The CAISO will make this change in a compliance filing.

Fourth, the amount of the penalty is reasonable. It is consistent with the amount applied to Load-following MSS units that do not meet their requirements.

PG&E argues that the MRTU Tariff should be revised to remove the limit on obligations of resources provided by Modified Reserve Sharing LSEs’ to the Day-Ahead, except in System Emergencies.⁴⁸⁵ The CAISO disagrees. The obligations imposed on the Modified Reserve Sharing LSEs are commensurate with the penalty structure also applicable to these entities.⁴⁸⁶

11. The CAISO’s Proposals with Regard to Settlement of Resource Adequacy Costs Is Reasonable

a. The Allocation of Minimum Load Costs Is Reasonable

Cities/M-S-R contends that the cost allocation is unclear and may be unjust and unreasonable.⁴⁸⁷ The CAISO disagrees that the cost allocation methodology is unclear,

⁴⁸⁵ PG&E at 40.

⁴⁸⁶ See Exh. ISO-5 at 33-36

⁴⁸⁷ Cities/M-S-R at 43-45.

especially as it relates to Cities/M-S-R as to whether backstop procurement of resource adequacy would be allocated in accordance with Section 41. Only RMR costs are procured and allocated in accordance with Section 41. Thus, this provision would not be used for backstop resource adequacy procurement.

SVP protests any allocation of “backstop” costs to MSSs, as they are either meeting their RA obligations or paying substantial penalties.⁴⁸⁸ Similarly, Trinity alleges that the MRTU Tariff would force Trinity to buy reserves through the CAISO markets,⁴⁸⁹ and MID protests the allocation of any costs associated with resource adequacy under the MRTU Tariff to exports and wheel-throughs serving load inside California but outside the CAISO Control Area.⁴⁹⁰

The cost allocation program for backstop procurement is consistent with the two tiered procurement process that has been previously approved by the Commission and is currently incorporated in Section 40.3.1.8 of the current CAISO Tariff (Section 42.1.8 of the MRTU Tariff). Under this methodology, costs are assigned first to the Scheduling Coordinators who have failed to meet their specific responsibilities. Only if there are additional purchases made by the CAISO for reliability purposes above and beyond the requirements imposed on individual Scheduling Coordinators, are these costs spread across all users of the grid, including MSSs and wheel-throughs. The Commission has found that these purchases sustain the grid and thereby benefit all customers and should be borne by all customers.⁴⁹¹

b. The Allocation of Local Capacity Costs Is Appropriate

⁴⁸⁸ Cities/M-S-R at 44-45.

⁴⁸⁹ Trinity at 8.

⁴⁹⁰ MID at 22-24; *see also*, Cities/M-S-R at 45.

⁴⁹¹ *California System Operator Corporation*, 115 FERC ¶ 61,172 at P 130 (2006).

Several parties provided additional comments on the proposed cost allocations for Local Capacity Area Requirements. PG&E states:

The allocation process in the Proposed MRTU Tariff for local Resource Adequacy, in Proposed MRTU Tariff Sections 40.3.2 (i) and 40.3.3, would result in unjustified cost-shifting, by elevating procurement choice by some LSEs over the likelihood of backstop procurement by the CAISO, whose costs are borne by all LSEs. To prevent this problem while retaining flexibility where it is most important, LSEs' requirements should be distributed so as to require that a portion be obtained in each of the largest local reliability areas and netted for the remaining smaller local reliability areas.⁴⁹²

The CAISO does not agree with PG&E's premise. The CAISO is not proposing to apportion its backstop procurement costs to "all LSEs." Instead, the CAISO is requesting the ability to directly assign any such charges to the Scheduling Coordinators for LSEs that have failed to demonstrate they have provided their assigned share of a Local Capacity Area obligation.

CCSF and Bay Area maintain that the cost of Local Capacity Area Resource Requirements should continue to be allocated on the same basis as RMR.⁴⁹³ In contrast, SCE argues that the CAISO should not be permitted to use RMR purchases as backstop procurement for local capacity because RMR costs are allocated to PTOs, not short LSEs.⁴⁹⁴ As currently exercised, the CAISO procures RMR based on local area reliability services ("LARS") needs. The LARS criteria are narrower than the local areas under consideration for resource adequacy. RMR costs to meet LARS needs are appropriately allocated to the PTOs as these costs are caused by transmission constraints that the PTO can remedy. Moreover, existing RMR settlements and RMR Contracts control the rights and obligations regarding use of RMR Generation, in addition to pre-

⁴⁹² PG&E at 36-37.

⁴⁹³ CCSF at 7; Bay Area at 37-38.

⁴⁹⁴ SCE App. A, at 8.

existing tariff authority. Thus, while there is a relationship between RMR procurement for local reliability purposes and Locational Capacity Requirements, there are also differences which the CAISO believes supports the different approach set forth in the MRTU Tariff. RMR costs are assigned to the Participating Transmission Owner, in part as an incentive to expand the transmission grid. Locational Capacity Area costs will be borne by Scheduling Coordinators who fail to back their Loads in specific areas. In other words, a Scheduling Coordinator should not be able to shift responsibility for its individual responsibilities to the potentially broader customer base of the Participating Transmission Owner.⁴⁹⁵

12. There Should Be No Changes to the CAISO’s Existing Procurement Authority

The CPUC contends that MRTU Tariff Sections 40.3 and 42 grant the CAISO “unlimited backstop procurement authority,” resulting in an end-run around the CPUC’s program, without providing any opportunity for the CPUC or any other entity to comment on the CAISO’s criteria for determining system reliability needs and alleges that the CAISO “inserted Section 42 into the MRTU Tariff with no stakeholder input.”⁴⁹⁶ PG&E argues that the MRTU Tariff should be revised to sharply define the CAISO’s authority to procure resources.⁴⁹⁷

What the CPUC and PG&E fail to recognize is that Section 42 of the MRTU Tariff is fundamentally *existing* CAISO Tariff authority. These provisions are renumbered from Section 40.3.1 of the currently-effective Commission-approved CAISO

⁴⁹⁵ SCE agrees that the CAISO should not be permitted to use RMR purchases as backstop procurement for local capacity because RMR costs are allocated to Participating Transmission Owners, not short LSEs. SCE App. A, at 8.

⁴⁹⁶ CPUC at 27-34.

⁴⁹⁷ PG&E at 43. The CAISO does not agree with Calpine that revenue back-stop also necessary because CPUC’s RA framework does not “assure opportunities for all generation to obtain capacity contracts for sufficient quantities or at sufficient prices to ensure fixed cost recovery.” Calpine at 4.

Tariff and have been present for many years. The CAISO has consistently indicated the need for authority to make purchases needed to satisfy Applicable Reliability Criteria.

As explained by Mr. Rothleder:

While the CAISO would hope not to have to use its authority under these existing sections, it is crucial that the CAISO have the ability to ensure reliability criteria are satisfied. The CAISO must have the backstop ability to enter into supply arrangements if circumstances require such action to maintain sufficient Supply to meet system Demands. Because the CAISO might use this authority when LSEs fail to meet the Resource Adequacy requirements included in the Resource Adequacy Plans (or when a Scheduling Coordinator fails to submit a complaint Resource Adequacy Plan), the CAISO is proposing to revise the allocation to address such circumstances.⁴⁹⁸

The purchases are not unfettered. Under Section 42.1.5 (the existing 40.3.1.5) procurement is directly tied to the CAISO's need to "comply with Applicable Reliability Criteria" acting "in accordance with Good Utility Practice." The only additional backstop authority sought in MRTU is the ability to make purchases if a Scheduling Coordinator fails to meet their responsibility to procure sufficient Local Capacity. It must be remembered, however, that the CAISO has existing authority reflected in Section 41 of the MRTU Tariff to designate RMR units to meet local reliability needs. In essence, the MRTU design is trying to place more of the purchasing decisions on the Market Participants by providing them information on the quantity and location of capacity needed to sustain grid operations. The CAISO would step in only if the Market Participant failed to act.

As indicated by the CPUC,⁴⁹⁹ and outlined above, the CPUC and the CAISO are in discussions on this subject in an effort to better clarify how the CAISO will continue to exercise this backstop authority. The CAISO is working to develop a program in which

⁴⁹⁸ Exh. ISO-5 at 62-63,
⁴⁹⁹ CPUC at 23-27

the CPUC and other Local Regulatory Authorities would specify the performance standard under various system conditions applicable to LSEs in their jurisdiction.

As to the SWP request that the CAISO's non-market power purchases should be transparent in their implementation and operation, and should be fully reported,⁵⁰⁰ the CAISO agrees that there needs to be transparency with regard to any backstop procurement it undertakes as these costs will be passed through to the appropriate SCs, and has proposed to provide a report explaining any Local Capacity procurement and also proposes to add information regarding procurement under Section 42 of the MRTU Tariff to the information communicated under Section 6 of the MRTU Tariff.

13. The Resource Adequacy Plans and Supply Plans Should be Treated As Confidential Data Except As Needed To Share With Local Regulatory Authorities

Strategic contends that the CAISO should be required to provide confidentiality protection to all information provided to the CAISO under Section 40 of the MRTU Tariff.⁵⁰¹ Powerex states that the CAISO should not share information about generators providing Resource Adequacy Capacity with the CPUC if those generators are outside of California.⁵⁰² The CAISO agrees that the data submissions, in particular the annual and monthly plans, should be treated as confidential information, except as necessary to perform necessary compliance functions (*i.e.* disclose discrepancies to SCs identified as relevant to the commercial transaction). The CAISO further notes that enforcement is primarily a matter for the LRA and, as such, there may be times when the CAISO must report information to those bodies. The CAISO also must be allowed aggregate data to

⁵⁰⁰ SWP at 49.

⁵⁰¹ Strategic at 12.

⁵⁰² Powerex at 18.

be used for making public statement about aggregate adequacy of the supply. The CAISO commits to make these changes in a compliance filing.

14. Relation to Other Dockets

Bay Area, Lassen, and AReM argue that Section 40 of the MRTU Tariff is inconsistent with the provisions of the IRRP filed in Docket No. ER06-723 and the Reliability Capacity Services Tariff (“RCST”) settlement in Docket No. EL05-146.⁵⁰³ These concerns are unfounded as demonstrated by the simple proposition that the IRRP and the RCST sunset at the onset of the MRTU Tariff. Accordingly, there are no inconsistencies and the MRTU Tariff will not overlap with these provisions.

15. Other Issues

a. The Resource Adequacy Provisions of the MRTU Tariff Do Not Discriminate Against Exports

Turlock contends that Section 40.6.10 and 40.6.11 of the MRTU Tariff should be rejected because they inappropriately provide the CAISO with sole discretion to curtail Exports in Real Time if (1) the CAISO believes it may face a System Emergency; and (2) if the Export is served by a Resource Adequacy Resource. It is appropriate for the CAISO to be able to rely on Resource Adequacy Capacity that has been procured to meet Demand in the CAISO Control Area. Indeed, the concept of recallable resources has been approved by the Commission for use by other RTOs.⁵⁰⁴ This allows the most efficient use of the resources by allowing them to be exported when they are not needed to meet reliability requirements.

⁵⁰³ Bay Area at 34-35; Lassen at page 31; AReM at 10-11.

⁵⁰⁴ *See for example*, Section 5.12.10 of the NYISO Tariff on Curtailment of External Transactions In-Hour.

IID is concerned that the CAISO's resource adequacy proposal will limit IID's access to needed generation within the CAISO and that the CAISO has given itself the unfettered ability to cut exports at the CAISO's sole discretion.⁵⁰⁵ IID's claim is incorrect. Nothing in Section 40 prevents an entity from entering into contracts with resources within the CAISO Control Area to meet its own needs. Moreover, A.B. 380 requires all Load Serving Entities, including IID, to maintain adequate physical generating capacity to meet their load requirements. The central purpose of the Section 40 is to coordinate how the resources procured in accordance with the requirements set by Local Regulatory Authorities pursuant to A.B. 380 are made available to the CAISO.

IEP states that Section 40.6.11 should have a clear statement of intent and appropriate application regarding the CAISO's ability to curtail exports from a Resource Adequacy Resource, such as "The CAISO may curtail exports from Resource Adequacy Capacity to prevent or alleviate a System Emergency."⁵⁰⁶ This is unnecessary as the provision already has the requested limitation "to prevent or alleviate a System Emergency."

b. The CAISO IS Developing the Resource Adequacy BPM With Stakeholder Input

Cities/M-S-R argue that the resource adequacy program is deficient in that it does not include the applicable BPM and that any standards should be filed and not posted.⁵⁰⁷ As discussed in Section I.C of this Answer, the CAISO has provided an appropriate level of detail in the MRTU Tariff, consistent with that on file for other RTOs. The CAISO

⁵⁰⁵ IID at 31-39.

⁵⁰⁶ IEP/WPTF at 73.

⁵⁰⁷ Cities/M-S-R at 46-47.

has initiated an extensive stakeholder process to obtain input on the development of BPMs for MRTU.

c. WAPA's Requests for Clarification

WAPA seeks confirmation that certain specified MRTU Tariff provisions will not impair WAPA's determination of Qualifying Capacity for its hydro resources. Also, WAPA claims that it is unclear whether the "Planning Reserve Margin" specified in Section 40 of the MRTU Tariff includes operating reserves.⁵⁰⁸ As an LRA, WAPA will make a determination as to the Qualifying Capacity of its Resources. In addition, the CAISO clarifies that under Section 40.2.1 of the MRTU Tariff as filed with the Commission, the 15% is based on the Demand Forecasts which will not include Demand plus reserves. The CAISO will make this clarification in a compliance filing. The purpose of the 15% margin is to ensure sufficient installed capacity to serve the expected load plus provide operating reserves in the Real-Time while anticipating the inherent error associated with load forecasts and forced outage estimates.

L. Existing Transmission Contracts/Converted Rights

On December 8, 2004, the CAISO submitted a conceptual proposal for transitioning its policy with respect to ETCs to the MRTU design. The proposal addressed: (1) scheduling the use of ETC rights in the CAISO markets; (2) validating that ETC Schedules submitted to the CAISO are consistent with the ETC holders' contractual rights; and (3) settlement and allocation of CAISO charges associated with ETC Schedules and Schedule changes. Specifically, the CAISO sought to preserve the ability of ETC rights holders to change their Schedules and for the CAISO to provide the equivalent of the firm service specified in the ETCs. The CAISO also proposed the

⁵⁰⁸ WAPA at 65-68.

“perfect hedge” to hold ETC rights holders financially harmless from any Congestion costs associated with the use of valid ETC Schedules. On February 10, 2005, the Commission issued an order approving in principle certain elements of the ETC proposal and providing guidance and seeking additional information with respect to other elements.⁵⁰⁹ The February 2006 MRTU Tariff Filing built upon the guidance provided by the Commission in the February 2005 Order.

AReM claims that “CAISO operations have been hampered by having to accommodate ETCs and TORs.”⁵¹⁰ The CAISO recognizes these concerns and has tried to improve the efficiency of utilization of the transmission grid and reduce the opportunity for “phantom congestion” while still respecting the historic rights of the ETC holders. An example of how this balance is achieved is discussed in the next section – the CAISO’s proposal to reserve capacity on the interties through Real-Time, but to allow the CAISO to accommodate Existing Rights after the Day-Ahead Market through redispatch within the Control Area.

1. The CAISO’s Proposal Only To Reserve Capacity for ETCs on the Interties Is Reasonable

Only one party, BPA, questions the CAISO’s proposal to reserve capacity for ETCs only on the interties after the Day-Ahead Market, claiming that such a practice was “plainly discriminatory.”⁵¹¹ BPA’s concern is without merit.

The CAISO’s proposal not to reserve capacity after the Day-Ahead Market on the internal network was conceptually approved by the Commission in its February 2005 Order.⁵¹² As the CAISO explained:

⁵⁰⁹ *California Independent System Operator Corp.*, 110 FERC ¶ 61,113 (2005)

⁵¹⁰ AReM at 13-14 (noting examples of differing treatment for certain market participants resulting from separate agreements).

⁵¹¹ BPA at 3.

it is infeasible to set-aside unscheduled ETC transmission capacity on the internal network within the CAISO control area under the new market design because: (1) it would have a significant impact on the congestion management market and on the complexity of the market software; and (2) it would require transmission capacity set-asides on virtually every transmission line in the network ... in the context of the MRTU, requiring the CAISO to honor ETC scheduling rights by withholding unscheduled ETC capacity would require the set-aside of transmission capacity on virtually every transmission line in the network (because the FNM is a looped network model).⁵¹³

Dr. Kristov's testimony further addressed the question of the need to reserve capacity on the internal network in order to fully honor ETCs as follows:

that is completely unnecessary under LMP. If the ETC holder has rights to deliver energy from an internal Generating Unit to its internal Demand location, it simply submits a valid Self-Schedule in any market in which it has rights and the SCUC optimization for that market will assign the appropriate scheduling priority and Dispatch resources with economic Bids as needed to accommodate the ETC Self-Schedule.⁵¹⁴

In essence, the CAISO's ability to redispatch resources to accommodate valid ETC Schedule changes after the Day-Ahead Market is greater with respect to the internal network than it is over the interties. The Existing Rights holder will have its scheduling rights honored and its firm service delivered, but without the need for the CAISO to withhold valuable transmission capacity from other customers.

The Commission has recognized that not all differential treatment represents "undue discrimination" under the FPA. If the entities are not similarly situated and there is a rational basis for any differences, then there is nothing "undue" about the disparate treatment.⁵¹⁵ Given the complexities and inefficiencies that would result from reserving capacity over the internal transmission network, and the CAISO's ability to optimize

⁵¹² *California Independent System Operator Corp.*, 110 FERC ¶ 61,113 at PP 17-37.

⁵¹³ *Id.* at P 19.

⁵¹⁴ Exh. ISO-1 at 99.

⁵¹⁵ *City of Anaheim, California*, 113 FERC ¶ 61,091 at PP 130-132 (2005).

Dispatch of resources within its Control Area under MRTU, the Commission should reaffirm its prior conceptual approval with respect to the scheduling rights of ETCs and reject BPA’s argument to modify this provision of the MRTU Tariff.

- 2. Payments Under the CAISO’s ETC Proposal Are Reasonable**
- a. The CAISO’s Perfect Hedge Proposal Should Be Affirmed**

For PG&E, the “perfect hedge” appropriately addresses congestion costs for ETCs.⁵¹⁶ Yet, Bay Area claims that the nodal scheduling of ETCs creates severe adverse costs impacts to ETC holders that undermines the entire premise of the ETC.⁵¹⁷ They propose to allow ETCs to settle at the LAP price, which would ensure that ETC Self-Schedules are treated the same as non-ETC Schedules.⁵¹⁸ IID requests that the CAISO clarify whether it intends to apply the “perfect hedge” in situations where the CAISO must cut a Schedule for reasons such as Congestion or whether it plans to subject the ETC holder to congestion charges for the unbalanced portion of the Schedule.⁵¹⁹

With regard to the concern expressed by Bay Area, there should not be cost impacts since the ETC holder is supplying the Energy it needs through a balanced Self-Schedule and the difference (*i.e.*, Congestion) is covered by the perfect hedge. The CAISO has proposed requiring the ETCs to be scheduled at the nodal level to best reflect the system impact of the ETC’s use of the transmission grid from both a grid management and a system cost impact basis.

⁵¹⁶ PG&E at 9.
⁵¹⁷ Bay Area at 34.
⁵¹⁸ *Id.*
⁵¹⁹ IID at 26-27.

The CAISO is not sure what IID means by cutting an ETC Schedule for Congestion. The central premise of the CAISO's filing is that the ETC would not be cut but given service and financial protection. If IID is referring to a situation where there is a derate in a line, the CAISO would continue to give the perfect hedge protection to remaining balanced Schedule in accordance to the instructions it has received for the ETC. If CAISO cuts an ETC Schedule there will be perfect hedge since CAISO will consider a similar amount of curtailment on the other end (by virtue of using the minimum of the Supply and Demand sides of the Schedule). As to any unbalanced portion, it makes no sense to talk about perfect hedge since the concept of Congestion charge only applies to balanced Schedules. Assuming the Supply side is curtailed due to the reduction of the ETC right commensurate with the line derate, the unbalanced Demand side would still be served, presumably using other resources and using non-ETC transmission. Thus, instead of considering it unbalanced, one should view the unbalanced portion as being balanced using non-ETC transmission; thus not deserving perfect hedge. If the Load was served over another path due to an Outage on the transmission facilities covered by the ETC, this would be considered a new firm use subject to Congestion because this was not service that was covered under the ETC, unless it was a network service agreement.

b. MRTU Does Not Change the Exemption of ETCs Under the Transmission Access Charge and the Wheeling Access Charge. They Will Continue To Pay For Transmission Service Under the Terms of the ETC

Reclamation argues that MRTU's LMP is inconsistent with Reclamation's ETCs in that entities with prepaid ETC arrangements will not receive the benefit of any

reduction in transmission Access Charges, or those benefits will be untimely delayed.⁵²⁰ This concern appears misplaced. As Dr. Kristov states, ETCs will be exempt from transmission Access Charges or Wheeling Access Charges as they are today.⁵²¹ Thus, Reclamation and any other ETC holder will continue to pay the embedded costs of the transmission system in accordance with the ETC. If the ETC is a fixed price contract, then the Existing Rights holder will not get any benefit from lower Access Charges but will also not be exposed to any increases from higher Access Charges. Conversely, if the agreement does preserve rate change rights, then adjustments up or down can be made. Moreover, the MRTU Tariff does not significantly change the basis upon which the transmission Access Charge and Wheeling Access Charge are determined and assessed.⁵²²

c. Valid ETC Schedule Changes Should Not Be Subject To UDP

As explained by Dr. Kristov, valid ETC Self-Schedule changes submitted after the close of the HASP and RTM will not be exposed to Uninstructed Deviation charges.⁵²³ According to PG&E, the MRTU Tariff is unclear as to how ETCs will be exempted from application of the UDP multiplier to the extent consistent with terms of ETCs.⁵²⁴ The CAISO concurs with PG&E that the tariff should be more specific in this respect. The CAISO commits to clarify these provisions of the MRTU Tariff in a compliance filing.

3. MRTU Does Not Change the Way Load Shedding Is Accomplished for ETCs

⁵²⁰ Reclamation at 7.

⁵²¹ Exh. ISO-1 at 97.

⁵²² See Section 26 and Appendix F, Schedule 3.

⁵²³ Exh. ISO-1 at 104.

⁵²⁴ PG&E at 61.

Turlock alleges that the “MRTU Tariff inappropriately attempts to provide the CAISO with unfettered authority to require ETC holders to shed Load without virtually any justification.”⁵²⁵ Burbank argues that the CAISO’s proposal in Section 16.5.1 to allow the CAISO to require ETC holders to shed firm Load should be rejected, as it represents an abrogation of ETC rights, is unduly discriminatory, threatens reliability, and fails to provide firm service as defined by FERC.⁵²⁶ These complaints are wholly without merit and must be rejected. Section 16.5.1 of the MRTU Tariff retains *existing, previously-litigated* CAISO Tariff authority necessary to manage System Emergencies in accordance with Good Utility Practice. There has been nothing “unfettered” as to how the CAISO has implemented this provision and the intervenors cite no specific instance when it was utilized improperly.

Currently, Section 4.2.1 of the CAISO Tariff provides:

The ISO will honor the terms of Existing Contracts, provided that in a System Emergency and circumstances in which the ISO considers that a System Emergency is imminent or threatened, holders of Existing Rights must follow ISO operating orders even if those operating orders directly conflict with the terms of Existing Contracts. For this purpose, ISO operating orders to shed Load shall not be considered as an impairment to public health or safety. This section does not prohibit a Scheduling Coordinator from modifying its Schedule or re-purchasing Energy in the Hour-Ahead Market.

In fact, Section 4.2.1 of the Simplified and Reorganized Tariff is a combination of the authority that existed under Section 2.3.1.2.1 and Dispatch Protocol Section 9.2.1 of the prior version of the CAISO Tariff.⁵²⁷ The only change proposed in the MRTU Tariff was

⁵²⁵ Turlock at 5, 26-29.

⁵²⁶ Burbank at 6-9.

⁵²⁷ Section 2.3.1.2.1 read “holders of Existing Rights must follow the ISO operating orders, even if those orders directly conflict with the terms of Existing Contracts.” This provision was litigated and approved by the Commission as part of the long-running “Unresolved Issues” case. The specific language was adopted by the Commission in its Order on Compliance filing dated July 25, 2003, *California Independent System Operator Corp.*, 104 FERC ¶ 61,129 (2003) at P 18:

to replace the term “Schedule” with the term “Bid” in the MRTU Tariff(as a “Bid” includes Self-Schedules) and to replace the “Hour-Ahead Market” with HASP/RT Market.” Thus, the MRTU filing made no substantive changes to the CAISO’s authority to manage System Emergencies.

4. The Validation Process Under MRTU Is Reasonable

A number of intervenors raise issues concerning the CAISO’s proposed validation process for ETCs. MWD and SWP state that the CAISO should continue to provide ETC service the same and opportunity to cure invalid Schedules as is provided to other types of Schedules under MRTU.⁵²⁸ PG&E maintains that the CAISO should not be permitted to effectively treat ETC holders as if their ETC Schedules were invalid, simply due to CAISO software limitations that cause inadvertent errors resulting in treatment of ETC Schedules that is inconsistent with the ETCs.⁵²⁹ APECO/SWTC contends that there are potential inconsistencies in the treatment of ETCs that submit Schedules that are only partially validated, and suggests the only appropriate treatment is to deem the Schedule validated up to the maximum extent of the ETC.⁵³⁰

The CAISO does provide Scheduling Coordinators the opportunity to cure invalid ETC Schedules. As described by Dr. Kristov, “[t]he MRTU software will send a message to the relevant SC or SCs in this case, and if there is time the SCs may resubmit

Accordingly, the ISO should submit a compliance filing that includes the following language (proposed by TANC):

The ISO will honor the terms of Existing Contracts, provided that, in a System Emergency and circumstances in which the ISO considers that a System Emergency is imminent or threatened, Existing Rights Holders must follow ISO operating orders, even if those operating orders conflict with the terms of Existing Contracts.

Thus, Turlock and Burbank are engaged in an impermissible collateral attack on a prior Commission order.

⁵²⁸ SWP at 41; MWD at 21.

⁵²⁹ PG&E at 58-59.

⁵³⁰ APECO/SWTC at 3-4.

the Self-Schedule.”⁵³¹ Moreover, the CAISO does not propose to simply reject an invalid ETC Schedule. Under Section 16.6.2.2 of the MRTU Tariff, if the ETC Schedule is not balanced, the CAISO will not accord it a scheduling priority but will apply the perfect hedge to the valid and balanced portions. Similarly, under Section 16.6.2.3, if the ETC Schedule exceeds the total capacity specified in the TRTC Instructions, the CAISO will apply the perfect hedge to the valid balanced portions within the capacity limits of the Existing Contract. In this manner, the CAISO is giving due deference to the Existing Rights by not invalidating the whole Schedule but instead utilizing and giving financial protection to the valid and balanced portion of the submission. As described by Dr. Kristov:

These adjustments are fairly straightforward because there is a valid, balanced ETC Self-Schedule contained within the submitted Self-Schedule that is identifiable by means of fairly simple rules. Beyond these simple cases, however, the MRTU software will most likely not be able to perform suitable adjustments and the ETC holder would lose the ETC settlement treatment as well as the ETC scheduling priority.

Exh. ISO-1 at 102.

As to the issue raised by PG&E where invalidation occurs through the inadvertent error of the Scheduling Coordinator, the Commission has determined previously,

If a Scheduling Coordinator errs in the denomination of a reference number for an Existing Contract, the schedule will be treated as a new firm use. Metropolitan argues that this procedure should be rejected because Existing Rights holders will be exposed to the risk of additional costs that are not warranted under their Existing Contracts solely due to a Scheduling Coordinator error. Our analysis indicates that the ISO’s proposal represents a necessary and orderly validation procedure that reasonably places the burden of properly identifying Existing Contract rights on Scheduling Coordinators. Therefore, it is appropriate to hold

⁵³¹ Exh. ISO-1 at 101.

Scheduling Coordinators responsible for following the proposed validation procedures.

California Independent System Operator Corp., 83 FERC ¶ 61,206 at 61,922

(1998) (footnote omitted). The Commission has also stated:

We think it reasonable for the Participating TO to submit instructions to the ISO for schedule validation. To do otherwise would set up a situation where the ISO could receive conflicting instructions and thereby place the ISO in a position to be the arbitrator between the Participating TO and its customer.

California Independent System Operator Corp., 101 FERC ¶ 61,219 at P 26.

The proposed treatment of ETCs and the responsibilities placed on Participating Transmission Owners and Scheduling Coordinators are consistent with past practice as approved by the Commission.

While not directly related to the validation process for ETCs, but rather addressing how the perfect hedge will be applied to the Converted Rights of New Participating Transmission Owners, Six Cities asserts that there is no justification for requiring an entity that holds Converted Rights eligible for hedging under Section 4.3.1.2 of the MRTU Tariff to submit balanced Schedules for all of its Load and resources.⁵³² Six Cities maintains that, for Converted Rights, the balancing requirement should be limited to pairing the Converted Rights eligible for the hedge with an equivalent amount of Load. Section 4.3.1.2 states that New Participating Transmission Owners will receive the Congestion credit in accordance with Section 11.2.1.5, which applies to a valid and balanced Converted Rights Self-Schedule. The CAISO disagrees. Under the CAISO's current market design, Six Cities receive FTRs for the transmission capacity they

⁵³² Six Cities at 9.

turned over to the CAISO Operational Control. These FTRs must be scheduled on a day-ahead basis to provide protection against Congestion costs. The perfect hedge provided under Section 11.2.1.5 provides an equivalent treatment for the Converted Rights of the New Participating Transmission Owners under MRTU for the transition period ending on December 31, 2010.

5. The CAISO's Proposal on Marginal Losses Is Justified

The CAISO has proposed to apply its Marginal Loss methodology on a consistent basis – to both new firm uses of the grid and to ETCs. Both WAPA and AEPCO/SWTC are concerned that the CAISO's proposal on Transmission Losses for ETCs will increase the risk that the Existing Rights holder will be required to bear a burden not contemplated under the ETC.⁵³³ The CAISO maintains that its proposal is an efficient, just and reasonable means to assign responsibility for losses. As explained by Dr. Kristov:

Some ETC holders sought a complete rebate or exemption from the marginal loss charges associated with their valid, balanced ETC Self-Schedules, based on the argument that they had paid for losses under the terms of their ETCs. This approach was rejected because such a rebate or exemption would cause the CAISO to fail to recover a portion of the actual cost of congestion to the system, and would impose this cost on other parties across the market rather than containing it between the two parties to the contract. The CAISO finally concluded that the most effective way to contain the cost of losses between the ETC contract parties would be to charge ETC Self-Schedules for losses on the same basis as other grid users, and allow the parties to the contract to work out between them whether some compensation from one to the other is warranted. With this approach the CAISO would stay removed from interpreting these contracts, avoid favoring particular parties to a contract, and also avoid causing a cost associated with ETC Self-Schedules to be spread to the rest of the market.

⁵³³ WAPA at 26-33; AEPCO/SWTC at 3.

Exh. ISO-1 at 104-105. Thus, the CAISO's approach is to provide the direct credit-back of the net revenues collected from Marginal Losses. This ensures that the CAISO does not over-collect for losses and appropriately assigns a proportionate share of the Marginal Loss calculation to the use of the transmission grid by the ETC. Each Participating TO is then responsible for recovering any deficits or crediting any surpluses associated with differences in Transmission Losses and Transmission Loss Requirements through bilateral arrangements or its Transmission Owner Tariff.⁵³⁴

6. Schedule Changes

Several parties seek clarification or modification of the CAISO's proposed treatment of ETC Schedule changes. SWP alleges that MRTU does not address the actual service to which ETCs are entitled and thus does not sufficiently honor ETCs.⁵³⁵ CCSF also claims that the MRTU Tariff limits the ability of ETC holders to exercise the rights they currently have under the pre-MRTU structure, and does not allow for the delivery or receipt of Energy at the zone or hub level.⁵³⁶ PG&E agrees with the CAISO that it may be appropriate to accommodate Real-Time changes to the extent consistent with ETCs, but states there is an insufficient basis to make the ETC Scheduling Coordinator responsible for any resulting charges for Energy deviations.⁵³⁷

The CAISO disagrees that the MRTU Tariff so limits Existing Rights. To the contrary, the CAISO has made every effort to accommodate such rights under the

⁵³⁴ See Section 16.6.3(4) of the MRTU Tariff.

⁵³⁵ SWP at 35-36.

⁵³⁶ CCSF at 9-10.

⁵³⁷ PG&E at 60. See also SWP at 37-40 stating that MRTU fails to hold ETC holders harmless when they exercise their rights to make hour-ahead adjustments and that under the MRTU Tariff, firm ETC service is erroneously charged CAISO reliability/redispach costs already provided pursuant to firm contractual entitlements.

structure and systems of the new market design. The CAISO's proposed management of ETCs under MRTU still provides unique treatment for ETC Self-Schedules and a special settlement mechanism, and does so in a manner that minimizes the impact on the Day-Ahead and Real-Time optimization based on the Full Network Model. The CAISO will provide scheduling priority to valid ETC Self-Schedules in all CAISO markets for which the ETC holder has scheduling rights under the terms of its contract. As to the inability to change Demand Bids, the Existing Rights holder can still modify its Generation after the Day-Ahead Market to match anticipated changes in Demand.

PG&E does not describe why it believed it inappropriate to hold the Scheduling Coordinator for the ETC responsible under Section 16.12 of the MRTU Tariff. The CAISO notes first, that Section 16.12 is based on Section 16.2.7.2 of the current CAISO Tariff with minor changes to accommodate the MRTU terminology and market structure. Second, consistent with the decision of the Court of Appeals in *Southern California Edison Company, et. al. vs. FERC*⁵³⁸ and the Commission's decision on remand in *Pacific Gas & Electric Company, et al.*⁵³⁹ PG&E has two options to recover costs it incurs as Scheduling Coordinator for ETCs: (1) recover the costs under the Transmission Revenue Balancing Account or (2) reform the ETC to eliminate any cost differential. These decisions were based on Section 2.4.4.4.5 of the old CAISO Tariff (Section 16.2.3.4.5 of the current CAISO Tariff) which has been incorporated as Section 16.6.3(4) of the MRTU Tariff.

7. Other Issues

⁵³⁸ 415 F. 3d 17, 21-22 (DC Cir. 2005).

⁵³⁹ 113 FERC ¶ 61,296 at PP 17-20 (2005).

SMUD contends that the CAISO’s ETC proposal reflects a lack of appreciation for business “real world” contracting and harms bargained-for price certainty, will create seams issues, and will expose the CAISO to new credit risks.⁵⁴⁰ The CAISO recognizes that SMUD has a different perspective on many aspects of the MRTU market design, including the ETC proposal. But, as discussed at length above, the foundations of the treatment of ETCs under the MRTU Tariff were conceptually approved by the Commission.

PG&E states that the MRTU Tariff inappropriately provides the CAISO with sole discretion to determine if ETCs qualify for certain metering exemptions.⁵⁴¹ The CAISO disagrees. The language in the tariff concerning exemptions from metering compliance in Section 10.3.18.1 is largely unchanged from the existing tariff provisions. They have been updated to reflect the MRTU terminology, but the substance with respect to applying for and receiving metering exemptions is unchanged.

M. Transmission Ownership Rights

Transmission Ownership Rights (“TORs”) refer to transmission facilities, or portions of facilities, within the CAISO Control Area that have not been turned over to CAISO Operational Control. These facilities include the 230 kV Colorado River Aqueduct, the 500 kV Southwest Power Link, CCSF transmission facilities from Hetch Hetchy to Newark, the Pacific AC Intertie (“PACI”) for WAPA, the 230 kV Mohave-Eldorado Line, and the 230 kV Eldorado-Mead line.⁵⁴² The current tariff does not address TORs. The CAISO’s current management of TORs is accomplished through

⁵⁴⁰ SMUD at 48- 51.

⁵⁴¹ PG&E at 61.

⁵⁴² The CAISO does have partial rights over the Southwest Power link, the PACI, the Mohave-Eldorado line, and the Eldorado-Mead Line.

bilateral arrangements or operational agreements.⁵⁴³ In addition, the CAISO filed an Interim Agreement in Docket No. ER06-227-000, involving the operational relationship between the CAISO and CCSF. This matter is pending before the Commission.

The CAISO recognizes that certain issues associated with TORs will continue to be addressed in these bilateral agreements, and the CAISO does not intend to diminish these rights. As was necessary for ETCs, however the CAISO must identify how TORs will be considered in the application of the Full Network Model and clarify and demonstrate how TORs will remain capable of utilizing the full capacity of their system. Therefore, the CAISO felt it was important to include Section 17 of the MRTU Tariff in order to address this treatment of TORs. The CAISO did not seek to fundamentally alter the way TORs utilize their transmission capacity. Thus, CCSF's complaint that Section 17 fails to explicitly impose an obligation on the CAISO to honor TORs right to their own transmission, to be free of CAISO charges when TORs are exercised, and to ensure the at the TOR owner is compensated by the CAISO when the TOR transmission is used by the CAISO⁵⁴⁴ is without merit. As noted above, the current tariff does not say anything with respect to TORs. Section 17 describes how the TORs will be modeled and that they will continue to be exempt from Congestion charges.

Rather than augmenting Section 17 to explicitly impose obligations on the CAISO already under these TOR agreements, the CAISO proposes that, if the provision is to be augmented at all, it should be to specify the generic treatment of TORs such as the

⁵⁴³ These are either directly between the TOR holder and the CAISO or indirectly through communication with a Participating Transmission Owner based on an agreement between the TOR holder and a Participating Transmission Owner.

⁵⁴⁴ CCSF at 12-13.

exemptions from access charges, Unaccounted for Energy and Neutrality charges. As discussed below, the CAISO proposes to make this change in a compliance filing.

1. Use of TORs

IID contends that the CAISO is “taking” the capacity of the TORs by utilizing facilities that have not been turned over to the CAISO’s control and subjecting them to rates, terms, and conditions of service established by the CAISO.⁵⁴⁵ IID also protests that the CAISO will bump schedules of TOR holders if necessary to accommodate RMR schedules, and potentially sell or use the transmission capacity in the CAISO’s market if it is not scheduled day-ahead by the TOR holder.⁵⁴⁶ Contrary to the assertions of IID, the CAISO has made accommodations in MRTU to ensure that the TOR holder will continue to be able to fully utilize their facilities.

As to the appropriation of TOR capacity, the CAISO notes that the definition of “Available Transfer Capacity” states that it is “[t]he available capacity rating of a given transmission path *after allocation of rights associated with Existing Contracts and Transmission Ownership Rights*, to that path’s Operating Transfer Capabilities...” (emphasis added). Rather than “taking,” the CAISO is *subtracting* the TOR capacity to ensure that the TOR holder gets the beneficial use of its facilities. Similarly, the CAISO subtracts for TOR capacity in its allocation of CRRs.⁵⁴⁷

⁵⁴⁵ IID at 7-12.

⁵⁴⁶ IID at 13-14.

⁵⁴⁷ *36.4 Available CRR Capacity*. When the CAISO conducts its CRR Allocation and CRR Auction, the CAISO shall use the most up-to-date DC FNM which is based on the AC FNM used in the Day-Ahead Market. The Seasonal Available CRR Capacity shall be based on: (i) the DC FNM, taking into consideration any long-term scheduled transmission outages, (ii) OTC adjusted for any long-term scheduled derates, and (iii) any adjustment based upon the CAISO’s engineering judgment for releasing CRRs in a way that appropriately balances the goal of CRR revenue adequacy with expected usage of TOR, ETC and CVR rights. The Monthly Available CRR Capacity shall be based on: (i) the DC FNM, taking into consideration any scheduled transmission outages for that month and any new transmission facilities added to the CAISO Controlled Grid that were not part of the DC FNM used to determine the

The CAISO acknowledges that Section 31.4 and 34.10.2 place TOR Self-Schedules lower in priority to RMR dispatches. This is because the RMR dispatches are designed to support the reliability of the CAISO Control Area without which the grid reliability would be impaired and all uses of the grid, including that of by TOR holders would be in jeopardy. This was the same recognition that provided the prioritization for RMR over ETC rights reflected in Amendment No. 7 to the CAISO Tariff.⁵⁴⁸ In effect, TORs have top scheduling priority except for flows necessary to maintain the reliability of the system. The reality of this priority scheme is that TORs have a priority in the CAISO's modeling above all non-RMR uses of the grid. If the CAISO is in a position where everything but RMR has been curtailed, it would be a dire emergency indeed. It is important to remember as well that many of the TOR facilities are lines for which the CAISO has rights as well.

prior Seasonal Available CRR Capacity and that have already been placed in service and energized at the time the CAISO starts the applicable monthly process, (ii) OTC adjusted for any scheduled derates for that month, and (iii) any adjustment based upon the CAISO's engineering judgment for releasing CRRs in a way that appropriately balances the goal of CRR revenue adequacy with expected usage of TOR, ETC and CVR rights.

⁵⁴⁸ *California Independent System Operator Corp.*, 101 FERC ¶ 61,219 at P 96 (2002).

The Commission denies Proponents' request for rehearing on this issue. The ISO states in its Answer that the fundamental purpose of the dispatch of RMR Generation is to maintain the reliability of the ISO Controlled Grid, which in turn, permits the deliveries of energy under the Existing Contracts. We agree that the curtailment of transmission of RMR Generation should have the highest priority in those situations where its dispatch is necessary for the continued reliability of the ISO Controlled Grid. We note that Scheduling Protocol 7.2.2 of the ISO's tariff, Prioritization of Transmission Uses, states that "regardless of the success of the application of such [protocols] rules, it is intended that the rights under Existing Contracts will be honored by the ISO Tariff." Section 2.4.3.1 of the ISO Tariff states that the Participating TO, the holder of transmission rights and the ISO will work to develop operational protocols which allow existing contractual rights to be exercised in a way that "(i) maintains the existing schedules and curtailment priorities under the Existing Contract. . . ." Thus, we reaffirm that our approval of the ISO's curtailment prioritization for transmission of RMR Generation is limited to reliability and believe that this curtailment prioritization is reasonable and consistent with the ISO's commitment to honor Existing Contracts' curtailment provisions.

The CAISO's commitment to honoring TOR rights is fully reflected in Section 34.9.2 on "Exceptional Dispatch" which states that the "[t]he CAISO may also manually dispatch resources in addition to or instead of resources dispatched by the RTM optimization software to: ... accommodate TOR or ETC Self-Schedule changes after the Market Close of the HASP. Accordingly, the CAISO is fully respecting the rights of the TOR holder while at the same time recognizing that these facilities are integrated into the CAISO Control Area and as such are part of its FNM.

2. TORs Should Have Balanced Schedules

MWD contends that TOR schedules need not be balanced.⁵⁴⁹ The CAISO disagrees. To the extent that a Self-Schedule that makes use of TOR capacity does not balance Supply and Demand associated with the use of the TOR, the TOR holder will be imposing on the CAISO as the Control Area Operator to manage the overgeneration condition or make up any shortfall. Absent the use of balanced schedules, the TOR holder would be leaning on the CAISO. As the Control Area Operator, the CAISO is responsible for maintaining balance between generation and imports and demand and exports. If a TOR holder has a schedule for 200 MW of Demand but only supplies 150 MW, the CAISO will make up the additional 50 MW to maintain the supply balance in the CAISO Control Area. Similarly, if the TOR Holder had supplied 250 MW for its 200 MW of Demand, the CAISO would have to take action to address overgeneration. These actions by the CAISO would have cost consequences to other Market Participants and should, as a matter of cost causation, be reflected back to the TOR holder.

3. Applicability of CAISO Charges

⁵⁴⁹ MWD at 16.

According to MWD, the MRTU Tariff does not reflect the CAISO's promise to exempt TORs from access charges, UFE, and neutrality charges, nor does it allow for settlement of TOR load at prices that reflect their locations.⁵⁵⁰ IID states the MRTU Tariff Filing Letter and the testimony submitted to support the MRTU Tariff fail to address all types of charges that the CAISO may or may not seek to impose on TORs.⁵⁵¹

The CAISO does not currently charge TORs for wheeling, Congestion, Minimum Load Compensation Costs, UFE, and Neutrality. Depending on the specifics of the bilateral agreements, certain market and GMC charges, which are tied to deviations do apply.⁵⁵² The CAISO does not anticipate assessment of certain charges against TORs or the cost allocation associated with TORs to change under MRTU. The CAISO will include in a compliance filing additional Tariff language specifying that balanced TOR Self-Schedules would continue to be exempt from these charges. As to the issue of location, the CAISO will be settling TORs based on the sources and sinks specified in their schedules. As stated by Dr. Kristov, "Demand for which Energy delivery to the Demand location is provided under ETC or TOR rights will be settled based on custom LAP prices analogous to those for MSS."⁵⁵³

4. Losses for TORs

WAPA suggests that the CAISO should exempt the calculation and imposition of the cost of marginal losses on TORs.⁵⁵⁴ According to MWD,

⁵⁵⁰ MWD at 12-13

⁵⁵¹ IID at 17-20.

⁵⁵² GMC charges for TORs and other categories of Market Participants will be determined in the upcoming proceeding once the CAISO fills the GMC proposal related to MRTU.

⁵⁵³ Exh. ISO-1 at 32. *See* MRTU Tariff at Section 30.5.3.2 ("Scheduling Coordinators shall not submit Demand Bids and the CAISO shall not settle such Bids at the LAP in the following circumstances: (a) ETC or TOR Self-Schedules consistent with the submitted TRTC Instructions; (b) Demand Bids for Participating Loads; and (c) Export Bids at Scheduling Points.").

⁵⁵⁴ WAPA at 29.

transmission losses for TORs should be based on a constant percentage from actual recorded data.⁵⁵⁵ IID states TOR holders should be given the opportunity to self-supply losses.⁵⁵⁶ Absent a specified loss percentage in a bilateral agreement which the CAISO must honor, the CAISO is proposing to treat losses on a consistent basis. Thus, the CAISO will provide the direct credit-back of the net revenues collected from Marginal Losses as described in Section II.L above in response to comments expressing the same concerns with regard to ETCs. The CAISO's proposal is a balanced and reasonable approach that treats losses on a comparable basis and should be affirmed.

N. Inter-Scheduling Coordinator Trades

1. The CAISO's Decision Not to Permit Inter-Scheduling Coordinator Trades at the Interties Under MRTU is Just and Reasonable.

SMUD and Turlock contend that the CAISO's decision not to permit Inter-Scheduling Coordinator Trades ("Inter-SC Trades") at the interties is unreasonably burdensome, would likely jeopardize reliability, and may disturb existing bilateral agreements.⁵⁵⁷ They request that the Commission reject this proposal. The Commission should refuse to do so for several reasons.

First, the Commission should recognize that it has already considered and rejected these arguments. As explained in the testimony of Dr. Casey, the Inter-SC Trade procedures in the MRTU Tariff are based on the conceptual Inter-SC Trade rules accepted by the Commission in its June 10, 2005 Order.⁵⁵⁸ This Inter-SC Trade

⁵⁵⁵ MWD at 17-18.

⁵⁵⁶ IID at 21-26.

⁵⁵⁷ Turlock at 4, 8, 5-12; Exh. SMD-2 at 16.

⁵⁵⁸ Exh. ISO-6 at 10-12.

mechanism is critical to implement the settlements resolving the “Seller’s Choice” problem associated with certain bilateral energy contracts entered into by the State of California.

In the June 10, 2005 Order, the Commission explicitly addressed a protest by SMUD arguing that “the Inter-SC Trade Proposal will introduce a new settlement process . . . in which every transaction must be settled through the CAISO . . . [which] will create price uncertainty and risk for participants who have existing bilateral contracts” and which further “challenge[d] the CAISO’s decision not to offer the Inter-SC Trade counter-settlement to trades at interties and contend[ed] that this restriction could decrease the quantity of imports.”⁵⁵⁹ The Commission rejected SMUD’s protest, finding that “Contrary to assertions raised by SMUD, the Inter-SC Trade settlement service is voluntary . . . market participants can establish different settlement provisions if they so choose”⁵⁶⁰ and that the CAISO had “sufficiently address[ed]” SMUD’s concerns with regard to the settlement of Inter-SC Trades at interties.⁵⁶¹

Even if the Commission were to reconsider its prior findings, SMUD and Turlock provide no support for the allegation that the CAISO’s proposal will imperil reliability. Inter-SC Trades at the interties are not permitted under the CAISO’s current market design, and this has not jeopardized reliability.

Additionally, SMUD and Turlock’s arguments concerning the burdens and the impact of prohibiting Inter-SC Trades at the interties on bilateral agreements also are

⁵⁵⁹ June 10, 2005 Order, 111 FERC ¶ 61,384 at P 24 (“SMUD states that the Inter-SC Trade Proposal exposes parties who have entered into bilateral agreements [to] several risks”); *see also* Motion to Intervene, Protest and Motion to Reject of the Sacramento Municipal Utility District, or, Alternatively, Request for Evidentiary Hearing, Docket No. ER02-1656-025 (Apr. 12, 2005).

⁵⁶⁰ June 10, 2005 Order, 111 FERC ¶ 61,384 at P 28.

⁵⁶¹ *Id.* at P 31.

without merit. As explained in Dr. Casey's testimony, Inter-SC Trades at the interties are not necessary because bilateral deliveries at the interties can easily be settled without the use of an Inter-SC Trade mechanism.⁵⁶² If a seller to a bilateral contract chooses to serve that contract through an import to the CAISO Control Area, both the buyer and seller will need to agree on the point of delivery. If the parties agree that the point of delivery is the intertie, then the buyer will schedule the energy at the Intertie Scheduling Point and incur any congestion costs from that point to where the power is withdrawn in the CAISO Control Area. Alternatively, if the parties agree that the delivery point is a point within the CAISO Control Area, the seller will schedule the import at the Intertie Scheduling Point and both parties will do an Inter-SC Trade at the LAP. In this case the seller will incur any congestion costs between the Intertie Scheduling Point and the LAP. Unlike a generator node, which can only be scheduled by the Scheduling Coordinator for that generator, any Scheduling Coordinator can schedule at an Intertie Scheduling Point. This difference makes it unnecessary to provide Inter-SC Trades at Intertie Scheduling Points.

Additionally, as Dr. Casey notes, the CAISO discussed this issue extensively with Market Participants during the MRTU stakeholder process. During this process, Market Participants, particular importers, generally agreed that Inter-SC Trades at intertie Scheduling Points were not necessary, for the reason described above. Indeed, because the Commission's June 10, 2005 Order accepted an Inter-SC Trade mechanism that was designed to be an integral component of the Seller's Choice settlements, and because the Commission-approved mechanism did not provide for Inter-SC Trades at the interties, there is a very real risk that adopting the change proposed by SMUD and Turlock could unravel the Seller's Choice settlement.

⁵⁶² See Exh. ISO-6 at 98.

2. PG&E’s Request for Inter-SC Trades of Load Obligations in HASP in Addition to the Day-Ahead Market is Unclear and Unsupported.

In its comments, PG&E states that “PG&E recommends that SC Trades of Load Obligations should be allowed in the HASP in addition to the Day Ahead.”⁵⁶³ PG&E provides no further discussion of this issue, and the CAISO is not clear on what exactly PG&E is proposing. Absent more detail and support for what PG&E is proposing, the CAISO does not believe that a change is warranted.

3. CAISO Agrees that the Definition of Trading Hubs in the MRTU Tariff Should be Modified, But the Definition of Aggregate Pricing Nodes Should be Approved as Filed

CDWR/Sempra states that it generally supports the CAISO’s proposals regarding Inter-SC Trades and the physical validation rule. However, CDWR/Sempra maintains that the definition of Aggregate Pricing Nodes in the MRTU Tariff should be modified because it appears to provide the CAISO with unlimited discretion to exempt certain Inter-SC Trades from the physical validation rule, beyond the exemptions contemplated in the Seller’s Choice settlement.⁵⁶⁴ CDWR/Sempra states that expanding the universe of Inter-SC Trades that are exempt from the physical validation rule would jeopardize the Seller’s Choice settlement. CDWR/Sempra therefore recommends that the CAISO change the definition of Aggregate Pricing Nodes so that it refers only to LAPs and Trading Hubs.⁵⁶⁵

⁵⁶³ PG&E at 59.

⁵⁶⁴ CDWR/Sempra at 6-8.

⁵⁶⁵ *Id.* at 8.

The CAISO recognizes the validity of CDWR/Sempra's concerns. However, it is not necessary to modify the definition of Aggregate Pricing Nodes in order to effect the clarification that CDWR/Sempra is seeking. Moreover, modifying the definition of Aggregate Pricing Nodes would be inappropriate because this definition impacts other portions of the MRTU Tariff, such as the provisions relating to scheduling and settlement of MSS entities and ETCs. A more appropriate solution would be to modify Section 28.1.6.4 ("Inter-SC Trades of Energy at Aggregated Pricing Nodes") of the MRTU Tariff to modify this section to clarify that only those Aggregated Pricing Nodes that also meet the definition of Trading Hubs or LAPs will be subject to this section. The CAISO proposes to modify Section 28.1.6.4 as follows: "Inter-SC Trades of Energy at Aggregated Pricing Nodes that are also defined Trading Hubs or LAPs are subject to" Doing so will make clear that only Inter-SC Trades at LAPs and Trading Hubs will be exempt from the physical validation rule, while preserving the definition of Aggregated Pricing Nodes.

CDWR/Sempra also requests that the CAISO modify the definition of Aggregated Pricing Nodes and/or Trading Hubs in order to make explicitly clear that Existing Zone Generation ("EZ Gen") Trading Hubs are exempt from the physical validation rule. Specifically, the CAISO proposes to modify the definition of Trading Hubs as follows: "An aggregation of network Pricing Nodes, such as Existing Zone Generation Trading Hubs, maintained . . ." The CAISO notes that the definition of EZ Gen Trading Hubs explicitly states that these hubs are Trading Hubs. Nevertheless, the CAISO does not oppose

modifying the definition of Trading Hubs to state that this term includes EZ Gen Trading Hubs, and will do so in its compliance filing.⁵⁶⁶

O. Trading Hubs

As explained in Dr. Casey’s testimony, the CAISO’s Trading Hub proposal is integral to implementation of the “Seller’s Choice” settlement.⁵⁶⁷ Existing Zone Generation Trading Hubs or “EZ Gen Hubs” is the term given to the successor delivery points under MRTU for existing bilateral energy contracts that specify delivery based on the CAISO’s current zones, which will cease to exist under MRTU. Trading Hubs are also expected to facilitate future bilateral Energy transactions in the CAISO Control Area. The three EZ Gen Hubs will correspond geographically to the CAISO’s three existing internal congestion management zones (“Existing Zones”). The Commission has already approved in principle the CAISO’s conceptual proposal for EZ Gen Hubs in connection with the settlement of the treatment of Seller’s Choice contracts under MRTU.⁵⁶⁸

CERS argues that the CAISO should perform further evaluation of alternatives to the CAISO’s proposal to calculate Trading Hub prices based on the weighted-average prices assigned to generating units, because the CAISO’s proposal creates a lack of “symmetry” between pricing methodologies for Trading Hubs and LAPs, and there are risks associated with the CAISO’s Trading Hub pricing proposal.⁵⁶⁹

The CAISO does not believe that further analysis is warranted. While it is true that a majority of stakeholders did not support any single Trading Hub option, many

⁵⁶⁷ Exh. ISO-6 at 85-111.

⁵⁶⁸ June 10, 2005 Order, 111 FERC ¶ 61,384 at PP 28-29.

⁵⁶⁹ CERS at 11-13.

stakeholders indicated a strong preference for fixed weights so as to provide greater certainty in the Trading Hub calculations. Eastern ISOs also use fixed weights in their trading hub calculations (for example, in PJM and New England, hub prices are based on a simple average of a subset of nodes). CERS has not demonstrated that its hypothetical concerns would render the CAISO's proposal unjust and unreasonable. Moreover, CERS did not raise its concerns in its written comments on the CAISO's proposed Trading Hub design.⁵⁷⁰

CERS suggests that a dynamic weighted average approach to calculating Trading Hub prices may be preferable. The CAISO's Trading Hub white paper identifies a number of concerns with a dynamic weighted average approach (Option 5 considered by the CAISO and stakeholders).⁵⁷¹ The impact of such a design on convergence bidding is a particular concern. If the CAISO were to adopt a form of convergence bidding that allowed convergence bidding at EZ Gen Hubs, it would not be possible to implement if the weights used to calculate the EZ Gen Hub are determined by the market clearing quantities as the weights would need to be known at the time the convergence EZ Gen bids are submitted. This is not an issue under the CAISO's proposal because the weights (LDFs) are determined before the market runs. If convergence bids were submitted at LAPs, the predetermined LDFs can be used to distribute the bids to the load nodes in the same manner as is done with actual load bids at the LAP.

P. Constrained Output Resources

⁵⁷⁰ Indeed, with the exception of one option not chosen by the CAISO, CERS simply stated that "there may be advantages and disadvantages to each option."
<http://www.caiso.com/docs/2005/10/26/200510261004147994.pdf>

⁵⁷¹ See <http://www.caiso.com/docs/09003a6080/37/a3/09003a608037a3cb.pdf>

SCE has two general comments about the Constrained Output Generator (COG) provisions in Section 27.7 of the MRTU Tariff. First, SCE states that any unit that is running because of an operational constraint, rather than because its marginal production is economic, should not be allowed to set prices. SCE notes that MRTU implements “Locational Marginal Pricing,” with the emphasis on “Marginal”, and a unit operating due to physical constraints, is by definition, not marginal. This has been a firmly-held position of SCE’s for a long time. As SCE knows, the CAISO’s original proposal for COGs would not have let COGs set marginal prices,⁵⁷² but after a series of orders and technical conferences, the CAISO proposed and the Commission approved of marginal pricing for COGs.⁵⁷³

Second, SCE objects to Section 27.7.1.3 of the MRTU Tariff, which allows “COGs” the ability to be modeled with different PMin and PMax values. SCE asserts that the CAISO can’t have it both ways – either a unit is a COG, and is subject to special treatment, or it is not a COG; by definition, if a unit has a different PMin and PMax value, it is not a COG, should not be labeled a COG, and should be treated as all other dispatchable generation.

The CAISO agrees with SCE and the language of Section 27.7.1.3 of the MRTU Tariff clearly states that: (i) a resource choosing this option is capable of being Dispatched at an operating point other than zero or its PMax, (ii) the resource does not meet the definition of COG, and (iii) the resource is treated in the CAISO Markets Processes like any other resource (*e.g.*, the resource may submit a market Energy Bid for the MW difference between its PMin and PMax and, if scheduled or issued a CAISO

⁵⁷² See, *e.g.*, October 28, 2003 Order, 105 FERC ¶ 61,140 at P 87.

⁵⁷³ See June 17, 2004 Order, 107 FERC ¶ 61,274 at P 121 (the CAISO and SCE positions and the subsequent revised CASIO proposal are described in the order at PP 113, 114, and 115 respectively).

Schedule or Dispatch Instruction in this range, it would be subject to Local Market Power Mitigation, eligible to set the LMP and would receive any appropriate BCR like any other resource).

Q. The Commission Should Approve the Participating Intermittent Resource Program as Modified for MRTU

In Amendment No. 42, the Commission accepted the CAISO's Participating Intermittent Resource Program ("PIRP"). Scheduling Coordinators for such Participating Intermittent Resources must submit Schedules that are consistent with an hourly Energy forecast that is developed under CAISO supervision.⁵⁷⁴ Energy from Participating Intermittent Resources is scheduled in the Hour-Ahead Market. Settlement of Uninstructed Energy is aggregated and netted across all intervals in a calendar month, and the net monthly deviation is paid or charged at the monthly weighted average MCP.

The Commission's approval of the continuation of PIRP under the MRTU Tariff is appropriate because it effectively alleviates a Participating Intermittent Resource's exposure to charges for Real-Time Imbalance Energy and Uninstructed Deviation Penalties. FPL supports this goal, and comments that the CAISO should continue the policy of exempting wind units from allocations of costs that they cannot avoid.⁵⁷⁵ Specifically, FPL requests that the CAISO allow PIRP units to avoid allocations of charges that are generally intended to encourage or penalize scheduling accuracy and are derived from Energy imbalances or are a direct consequence of the scheduling mechanisms of the PIRP.⁵⁷⁶ FPL states that rather than specifically identifying derivative

⁵⁷⁴ The forecasting process is designed to provide statistically unbiased forecasts of Generation output on an hourly basis. Participating Intermittent Resources are assessed a Forecast Fee to defray the CAISO costs of the forecasting services.

⁵⁷⁵ FPL at 17-18.

⁵⁷⁶ FPL at 17-18.

allocation charge types, the Commission should direct the CAISO to allow PIRP units to avoid allocations of charges that are generally intended to encourage scheduling accuracy and (1) are derived from Energy imbalances, or (2) are a direct consequence of the scheduling mechanisms of the PIRP.⁵⁷⁷ The CAISO agrees with the premise of FPL's approach, which is reflected in how PIRP has been implemented in the MRTU Tariff. Accordingly, the broad language as to charge exemptions requested by FPL is unnecessary. With regard to an Eligible Intermittent Resource that participates in PIRP and Self-Schedules, in each hourly HASP process, the forecast of its output as provided by the forecast service provider will be settled for deviations from its HASP Schedules based on the net MWh of those deviations over the month times a monthly average LMP at the resource's PNode. The monthly average LMP will be the generation-weighted average of the real-time settlement PNode LMPs, where the weights are proportional to the MWh delivered by the resource in each Settlement Interval.

FPL also contends that the price to be used for the monthly netting calculation is unclear.⁵⁷⁸ This price is identified at Section 34.19.2.5 as "the monthly weighted average Dispatch Interval LMP, where the weights are the quantities of Instructed Imbalance Energy associated with each Dispatch Interval LMP." FPL states that this definition is vague, as it does not identify the targeted location of the Dispatch Interval LMP. FPL also states that it is unlikely that wind units will have any Instructed Imbalance Energy and that the CAISO should settle the monthly net imbalance at the generation-weighted average of the LMP at the delivery point for the PIRP unit. With regard to the price to be

⁵⁷⁷ FPL at 17-18.

⁵⁷⁸ FPL at 18.

used in calculating the monthly netting amount, the CAISO proposes to use the monthly weighted average with weights equal to total real-time generation (not just the deviation).

CERS requests that the CAISO and the Commission consider expanding the PIRP program to allow the preferential settlement treatment to be expanded to the DAM.⁵⁷⁹

The CAISO does not support the expansion of PIRP, at least at this time. While PIRP resources can participate in the DAM based on their own forecasts, the protection against imbalances is currently structured based on shorter-term forecasts and scheduling. This does not mean that the CAISO would not consider the possible expansion of the program in the future, but it is not necessary for MRTU Release 1.

R. Metered Subsystems

Several commentators raise specific issues with the modifications to the existing Metered Subsystem (“MSS”) tariff provisions to incorporate the MSS program into the MRTU design.⁵⁸⁰

NCPA asserts that the concept of penalizing MSS entities that deviate from their forecast, with the potential for losing their exemption from RUC, will not work for a Load-following MSS entity. To solve this problem, NCPA states that the CAISO agreed that RUC is simply not applicable to Load-following MSS entities, but that concept is not embodied in the MRTU Tariff.⁵⁸¹ NCPA’s discussion of “penalizing” MSS entities that deviate from their forecast, with the potential for losing their exemption from RUC is referring to Section 31.5.2.2 that allows an MSS Operator to Opt-out of RUC Procurement but that also contains provisions that could require an MSS operator to Opt-

⁵⁷⁹ CERS at 13-15.

⁵⁸⁰ See NCPA at 13-19; Cities/M-S-R at 31-34; SCE, Vernon, and CCSF.

⁵⁸¹ NCPA at 14-15; see also Cities/M-S-R at 32.

in to the RUC Procurement.⁵⁸² NCPA opines that the type of measurement in Section 31.5.2.2.2 will not work for a Load following MSS because a Load-following MSS is meeting its requirement in Real Time, and is not causing the CAISO to procure additional Energy through RUC to meets its needs.

The CAISO clarifies that an MSS entity that elects to be a Load-following MSS is automatically electing to Opt-Out of RUC Procurement. This aspect of the MSS proposal needs to be reflected in the MRTU Tariff. In other words, the CAISO agrees with NCPA and Cities/M-S-R that a Load following MSS is not subject to Section 31.5.2.2; rather, Section 31.5.2.2 of the MRTU Tariff is applicable only to a non Load-following MSS, which retains the choice to Opt-in or Opt-Out of RUC Procurement. The CAISO will provide the conforming tariff changes in a compliance filing.

NCPA alleges that Section 34.6 of the MRTU Tariff poses a “major problem” which requires that: (a) the CAISO may incorporate the MSS Operator’s own load-following instructions that it provides in the CAISO’s Dispatch Instructions, (b) a resource is required to comply with a Dispatch Instruction immediately upon receipt (Section 34.11.1), and (c) to the extent that a resource does not comply with the Dispatch Instruction it could be subject to penalties under Sections 11.5.2 and 11.23 of the MRTU Tariff.⁵⁸³ The CAISO respectfully disagrees with these comments.

First, using a Load following MSS’s own load following instructions to dispatch MSS resources is reasonable and should not be a “major problem.” Load-following MSS Operators must provide the CAISO with: (i) an estimate of the number of MWs the applicable generating resource(s) will be generating over the next two-hour interval, (ii)

⁵⁸² See Section 31.5.2.2.2 of the MRTU Tariff.

⁵⁸³ NCPA at 15-16 *see also* Cities/M-S-R at 34.

telemetry of the MSS response to the Load following instructions, and (iii) the expected output for these resources in five-minute intervals for the upcoming 120 minutes.⁵⁸⁴

This provision provides the CAISO with a basis to coordinate the dispatch of the rest of the system with the estimated operation of the MSS. In order to efficiently dispatch the rest of the system in Real Time the CAISO needs to have a means to estimate the expected behavior of the Load following MSS and this is the reason for having the Load following MSS provide the CAISO with instructions. The provision also allows the CAISO to coordinate the dispatch of a Load following MSS entity's resources if the entity has both Load following and non Load following resources. The CAISO will not be dispatching the designated Load following resources of a Load following MSS as implied by NCPA.

Second, NCPA is incorrect in its statement that a Load following MSS could be subject to penalties under Sections 11.5.2 and 11.23 of the MRTU Tariff. With regard to Section 11.5.2 (uninstructed imbalance energy or "UIE"), the UIE provisions are not "penalties" and a Load following MSS is subject to the UIE provisions under the existing (pre-MRTU) CAISO Tariff. Furthermore, the proposed MRTU provisions did not change the fact that a Load following MSS can be subject to UIE provisions. For example, the 200% deviation penalty in the existing (pre-MRTU) CAISO Tariff (applicable to a Load following MSS for shortfalls of generation outside the deviation band) is "*in addition to the Imbalance Energy charges that may be applicable under the ISO Tariff.*"⁵⁸⁵ In other words, a Load following MSS has always been subject to the imbalance energy provisions of the CAISO Tariff as well as the additional deviation

⁵⁸⁴ Section 34.12 of the MRTU Tariff.

⁵⁸⁵ See Section 4.9.9.2.2 of the existing CAISO Tariff (emphasis added).

provisions specifically applicable to a Load following MSS. The substance of the provision remains the same in the MRTU tariff.⁵⁸⁶

With regard to proposed Section 11.23 of the MRTU Tariff (“Penalties for Uninstructed Imbalance Energy”), NCPA certainly is correct that the section involves penalties but NCPA fails to mention that a Load following MSS (regardless of whether it chooses gross or net settlements) is exempt from such penalties.⁵⁸⁷ The CAISO commits to clarify the grammatical errors in this section in its compliance filing. The CAISO respectfully requests that the Commission reject the notion that a Load following MSS is subject to UIE penalties contained in Section 11.23 of the MRTU Tariff.

NCPA’s next set of allegations is that: (a) MSS loads and schedules should not be cut because someone else in the Control Area was short of resources due to economic (as opposed to forced outage) reasons; (b) the MRTU tariff fails to reflect this; and (c) this is contrary to the MSS Agreement and principles of cost causation. NCPA at 16-17.

NCPA’s comments are a request to be exempt from Section 31.4 of the MRTU Tariff.⁵⁸⁸

NCPA states that despite its MSS Agreement on file with the Commission:

Section 31.4 of MRTU states that if all Economic Bids in the IFM are exhausted, resource Self-Schedules between the Resource’s Minimum Load and the first Energy Level of the first Energy bid point will be subject to uneconomic adjustments *based on the scheduling priorities established in the Tariff.*”

Id. at 16-17 (emphasis added). First, the CAISO will abide by the provisions of its MSS Agreements. Second, NCPA’s comments don’t distinguish between a Load following MSS and a non Load following MSS or an MSS electing net or gross settlements. The congestion management provisions applicable to an MSS entity under

⁵⁸⁶ See Section 4.9.9.2.2 of MRTU Tariff.

⁵⁸⁷ See Section 11.23(f) of the MRTU Tariff.

⁵⁸⁸ See NCPA at 17.

the MRTU tariff (including Section 31.4 of the MRTU Tariff) will depend upon the elections of the MSS entity.⁵⁸⁹

NCPA recommends that the MRTU Tariff be modified to permit MSS entities the ability to identify the entire range of their generating capacity as load following capacity.⁵⁹⁰ NCPA contends that the reason an MSS entity may not nominate the entire range of a unit's capacity for load-following is because Section 30.5.2.5 requires it to submit a bid.⁵⁹¹ NCPA is incorrect; there are additional information requirements for a Load following MSS contained in Section 30.5.2.5. That section requires the SC for an MSS that elects load following to:

include the following additional information with its Bids: the Generating Unit(s) that are Load following; *the range of the Generating Unit(s) being reserved for Load following*; whether the quantity of Load following capacity is either up or down; and, if there are multiple Generating Units in the MSS, the priority list or distribution factors among the Generating Units. The CAISO uses this information in the IFM runs and the RUC to simulate MSS Load following. The Scheduling Coordinator for the MSS Operator may change these characteristics through the Bid submission process in the HASP.

Section 30.5.2.5 (emphasis added). Contrary to NCPA's allegation, there is no rule for a load following MSS that restricts its ability to nominate the entire range of a unit's capacity as load-following. The CAISO notes that in Real Time a Load following MSS resource is required is required to submit an Energy Bid for the full range of the identified Load following capacity. Notwithstanding this requirement, the CAISO will not dispatch the Load following MSS resource within its declared Load following capacity range. To the extent a MSS entity wants to Load follow from a resource and

⁵⁸⁹ See, e.g., Sections 4.9.4.6, 27.5.2, and 31.3.3 of the MRTU Tariff.

⁵⁹⁰ NCPA at 17-18.

⁵⁹¹ *Id.* at 17.

participate in the CAISO markets, it can do so by leaving a range between the upper end of the Load following down range and the lower end of the Load following up range within which the CAISO will dispatch the resource.

The CAISO also notes that the CAISO must have the ability to dispatch an RMR resource for local purposes and the designation of an RMR unit as MSS Load following would restrict that ability. Therefore, the CAISO clarifies that an RMR resource may not be designated as a MSS Load following resource. This clarification needs to be reflected in the MRTU Tariff. The CAISO will provide the conforming tariff changes in a compliance filing.

NCPA's next comment is that use of the phrase "Metered Demand and exports" is ambiguous and that the definition of exports must be clarified throughout Section 4.9.9.⁵⁹² The terms mentioned by NCPA are used in the pre-existing (pre-MRTU) CAISO Tariff and continue to be used in the MRTU Tariff. The CAISO does not believe the reference to exports in Section 4.9.9 requires and additional clarification.

NCPA claims that Section 4.9.14.2 of the MRTU Tariff should require MSS entities to demonstrate sufficient resources by showing sufficient "capacity reserves", rather than "generating capacity."⁵⁹³ The sentence NCPA refers to in Section 4.9.14.2 that mentions "generating capacity" is followed by a sentence that provides that "Eligible generating capacity . . . may include on-demand rights to Energy, peaking resources, and Demand reduction programs."⁵⁹⁴ The language in Section 13.9 of NCPA's MSS Agreement on file with the Commission uses the term capacity reserves and provides that such reserves can include "on-demand rights to Energy, peaking resources, and NCPA

⁵⁹² NCPA at 18.

⁵⁹³ NCPA at 18.

⁵⁹⁴ Section 4.9.14.2.

members Demand reduction programs.” Given the almost identical sentences explaining what resources can be included in meeting the 115% criteria in both the Tariff and NCPA’s MSS Agreement, the CAISO does not believe the change recommended by NCPA is required. NCPA itself admits that Section 4.9.14.2 is “generally consistent with a similar provision in the MSSA.”⁵⁹⁵ In addition, the use of the phrase “generating capacity” was contained in the pre-existing Tariff and has not been altered by the MRTU filing.

The CAISO clarifies for NCPA that a Load following MSS can submit a Bid to the CAISO market, contrary to NCPA’s assertion that it cannot. *See* NCPA at 36. Under MRTU, an owner of an MSS can elect to be a Load following MSS and it can elect “gross” settlements. Under these circumstances, a load following MSS certainly can submit a bid into the CAISO markets. An MSS Operator that has elected gross settlement and is a Load-following MSS: (i) must designate in its generation master file which of its generating resources are Load following resources, (ii) must comply with the additional bidding requirements in Section 30.5.2.5, and (iii) the generation resources designated as Load following resources cannot set Real-Time prices. However, Load following resources will be eligible to receive bid cost recovery to ensure that the price paid for energy dispatched by CAISO is not less than the MSS Operator’s accepted bid price.⁵⁹⁶

NCPA asserts that Section 30.7.3.4 of the MRTU Tariff applies to Load following MSS (which provides that the CAISO will construct bids for RA Resources to the extent

⁵⁹⁵ NCPA at 18.

⁵⁹⁶ *See* Section 4.9.13.2 of the MRTU Tariff; *see also* the last paragraph of Section 4.9.13 (indicating that the Load-following, net or gross settlement, and RUC procurement elections of an MSS Operator change certain aspects of, but do not preclude, the participation of the MSS in the CAISO markets).

bids have not been submitted for the full range of the resource) and that the concept will not work for a Load following MSS. The CAISO confirms for NCPA that a Load following MSS is not subject to Section 30.7.3.4 of the MRTU Tariff.

CCSF alleges that: (a) the CAISO's proposed treatment of MSSs is incomplete, (b) the CAISO does not explain how the MSS-specific LAPs will be developed, (c) how Congestion will be handled at MSS-specific LAP level, or (d) what impacts the MSSs will be exposed to as a result of this treatment.⁵⁹⁷ With regard to MSS-specific LAPs, it should be remembered that the definition of an MSS itself is a:

geographically contiguous system located within a single zone which has been operating as an electric utility for a number of years prior to the CAISO Operations Date as a municipal utility, water district, irrigation district, State agency or Federal power administration subsumed within the CAISO Control Area and encompassed by CAISO certified revenue quality meters at each interface point with the CAISO Controlled Grid and CAISO certified revenue quality meters on all Generating Units or, if aggregated, each individual resource and Participating Load internal to the system, which is operated in accordance with a MSS Agreement described in Section 4.9.1.

See Appendix A to MRTU Tariff. Specific MSS-LAPs will be defined for each MSS; the MSS LAP is made up the PNodes within the MSS that have load served off those nodes; and MSS-LAPs have unique Load Distribution Factors that reflect the distribution of the MSS Demand to the network nodes within the MSS.⁵⁹⁸ Regarding how congestion will be handled at the MSS LAP level, as noted earlier, these provisions are contained in Sections 4.9.4.6, 27.5.2, and 31.3.3 of the MRTU Tariff.

⁵⁹⁷ CCSF at 14-16.
⁵⁹⁸ Exh. ISO-9 at 9.

SCE objects to allowing an MSS operator to choose between net and gross settlements.⁵⁹⁹ Under the MRTU Tariff, an MSS must make three choices annually that affect its operations and pricing: (a) whether or not to be a Load following MSS, (b) whether or not to participate in RUC Procurement, and (c) whether to settle on a gross or net basis. SCE objects to the third choice under the Tariff (gross vs. net) because the option leads to cherry picking by MSSs. According to SCE all MSSs should be settled on the basis of their gross loads and generation.⁶⁰⁰

SCE explains that the decision as to whether to settle on a “net” or “gross” basis is described in Section 4.9.13 of the MRTU Tariff. Gross settlements refer to paying for load in its entirety based on an applicable load price, and being paid for generation in its entirety based on an applicable generation price. Net settlements refer to netting the generation from the load and applying one price to the net amount. According to SCE, the CAISO’s proposal means that a MSS can be paid for its generation based on the generator LMPs regardless of the choice of net or gross settlements, but pays a price for its load that is either the Default LAP price (if it chooses gross settlements) or the MSS LAP price (if it chooses net settlements). Since MSSs can be expected to know whether their MSS LAP location would generally have prices that are higher or lower than the Default LAP price, they would be able to choose gross or net settlements simply to lower costs to themselves.

The CAISO respectfully disagrees with SCE’s comments. First, the election to choose gross or net settlements is an annual election. Second, if an MSS entity chooses gross settlements, the load and generation of the MSS are settled like any other SC. If an

⁵⁹⁹ SCE at 46-48.

⁶⁰⁰ SCE at 45-48.

MSS entity chooses net settlements, the generation of the MSS entity is not paid LMP as long as it is used to balance their load; only the excess, if any, will be paid the LMP. One can make assumptions whether an MSS entity would choose gross or net settlements depending on whether the MSS is located in a relatively low or high-priced area. However, whatever choice is made, the MSS load will pay the relatively low or high prices as well. The CAISO doesn't believe SCE has identified a plausible "cherry picking" opportunity.

Vernon comments that the Commission should clarify that MRTU settlements and cost allocations should not trump the wording and intent of the MSS Agreement to ensure that cost causation for MSSs is maintained.⁶⁰¹ The CAISO notes that: (1) Section 3.5 of the MSS Agreement provides that, in making amendments to the CAISO Tariff, the CAISO will consider the impact on MSS entities and that CAISO charges are to be based on the principle of cost causation, and (2) the settlement and cost allocation applicable to MSS entities under the MRTU Tariff are just and reasonable.

Cities/M-S-R notes that an MSS entity could be allocated uplift costs under Section 11.8.6 of the MRTU Tariff, which it states would be inconsistent with the MSS Agreements.⁶⁰² The CAISO noted in the transmittal letter to the MRTU filing that it had:

not had the opportunity to fully address how DAM and RTM Bid Cost Recovery cost should be allocated to an MSS based on the different elections. The CAISO intends to address how the allocation of BCR will apply to MSS and to address such in a subsequent filing.

MRTU Tariff Filing Letter at 87. The CAISO has developed a Bid Cost Recovery proposal for MSS entities and will discuss the proposal with MSS entities in the upcoming weeks.

⁶⁰¹ Vernon at 3.

⁶⁰² Cities/M-S-R at 31.

Bay Area suggests that regardless of the election of gross or net settlements, the MSS load should be able pay using the Default LAPs, otherwise demand in a congested MSS area could be subject to enormous financial liabilities. The CAISO notes that the MSS entity in the situation described by Bay Area could choose to be a Load following MSS and net settlements. In this circumstance, the enormous financial liability would be muted because the while the MSS load would be paying high prices in the congested area, it would also be receiving high prices for its load-following generation. The CAISO does not believe that an MSS entity electing net settlements should be able to have their load settled at the Default LAP.

S. Pumped Storage Hydro

1. The CAISO Intends to Incorporate Participating Load into Release 1

SWP expresses some confusion because “Participating Load demand response in the Day-Ahead Market” is listed as a Release 2 issue and is concerned that the CAISO envisions starting the MRTU market without the use of the SWP’s pumps operating as generating resources. The CAISO wishes to be clear that Participating Load resources will be able to participate in the CAISO market under Release 1 of MRTU. The MRTU Tariff Filing Letter lists “Participating Load *demand response in the Day-Ahead Market*” as a Release 2 issue because the functionality to allow Participating Load to submit Bids for Demand response in the Day-Ahead Market is something that will be considered for development in Release 2 of the MRTU design as reported to the Commission and stakeholders in the CAISO’s May 13, 2005 conceptual filing.

2. Participating Load May Self-Schedule in the HASP

SWP expresses concern that the CAISO has pledged to allow Participating Loads to participate in the HASP but the MRTU Tariff does not reflect that commitment. Specifically, Section 33.3 of the MRTU Tariff allows Self-Schedules of Supply in the HASP but the definition of “Supply” does not include Participating Load. The CAISO agrees that Participating Load should be included in the definition of “Supply” so as to allow Participating Load to self-schedule in the HASP and be treated as a negative generator, and will make that change in a tariff compliance filing. To be clear, Participating Loads, like all Demand, may also buy or self-schedule Demand in the IFM.

3. The CAISO Agrees to Make Certain Tariff Revisions to include Participating Load

SWP expresses concerns that certain wording and language problems in the MRTU Tariff dealing with Participating Loads lead to anomalous results, such as charging a Participating Load for Ancillary Services that they are in fact providing, or including decreases in demand by Participating Load demand response in the definition of “Net Negative Uninstructed Deviation,” thus leading to additional unwarranted cost allocations. More generally, SWP note that the MRTU Tariff provisions does not always account for Participating Load when it speaks of generators.⁶⁰³ The CAISO agrees that there are instances in the MRTU Tariff where “Generators” should more accurately read “Generators and Participating Load,” including some of the examples that SWP highlights.⁶⁰⁴ The CAISO pledges to work with SWP to identify and correct such instances in its compliance filing. Similarly, SWP points out that certain bidding rules either do not apply to its pumps or that its pumps are not accounted for in the bid

⁶⁰³ SWP at 5.

⁶⁰⁴ SWP at 5.

components provided in the Tariff.⁶⁰⁵ The CAISO assures SWP that the pumps were not excluded from bidding and will work with SWP to correct any vague provisions.

SWP also asks the CAISO to clarify that it will be settled for its Demand as well as its supply at nodal prices, rather than LAP prices in Real-Time as well as in the Day-Ahead. SWP cites section 11.2.1.3 as evidence that the CAISO plans to settle Participating Loads nodally in the Day-Ahead market but asks for clarification that Participating Load will be given the same treatment in Real Time. MWD as well asks the CAISO to refine the definition of Participating Load to avoid interpretations that impose LAP pricing on pump loads.⁶⁰⁶ As specified in Section 30.5.3.2, all Demand for Participating Loads are exempt from the requirement that Demand Bids are submitted and settled at the LAP. The CAISO reiterates that Participating Loads will be scheduled and settled at the nodal level, rather than the LAP level, in the Day-Ahead and Real-Time Markets and will add that further clarification to Section 30.5.3.2 in its compliance filing. The CAISO agrees to amend on compliance the definition of Participating Load to clarify that pumping load is also capable of providing Curtailable Demand and has undertaken in writing to comply with all applicable provisions of the CAISO Tariff, as they may be amended from time to time. The CAISO clarifies that pumping load that has not undertaken these requirements and responsibilities would not qualify as Participating Load.

T. Resource Modeling

1. MRTU Release 1 Will Provide Sufficient Flexibility for Combined-Cycle Units Pending Development of a More Detailed Model.

⁶⁰⁵ SWP at 7-8.

⁶⁰⁶ MWD at 25-26.

In their comments, IEP/WPTF and Constellation/Mirant raise a concern with respect to the CAISO's modeling of combined-cycle units under MRTU. Specifically, these parties question the ability of the CAISO to operate efficient markets under MRTU without an accurate model of the operating characteristics of combined-cycle units.⁶⁰⁷

The CAISO recognizes that the combined-cycle model that will be initially employed under MRTU is not as detailed as would be ideal, and the CAISO therefore plans to implement a more robust model which would allow combined cycle units to be modeled as a separate generation resource for each configuration after Release 1. Unfortunately the complexity of this task makes it impossible for the CAISO to develop the software and perform the testing necessary to implement a full model upon Release 1 startup. This is highlighted by the fact that no other ISO currently has software in place that allows combined cycle units to be modeled as a separate generation resource for each configuration.

The CAISO has already provided some combined cycle modeling functionality. Specifically, the CAISO has provided for Market Participants to bid in intermediate dead bands and multiple ramp rates across the operational range of a resource for a single given configuration of the combined cycle facility. Market Participants can also modify the operational ramp rates for combined cycle facilities to reflect changes in operating configurations during the operating day. The CAISO does not yet have the ability to add certain desirable, but non-essential enhancements to this combined cycle modeling functionality. For example, the CAISO does not yet have the capability to provide are the means for Market Participants to bid in separate sets of operational values for multiple configurations of the combined cycle facility (i.e., based on whether the unit is

⁶⁰⁷ IEP/WPTF at 64-66; Constellation/Mirant at 12.

operating with only one combustion turbines and no steam turbines or two turbines and a steam turbines). Also, the CAISO does not yet have any means to economically transition from one configuration to another.

The CAISO recognizes that implementing an accurate combined-cycle model is a desirable long-term objective. However, as the CAISO informed the Commission and interested parties in the Amendment No. 58 proceeding, the “practical reality . . . seems to be that a robust and workable combined cycle market model is still a year or two off at best for any independent system operator, and, for the [CAISO], may not be in place until after 2007.”⁶⁰⁸ This more robust model will no doubt enhance the CAISO’s MRTU markets, but it does not follow that those markets will not be sufficiently efficient pending the implementation of such a model, and neither IEP/WPTF nor Con/Mirant suggest as much. The CAISO submits that the soundest policy is to retain the current modeling of combined cycle resources, rather than rushing an untried software revision into development for MRTU Release 1, which could adversely impact the efficient operation of the MRTU markets to a far greater degree and could have significant impacts on the schedule for implementing the new markets.

2. Modeling of Peaker/Other Steam Units

IEP/WPTF contends that certain problems have arisen when peaker units are dispatched by the CAISO, specifically, the inability to recognize the individual nature of resources that operate as two units behind one meter, which are modeled by the CAISO as only one unit.⁶⁰⁹ The CAISO recognizes that such a situation is not ideal, in terms of efficiency, but the CAISO’s ability to model a resource is limited by the available

⁶⁰⁸ See the CAISO’s September 7, 2004, Compliance Filing, filed in Docket No. ER04-609 at 8.

⁶⁰⁹ IEP/WPTF at 66-67.

telemetry and control made available to CAISO by the resource's owner/operator. Thus, if two units are behind a single meter, and CAISO has no telemetry and control of the individual units, the best CAISO can do is to model them as a single resource.

IEP/WPTF provides no constructive suggestions as to how to bridge this gap.

IEP/WPTF also states that there is nothing in the published descriptions of MRTU Release 1 to suggest that the problems of SC's representing the full range of the physical capabilities of their steam units within the constraints and limitations of the CAISO's scheduling and dispatch systems have been solved. IEP/WPTF points to the fact that conventional steam-powered resources have forbidden regions of operation and various ramp rates at various levels of operation and dispatch.⁶¹⁰ The CAISO has already addressed the specific problem of forbidden regions that IEP/WPTF mentions. The CAISO is not clear what other improvements IEP/WPTF desire with respect to modeling steam units. The CAISO suggests, however, that such details may be better discussed in the ongoing BPM stakeholder discussions, rather than through vague statements made in response to the CAISO's MRTU Tariff Filing.

U. Reliability Must-Run Provisions

IEP/WPTF, SCE and PG&E have raised limited concerns concerning how Reliability Must Run ("RMR") Units subject to RMR Contracts are dispatched and paid under the MRTU Tariff. Importantly, no party has suggested that the CAISO's overall approach for integrating the RMR dispatch under MRTU is inconsistent with the RMR Contract. Moreover, those concerns that parties have raised, are adequately addressed in the MRTU Tariff as discussed briefly below.

⁶¹⁰ *Id.* at 66.

1. Issues Raised by IEP/WPTF

a. Condition 1 RMR Status Must Be Retained Under MRTU

IEP/WPTF questions the need to maintain the distinction between RMR and non-RMR units under MRTU, except for Condition 2 Units, in that RMR Units dispatched in the All Constraints Run (“ACR”) of the Market Power Mitigation-Reliability Requirements Determination (“MPM-RRD”) are priced according to their cost-based RMR contract prices, while non-RMR units dispatched in the ACR are priced according to their market reference bids.⁶¹¹ Accordingly, IEP/WPTF urges the Commission to direct the CAISO to use the Default Energy Bids, rather than the RMR Proxy Bids (which are based on the costs that are defined in Schedule C of the RMR Contract) in the ACR of the MPM-RRD process for Condition 1 RMR Units.⁶¹²

IEP/WPTF appears to confuse the determination of RMR dispatch levels through the MPM-RRD process with pricing. The primary purpose of the MPM-RRD process, as it relates to RMR, is to determine the level of dispatch needed from RMR Units for local reliability as compared to the dispatch levels determined in the Competitive Constraint Run (“CCR”) of the MPM-RRD process, which occurs prior to the ACR.⁶¹³ Since the CAISO has the contractual right to RMR energy at costs specified in the RMR Contracts, the MRTU Tariff uses RMR Proxy Bids instead of DEBs for amount of capacity specified in the RMR Contracts in the ACR to determine whether any incremental energy is needed from RMR Units compared to the levels determined in the CCR. The MPM-RRD process is not a pricing run. RMR Condition 1 Units, like non-RMR Units, will be

⁶¹¹ IEP/WPTF at 57.

⁶¹² *Id.*

⁶¹³ *See* the testimony of Dr. Keith Casey, Exh. ISO-6 at 26-29, and Section 31 of the MRTU Tariff.

paid the LMPs determined in the IFM for the dispatch levels determined in the CCR that cleared the IFM. Of course, it is possible for an RMR Proxy Bid (or a DEB) to set the LMP if RMR energy is needed from a Condition 2 RMR Unit or a Condition 1 Unit (to the extent the Condition 1 Unit did not submit bids into the DAM or that Bids submitted failed to clear the CCR). The CAISO has the contractual right to RMR energy at the price specified in the RMR Contracts when that energy is needed for local reliability.

Indeed, IEP/WPTF does not suggest that the MRTU Tariff is inconsistent with the CAISO's rights under the RMR Contracts.⁶¹⁴ Nor does IEP/WPTF argue that the approach specified in the MRTU Tariff is unjust or unreasonable. Instead, IEP/WPTF simply offers an argument that, under MRTU, the CAISO does not need to treat RMR Condition 1 Units differently from non-RMR Units under MRTU Tariff.

b. RMR Owners Retain Rights to Elect Market or Contract Compensation for Condition 1 Units

IEP/WPTF argues that an RMR owner is no longer in control of whether services are provided pursuant to the RMR Contract or through the market, which eliminates the owner's right to consider the pros and cons of electing market or RMR contract compensation. IEP/WPTF at 58-60. IEP/WPTF is simply mistaken in this regard. An RMR owner can elect RMR contract compensation by not submitting a Bid in the DAM or by submitting a Bid higher than the CCR clearing price. An RMR owner can elect market compensation by submitting competitive bids in the DAM or a price taker bid of zero. This is very similar to the way the original RMR pre-dispatch process worked when the California Power Exchange ("PX") was in existence, as it provided a day-ahead

⁶¹⁴ Indeed, IEP/WPTF would have the burden and be required to overcome the *Mobile-Sierra* doctrine to change the benefits and burdens of the existing RMR Contracts. See *United Gas Pipe Line Co. v. Mobile Gas Service Corp.*, 350 U.S. 332 (1956); *FPC v. Sierra Pacific Power Co.*, 350 U.S. 348 (1956).

market for RMR energy. Accordingly, the proposed mechanism for MRTU is more in line with the RMR Contract as originally written and the process is simplified because the election is automatic based on the RMR Owner's choice of whether to submit a Bid in the DAM and, if so, at what price. The RMR Owner is only "out of the money" if it submits a Bid that does not cover its costs and if that Bid determines the LMP. As such, as long as the Bids submitted cover costs, the CAISO's MRTU proposal eliminates any downside risk associated with selecting market compensation.

c. The CAISO's Right to Procure Ancillary Services under the RMR Contract and Related Pre-existing Tariff Authority Must be Retained.

IEP/WPTF argues that, given the mechanisms in MRTU for procuring Ancillary Services (AS), the CAISO can fully meet its AS needs through market mechanisms and no longer has any need to acquire AS through RMR Contracts. Accordingly, IEP/WPTF argues that the Commission should direct the CAISO to adopt tariff language that states that the CAISO will only procure AS through RMR Contract when the need cannot be met through any market mechanism. IEP/WPTF at 60-61. Again, IEP/WPTF seeks to alter the CAISO's contractual right to obtain AS under the RMR Contract. In addition, IEP/WPTF seeks to alter pre-existing tariff language substantively unchanged under MRTU.

The CAISO may procure AS from RMR Units in two ways. First, the CAISO may issue RMR Dispatch Notices for AS but *only if* there is a bid insufficiency in the CAISO's markets, as defined in the RMR Contract.⁶¹⁵ In this respect, the principle for which IEP/WPTF argues is reflected in the MRTU Tariff as well as the RMR Contract, since the CAISO intends to procure 100% of its AS

⁶¹⁵ RMR Contract, Section 4.1(c); MRTU Tariff Section 41.5.3.

requirement in the DAM and may only issued RMR Dispatch Notices for AS in the event of a bid insufficiency. Second, for RMR Condition 2 units and only RMR Condition 2 Units, once the unit has received an RMR Dispatch Notice (for Energy or AS), the RMR owner is contractually obligated to submit cost-based bids pursuant to Schedule M for its remaining capacity into the next available market. RMR Contract, Section 6.1(b). Pursuant to RMR Contract, Section 6.1(b), these bids are treated like bids from non-RMR Units and stacked and then dispatched in merit order.

If IEP/WPTF desires to alter the benefits and burdens under the RMR Contracts, then it must file a complaint under Section 206 of the Federal Power Act and overcome the *Mobile-Sierra* doctrine protecting negotiated contracts. To the extent IEP/WPTF seeks to alter pre-existing tariff provisions related to CAISO dispatch of RMR Units for AS (*i.e.*, to create two stacks of bids—one from market, that the CAISO must first exhaust, and one from RMR Condition 2 Units), IEP/WPTF has failed to demonstrate that the CAISO’s tariff authority is unjust or unreasonable. Finally, the MRTU structure should increase the CAISO’s ability to meet its AS requirements in the DAM because there is a market in the day-ahead and because of the CAISO’s stated intention to meet AS requirements in the DAM. Under the RMR Contract, the CAISO may only issue RMR Dispatch Notices in the event of a bid insufficiency (defined as MW < 2xAS requirements). In this regard, the RMR Contract and MRTU Tariff (as it did prior to MRTU) reflect a “market first” approach for meeting AS requirements. MRTU, however, does not guarantee that there will be sufficient AS bids overall,

or ensure that Market Participants cannot exercise market power in the event of bid insufficiency. Accordingly, it is entirely appropriate and certainly just and reasonable for the CAISO to retain its pre-existing authority under the RMR Contract and tariff to meet AS requirements and to mitigate the exercise of market power in the AS markets.

d. RMR Condition 2 Units Can Only Be Given a RUC Award to Meet Local Reliability Needs

Fourth, IEP/WPTF argues that the Commission should direct the CAISO to make clear in the MRTU Tariff that Condition 2 RMR Units cannot be selected in RUC for any reason other than to meet a local reliability need. IEP/WPTF at 61-62. So long as the MPM-RRD process is based on forecasted load,⁶¹⁶ it will determine the RUC requirements for RMR units, including Condition 2. If the IFM, which is based on bid-in load, clears less than the dispatch level of RMR Condition 2 Units determined in the ACR of the MPM-RRD process, (which is possible given the IFM clears against bid-in load rather than forecasted load), the difference between the level cleared in the IFM and identified in the ACR will be inserted as a RUC self-schedule in the RUC process (and will be ineligible for a RUC availability payment). Because the difference between the CCR and ACR of MPM-RRD process identifies the dispatch levels to meet any local reliability need, RMR Condition 2 capacity identified in the ACR but not dispatched through the IFM that is inserted into RUC is, therefore, needed for local reliability.

⁶¹⁶ See the discussion of the use of forecast Demand in the MPM-RRD process in Section II.D of these Reply Comments.

e. RMR Condition 1 Units Are Eligible to Receive RUC Availability Payments

IEP/WPTF states that, if the CAISO intends to exclude RMR capacity from being eligible for the RUC Availability Payment in its belief that the RMR unit is receiving sufficient fixed cost recovery through the RMR contract, then it is suspect because there is no standard way to establish fixed cost recovery under the RMR contract (except for Condition 2). IEP/WPTF at 62-63. The CAISO offers the following clarification, which it believes will address IEP/WPTF's concerns. As a result of comments raised by stakeholders in the public page turn stakeholder process, the CAISO revised the MRTU Tariff to allow Condition 1 RMR Unit owners to receive a RUC Award for any incremental capacity not already dispatched under the RMR Contract. That is, capacity from an RMR Unit that was not identified in the ACR (which, as noted above is inserted into RUC as a Self-Schedule to the extent it did not clear the IFM) is eligible to receive payments for a RUC Award for any incremental capacity that clears in RUC.

2. Issues Raised by SCE

a. The CAISO Will Clarify Section 41.5.1 As Suggested by SCE

First, SCE recommends that a tariff provision concerning how RMR quantities are settled be revised. Specifically, SCE notes that Section 41.5.1 of the MRTU Tariff provides that "any MWh quantities cleared through the Competitive Constraint Run of the MPM-RRD shall be settled as a Market Transaction under the RMR Contract. . ." SCE agrees that that any MWh quantities that clear the CCR should be considered Market Transactions under the

RMR Contract but correctly observes that only the RMR quantities that actually clear the IFM and receive a Day Ahead Schedule should be *settled*, in a financial sense and therefore recommends the following: “any MWH quantities cleared through the Competitive Constraint Run of the MPM-RRD shall be considered as a Market Transaction in accordance with the RMR Contract” The CAISO agrees that this clarification is appropriate and agrees to make this change in a compliance filing.

b. Under MRTU, RMR Owners Will Not Receive Inappropriate Double Compensation for Start-Ups

SCE expresses concern that the MRTU Tariff allows for double recovery of RMR start-up costs. SCE at 86-87. SCE notes that if a Condition 1 RMR Unit is started by the market, the CAISO optimization guarantees bid-cost recovery, which includes Start-Up Cost under the Tariff. SCE also correctly notes that if an RMR Unit is dispatched under the RMR Contract, it is paid for its start-up costs under the RMR Contract. Section 11.8.2.1.1 of the MRTU Tariff provides that the IFM Start-Up Cost is zero for an RMR resource that has been manually pre-dispatched prior to the Day-Ahead or flagged as an RMR Dispatch in the Day-Ahead Schedule and ensures in this respect that RMR Owners do not receive double recovery. There are analogous provisions in Section 11.8.3.1.1 (RUC Start-Up Costs) and 11.8.4.1.1 (for RTM Start-Up Costs) to ensure against double recovery of start-up costs.

The MRTU Tariff does allow RMR Owners to recover Start-Up Cost under the Tariff when the RMR resource has not been flagged as an RMR

Dispatch. RMR Owners that submit competitive Bids in the CAISO's markets might rarely be dispatched under the RMR Contract. Thus there is a possibility for recovering Start-Up Costs under the Tariff for most and possibly all Start-Ups while also receiving compensation under the RMR Contract for a fixed number of pre-paid RMR start ups. Additionally, if an RMR Unit is eligible to recover Start-Up Costs under the Tariff (i.e. there is no RMR manual predispatch prior to the Day Ahead Market and the resource is not flagged as an RMR Dispatch in the Day-Ahead Schedule), the RMR Owner retains that compensation even if additional capacity from that resource is flagged as an RMR Dispatch in the RTM. The issue, however, is not conceptually different from the circumstances that exist under the current, pre MRTU, CAISO Tariff—namely that it is possible that the CAISO pays for RMR start ups under the RMR Contract that may never get used.

3. Issues Raised by PG&E

a. The MRTU Tariff Proceeding is Not the Appropriate Forum for Amending the Pro Forma RMR Agreement.

PG&E argues that Appendix G lacks “necessary detail” and should be revised in light of MRTU through a stakeholder process. In addition, PG&E suggests the following changes: all references to the PX market should be replaced with references to the CAISO market; applicable sections of the pro forma agreement included in the Offer of Settlement in Docket Nos. ER98-441, *et al.* should be incorporated directly into the *pro forma* RMR agreement; detail should be provided to determine how a SC's credit is to be priced; and the

“Condition 2” option in the current pro forma RMR Agreement should be removed as unnecessary. PG&E at 57-58.

As in the current CAISO Tariff, Appendix G to the MRTU Tariff is a placeholder for the pro forma RMR Contract. At one time, it was contemplated that the pro forma RMR Contract negotiated through the settlement would be incorporated into the CAISO Tariff. The RMR pro forma contract, however, has never been filed as a part of the CAISO’s current Tariff and need not and should not be included in the MRTU Tariff as part of the MRTU proceeding. At a minimum, such a filing of the pro forma RMR Contract as part of the Tariff would require, as PG&E notes, a stakeholder process. Moreover, as discussed above, there is no need for such a filing because the MRTU Tariff as filed allows the CAISO to dispatch RMR resources consistent with RMR Contracts.

V. CRR Credit Issues

1. The Provisions of the MRTU Tariff Addressing CRR Credit Requirements Are Sufficiently Detailed

IEP/WPTF claims that the MRTU Tariff language describing specific levels of credit required for CRRs is insufficient, and maintains that the Tariff should include additional detail on the methods the CAISO will use to establish credit for CRR holders.⁶¹⁷ IEP also contends that the CAISO implies that it can change the credit requirement at any time and that the CAISO should specify the methods that will be employed such that market participants can assess the risks should there be a possibility of a reassessment of the credit limits mid-stream during the CRR term.⁶¹⁸

⁶¹⁷ IEP/WPTF at 108.

⁶¹⁸ *Id.* at 108-109.

The CAISO maintains that the MRTU Tariff sufficiently specifies the creditworthiness requirements that will apply to establish credit for CRR holders. Section 12.5.2 provides that a CRR holder must maintain security equal to the value of the net projected obligation of the CRR for the entire term of the CRR and that the CAISO will determine the value of the net projected obligation using a methodology that will be published in its BPMs. This language is on par with pre-MRTU tariff language requiring SCs to maintain security to cover their aggregate estimated liability, which includes two components: known charges that have not yet been invoiced and estimated charges for which there is incomplete information available in the settlement systems. As for both estimates, the tariff has adequate enabling language – SCs must post security to cover their aggregate estimate liabilities and CRR Holders must post security to cover the net projected liabilities – but tools the CAISO uses are published in a separate document.

In the case of calculating the estimated aggregate liability, it has always been a challenge for the CAISO to develop accurate tools for estimating the amount of liability for the time period for which there is incomplete information. The CAISO has developed methodologies for doing so that have been stakeholdered and published in the CAISO's Credit Policy and Procedure Guide.⁶¹⁹ It has been a matter of necessity for the CAISO to revise its methodology from time to time to make it more accurate or to respond to changes in market design. For example, after the CAISO implemented Phase 1 B, it became clear that the CAISO's methodology would have to be revised as the estimates that were produced were inaccurate-in both directions. Without the ability to quickly revise

⁶¹⁹ On May 12, 2006, FERC issued an order in ER06-700 requiring the Credit Policy and Procedure Guide to be filed and will require the CAISO to present an explanation of what it proposes to remove, and presumably republish as an unfilled Credit Policy and Procedure Guide. 115 FERC ¶ 61,170 (2006). The CAISO is reviewing its options as to whether to seek rehearing of this aspect of the order.

its methodology, the CAISO would be compelled to use a methodology that required some participants to post security in excess of their actual liabilities and others to post insufficient security. This would be the case if the CAISO were required to include in the tariff a formula for calculating the estimated aggregate liability. Similarly, with respect to the calculation of net projected liability, the CAISO will need the ability to revise its estimation tools based on market data and should not be required to file a tariff-level methodology, provided that methodology is included in a BPM.

The CAISO believes the level of detail—enabling language in tariff with implementation detail in the BPM – is appropriate for two reasons. First, it is consistent with FERC’s *Policy Statement on Electric Creditworthiness*.⁶²⁰ Therein, the Commission stated that it “expects OATT Transmission Providers, ISOs, and RTOs to: (1) make their credit-related practices more transparent and comprehensive; (2) post on their websites the procedures that they use to do their credit analyses; and (3) provide a customer with a written analysis setting forth how that entity applied its credit standards to that customer, if that customer is required to provide security.”⁶²¹ Clearly, the Commission contemplates that transmission providers will not necessarily include in their tariffs all of the details concerning the procedures that they use to perform their credit analyses. The basic standard as set forth in the Tariff, along with details that will be included in the BPMs, both of which will be posted on the CAISO’s website, will, however, provide Market Participants with transparent and comprehensive guidance as to the CAISO’s CRR credit requirements, in accordance with the *Policy Statement*.

⁶²⁰ 109 FERC ¶ 61,186 (2004) (“*Policy Statement*”).

⁶²¹ *Id.* at P 12.

The level of detail on CRR credit requirements in the MRTU Tariff also satisfies the Commission’s “rule of reason,” which provides that a filed tariff or rate schedule is required to include only “those practices that affect rates and services significantly.”⁶²² The level of detail found in Section 12.5 of the MRTU Tariff satisfies the rule of reason and thus does not need to be augmented by the further detail concerning the precise formula that the CAISO will use to determine a CRR’s net projected obligation, which will be provided in the BPMs. This outcome is supported by earlier proceedings involving ISOs, in which the Commission has found that its rule of reason does not require the filing of implementation details or formulae for approval under Section 205 of the FPA.⁶²³

Market Participants will have an opportunity to review the details of the CAISO’s methodology for determining CRR net projected obligations when the CAISO releases the applicable BPM. IEP/WPTF provides no reasoning as to why the determination of value must be explicitly spelled out in the Tariff, and because the level of detail provided in the Tariff is consistent with the Commission’s *Policy Statement*, as well as its “rule of reason,” the Commission should reject IEP/WPTF’s unsupported argument that the details of this formula must be filed with the Commission as part of the Tariff.

Moreover, IEP/WPTF is incorrect in its assertion that the CAISO can “change the credit requirement at any time.” As noted above, Section 12.5.2 requires that a CRR

⁶²² *Midwest Independent Transmission System Operator, Inc.*, 113 FERC ¶ 61,081, at P 118 n.77 (2005) (quoting *City of Cleveland v. FERC*, 773 F.2d 1368, 1376 (D.C. Cir. 1985)).

⁶²³ *See, e.g., Pennsylvania-New Jersey-Maryland Interconnection, et al.*, 81 FERC ¶ 61,257, at 62,267 (1997) (rejecting argument that PJM should be required to file manuals containing operating procedures); *Northeast Utilities Service Co. and Select Energy, Inc. v. ISO New England Inc. and New England Power Pool*, 105 FERC ¶ 61,122, at P 21 (2003), *reh’g denied*, 109 FERC ¶ 61,204, at P 20 (2004) (rejecting argument that ISO New England and NEPOOL should be required to include methodology for calculating marginal losses in its tariff where tariff already provided “sufficient specificity” on the subject).

holder maintain security equal to the value of the “net projected obligation of the CRR for the entire term of the CRR. Short of a Section 205 filing modifying the MRTU Tariff, the CAISO cannot change this obligation.

2. The CAISO Will Update the MRTU Tariff Prior to MRTU Implementation to Incorporate Changes to the CAISO’s Credit Policy Made in the CAISO’s Credit Policy Amendment

SCE and PG&E state that it is unclear whether the changes to the credit provisions that are proposed in MRTU Tariff Section 12 are designed to supersede Section 12 of the CAISO’s Credit Policy Amendment or vice versa.⁶²⁴ As explained in the CAISO’s answer on the Credit Policy Amendment (Docket No. ER06-700), the CAISO intends to update the MRTU Tariff prior to MRTU implementation to incorporate the changes made as part of the Credit Policy proceeding.⁶²⁵

W. The Uninstructed Deviation Penalty

The Uninstructed Deviation Penalty (“UDP”) provisions of the Tariff, which the CAISO has not yet implemented, but which can be implemented with Commission authorization, continue to be just and reasonable in the transition to MRTU. IEP/WPTF disagrees, arguing that the UDP should be eliminated because the CAISO has not demonstrated a continuing need for UDP authority, and the basic rationale underlying the approval of UDP has been lost.⁶²⁶ Further, IEP/WPTF states that other ISOs do not have UDP, or have a less stringent form of UDP.⁶²⁷ Powerex, on the other hand, supports the

⁶²⁴ SCE at 37-38; PG&E at 58.

⁶²⁵ Motion for Leave to File Answer and Answer to Protests, Answer to Motions to Intervene and Comments, and Answer to Request for Order Requiring Supplemental Filing, of the California Independent System Operator Corporation, Docket No. ER06-700-000 (filed April 12, 2006) at 23.

⁶²⁶ IEP/WPTF at 78-81.

⁶²⁷ *Id.*

UDP as a tool to increase reliability and overall system operations, and requests that the CAISO apply this penalty as part of the MRTU implementation.⁶²⁸

Before addressing the continued necessity of the UDP program, it is important to note that, just like the current CAISO Tariff UDP provisions, the MRTU Tariff UDP provisions will not be enforceable until the CAISO separately files for permission from the Commission to implement UDP. Nonetheless, the UDP provisions should not be eliminated. The CAISO in fact currently monitors and intends to continue to monitor the performance of the imbalance energy market in order to review the impact of uninstructed deviations to determine whether immediate implementation of UDP may be appropriate.⁶²⁹ In the event the monitored reliability metrics exceed a certain threshold, the CAISO intends to submit a filing to the Commission to propose an immediate effective date for application of UDP. In addition to continually monitoring the need for UDP, the CAISO believes it has fully met the conditions that FERC established for UDP implementation, including: (1) an electronic reporting mechanism for reporting changes in availability of Generating Units; (2) multiple ramp rates to better reflect differences in capability across the full operating range of a Generating Unit.⁶³⁰ Satisfying such conditions makes the UDP a necessary and effective tool available to the CAISO in the event the imbalance energy market necessitates UDP implementation.

In addition, it should be noted that the CAISO's decision not to implement the UDP program at this time is not based on a determination that UDP implementation

⁶²⁸ Powerex at 25-26.

⁶²⁹ More information is available in the April 29, 2005 CAISO Board Memorandum ("April 2005 UDP Board Memorandum") discussing the deferral of Uninstructed Deviation Penalties as well as a monitoring plan and stakeholder process. *See* <http://www.caiso.com/docs/09003a6080/35/b1/09003a608035b178.pdf>.

⁶³⁰ *Cal. Indep. Sys. Operator Corp.*, 100 FERC ¶ 61,060 (2002).

would not be beneficial. Rather, it is based in large part on consideration of the opportunity cost of staff and resources devoted to UDP implementation rather than focused on MRTU design and implementation issues. Finally, the CAISO notes that several features that will be incorporated into the MRTU software – such as improved modeling of combined cycle resources – will make implementation of UDP less problematic and more beneficial once MRTU is in effect.

Not only is there a continued need for the UDP authority, but the CAISO believes that the basic rationale underlying the approval of UDP still exists. In fact, the current CAISO Tariff UDP provisions, with the exception of conforming changes, remain unchanged under MRTU.⁶³¹ IEP/WPTF suggests that the rationale for UDP has been eliminated by changed regulatory and industry circumstances, including: (1) the Commission’s adoption of strict market rules that specifically address the underlying justification for UDP; and (2) the CAISO’s adoption of the Enforcement Protocol (“EP”).⁶³² As explained by the CAISO in its response to public comment on this issue,⁶³³ while these tools are important, they are not a reasonable substitute for UDP. First, the FERC Market Behavior Rules would only become relevant if the CAISO, or FERC on its own initiative, identified an egregious event or pattern of behavior that consistently

⁶³¹ Under MRTU, the CAISO proposes conforming changes to the determination of deviation quantities to ensure that UDP, if implemented, would be comparable and as effective as it is under the current market design in discouraging Scheduling Coordinators from deviating from Dispatch Instructions. More specifically, under MRTU a resource is dispatched based in part on its current telemetered output. As a result, dispatch instructions will generally be feasible because prior uninstructed deviations will be taken into account in issuing new Dispatch Instructions. This is in contrast to the dispatch methodology in the CAISO’s current market design, which assumes that the resource followed the preceding Dispatch Instruction and the applicable ramp rate and capacity limits. As a result of this difference between the current design and the MRTU design, and in order to prevent the UDP under MRTU from ceasing to be a credible deterrent against uninstructed deviations, the CAISO proposed to determine the MRTU deviation quantity by multiplying the actual MWh deviation subject to UDP by a multiplier that will increase based on the number of infractions in an hour. This change appropriately places the level of UDP for strategic deviations under MRTU on par with the current market design. MRTU Tariff Filing Letter at 91-92.

⁶³² IEP/WPTF at 80.

⁶³³ See, e.g., April 2005 UDP Board Memorandum at 7-9.

violates one or more Market Behavior Rules. The UDP, on the other hand, monitors performance of every resource subject to UDP in every Settlement Interval. Second, the CAISO's authority under the EP does not provide the CAISO with penalty authority. The only instructions subject to review as violations of a CAISO operating order under the EP are those that are communicated by means other than the CAISO's Automated Dispatch System ("ADS"). The only instructions that are subject to UDP, by contrast, are those that are communicated by ADS, making the EP an unreasonable substitute for UDP.

Further, while other ISOs with FERC-approved UDP have different programs to address their specific needs, these programs are not necessarily less stringent. Similar to other ISOs with FERC-approved UDP, such as MISO and NYISO, the CAISO UDP under MRTU, if implemented, is designed to be an effective tool to discourage Scheduling Coordinators from deviating from Dispatch Instructions. Also similar to other FERC-approved UDPs, the currently-suspended CAISO UDP is specifically tailored to address the needs of the California market. Powerex agreed, stating that UDP will "induce generators and System Resources to be more accurate in their generation output," a change that will "help reliability and overall systems operations."⁶³⁴

Finally, while the CAISO appreciates Powerex's support for the UDP proposal, the CAISO believes the suspension on the UDP program on Day One of the new market is appropriate. As stated above, the CAISO is in the process of monitoring the performance of the Imbalance Energy Market and reviewing the impact of uninstructed deviations in order to determine whether implementation of UDP may be appropriate. In the event the monitored reliability metrics exceed a certain threshold, the CAISO intends

⁶³⁴ Powerex at 26.

to file a tariff amendment to propose an immediate effective date for application of UDP. Although the CAISO is prepared to implement the UDP proposal if circumstances warrant it, it believes the better strategy is to continue both monitoring the market and participating in a stakeholder process to resolve outstanding concerns.

X. Scheduling of Transmission Outages

A number of commenters express concerns about the change to the deadline for scheduling Maintenance Outages for transmission facilities from 72 hours in advance of the outage to 45 days in advance of the outage. SCE and PG&E both express concerns that this change will place undue burdens on Participating TOs.⁶³⁵ They contend that it will be extremely difficult to accurately schedule transmission Maintenance Outages 45 days in advance and that such outages will be tentative at best, defeating the CAISO's objectives of taking into account accurate outage information as part of the monthly CRR auction process. Other parties contend that this change will create seams with other portions of the Western interconnection, which uses a 72-hour notice period.⁶³⁶

The objective of the change in transmission outage scheduling requirements is to provide the best possible information on transmission maintenance outages prior to the monthly release of CRRs. In developing the network model for the monthly release of CRRs, the CAISO seeks to balance two objectives as efficiently as possible – to maximize the amount of CRRs released while minimizing the risk of revenue shortfall. The better information the CAISO has about planned Maintenance Outages, the better the CAISO can balance these objectives. Market Participants seeking CRRs through the

⁶³⁵ SCE at 5, 28-30; PG&E at 45-51.

⁶³⁶ See WAPA at 69-70; IID at 41-42.

monthly allocation or auction will also benefit from this information for their own modeling.

There is precedent for requiring advance scheduling of transmission outages in other ISOs and RTOs with LMP-based markets and financial rights require forward scheduling of transmission outages. For example, in PJM, transmission outages are required to submit notice of all Transmission Planned Outages to the RTO by the first day of the month preceding the month the outage will commence, with updates as new information becomes available.⁶³⁷ In ISO-NE, transmission owners must submit schedules for all “Major Transmission Outages” to the ISO in advance of the first day of the month that is two months prior to the operating month during which FTRs which might be affected by the Major Transmission Outage will be effective (*e.g.*, October 1 for a December outage).⁶³⁸ In the NYISO, schedules for outages of “Facilities Expected to Impact System Transfer Capability of the NYISO Secured System” must be submitted no later than 30 days before the 1st day of the operative TCC month.⁶³⁹

The CAISO believes, however, that it can modify its transmission Maintenance Outage scheduling requirements to address commenter concerns in a manner that still satisfies the objectives of better modeling for the monthly CRR allocation and auction. Consistent with comments submitted by PG&E, the CAISO will modify this provision of the MRTU Tariff in a compliance filing such that advance scheduling will only be

⁶³⁷ Section 1.9.2 of the PJM Operating Agreement; Section 4.8 of Consolidated TO Agreement. PJM can reject any outages scheduled after this deadline if they cause congestion: “If notice of a Transmission Planned Outage is not provided by the first day of the month preceding the month the outage will commence, and if such outage is determined by PJM to have the potential to cause Transmission System congestion, then PJM may require the Party to implement an alternative outage schedule to reduce or avoid the congestion. PJM shall perform this analysis and notify the affected Party in a timely manner if it will require rescheduling of the outage.”

⁶³⁸ Appendix G to ISO-NE Market Rule 1.

⁶³⁹ NYISO Outage Scheduling Manual. The operative TCC month is defined as the calendar month during which the facility outage is requested.

required for those transmission outages that would be expected to have a significant impact on CRR revenue adequacy. Schedules for transmission outages that would *not* be expected to have a significant impact on CRR revenue adequacy would be due 72 hours in advance, as they are under the current CAISO Tariff. The criteria for determining what constitutes “a significant impact on CRR revenue adequacy” will be developed with stakeholder input and incorporated into a BPM.

The CAISO also proposes to modify the deadline for scheduling these “significant” transmission Maintenance Outages. Since the goal is to provide better information for the monthly CRR allocation and auction, the CAISO proposes to change the scheduling deadline from 45 days in advance of the outage to 30 days in advance of the first day of the month when the outage is scheduled. This is consistent with the deadline for scheduling “significant outages” in PJM. The CAISO believes that this deadline will provide both the CAISO and interested Market Participants with the information needed to prepare models for the monthly CRR allocation and auction. To the extent the results of the forthcoming CRR “dry runs” suggest that Market Participants would prefer more time for their own modeling of the network prior to the monthly release of CRRs, the CAISO is prepared to consider adjustments to this deadline.

The CAISO further notes that, under the MRTU Tariff, Participating TOs will retain flexibility to modify scheduled transmission Maintenance Outages after the deadline. Section 9.3.6.4 of the MRTU Tariff provides that:

A Participating TO may submit changes to its planned Maintenance Outage information at any time, provided, however, that if the Participating TO cancels an Approved Maintenance Outage after 5:00 a.m. of the day prior to the day upon which the Outage is scheduled to commence and the CAISO determines that the change was not required to preserve System Reliability, the CAISO may disregard the availability of

the affected facilities in determining the availability of transmission capacity in the Day-Ahead Market. The CAISO will, however, notify Market Participants and reflect the availability of transmission capacity in the HASP and RT Market as promptly as practicable.

The CAISO believes that seams concerns about outage scheduling, to the extent not already addressed by the changes the CAISO commits to make, are misplaced. The Commission has not found that longer-term outage scheduling requirements for “significant outages” at other ISOs and RTOs create seams issues with neighboring Control Areas. Indeed the modified outage scheduling requirements should be beneficial to the rest of the Western Interconnection, as these requirements will provide entities in other parts of the West with better information about outage schedules in California.

On a related issue, WAPA states that the CAISO should incorporate the provisions in the current CAISO Tariff providing for compensation of direct and verifiable costs in the event the CAISO cancels an Approved Maintenance Outage. WAPA at 69-70. The CAISO has retained this provision in Section 9.3.7.3 of the MRTU Tariff.

Y. Exceptional Dispatch

1. The CAISO’s Exceptional Dispatch Authority is Appropriately Tailored, Given the CAISO’s Responsibility for Ensuring the Reliable Operation of the Grid

IEP/WPTF argues that the CAISO should only be permitted to intervene in market outcomes “only in a very limited set of circumstances,”⁶⁴⁰ and therefore, the CAISO’s definition of System Emergency is overly broad. IEP/WPTF contends that the CAISO should not be allowed to use Exceptional Dispatch for the following reasons specified in the Section 34.9 of the MRTU Tariff or the MRTU Tariff Filing Letter:

⁶⁴⁰ IEP/WPTF at 52.

“reliability,” “good utility practice,” to resolve anticipated pricing issues associated with non-dynamically scheduled system resources not selected in HASP, for voltage support outside the specific voltage support provisions, to accommodate ETC or TOR schedule changes after HASP, or to reverse a commitment instruction issued through the IFM determined to be no longer optimal by RUC.⁶⁴¹

IEP/WPTF’s arguments should be rejected for several reasons. First, the CAISO has not proposed any change to the definition of System Emergency in the MRTU Tariff Filing (except for the editorial change of “ISO” to “CAISO”). In other words, the Commission has already found the definition of System Emergency in the MRTU Tariff to be just and reasonable. IEP/WPTF presents no compelling reason as to why that definition has been rendered unjust and unreasonable under the MRTU design. The more fundamental problem with IEP/WPTF’s argument, however, is that it seems to be advocating for a regime in which the CAISO’s ability to ensure reliability is limited to a strictly and narrowly defined set of circumstances. But doing so would seriously compromise the CAISO’s ability to fulfill its primary mission of ensuring the reliable operation of the CAISO Controlled Grid. As has been proven in California, and indeed, throughout the nation, it is often difficult to predict the exact manner of reliability problems that will arise, and under what circumstances and conditions they will do so. Some discretion on the part of an Independent System Operator is therefore necessary if there is to be any confidence in ensuring reliable grid operations. The assumption underlying IEP/WPTF’s argument, however, appears to be that the CAISO will exercise such discretion in a way that will jeopardize market outcomes in the maximum number of circumstances, yet IEP/WPTF provides no rationale as to why the CAISO would do so.

⁶⁴¹ *Id.* at 53-54.

The Commission should reject IEP/WPTF's attempt to hamstring the CAISO's ability to ensure grid reliability by narrowly proscribing the set of circumstances under which the CAISO can take actions outside of normal market operations in order to ensure reliability.

In addition, IEP/WPTF's argument that the CAISO should be prohibited from exercising Exceptional Dispatch authority under the circumstances enumerated by IEP/WPTF should be rejected, because IEP/WPTF provides no justification as to why the authority to issue an Exceptional Dispatch under these circumstances would be unjust and unreasonable.

2. Exceptional Dispatches Should Not Be Permitted to Set the Price in the CAISO's MRTU Markets

IEP/WPTF and Constellation/Mirant allege that the CAISO should not "shelter" market prices from Exceptional Dispatches used to clear the markets. These parties contend that when the CAISO increments units, it should recalculate market LMPs using the Exceptional Dispatch bid and dispatch level if doing so increases the market prices for units.⁶⁴² The Commission should reject this argument. Exceptional Dispatches are, by their very nature, designed to cope with events that occur outside of normal market operations. They are not merely high system prices reflective of general scarcity, but dispatches designed to address specific reliability problems. Therefore, these dispatches do not accurately reflect the system-wide need, because units dispatched pursuant to this authority do not represent the marginal units, which are used to establish LMPs. It would, therefore, be inappropriate and disruptive to allow such dispatches to set the price, and would send inaccurate price signals.

⁶⁴² IEP/WPTF at 54-55; Constellation/Mirant at 11.

Fundamentally, Exceptional Dispatches are no different than the Out-of-Market (“OOM”) and Out-of-Sequence (“OOS”) dispatches that the CAISO has the authority to perform under its current market design. As the Commission has recognized, OOM and OOS dispatches do not set the price of the CAISO’s markets.⁶⁴³ There is no reason to change this with the implementation of the fundamentally identical Exceptional Dispatch mechanism.

3. The CAISO’s Proposed Allocation of the Costs of Exceptional Dispatches is Just and Reasonable, and Should be Approved as Filed, With One Clarification

Several parties raise issues concerning the allocation of the costs of Exceptional Dispatches. IEP/WPTF contends that the CAISO should revise Section 11.5.6.2.5.2 of the MRTU Tariff to eliminate allocation based on net short Uninstructed Deviations, as it suggests that the CAISO intends to intervene in markets to procure Energy for net short positions, whereas Exceptional Dispatch is limited to certain emergency conditions.⁶⁴⁴ The CAISO disagrees. Exceptional Dispatches made under emergency conditions also serve a portion of the CAISO’s Real-Time net short load. Thus, it is appropriate to allocate part of the cost of such dispatches to Real-Time net short uninstructed deviations.

SCE claims that the CAISO’s proposed allocation to Participating TOs of certain Emergency Dispatch costs relating to “transmission-related modeling limitation[s] in the Full Network Model” is inappropriate, and that such costs should not be allocated to Participating TOs but rather to Scheduling

⁶⁴³ See, e.g., *San Diego Gas & Electric Co., et al. v. Sellers of Energy and Ancillary Services, et al.*, 102 FERC ¶ 61,317 at PP 5.E, 23 (2003)

⁶⁴⁴ IEP/WPTF at 55.

Coordinators.⁶⁴⁵ SCE claims that this is the case because the CAISO, rather than the Participating TOs, is now responsible for grid planning and operation, and therefore, because the Participating TOs are not in the position to guarantee reliable grid operations, they should not be held liable for these costs. The CAISO disagrees. Participating TOs should not be exempted from Exceptional Dispatch cost allocation related to “transmission-related modeling limitation in FNM” merely because the CAISO is now in charge of coordinated transmission planning. These limitations are more often than not attributable to transmission maintenance, for which the Participating TOs have primary responsibility.

The CAISO, however, does agree with SCE that if the costs of transmission modeling limitation-related Exceptional Dispatches are to be allocated to Participating TOs, then it should be clarified in the MRTU Tariff that such costs constitute “Reliability Service Costs,” such that the Participating TOs can recover them through their Reliability Service Costs rates.⁶⁴⁶ The CAISO commits to making the necessary Tariff change in a compliance filing to be made in response to the Commission’s order on the MRTU Tariff Filing.

The CAISO also concurs with SCE’s position that, if an MSS is unable to relieve congestion internal to its system, that any Exceptional Dispatches made by the CAISO to resolve this congestion should be allocated to the responsible MSS.⁶⁴⁷ The CAISO commits to making the necessary Tariff modifications in a compliance filing to be made in response to the Commission’s order on the MRTU Tariff Filing.

Z. Cost Allocation under MRTU

⁶⁴⁵ SCE at 31-34.

⁶⁴⁶ *See id.* at 33-34.

⁶⁴⁷ *See id.* at 48.

1. The MRTU Tariff Provides Sufficient Detail Concerning the Allocation of Various Costs Identified by SWP

SWP contends that the MRTU Tariff does not specify how a number of CAISO-incurred costs will be allocated.⁶⁴⁸ SWP's statement is overly broad and inaccurate. The CAISO explains below, for each type of costs identified by SWP, how the MRTU Tariff provides for the allocation of these costs:

Instructed Imbalance Energy ("IIE"). The allocation methodology for IIE is set forth in Section 11.5 of the MRTU Tariff. That section sets forth the basic allocation formula for IIE: "To the extent that the sum of the Settlement Amounts for IIE . . . [do] not equal zero, the CAISO will assess Charges or make Payments for the resulting differences to all Scheduling Coordinators based on a pro rata share of their Measured Demand for the relevant Settlement Interval." Section 11.5.1 goes on to list the types of Energy that comprise IIE, and either to explain, for each of these types of Energy, the manner in which the amount that is charged or paid the relevant Scheduling Coordinator ("Settlement Amounts") is determined, or list the MRTU Tariff section in which such calculation is set forth.

Residual Imbalance Energy. Section 11.5.1 explains that Residual Imbalance Energy is settled as part of IIE, and that Settlement Amounts for Residual Imbalance Energy are determined pursuant to Section 11.5.5. Section 11.5.5 makes clear that Residual Imbalance Energy "shall be the product of the MWh of Residual Imbalance Energy for that Settlement Interval and the Bid that led to the Residual Imbalance Energy from the relevant Dispatch Interval in which the resource was Dispatched."

⁶⁴⁸ SWP at 18-23.

Exceptional Dispatch to mitigate Congestion not caused by Modeling Limitations.

The CAISO's proposed Exceptional Dispatch authority is set forth in Section 34.9 of the MRTU Tariff. That section does not include mitigating Congestion as one of the reasons that the CAISO may issue an Exceptional Dispatch. Thus, if the CAISO wishes to issue an Exceptional Dispatch for purposes of mitigating Congestion, whether it is caused by modeling limitations or not, it must meet one of the conditions described in Section 34.9.1 ("System Reliability Exceptional Dispatches") and 34.9.2 ("Other Exceptional Dispatch"). The category of Exceptional Dispatches to mitigate Congestion caused by modeling limitations was created merely for cost allocation purposes. Therefore, to the extent that the CAISO issues an Exceptional Dispatch, pursuant to the authority contained in Section 34.9, for the purpose of mitigating Congestion *not* caused by modeling limitations, those costs would be allocated pursuant to the more general Exceptional Dispatch allocation provision (*i.e.* Section 11.5.6.2.5.2).

Exceptional Dispatch for IIE from HASP and Real Time ETC and TOR

Supply Schedules – Section 11.5.6.5 sets for the allocation methodology for IIE from Exceptional Dispatches for HASP and Real-Time ETC and TOR Supply Schedules. That section states that these Exceptional Dispatches will be settled at the Resource-Specific Settlement Interval LMP.

RUC Availability Payment. SWP cites to Section 11.8.6.5 of the MRTU Tariff, but this section does not concern the settlement of RUC Availability Payments. Rather, Section 11.8.6.5 addresses the allocation of the Hourly Net RUC Bid Cost Uplift, which is a component of the BCR mechanism. RUC Availability Payments are settled as set forth in Section 11.2 (Settlement of Day-Ahead Market Transactions).

SWP also contends that the definitions of “Settlement Interval, Settlement Period, and Trading Interval are duplicative and/or contradictory.” The CAISO recognizes that the definitions of Settlement Period and Trading Interval cover similar concepts, but fails to understand how these definitions are contradictory, and SWP provides no explanation to support its allegation. SWP also contends that the MRTU Tariff does not identify the actual time frame associated with a Settlement Interval. The CAISO notes that it has, since implementation of Phase 1B, used 10 minute Settlement Intervals. The CAISO has not proposed to change this under MRTU.

2. The MRTU Tariff Appropriately Allocates Costs Associated with Certain Reliability Purchases

SWP claims that certain provisions of the MRTU Tariff are not consistent with principles of cost causation. First, SWP states that the CAISO proposes to make certain non-market energy purchases for reliability purposes, and that these costs are incurred to meet peak demands.⁶⁴⁹ SWP therefore argues that these costs – specifically, BCR for Minimum Load and Start-Up Costs associated with long start units that must run during off-peak periods to meet the next day’s peak demand – should be allocated based on an entity’s contribution to system peak demand.⁶⁵⁰ SWP’s argument lacks merit. BCR costs are already netted over a 24-hour period against their market revenues in order to determine a supplier’s eligibility to recover their costs in the first instance. The rationale for this 24-hour netting is explained in Section II.J addressing Bid Cost Recovery above. Therefore, it would make no sense, and would not further the goal of cost causation, to attempt to assign these costs to some subsequent hours.

⁶⁴⁹ *Id.* at 26-28.

⁶⁵⁰ *Id.* at 26-27.

SWP also argues that certain CAISO proposes to allocate other costs, specifically those relating to Ancillary Services and Exceptional Dispatch, on a grid-wide “socialized” basis.⁶⁵¹ With respect to the allocation of Ancillary Services costs, SWP fails to take into account the fact that each individual SC is only responsible for the costs of those Ancillary Services directly relating to its use of the CAISO Controlled Grid, based on that SCs amount of load and generation. Therefore, SWP’s claim that Ancillary Services costs are allocated on a “socialized” basis is, at best, a gross overstatement. Moreover, Ancillary Services benefit the entire grid, not just specific regions or zones, by ensuring reliable and stable operations across the grid, which renders the CAISO’s proposal to calculate Ancillary Services user rates based on grid-wide Ancillary Services prices entirely appropriate. With respect to costs arising from Exceptional Dispatches, such costs are allocated in one of two manners under MRTU. First, those Exceptional Dispatch costs associated with transmission-modeling related limitations are allocated to the PTO in whose Service Territory the modeling limitation is located.⁶⁵² This is clearly not “socialized” allocation. Second, those costs relating to Exceptional Dispatches used for Emergency Conditions or to avoid System Emergencies are charged to SCs based on their Net Negative Uninstructed Deviations.⁶⁵³ This is an appropriate allocation methodology because the CAISO’s need for additional Energy, as reflected by the fact of the Exceptional Dispatch, would not have occurred but for the Uninstructed Deviations.

3. The MRTU Tariff’s Allocation of UFE Costs is Just and Reasonable

⁶⁵¹ *Id.* at 28-31.

⁶⁵² MRTU Tariff at Section 11.5.6.2.5.1

⁶⁵³ *Id.* at Section 11.5.6.2.5.2

SWP contends that the MRTU Tariff proposes to allocate UFE on a “grid-wide socialized” basis, in contravention of the Commission’s directive that these costs should be allocated on a more accurate basis.⁶⁵⁴ SWP proposes modifying Section 11.5 in the following manner:

The CAISO shall calculate and account for Imbalance Energy for each Dispatch Interval and settle Imbalance Energy in the Real-Time Market for each Settlement Interval for each resource within the CAISO Control Area and all System Resources Dispatched in Real-Time. Imbalance Energy consists of IIE and UIE. IIE includes Energy associated with HASP Intertie Schedules. IIE is settled pursuant to Section 11.5.1. and UIE is settled pursuant to Section 11.5.2. To the extent that the sum of the Settlement Amounts for IIE, and UIE, ~~and UFE~~ does not equal zero, the CAISO will assess Charges or make Payments for the resulting differences to all Scheduling Coordinators based on ~~a pro-rata share of their Measured Demand for the relevant Settlement Interval~~. the allocation of UFE in Section 11.5.3

SWP’s proposed revision to Section 11.5 should be rejected. The CAISO has already agreed that entities such as SWP, that have proper metering arrangements, can have their UFE calculated separately. This concept is already captured in Section 11.5.3 of the MRTU Tariff, and nothing in Section 11.5 changes that fact. The only thing that would result from making SWP’s change is that the CAISO would be limited in its ability to collect UFE from entities throughout the CAISO Control Area, which would certainly not further the goal of promoting cost causation principles, but rather create a deficit that would have to be remedied by the CAISO through additional charges elsewhere.

4. The MRTU Tariff’s Allocation of RUC Costs is Just and Reasonable

⁶⁵⁴ SWP at 31-33.

SWP contends that the CAISO's allocation methodology for RUC is flawed. Specifically, SWP contends that no RUC is acquired for SWP loads, because the CAISO uses SWP's bid in load schedules as the SWP component of the CAISO Demand forecast, and therefore, SWP should not be charged for RUC.⁶⁵⁵ SWP proposes that the RUC cost allocation provisions be revised to provide that such costs will only be allocated to "deviations between a SC's IFM scheduled Demand and the CAISO's own independent CAISO Forecast of Demand for that SC."⁶⁵⁶

Contrary to SWP's argument, however, it would be inappropriate to exempt SWP wholesale from RUC costs. RUC costs are allocated in two tiers under MRTU. The first tier is allocated based on net negative deviations. Thus, SWP can limit its exposure to tier 1 RUC costs by simply avoiding Uninstructed Deviations. The second tier of RUC costs is allocated based on Measured Demand, and it is appropriate that SWP, along with all other Demand, share in these costs, to reflect the fact that procurement of RUC supports the reliable operation of the grid as a whole, and SWP, as with all other grid users, benefits from that reliability. Indeed, as noted in Section II.F on RUC above, the Commission has already found the CAISO's two-tier RUC allocation methodology to be just and reasonable. The Commission should reject SWP's renewed and unconvincing attack on that methodology.

AA. Other Issues

1. The CAISO's Treatment of Bilateral Contracts under MRTU Is Just and Reasonable

In their comments on the MRTU Tariff Filing, NCPA, SMUD and WAPA argue that the CAISO's treatment of bilateral contracts under MRTU will diminish their value,

⁶⁵⁵ *Id.* at 33-35.

⁶⁵⁶ *Id.* at 35.

because the CAISO will require parties to settle those contracts through the CAISO, which will increase complexity and limit flexibility.⁶⁵⁷

These concerns are misplaced because fundamentally, the CAISO's MRTU design treats bilateral contracts under the same principles as its current market design, although the methodology for settling those contracts is different because MRTU eliminates the balanced schedule requirement and market separation rule. Instead, under MRTU, parties have the option of Self-Scheduling Supply and Demand.⁶⁵⁸ In order to Self-Schedule Supply or Demand, the SC will submit a Self-Schedule containing a quantity of Demand, or a quantity of Supply from a specific generator or Scheduling Point, without any associated Economic Bids. When the IFM sees such Self-Schedules, it will first attempt to perform the optimization utilizing only the Economic Bids without modifying the Self-Schedules in any way. If this is successful – that is, if Energy Supply and Demand can be balanced, all Congestion resolved, and the targeted quantities of AS awarded – then all Self-Schedules will be accepted without modification. For settlement purposes they will be treated as price-takers in the market, because by their choice not to submit economic Bids these SCs have indicated their willingness to accept whatever prices are produced by the IFM in order to have their Schedules accepted.

Regardless of the market design, however, charges for congestion and losses must reflect each SC's use of the CAISO grid, including those using the grid for purposes of facilitating bilateral contracts. While MRTU has a different methodology for charging congestion and losses than the CAISO's current market design, under both designs, these charges are based on total scheduled or metered quantities, regardless of whether the

⁶⁵⁷ NCPA at 12-13; SMUD, Ingwers Testimony at 14-15; WAPA at 33-37.

⁶⁵⁸ See Exh. ISO-1 at 47-49.

transaction is one in which energy is contracted through the CAISO's auction markets, or is provided pursuant to a bilateral contract. For instance, in today's DA market if there is a congestion charge for an accepted DA balanced schedule, the resulting charge applies to the full amount of the final DA schedule. Under MRTU, the settlement system calculates separate components of the injection side and the withdrawal side of the DA Schedule and bills the Scheduling Coordinator for the net difference. Similarly, today's market charges for losses by applying a Generation Meter Multiplier to the full quantity of the injection. MRTU will calculate separate components for the injection and withdrawal sides of an SC's scheduled and metered grid usage, but under both designs, these charges reflect the total quantities of grid usage.

The CAISO has also included in MRTU provisions that will facilitate bilateral transactions. For instance, under MRTU, credit posting requirements will be based on each party's net obligations to the CAISO.⁶⁵⁹ Thus, a bilateral transaction would represent an obligation to the CAISO only with respect to costs of Congestion and losses associated with scheduling the transaction. Second, exposure to settlement shortfalls due to another party's payment default is based on the net amount owed by the CAISO to each party for the relevant settlement interval. Given the fact that parties engaging in bilateral transactions will have little to no exposure to liability based on the results of the CAISO markets, and such liabilities will in turn be limited, the CAISO submits that MRTU's treatment of bilateral contracts is entirely just and reasonable, and urges the Commission to reject NCPA, SMUD and WAPA's arguments to the contrary.

2. The Contention that MRTU Does Not Provide Adequate Incentives for Load to Schedule in the Day-Ahead Overlooks a

⁶⁵⁹ See *id.* at 49-50.

Fundamental Difference Between the CAISO's Existing Market Design and the MRTU Design

NRG contends that MRTU does not provide adequate incentives for load to accurately schedule in the day-ahead market because: (1) there is no penalty for over- or under-scheduling in the DA, (2) the allocation of costs associated with the RUC process to load associated with under-scheduling in the day-ahead does not provide adequate incentives, and (3) RA resources are required to participate in the IFM and RUC with a \$0 price.⁶⁶⁰

NRG's concerns are moot, because they overlook a fundamental design difference between the CAISO's existing market design and the MRTU design. Namely, the MRTU design is not predicated on the need to serve all or most load in the DA timeframe. Under MRTU, the CAISO will have the tools available (e.g. RUC) to commit necessary additional resources after the close of the IFM, without compromising reliability. Therefore, Market Participants representing load will have a valid economic choice as to whether to serve their load in the DA or RT timeframes.⁶⁶¹

3. PG&E's Request for Specific Provisions Covering the Confidentiality of Information Provided Pursuant to Section 4.4.5.1 Should Be Rejected

PG&E contends that Section 4.4.5.1 of the MRTU Tariff, which provides for the CAISO, Participating TOs, and UDCs to share information such as projected Load growth and system expansion, fails to provide protections for the confidential treatment of transmission customer information.⁶⁶² PG&E maintains that the MRTU Tariff should limit the CAISO's ability to post such information to the public. PG&E's argument

⁶⁶⁰ NRG at 12-13.

⁶⁶¹ See *infra* the CAISO's discussion of the reasons why the 95% forward Load scheduling requirement should not be retained under MRTU in Section III of these Reply Comments.

⁶⁶² PG&E at 59.

should be rejected. This section, except for the change of ‘ISO’ to ‘CAISO’ is unmodified from its current incarnation. PG&E provides no rationale whatsoever as to why this information must be kept confidential by the CAISO.

4. PG&E Provides No Rationale as to Why Responsibility for RMR Costs Should Not be Included in the Various Liabilities that are Referenced in the CAISO’s Credit Posting Requirements

PG&E argues that MRTU Tariff Section 12.3, by incorporating a reference to RMR costs, creates a new credit posting requirement that did not previously exist, and which PG&E believes there is inadequate support.⁶⁶³ This reference was inadvertently included in the MRTU Tariff, and the CAISO agrees with PG&E that it should be removed. The CAISO commits to do so as part of its compliance filing.

5. The Reduction of Operating Ramp Segments From Nine to Four Under MRTU Will Not Negatively Impact the Operation of the CAISO’s MRTU Markets

IEP/WPTF and SCE argue that the reduction of Operating Ramp segments from nine to four under MRTU should not be implemented.⁶⁶⁴ IEP/WPTF maintains that this change will significantly decrease accuracy.⁶⁶⁵ IEP/WPTF is mistaken. This software-related change will not limit the CAISO’s ability to accurately reflect the physical characteristics of the units because, except for a few resources, generating units in the CAISO’s Master File use four or less segments for their operational ramp rates.

6. The CAISO’s Proposed Hourly Uninstructed Imbalance Energy Adjustment Amount is Just and Reasonable

SCE contends that the CAISO’s proposed Hourly Uninstructed Imbalance Energy Adjustment Amount does not appear reasonable. SCE states that this is the case because

⁶⁶³ *Id.* at 60.

⁶⁶⁴ IEP/WPTF at 67-68; SCE at 78.

⁶⁶⁵ IEP/WPTF at 68.

due to differences between the LDFs used in the Day-Ahead and Real-Time markets, even SCs that are perfectly balanced in the Day-Ahead market (*i.e.* they have scheduled 100% of their load Day-Ahead) will likely receive imbalance charges in the Real-Time market, a result which SCE considers unreasonable.⁶⁶⁶

SCE misunderstands the Uninstructed Imbalance Energy calculation. Only SCs that have Real-Time deviations to their Real-Time LAP MWh quantity (as compared to their Day-Ahead LAP schedule) are charged (or paid) Uninstructed Imbalance Energy. Therefore, in the example provided by SCE, the SC in question would not be charged at all because its LAP Real-Time deviation (compared to its Day-Ahead LAP schedule) is 0 MWh. Under the extreme and highly unlikely scenario that each and every SC in the CAISO markets has zero MWh real-time LAP deviations, but the Load Distribution Factors change in Real-Time compared to IFM, possibly requiring the re-dispatch of resources in Real-Time, the CAISO would still compute a real time LAP price and price adjustment, but no SC would be charged or paid for its LAP load Uninstructed imbalance Energy, because no SCs would have any quantities of Uninstructed Imbalance energy. The costs associated with the Real-Time re-dispatch would then be allocated to the real-time Imbalance Offset and charged to all SCs pro rata based on their Measured Demand.

7. No Additional Provision is Necessary to Prohibit SCs from Submitting Inaccurate Demand Bids

SCE contends that the MRTU Tariff should clarify that submitting demand bids at a LAP that “significantly exceed an SC’s expected load at that LAP” is a submission of false information to the CAISO and thus prohibited.⁶⁶⁷ Such a prohibition is not necessary. Submitting false information to the CAISO is already prohibited pursuant to

⁶⁶⁶ SCE at 49-52.

⁶⁶⁷ SCE at 54.

the CAISO's Tariff,⁶⁶⁸ and this prohibition would clearly apply to demand bids.⁶⁶⁹ SCE's proposed additional language would not improve upon these provisions because it would not help Market Participants better understand what behavior is prohibited, or assist the CAISO in detecting improper behavior and applying appropriate sanctions. For instance, it is not clear what the term "significantly exceeds" means. The CAISO therefore submits that SCE's proposal should be denied.

8. The CAISO Agrees That the Release of Certain Real-Time Information Should Be Delayed

SCE objects to the CAISO's proposal, in Section 6.5.5.2.4, to post "Total Real-Time Dispatched Energy and Demand" every five minutes, stating that releasing information on this short a timeframe might signal Market Participants of market conditions in which the exercise of market power will prove favorable.⁶⁷⁰ The CAISO agrees that SCE's concern is valid, and therefore, the CAISO, in its compliance filing, will modify this section in order to provide that the CAISO will release this information on a 24-hour delay. This change will prevent Market Participants from utilizing this information to exercise market power, while still providing sufficient market transparency.

9. The Provisions of the MRTU Tariff Addressing Transmission Planning and Compensation Are Consistent with the Federal Power Act

SWP objects to Section 24.7.3 of the MRTU Tariff, which allows the CAISO, along with an Participating TO, to privately negotiate compensation to transmission

⁶⁶⁸ See MRTU Tariff, Section 37.5 ("Provide Factually Accurate Information").

⁶⁶⁹ *Id.* at 37.5.1.1 (covering "[a]ll applications, Bids, Submissions, reports and other communications by a Market Participant or agent of a Market Participant to the CAISO, including maintenance and outage data, Bid data, transaction information, and load and resource information").

⁶⁷⁰ SCE at 59.

sponsors in situations where a transmission sponsor does not recover the investment cost through the Access Charge or a reimbursement or direct payment from the affected Participating TO. SWP claims that this provision violates the Federal Power Act because this compensation will be included in Commission-regulated rates or terms imposed on CAISO grid users, but apparently will not necessarily be filed at FERC.⁶⁷¹ SWP contends that Section 24.7.3 should be revised to “ensure full transparency and full compliance with Federal Power Act filing requirements.”⁶⁷²

SWP’s argument rests on the incorrect assumption that Section 24.7.3 somehow provides the CAISO with authority to charge rates without Commission approval. It does not. Section 24.7.3 merely states that the CAISO has the authority to negotiate, along with a transmission Project Sponsor and relevant Participating TO, a compensation package to ensure that a transmission Project Sponsor recovers its investment costs. Section 24.7.3 does not address the manner in which any such costs would be allocated and collected. In some cases, presumably, such costs would be borne entirely by the Participating TO, in which case the CAISO would not be responsible for collecting any costs, and obviously, would be under no requirement to make a Section 205 filing. In cases in which the CAISO agrees that certain costs should be collected through the CAISO, the CAISO would, of course, have to file with the Commission in order to impose those costs on its customers, either as part of one of its standard charge filings (such as the Access Charge), or in a separate filing. The Commission should therefore reject SWP’s request to modify this provision.

10. General MRTU Tariff Cleanup Items

⁶⁷¹ SWP at 51-52.

⁶⁷² *Id.* at 51.

A number of commenters raise general “cleanup” issues with the MRTU Tariff, such as typos, missing cross-references, outdated references and language that are no longer applicable, *etc.* The CAISO appreciates the time and effort spent by parties to bring these items to the CAISO’s attention. Some of these items are addressed in Appendix A to this pleading. The CAISO will, over the coming months, be performing a comprehensive review of the MRTU Tariff to identify and correct all such items. Moreover, the CAISO has begun to address many of these issues under the ambit of its “deferred maintenance” process to make similar “clean up” changes to the Simplified and Reorganized Tariff. Therefore, no specific Commission action on these items is necessary.

III. Issues Related to Features Not Included in MRTU Release 1

A number of commenters contend that the Commission should direct the CAISO to incorporate into the initial design of MRTU certain proposed market design features that are not slated for inclusion in Release 1 of the new markets. As explained in the MRTU Tariff Filing, not all market design features could be included in Release 1.⁶⁷³ The need to ensure that the new markets are not excessively complicated when first implemented and the substantial CAISO and stakeholder resources needed to design each market feature led the CAISO to conclude that a number of market design features that might be desirable were not essential for the “day one” implementation of the MRTU market design. The CAISO undertook a review to confirm that MRTU Release 1 includes all those features and elements of the market design that are necessary to: (1) ensure reliable operation of the grid, (2) ensure that the market design works properly,

⁶⁷³ MRTU Tariff Filing Letter at 4-5, 95-96.

i.e., does not have a “fatal flaw,” or (3) satisfy a regulatory requirement. The terms and conditions of the MRTU Tariff reflect this review and provide a comprehensive package of tariff language to establish the design of Release 1 of MRTU and allow its implementation by November 2007.

Contrary to the arguments of some commenters, the CAISO is under no obligation to demonstrate that the decision not to include various features in MRTU Release 1 is just and reasonable.⁶⁷⁴ In order to satisfy its burden under Section 205 of the FPA, the CAISO is not required to show that the rates, terms and conditions of the MRTU Tariff are perfect or superior to alternatives proffered by some commenters.⁶⁷⁵ Instead, the CAISO only has to demonstrate that the MRTU Tariff, as filed with the Commission, is just and reasonable. For all the reasons set forth in the MRTU Tariff Filing and these Reply Comments, the CAISO has satisfied that standard.

The CAISO wishes to assure the Commission and stakeholders that it will devote the requisite time and resources to consider the addition of desirable features in subsequent releases of the MRTU market design.⁶⁷⁶ The CAISO is initiating a stakeholder process later in 2006 to obtain input on how various proposed market design features should be prioritized for consideration after Release 1. The CAISO will take these stakeholder priorities, as well as its own analysis of the benefits and implementation

⁶⁷⁴ The CAISO was under a compliance obligation to address feasibility issues associated with Convergence Bidding. As discussed in Section III.A below, the CAISO has fulfilled this obligation through the submission of a status report on March 15, 2006.

⁶⁷⁵ See *New England Power Co.*, 52 FERC ¶ 61,090 at 61,336 (1990), *reh 'g denied*, 54 FERC ¶ 61,055 (1991), *aff'd Town of Norwood v. FERC*, 962 F.2d 20 (D.C. Cir. 1992); *citing City of Bethany v. FERC*, 727 F.2d 1131, 1136 (D.C. Cir.), *cert. denied*, 469 U.S. 917 (1984) (utility need only establish that its proposed rate design is reasonable, not that it is superior to alternatives); *see also* Section I.A of these Reply Comments.

⁶⁷⁶ The MRTU Tariff Filing generally refers to these potential design features as “Release 2” features. As explained in the CAISO’s March 15, 2006 status report filed in this proceeding and Docket No. ER02-1656, the CAISO is also exploring the possibility of implementing certain post-Release 1 features on a more expedited schedule (“Release 1A”) than other Release 2 features.

issues associated with various proposed design features, in developing a specific proposal for developing and implementing post-Release 1 design features. It is premature at this time to discuss the timing for implementation of post-Release 1 market features until that process is complete.

Although the CAISO cannot propose a specific schedule for any post-Release 1 feature, it does believe that the Commission will benefit from a further discussion of why certain features identified by commenters were not included in Release 1.

A. The CAISO Should Not Be Required to Add Convergence/Virtual Bidding to MRTU Release 1

A number of commenters, including IEP/WPTF, Williams, Coral and Epic/SESCO, argue that the CAISO should be required to incorporate convergence or virtual bidding into the Release 1 market design.⁶⁷⁷ Other parties oppose the incorporation of Convergence Bidding into Release 1 of MRTU. In particular, the CPUC opposes any attempt at this point in time to include Convergence Bidding in the day one MRTU design, asserting that implementation of Convergence Bidding should be reserved for a time when all other MRTU features are in place and running without dysfunction.⁶⁷⁸ Still other parties state that Convergence Bidding is an important, but not essential element of the MRTU market design and that the Commission should focus on the MRTU Tariff as filed rather than “second-guessing” what some believe should have been filed.⁶⁷⁹

⁶⁷⁷ Although there are multiple designs for implementing a convergence or virtual bidding feature in LMP-based markets, for ease of reference, the CAISO generally will refer to this conceptual design element by a single term – Convergence Bidding.

⁶⁷⁸ CPUC at 37-38.

⁶⁷⁹ SDG&E at 2.

As explained in the MRTU Tariff Filing and in other recent filings with the Commission addressing Convergence Bidding, the CAISO cannot incorporate a Convergence Bidding feature into Release 1 of the new market design without a significant delay in the implementation of the new markets. To address the concerns raised by stakeholders, however, the CAISO is initiating an expedited stakeholder process where Convergence Bidding is considered on a faster track than other items that the CAISO has designated as potential Release 2 items.

The commenters asking the Commission to require the CAISO to add Convergence Bidding to MRTU Release 1 largely repeat arguments made in a series of filings concerning Convergence Bidding in the past few months. The CAISO has responded to those arguments in its February 22, 2006 Answer to filings submitted by William and WPTF on Convergence Bidding (“February 22 CAISO Answer”) and its March 15, 2006 Status Report and Answer on Convergence Bidding (“March 15 Status Report”). The CAISO will not repeat the entirety of the discussion in these earlier filings and incorporates these filings into the instant Reply Comments by reference. The CAISO does believe it is important, however, to emphasize certain reasons why the Commission should not compel the CAISO to add Convergence Bidding to MRTU Release 1. The CAISO also responds to the arguments that the CAISO’s analysis of implementation concerns involving Convergence Bidding is “unsupported” and provides an update on the stakeholder process to consider issues associated with implementation of Convergence Bidding after Release 1.

First, the argument that the CAISO is out of compliance with prior MRTU Orders concerning Convergence Bidding is incorrect. The Commission did not direct the

CAISO to incorporate Convergence Bidding into MRTU Release 1. Indeed, the Commission's orders on Convergence Bidding recognized that the CAISO might not be able to do so. In the July 1, 2005 Market Design Order, the Commission directed the CAISO to provide a full explanation regarding why simultaneous implementation of convergence bidding with the MRTU day-ahead energy market is not feasible and to provide a date when it would be feasible to implement Convergence Bidding.⁶⁸⁰ In an August 2, 2005, filing in Docket No. ER02-1656, the CAISO discussed various implementation concerns related to Convergence Bidding and proposed to submit a report to FERC by March 15, 2006 explaining when the CAISO anticipated implementing Convergence Bidding as part of a subsequent release of MRTU.

As explained in the MRTU Tariff Filing and the March 15 Status Report, the process of finalizing the details of the MRTU Tariff has taken more time than anticipated last summer. The March 15 Status Report provided a full explanation of the feasibility issues associated with Convergence Bidding and has also provided the CAISO's best estimate of a date when it would be feasible to implement a Convergence Bidding feature in light of the many variables that could affect a feasible implementation date. As part of that report, the CAISO also outlined the proposed stakeholder process for further discussion of Convergence Bidding issues. Through the filing of that status report, the CAISO fully complied with the directives of the July 1, 2005 Market Design Order to provide "a full explanation of the alleged infeasibility to implement convergence bidding simultaneously with the day-ahead market" and "a date when it would be feasible to implement convergence bidding." July 1, 2005 Market Design Order at P 174.

⁶⁸⁰ July 1, 2005 Market Design Order at P 174.

As explained, in the March 15 Status Report, the challenges associated with developing and ultimately implementing a Convergence Bidding feature for MRTU generally fall into two categories: (1) the challenges associated with the development, testing and implementation of software to implement a Convergence Bidding feature, and (2) the need to make critical policy determinations about the design of a Convergence Bidding feature before the software requirements for such a feature can be finalized.

Various commenters take issue with the CAISO's explanations concerning the first set of challenges. They argue that the testimony of the CAISOs's MRTU Program Manager is insufficient support for the CAISO's explanation that the addition of Convergence Bidding could delay implementation of MRTU Release 1 by as much as a year.

As discussed in the testimony of Brian Rahman, the CAISO initiated a complete status review of MRTU after the CAISO's internal reorganization in 2005, reevaluating the logical scheduling progression and determining the critical path for implementation of MRTU.⁶⁸¹ This status review included consultation with the CAISO software vendors and a consideration of whether the software requirements and documentation fully reflected policy decisions reflected in the MRTU Tariff, including those policy decisions based on stakeholder input in late 2005. Based on this review, it became apparent that the then-projected February 2007 implementation date was not achievable. The revised target implementation date for MRTU Release 1 of November 2007 was determined based on this review.⁶⁸²

⁶⁸¹ See Exh. ISO-8 at 5.

⁶⁸² See *Id.* at 5-8.

Moreover, as Mr. Rahman explains, “the purpose of the review was first to identify discrepancies between the software development and the then-existing tariff and policy decisions; it did not evaluate the addition of new components to Release 1.”⁶⁸³ In his testimony to support the MRTU Tariff Filing, Mr. Rahman was asked to consider whether additional components could be included in Release 1 due to the delayed implementation date. Mr. Rahman explained that “the November 2007 date includes no addition time for contingencies” such as the implementation of a Convergence Bidding feature.⁶⁸⁴ More specifically, Mr. Rahman explained that:

The estimated delay, for example, of the development of the software for the bid submission and settlement system that would be caused by a decision to implement submission of virtual bids in Release 1 could be an additional 12 months on top of the revised implementation date of November 2007. Such a change would modify all downstream data stores as well as the integration of all major systems. It would require significant testing, market trials, and training to insure proper implementation.⁶⁸⁵

Contrary to the comments of some commenters, these statements are not conclusory. Mr. Rahman’s testimony, as supplemented by the March 15 Status Report, lays out the process which informed this statement.

In the March 15 Status Report, the CAISO further explained that, although the MRTU market design incorporates many features from the markets of eastern ISOs, the MRTU software is based on a wholly different architecture from the market software employed by other ISOs. Thus, features from other markets, such as the various virtual or convergence bidding features employed in eastern ISOs, cannot simply be incorporated into the MRTU markets without substantial effort to design and develop the software and data structures that would implement these features under the CAISO’s

⁶⁸³ *Id.*

⁶⁸⁴ *Id.* at 10.

⁶⁸⁵ *Id.*

software architecture, to test the new features, and to integrate these features into the MRTU production software.

IEP/WPTF and other commenters claim that they cannot “accept” the CAISO’s explanations of the feasibility issues associated with Convergence Bidding. Notably, however, they offer no evidence, affidavits, informed speculation, or even suppositions as to which aspects of the CAISO’s explanations might be incorrect. Without some indication of what factual issues these commenters might seek to explore, there is no justification for the requested technical conference on Convergence Bidding.

Moreover, these commenters focus exclusively on the first set of challenges associated with Convergence Bidding, ignoring the significant challenges associated with determining the specific design for a Convergence Bidding feature that must be documented before the software development process can even begin. As the CAISO has previously explained,⁶⁸⁶ there is no single conceptual design of Convergence Bidding that all the other ISOs have adopted and that the CAISO could adopt under MRTU without any stakeholder engagement in a conceptual design process. In fact, the implementation of Convergence Bidding is not the same in all ISO markets. For example, the PJM virtual bidding feature is based on a nodal approach while the comparable feature in the NYISO markets utilizes a load zone/hub-based approach. Thus, there are significant design options which must be considered in the context of a stakeholder process before the CAISO could finalize a conceptual design for Convergence Bidding and direct its vendors to begin the software development and implementation process described above.

Recent evidence highlights the challenges associated with determining the design of a Convergence Bidding feature, as the design for the virtual supply feature under

⁶⁸⁶ February 22 CAISO Answer at 9; March 15 Status Report at 12-13.

development by the Midwest ISO has been hotly contested by various stakeholders in the Midwest.⁶⁸⁷

For all these reasons, requiring the CAISO to add a Convergence Bidding feature to MRTU Release 1 will delay the substantial benefits to consumers of the most-timely possible implementation of new markets that cure the flaws in the existing market design. This would be inconsistent with the Commission’s recognition in prior MRTU Orders that the new markets should not be delayed to add features that may be desirable but are not essential.⁶⁸⁸

Contrary to the arguments of some commenters, the CAISO’s decision not to include Convergence Bidding in MRTU Release 1 is not a “fatal flaw” that renders the MRTU Tariff unjust and unreasonable. Other markets added a Convergence Bidding feature well after the start-up of LMP-based market designs. For example, the NYISO LMP-based markets commenced operations in 1999, but the NYISO did not add a Convergence Bidding feature until 2001.⁶⁸⁹ If the Commission concluded that those LMP-based markets were just and reasonable without a Convergence Bidding feature there is no reason why the same should not be true of the CAISO’s MRTU markets.

The CAISO has already refuted other arguments made by commenters who seek the addition of Convergence Bidding to Release 1. For example some parties claim that a requirement to adopt Convergence Bidding in Release 1 is justified by the CAISO’s “announcement” in January 2006 that it intends to drop the 95% forward scheduling

⁶⁸⁷ See 115 FERC ¶ 61,108 at PP 48-49 (2006) (rejecting the Midwest ISO’s proposal to prospectively eliminate entirely virtual supply transactions from the calculation of the RSG charge and finding that arguments that the charge will be high and hurt the virtual trading market are speculative).

⁶⁸⁸ See, e.g., July 1, 2005 Market Design Order at P 67 (“We find that the harm from further delaying the substantial benefits of MRTU would outweigh the net benefits gained from a full hour-ahead market.”)

⁶⁸⁹ See *New York Independent System Operator, Inc.*, 97 FERC ¶ 61,091 (2001).

requirement for load-serving entities (“LSEs”) upon implementation of MRTU Release 1. As explained in the February 22 CAISO answer, however, it was the Commission’s own November 21, 2005 order on Amendment No. 72 that confirmed that the Commission only intended for the 95% forward scheduling requirement to be “an interim measure that will be suspended upon implementation of MRTU.” *California Independent System Operator Corp.*, 113 FERC ¶ 61,187 at P 22 (2005) (“Amendment No. 72 Order”).

Other parties note Dr. Harvey’s general support for a Convergence Bidding feature and quote the statement of Dr. Harvey that Convergence Bidding was not identified as an issue in the February 2005 LECG report on the MRTU design “because at that time, we [LECG] understood that the market design would include convergence bidding.” As explained in the March 15 Status Report, however, a full review of Dr. Harvey’s testimony does not support the conclusion that a Convergence Bidding feature must be included in MRTU Release 1. Dr. Harvey identifies Convergence Bidding as a market design element that the CAISO should implement “when the MRTU market design is implemented *or as soon thereafter as possible.*” Exh. ISO-3 at 22-23 (emphasis added). Dr. Harvey’s testimony also states that Convergence Bidding and the other identified market design features “should be incorporated in the MRTU design as soon as the practical realities of software development and testing permit.” *Id.*

As discussed in the March 15 Status Report, CAISO Management is initiating an expedited stakeholder process where Convergence Bidding will be considered for implementation as soon as practical after Release 1. The CAISO notes that the proposed schedule outlined in the Status Report has been updated. The CAISO now plans to conduct a stakeholder panel discussion in June to focus on issues associated with

Convergence Bidding. This stakeholder panel discussion will include a tutorial on Convergence Bidding concepts, a discussion of the experience of eastern ISOs with Convergence Bidding, and stakeholder perspectives on Convergence Bidding. Based on input at this meeting, CAISO staff will develop a conceptual design for Convergence Bidding that will be presented for discussion at the September meeting of the CAISO Board. The CAISO then anticipates that a specific set of Convergence Bidding provisions would be presented for a CAISO Board vote in December.

B. The Commission Has Already Found That the 95% Forward Scheduling Requirement Should Be Eliminated When MRTU Is Implemented

A number of commenters argue that the CAISO should retain the requirement established by Amendment No. 72 to the current CAISO Tariff that Scheduling Coordinators submit forward schedules representing at least 95% of their real-time Demand. Some parties argue that the CAISO should be required to retain this requirement under MRTU if the CAISO does not add a Convergence Bidding to MRTU Release 1.⁶⁹⁰ Other argue that the CAISO has not demonstrated that elimination of the requirement is just and reasonable,⁶⁹¹ or that the requirements should be retained under the MRTU Tariff until the new market design has been in place long enough to allow entities to be confident that the overall market structure will result in consistently reliable supplies of energy sufficient to meet Demand.⁶⁹²

As explained above, the 95% forward scheduling requirement established by Amendment No. 72 was designed to terminate upon implementation of MRTU. In its order accepting Amendment No. 72, the Commission explicitly recognized that the

⁶⁹⁰ NRG at 9-11, 13-14; Powerex at 34.

⁶⁹¹ CMUA at 40.

⁶⁹² Six Cities at 24-25.

requirement is “an interim measure that will be suspended upon implementation of MRTU.”⁶⁹³

There are a number of reasons why the 95% forward scheduling requirement is appropriate for the current CAISO market design but is not appropriate under the MRTU design. First, under the current market design there is a “balanced schedule” requirement which requires Scheduling Coordinators to submit forward schedules that balance their supply and demand. This balanced schedule requirement is necessary, among other reasons, because there is no Day-Ahead Energy market under the current design.

Under the MRTU market design, there is no balanced schedule requirement. Indeed, Scheduling Coordinators do not submit “schedules” as they do under the current market design, but rather submit Bids or Self-Schedules. It is not clear how the 95% scheduling requirement would be implemented under the MRTU market design in which Day-Ahead schedules are what result from the market. Under MRTU, there is no need to match Supply and Demand in forward schedules because there is a formal Day-Ahead Energy market which allows Market Participants to submit Day-Ahead Demand Bids that can be satisfied by other Market Participants submitting Supply Bids.

Under the current market design, “underscheduling” of Demand can create operational problems if the CAISO is left scrambling to find resources to satisfy Demand that shows up for the first time in Real-Time. Under MRTU, the same concerns will not exist. The MRTU market design includes the Residual Unit Commitment process that ensures that sufficient resources are committed in the Day-Ahead time frame and available for Real-Time Dispatch. The costs of committing units under the RUC process are effectively allocated first to those entities that have submitted Bids and Self-

⁶⁹³ *California Independent System Operator Corp.*, 113 FERC ¶ 61,187 at P 22.

Schedules for Demand that is less than their Real-Time Demand. This cost allocation will result in financial consequences for Load-Serving Entities that elect not to Bid or self-schedule Demand in the Day-Ahead time frame.

In addition, the CPUC's Resource Adequacy requirements should be fully implemented prior to the implementation of the new MRTU market design. This should ensure that sufficient resources are available to meet the CAISO's reliability needs.

For these reasons, the 95% forward scheduling requirement established by Amendment No. 72 was implemented as a stopgap measure until the new market design features with a formal unit commitment structure can be implemented. A Day-Ahead scheduling requirement would not be necessary or appropriate under the MRTU market design.

C. The MRTU Tariff is Consistent With Commission Directives on Scarcity Pricing

A few commenters argue that the MRTU Tariff does not comply with Commission directives from the September 19, 2005 Order.⁶⁹⁴ The September 19, 2005 Order provides in relevant part.

We clarify that the CAISO in its real-time operational reserve procurement must designate and pay the applicable real-time ancillary service price to all resources that CAISO relies on in real-time for ancillary services. Additionally, we expect that the scarcity pricing mechanism outlined by the CAISO for self-scheduled load will be triggered both when load is curtailed at a particular node due to transmission constraints and when load is curtailed across many nodes due to an overall supply shortage. We also expect that if the RUC process cannot remedy either a local constraint or system-wide shortfall in the forward market, then scarcity pricing will be applied.

112 FERC ¶ 61, 310 at P 74.

⁶⁹⁴ IEP/WPTF at 49-51; NRG at 6; Constellation/Mirant at 8-9.

The CAISO clarifies that, in its Real-Time reserve procurement, which is performed by the Real-Time Unit Commitment (“RTUC”) procedure, the CAISO will designate and pay the applicable Real-Time Ancillary Service price to all capacity that CAISO procures in Real-Time for Ancillary Services. If there is a system-wide shortage, prices in the entire LAP will go to the applicable Bid cap. If there is a local supply shortage, the CAISO will implement Step 3 of LAP clearing so that the local LMP is no less than the Bid cap. If there is a capacity shortage in the RUC process, and indeed the supply capacity scarcity continues in Real-Time, reserves will be deployed in Real-Time at the Bid cap and thus the CAISO will have scarcity prices for both Real-Time Energy and Ancillary Services. The CAISO believes these results are consistent with the Commission’s statements in the September 19, 2005 Order.

In addition, the MRTU Tariff already provides for another limited form of scarcity pricing. In circumstances where there is a shortage of Energy Bids to meet Real-Time Demand and the CAISO is facing an imminent System Emergency (but there is no transmission or generation contingency), Contingency Only Operating Reserves will be included in the Real-Time Economic Dispatch (“RTED”) with Energy Bid prices at the system Bid cap rather than their submitted Bid prices, to reflect the scarcity conditions. These Bid-cap Bid prices will be eligible to set Real-Time LMPs and thus provide a mechanism for scarcity pricing of Energy.

The Commission recognizes that the CAISO will consider a more extensive reserve shortage scarcity pricing approach to be incorporated in a later MRTU release.⁶⁹⁵

Consistent with the Commission’s directives to pursue a more comprehensive form of

⁶⁹⁵ September 19, 2005 Order at P 74 (“As stated in the July 2005 Order, we require the CAISO to continue development towards a more extensive reserve shortage scarcity pricing approach to be incorporated in a later MRTU release.”).

scarcity pricing, this will be one of the market design features under consideration in the Release 2 prioritization process described above.

D. Other Features Not Included in Release 1

A couple commenters argue that additional functionality for Participating Loads should be included in MRTU Release 1.⁶⁹⁶ The CAISO believes these arguments should be rejected. Release 1 of MRTU will include all the same features for Participating Loads that exist today – the ability to provide Non-Spinning Reserves and Real-Time imbalance energy. MRTU Release 1 will accommodate all Participating Loads that are participating in the current CAISO markets, *i.e.*, the pumping loads. The CAISO believes it is appropriate to defer new mechanisms to expand the role of Participating Load for a later release of the new markets. The details of such mechanisms have not been sufficiently designed to consider for Release 1 implementation. Determining the details of market design features that would expand the role of Participating Load, *e.g.*, in the Day-Ahead Market, is an appropriate item for consideration in the Release 2 stakeholder process.

IEP/WPTF expresses concerns that MRTU Release 1 does not provide for any interface between the Scheduling and Logging system for the CAISO of California (“SLIC”) and the Scheduling Infrastructure Bidding Rules (“SIBR”), and absent such interface, SIBR could create bids over a unit’s entire operating range even in those circumstances where a Scheduling Coordinator has submitted a SLIC derate.⁶⁹⁷ SLIC derate recognition by SIBR is a proposed Release 2 design feature. The CAISO notes that, in the Release 1 design, SLIC does interact with the Day-Ahead Market and Real-

⁶⁹⁶ SWP at 2-3, AReM at 12.

⁶⁹⁷ IEP/WPTF at 68-69.

Time Market. Even if SIBR passes on Bids that do not reflect a derate, the pre-IFM (DAM) and RTM applications will only utilize what the unit is capable of supplying.

CONCLUSION

Wherefore, for all the reasons stated above, the CAISO respectfully requests that the Commission accept the MRTU Tariff with the clarifications and revisions that the CAISO agrees to make the instant filing and grant the requested effective date of the November 1, 2007 Trading Day subject to the CAISO's commitment to develop a readiness process as described in these Reply Comments.

Respectfully submitted,

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APPENDIX A
REPLY COMMENTS OF THE
CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION

TARIFF REFERENCE	CURRENT MRTU TARIFF LANGUAGE	PROPOSED CHANGE/CLARIFICATION	CAISO RESPONSE
2.2	“Direct Access”	Definition required (PG&E at 63)	This term is a pre-existing tariff term unrelated to MRTU. The CAISO will consider addressing this concern as part of its “deferred maintenance” project. ¹
4.3.1.1	“Responsible Participating TO”	Definition required (PG&E at 63)	This term is a pre-existing tariff term unrelated to MRTU. The CAISO will consider addressing this concern as part of its “deferred maintenance” project.
4.4.5.1	“The CAISO, Participating TOs and UDCs shall share information such as projected Load growth and system expansions necessary to conduct necessary System Planning Studies to the extent that these may impact the operation of the CAISO Controlled Grid.”	The MRTU Tariff should limit the CAISO’s ability to post confidential transmission customer information regarding projected load growth and system expansion. (PG&E at 59)	PG&E’s request is unwarranted. Other than changing ‘ISO’ to ‘CAISO’, the MRTU filing does not propose any change to this section, and PG&E does not demonstrate that it is unjust and unreasonable.
4.5.1.2.1.2	“The Scheduling Coordinator has an ongoing obligation to inform the CAISO within 3 Business Days if its Approved Credit Rating has been reduced below the CAISO requirements.”	SC’s should notify the CAISO of any changes in credit.(SCE App. A, at 1)	This language will be superceded by a currently pending tariff amendment in ER06-700 concerning Section 12 of the S&R Tariff

¹ In the effort to simplify and reorganize the pre-MRTU tariff, the CAISO identified several areas that need updating and used the term “deferred maintenance” to refer to this work. The CAISO is planning on tackling the “deferred maintenance” issues prior to the effective date of the MRTU Tariff in a Section 205 filing of the currently effective simplified and reorganized tariff (S&R Tariff).

TARIFF REFERENCE	CURRENT MRTU TARIFF LANGUAGE	PROPOSED CHANGE/CLARIFICATION	CAISO RESPONSE
4.5.3.2	“Submitting Bids for Energy in the Day-Ahead Market and HASP for the HASP and the Real-Time Market in relation to Market Participants for which it serves as Scheduling Coordinator, Scheduling Coordinators shall provide the CAISO with intertie Interconnection schedules prepared in accordance with all NERC, WECC and CAISO requirements;”	Section is confusing and repetitive - rephrase to more clearly separate the references to the requirements from the markets that are addressed in this section. (PG&E at 63)	The CAISO agrees that this section would benefit from editing for clarity in a compliance filing as follows: “Submitting Bids for Energy in CAISO Markets that relate to the Market Participants for which it serves as a Scheduling Coordinator. Submitting intertie Interconnection schedules, prepared in accordance with all NERC, WECC and CAISO requirements.”
e.g. 4.9.12.2.3, 4.9.12.4, 4.9.13, 12.3.4, 27.2, 27.5.2, 30.4.	4.9.12.2.3: “shall ... Bid into the CAISO’s markets from that System Unit” 4.9.12.4: “When and to the extent that Energy from a System Unit is scheduled to provide for the needs of Loads within the MSS and is not being Bid to the CAISO Markets...” 30.4: “The Start-Up and Minimum Load Costs values contained in the resource’s Bids as utilized in the CAISO Markets Processes will be these formulaic values adjusted for fuel-cost variation on a daily basis. Resources will not be able to Bid alternative values for Start-Up and Minimum Load Costs.”	The term “Bid” is defined as a noun, but used commonly in the proposed Tariff as a verb (e.g., Schedule Coordinators “will Bid.. .”, “. . . is not being Bid.. .”, “may Bid, etc.) resulting in significant ambiguity. (IEP/WPTF at 114)	The CAISO’s intention was to define and use the “term” Bid as a noun and to avoid using the terms “Bid” when capitalized as a verb. The CAISO recognizes that there are instances in which the term “Bid” is used as a verb and agrees that revised language reflecting consistent usage should be included in a compliance filing.
6.5.6.1.1	“180 days after the operating day, the CAISO will publish the following information excluding Scheduling Coordinators specific information via OASIS:”	Change current language “excluding Scheduling Coordinators specific information” to read “with the Scheduling Coordinator’s identity coded”. (SCE App. A, at 1)	The CAISO agrees that this provision should be clarified as follows” “The following information shall be published on OASIS 180 days following the applicable Trading Day, with the exclusion of information that is specific to Scheduling Coordinators.”

TARIFF REFERENCE	CURRENT MRTU TARIFF LANGUAGE	PROPOSED CHANGE/CLARIFICATION	CAISO RESPONSE
8.3.5 & 8.5.6.2; 34.9.2; 34.16.3.4 & 41.1	<p>8.3.5: “The CAISO shall contract for Voltage Support annually (or for such other period as the CAISO may determine is economically advantageous) and on a daily or hourly basis as required to maintain System Reliability.”</p> <p>34.9.2: “The CAISO may also manually dispatch resources in addition to or instead of resources dispatched by the RTM optimization software to: ... (5) provide for Voltage Support”</p> <p>34.16.3.4: “If Voltage Support is required in addition to that provided pursuant to 34.16.3.4 (b) and (c), the CAISO will reduce output of Participating Generators certified in accordance with Appendix K . The CAISO will select Participating Generators in the vicinity where such additional Voltage Support is required”</p>	Provisions for Voltage Support are in conflict. MRTU Tariff, Secs. 8.3.5 and 8.5.6.2 extend to contain a settlements equation, Sec. 34.9.2, calls for Exceptional Dispatch to compensate for Voltage Support, and Secs. 34.16.3.4 & 4 1.1, indicate that RMR units will provide Voltage Support. (IEP/WPTF at114)	The tariff sections referred by SCE are in large part pre-existing tariff language and/or represent an attempt to harmonize pre-existing tariff language with MRTU. The CAISO agrees that, to the extent RMR Units are dispatched to provide Voltage Support that they should be compensated pursuant to the RMR Contracts and not as an Exceptional Dispatch and that the clarification should be provided in the Tariff in a compliance filing.
10.1.6	“Revenue Quality Meter Data” vs. “Settlement Quality Meter Data”	Difference between terms is poorly defined (PG&E at 63)	These terms are Pre-existing tariff terms unrelated to MRTU. The CAISO will consider addressing this concern as part of its “deferred maintenance” project.
10.3.16.1.3	<p>“10.3.16.1.3 Facilities Failure.</p> <p>In the event that the primary or redundant RMDAPS master station or CAISO’s secure communication system fails, the procedures referred to in the applicable Business Practice Manual will be followed by the CAISO, CAISO Metered Entities and Scheduling Coordinators.”</p>	Section 10.3 generally refers to SC Metered Entities. Section 10.3.16 addresses communications for both SC Metered entities and CAISO metered entities, and as such, should be relabeled as Section 10.4. (PG&E at 63)	The CAISO recognizes, unrelated to MRTU, that in the process of creating the S&R Tariff and MRTU Tariff, the distinction between CAISO Metered Entities and SC Metered Entities has been inadvertently blurred. The CAISO is in the process of reviewing the relevant tariff provisions and will be making a separate filing with the Commission to address these concerns.

TARIFF REFERENCE	CURRENT MRTU TARIFF LANGUAGE	PROPOSED CHANGE/CLARIFICATION	CAISO RESPONSE
11.2.4.1 & App. A	<p>11.2.4.1: “For each Settlement Period of the IFM, the CAISO shall calculate the IFM Congestion Charge as the IFM MCC for Demand minus the IFM MCC for Supply.”</p> <p>App. A: “Congestion Charge: A charge attributable to the Marginal Cost of Congestion at a given pricing PNode.”</p>	Expressed concern with contradictory definitions for Congestion Charge in Sec. 11.2.4.1 v. App. A (IEP/WPTF at 114)	The CAISO does not believe that Section 11.2.4.1 and the definition of “Congestion Charge” in Appendix A is contradictory or inconsistent. The term Congestion Charge is intended to refer to the general concept of charges associated with the Marginal Cost of Congestion component of the LMP, whereas IFM Congestion Charge is referring to the total charges associated with the MCC that can be used for funding CRRs. The CAISO believes it would add more clarity if the term IFM Congestion Charge were defined so that there is no confusion between the two terms.

TARIFF REFERENCE	CURRENT MRTU TARIFF LANGUAGE	PROPOSED CHANGE/CLARIFICATION	CAISO RESPONSE
11.5.6.3.2	<p>“All costs associated with Energy provided by a Condition 2 RMR Unit operating other than according to a dispatch notice issued under the RMR Contract shall be allocated in accordance with Section 11.5. Until either the RMR Contract Counted MWh, Counted Service Hours or Counted Start-Ups exceed the relevant RMR Contract Service Limit, any cost incurred for Energy provided under the RMR Contract above the rate specified in equation 1a or 1b as set forth in Section 11.5.6.3.1 shall be allocated in accordance with Section 11.5.1, not to the Responsible Utility.”</p>	<p>Change language to: “. . .All costs associated with Energy provided by a Condition 2 RMR Unit operating other than according to a dispatch notice issued under the RMR Contract shall be allocated in accordance with Section 11.5.6.2.5.1 . . .” and “...Until either the RMR Contract Counted MWh, Counted Service Hours or Counted Start-ups exceed the relevant RMR Contract Service Limit, any cost incurred for Energy provided under the RMR Contract above the rate specified in equation 1a or 1b as set forth in Section 11.5.6.3.1 shall be allocated in accordance with Section 11.5.6.2.5.2 . . .” (SCE App. A, at 3)</p>	<p>In reviewing Section 11.5.6.3.2, the CAISO recognizes that the sentences have been inappropriately merged and the cross-references are inaccurate. The CAISO proposes to make the following correction in its compliance filing:</p> <p style="padding-left: 40px;">All costs associated with Energy provided by a Condition 2 RMR Unit operating other than according to a dispatch notice issued under the RMR Contract shall be allocated like other Instructed Imbalance Energy in accordance with Section <i>11.5. until either</i> the RMR Contract Counted MWh, Counted Service Hours or Counted Start-Ups exceed the relevant RMR Contract Service <i>Limit</i>. <i>Any cost</i> incurred for Energy provided under the RMR Contract above the rate specified in equation 1a or 1b as set forth in Section 11.5.6.3.1 shall also be allocated like other Instructed Imbalance Energy in accordance with Section 11.5., not to the Responsible Utility. [Emphasis added.]</p> <p>Finally, in reviewing this issue, the CAISO notes that the definition of “Excess Cost Payments” is erroneous in that it is defined as “payments made to Condition 2 RMR Units in order to settle an Exceptional Dispatch.” Excess Cost Payments can be paid to any resource as a result of an Exceptional Dispatch. The CAISO agrees to make corrective tariff revisions in its compliance filing.</p>

TARIFF REFERENCE	CURRENT MRTU TARIFF LANGUAGE	PROPOSED CHANGE/CLARIFICATION	CAISO RESPONSE
11.8.6.4	<p>“The IFM Load Uplift Obligation for each Scheduling Coordinator is the difference between the total Demand scheduled in the Day-Ahead Schedule and the scheduled Generation from the Self-Schedules in the Day-Ahead Schedule, plus imports scheduled in the Day-Ahead Schedule, adjusted by any applicable Inter-SC Trades of IFM Load Uplift Obligations, but with an IFM Bid Cost Uplift rate not exceeding the ratio of the Hourly Net IFM Bid Cost Uplift divided by the sum of all hourly Generation scheduled in the Day-Ahead Schedule and IFM AS Awards for all Scheduling Coordinators from CAISO-Committed Bid Cost Recovery Eligible Resources in that Trading Hour.”</p>	<p>Correct language to reflect that the calculation for the IFM Load Uplift Obligation is calculated based on the actions of each individual SC, not the market at large as described intra. (SCE App. A, at 3)</p>	<p>The CAISO will clarify this language as follows:</p> <p>“The IFM Load Uplift Obligation for each Scheduling Coordinator is the difference between the total Demand scheduled in the Day-Ahead Schedule and the scheduled Generation from the Self-Schedules in the Day-Ahead Schedule, plus imports scheduled in the Day-Ahead Schedule, adjusted by any Inter-SC Trades of IFM Load Uplift Obligations that apply to the relevant Scheduling Coordinator, but with an IFM Bid Cost Uplift rate not exceeding the ratio of the Hourly Net IFM Bid Cost Uplift divided by the sum of all hourly Generation scheduled in the Day-Ahead Schedule and IFM AS Awards for all Scheduling Coordinators from CAISO-Committed Bid Cost Recovery Eligible Resources in that Trading Hour.”</p>
11.19.1	<p>“The CAISO shall calculate the amount due from each UDC or MSS, or from a Scheduling Coordinator delivering Energy for the supply of Gross Load not directly connected to the facilities of a UDC or MSS, for the High Voltage Access Charge and Transition Charge in accordance with operating procedures posted on the CAISO Website. These charges shall accrue on a monthly basis. The CAISO shall calculate, charge and disburse all collected default Interest in accordance with the CAISO Tariff.”</p>	<p>Change language to: The CAISO shall calculate the amount due from each UDC or MSS, or from a Scheduling Coordinator delivering Energy for the supply of Gross Load not directly connected to the facilities of a UDC or MSS, <i>for the FERC Annual Charge</i> in accordance with <i>this CAISO Tariff</i> posted on the CAISO Website. These charges shall accrue on a monthly basis. The CAISO shall calculate, charge and disburse all collected default Interest in accordance with the CAISO Tariff. (SCE App. A, at 4)</p>	<p>This tariff language is pre-existing language unrelated to MRTU. The CAISO will consider addressing this concern as part of its “deferred maintenance” project.</p>

TARIFF REFERENCE	CURRENT MRTU TARIFF LANGUAGE	PROPOSED CHANGE/CLARIFICATION	CAISO RESPONSE
11.29.5.3	“Settlement Statements relating to each Scheduling Coordinator shall be accompanied by a data file of supporting information that includes the following for each Settlement Period of the Trading Day on a Zone-by-Zone basis:...”	Change language to: “Settlement Statements relating to each Scheduling Coordinator shall be accompanied by a data file of supporting information that includes the following for each Settlement Period of the Trading Day on a <i>location -by-location</i> basis:” and add the following language: <i>(g) Detailed data and calculation of all fees, charges and payments to enable scheduling coordinators to create matching shadow calculations to verify the CAISO settlement statements</i> <i>(h) The settlement statement data file and any supporting data files shall conform to a pre-defined, documented and published data file format and shall be machine-readable to facilitate loading thee data into scheduling coordinators settlement systems.</i> (SCE App. A, at 5)	The language in Section 11.29 will be modified pursuant to a new Section 205 filing in order to update the language for readiness with MRTU. This language will be clarified at that time.
12.3	“A Scheduling Coordinator, CRR Holder, UDC or MSS that does not maintain an Approved Credit Rating, as defined with respect to either payment of the Grid Management Charge, or payment of other charges, shall maintain security in accordance with Section 12.1.”	Limitations on trading should be expanded to those that are allocated CRRs. (SCE App. A, at 5)	Only SCs may participate in the CAISO’s market. Accordingly, a CRR Holder will be subject to the limitations on trading as provided in section 12.3 because it cannot trade unless it is also a Scheduling Coordinator.
12.4	RMR Owner Facility Trust Account	Definition required (PG&E at 63)	This term is a defined term in the RMR Contract. In addition, this is pre-existing tariff language unaffected by MRTU. No change is necessary.

TARIFF REFERENCE	CURRENT MRTU TARIFF LANGUAGE	PROPOSED CHANGE/CLARIFICATION	CAISO RESPONSE
12.5.2	“The CAISO may reassess its net projected obligation determinations at any time and shall require additional security if the determination results in an increase in a CRR Holder’s aggregate estimated liability that is not covered by available security.”	Change language to: ... The CAISO may reassess its net projected obligation determinations at any time <i>during CRR delivery period</i> and shall require additional security if the determination results in an increase in a CRR Holder’s aggregate estimated liability that is not covered by available security. (SCE App. A, at 5)	The CAISO agrees that this tariff section should be edited to provide that the determination can only be made during the term of the CRR and agrees to amend Section 12.5.2 in a compliance filing.
16.6.2.1 and 16.6.2.2	“If the CAISO finds the ETC Self-Schedule to be invalid, the CAISO shall notify the Scheduling Coordinator and convert the ETC Self-Schedule to an ordinary Self-Schedule and treat the ETC Self-Schedule as an ordinary Self-Schedule as such for terms of scheduling priority and settlements.”	CAISO should notify SCs to the extent practicable before removing priority for invalid or unbalanced ETC self-schedules. (SCE App. A, at 5)	The CAISO’s Tariff already stipulates that the CAISO will notify the SC. The CAISO commits to add the clarification in its compliance filing that the CAISO will provide information to the SC indicating whether the ETC Self-Schedules have passed or not or have become invalid such that they would lose their priority upon submittal or any change in submittal. If, however, an ETC Self-Schedule change is submitted very close to the Market Close, the CAISO cannot guarantee that the SC or SC(s) using the ETC will have seen invalidation occur prior to actual Market Closing.
19, <i>et al.</i>	Various sections referenced	MRTU Tariff Section 19 and related sections contain outdated and unnecessary requirements concerning capacity and demand forecasts. (PG&E at 62).	The CAISO is considering these issues as part of its “deferred maintenance” project.
27.1.1.3	“The Marginal Cost of Congestion may be positive or negative depending on whether a power ejection (<i>i.e.</i> , incremental Load increase) at that Location marginally increases or decreases Congestion.”	“Power ejection” should be “power injection.” (IEP/WPTF at 114)	SCE is correct and the CAISO agrees to make this change as part of its compliance filing.

TARIFF REFERENCE	CURRENT MRTU TARIFF LANGUAGE	PROPOSED CHANGE/CLARIFICATION	CAISO RESPONSE
30.2	“There are three types of Bids: Energy Bids, Ancillary Services Bids, and RUC Availability Bids. Each Bid type can be submitted as either an Economic Bid or a Self-Schedule. Economic Bids specify prices for MW amounts of capacity or MWh amounts of Energy.”	Change language to: “There are three types of Bids: Energy Bids, Ancillary Services Bids, and RUC Availability Bids. Each Bid type can be submitted as either an Economic Bid or a Self-Schedule (except for RUC Availability Bids, which cannot be self-scheduled). . .” (SCE App. A, at 5) [tariff section typo in original]	The requested clarification appears to be appropriate and the CAISO will clarify this section as part of its compliance filing.
30.4	“Generating Units, Non-Dynamic and Dynamic System Resources may elect on a semi-annual basis either of the two options for specifying their Start-Up and Minimum Load Costs to be used in the CAISO Markets Processes: (1) Cost-based.... (2) Bid-based...”	The CAISO should clarify which option is the default option if an eligible does not specify which option it would like to have applied to its Start-Up and Minimum Load Costs. (SCE at 75-76)	Unless the SC has submitted a bid-based (for 6 months) Start-Up and Minimum Load costs, the cost-based option will be used. If the unit has not provided data sufficient for the CAISO to determine a unit’s costs, then the CAISO will assume that the unit’s Start-Up and Minimum Load costs are zero. See Section 30.4 which specifies the options.
30.5.1(b)	“(b) Bid prices submitted by Scheduling Coordinator for Energy accepted and cleared in the IFM and scheduled in the Day-Ahead Schedule cannot be decreased. Bid prices for Energy submitted but not scheduled in the Day-Ahead Schedule may be increased or decreased in the HASP. Incremental Bid prices for Energy associated with Day-Ahead AS or RUC Awards in Bids submitted to the HASP may be revised. Scheduling Coordinators may revise ETC Self-Schedules for Supply only in the HASP to the extent such a change is consistent with TRTC Instructions provided to the CAISO by the PTO in accordance with Section 16 of this CAISO Tariff;”	Add language, “Energy associated with awarded Ancillary Services Capacity cannot be re-bid in the HASP or Real-time market.” (SCE App. A, at 6)	The CAISO agrees to insert this sentence in its compliance filing.

TARIFF REFERENCE	CURRENT MRTU TARIFF LANGUAGE	PROPOSED CHANGE/CLARIFICATION	CAISO RESPONSE
30.5.2.1	“In addition to the resource-specific Bid requirements of this Section, all Supply Bids must contain the following components: Scheduling Coordinator ID Code; Resource ID; Resource Location; PNode or Aggregated Pricing Node as applicable; Energy Bid Curve; Self-Schedule component; Ancillary Services Bid; RUC Availability Bid; the Market to which the Bid applies; Trading Day to which the Bid applies; Priority Type (if any).”	Modify HAPS/Real-time bidding rules to ensure the total bid of a unit is monotonically increasing. (SCE App. A, at 6)	The CAISO agrees to clarify in its compliance filing that HASP/RTM Bids for a resource must be monotonically increasing for the portions that are submitted.
30.5.2.4, <i>et al.</i>		NERC tagging does not apply to bids, so various provisions under Section 30 should be revised to remove references to submitting NERC tags with bids. (Powerex at 33-34)	Powerex is correct, and the CAISO agrees to make these changes as part of its compliance filing.
30.7	“The CAISO shall validate submitted Bids pursuant to the procedures set forth in this Section 30.7 and the rules set forth in the Business Practice Manuals.”	The CAISO should provide market participants with the bid validation software.	The CAISO does not believe that this issue is germane to whether the MRTU Tariff is just and reasonable but has forwarded this request to its client relations representative to follow up on SCE’s request
30.7.3.3 and 30.7.3.3.4	“Validation Prior to Market Close and After Master File Update” and “Validation after Market Close” : “To the extent that Scheduling Coordinators fail to enter a Bid for resource that is required to bid in the full range of available Capacity consistent with the Resource Adequacy provisions of Section 40, the CAISO will create a Bid for the Scheduling Coordinator, which is referred to as the Generated Bid.”	Sections 30.7.3.3 and 30.7.3.4 of the MRTU Tariff should be modified to account for known outages. (SCE at 77, App. A at 6).	The tariff sections referenced by SCE pertain to static data. If a unit is on an outage, that information will be taken into account via input from SLIC and therefore the recommended modification is not necessary.

TARIFF REFERENCE	CURRENT MRTU TARIFF LANGUAGE	PROPOSED CHANGE/CLARIFICATION	CAISO RESPONSE
31.2	“The MPM-RRD process optimizes resources using the same optimization used in the IFM, but instead of using Demand Bids as in the IFM the MPM-RRD process optimizes resources to meet one hundred percent of the CAISO Demand Forecast and Export Bids to the extent that the Export Bids are economic, and meet one hundred percent of Ancillary Services requirements based on Supply Bids submitted to the DAM.”	Change “to the extent the Export Bids are economic” to read “to the extent the Export Bids clear in the MPM-RRD”. (SCE App. A, at 6)	This proposed change is a clarification that the CAISO accepts and agrees to make in a compliance filing.
31.2.2.1	“For a Condition 1 RMR Unit, if the dispatch level produced through the ACR is greater than the dispatch level produced through the CCR, and for a Condition 2 RMR Unit that is dispatched through the CCR...”	Change language to: “...For a Condition 1 RMR Unit, if the dispatch level produced through the ACR is greater than the dispatch level produced through the CCR, and for a Condition 2 RMR Unit that is dispatched through the <i>ACR</i> . . .” (SCE App. A, at 7)	SCE is correct and the CAISO agrees to make this correction of this typographical error in its compliance filing.
31.5.1.1	“System Resources eligible to participate in RUC will be considered on an hourly basis; that is, RUC will not observe any multi-hour block constraints that may have been submitted in conjunction with Energy Bids to the IFM.”	System Resources multi-hour block constraints should be honored in RUC. (SCE App. A, at 7)	The CAISO cannot honor multi-hour block constraints in RUC.
34.10.1	“Non-Participating Load reduction (slack)”	Further definition/explanation of “slack” required. (IEP/WPTF at 114)	The CAISO believes the term “slack” does not add any additional clarity to this item and commits to removing the term to avoid further confusion. The sole reference intended by the CAISO in this item is to the Non-Participating Load.

TARIFF REFERENCE	CURRENT MRTU TARIFF LANGUAGE	PROPOSED CHANGE/CLARIFICATION	CAISO RESPONSE
34.10.1	<p>The scheduling priorities as defined in the RTM optimization to meet the need for increasing Supply as reflected from higher to lower priority are as follows:</p> <ul style="list-style-type: none"> a) Non-Participating Load reduction (slack); b) Contingency-Only Operating Reserve if activated by Operator to provide Energy (as indicated by the Contingency flag and the Contingency condition); c) Economic Bids submitted in the HASP or RTM. 	<p>Dispatching priorities in the real-time market should be in the Tariff. (SCE App. A, at 7)</p>	<p>See response to 34.10.2 below.</p>
34.10.2	<p>“The Dispatch priorities listed in Sections 34.10.1 and 34.10.2 shall be incorporated into a Business Practice Manual (BPM) and to the extent it is determined necessary to modify the order of dispatch priority the CAISO may do so via an update to the BPM.”</p>	<p>Dispatching priorities in the real-time market should be in the Tariff. (SCE App. A, at 7)</p>	<p>The CAISO commits to remove this language from the Tariff in its compliance filing and asserts that the dispatching priorities that it will follow are already posted in section 34.10.</p>
36.4	<p>“When the CAISO conducts its CRR Allocation and CRR Auction, the CAISO shall use the most up-to-date DC FNM which is based on the AC FNM used in the Day-Ahead Market.”</p>	<p>The CAISO should post a detailed description of revisions made to convert the AC FNM to a DC FNM. (SCE App. A, at 7)</p>	<p>The CAISO commits to include in the CRR BPM the conceptual description of the revisions made to convert the AC FNM to a DC FNM, which will cover, for example, how the CAISO will adjust the flow limits to reflect the fact that DC does not capture losses.</p>
37.7.1.1, <i>et al.</i>	<p>Various sections referenced.</p>	<p>References to outdated Market Behavior Rules (recently repealed by FERC) should be removed. (Powerex at 30)</p>	<p>FERC repealed the Market Behavioral Rules because these rules had been incorporated into other FERC regulations (e.g., new revisions to FPA and the CFR). Therefore, rather than deleting this reference, the CAISO agrees to modify it to refer to “applicable FERC market rules and regulations.”</p>

TARIFF REFERENCE	CURRENT MRTU TARIFF LANGUAGE	PROPOSED CHANGE/CLARIFICATION	CAISO RESPONSE
39.3.1	“(4) Bidding practices that are contrary to the principle of price convergence between Day-Ahead and Real-Time markets.”	Delete item 4, or in the alternative replace with “Bidding practices that distort prices, dispatch or uplift charges away from those expected in a competitive market.” (SCE App. A, at 8)	The CAISO agrees with SCE, and will make this change in its compliance filing.
39.6.1.4	“Energy Bids into the CAISO Markets less than - \$30/MWh are not eligible to set any LMP.”	Clarify that any payments below the -\$30 bid cap are subject to cost verification (SCE App. A, at 8)	The CAISO agrees with SCE, and will make this change in its compliance filing.
39.7.1.1	“The Variable Cost option will calculate the Default Energy Bid as Variable Costs plus ten percent (10%). Variable Cost will be comprised of two components: Fuel Cost and Variable Operation and Maintenance Cost...”	Provide additional variable-cost option for Hydro to reflect spill and non-spill operating conditions. (SCE App. A, at 8)	The CAISO clarifies that Hydro has the option to seek a consultative DEB that reflects spill and non-spill conditions. See Section 39.7.1.3.
41.5.1	“...any MWh quantities cleared through Competitive Constraint Run of the MPM-RRD shall be settled as a Market Transaction under the RMR Contract.”	Change language to: ...any MWh quantities cleared through Competitive Constraint Run of the MPM-RRD shall be <i>considered</i> as a Market Transaction <i>in accordance with</i> the RMR Contract... (SCE App. A, at 9)	SCE is correct and the CAISO agrees to make the suggested change in a compliance filing.
App. A	“Excess Costs”	“Excess Costs” should be defined consistent with usage in body of Tariff, including all cases where Excess Costs are incurred, not just from “Condition 2 RMR Units”.(SCE App. A, at 9)	The CAISO believes this clarification is necessary and will make this change in the compliance filing.
Apps. B.6 & B.7	“ MDAS ’ means the CAISO’s revenue metering data acquisition and processing system.”	Appendices B6, MSA for CAISO ME, and B7, MSA FOR SC, define and use the term “MDAS.” However, Proposed MRTU Tariff Section 10, the Master Definition Supplement, and Appendix O, Metering Protocols, use the term “RMDAPS” (PG&E at 63)	The CAISO believes this clarification is necessary and will make this change in the compliance filing.

TARIFF REFERENCE	CURRENT MRTU TARIFF LANGUAGE	PROPOSED CHANGE/CLARIFICATION	CAISO RESPONSE
App. B.7 Sec. 2.2.1	<p>“Termination by CAISO. Subject to Section 14 the CAISO may terminate this Agreement by giving written notice of termination in the event that the Scheduling Coordinator commits any default under this Agreement and/or the CAISO Tariff which, if capable of being remedied, is not remedied within thirty (30) days after the CAISO has given it written notice of the default, unless excused by reason of Uncontrollable Force in accordance with Section 15 of the CAISO Tariff.”</p>	<p>“Section 14” should be changed to “Section 4.2,” and “Section 15” should be changed to “Section 14.” (PG&E at 63)</p>	<p>PG&E is correct and the CAISO agrees to make the suggested change in a compliance filing.</p>
App. K, A 1.3 & A 14	<p>Repeated use of “ASRP” without acronym clarification</p>	<p>Expand to read: Ancillary Service Requirements Protocol (ASRP). (PG&E at 63)</p>	<p>The CAISO agrees to make this change in its compliance filing.</p>
No specific tariff provision referenced	<p>No specific tariff provision referenced</p>	<p>The CAISO should clarify that resource-specific imports will be dispatched under similar economic and operational conditions as internal resources, and that resource-specific imports will be permitted to provide the same Master File data that internal generators provide, such that dispatch orders for resource-specific imports will be operationally feasible. (FPL at 5, 7-8)</p>	<p>The CAISO agrees to make this clarification in its compliance filing, insofar as these resources are participating in the Day-Ahead markets, and they are subject to Participating Generator Agreements. This does not hold in the RTM/HASP as these units are not fully equivalent to internal units unless they are dynamically scheduled. That is, a non-dynamic unit would have to be scheduled on an hourly basis in HASP rather than in the RTD. Such units could be treated as equivalent to an internal unit with respect to unit commitment in the STUC or the HASP – but not the RTUC, which makes binding commitment decisions on a 15-minute basis.</p>

TARIFF REFERENCE	CURRENT MRTU TARIFF LANGUAGE	PROPOSED CHANGE/CLARIFICATION	CAISO RESPONSE
No specific tariff provision referenced	No specific tariff provision referenced	FPL understands that the MRTU Tariff will allow resource-specific imports to bid start-up/no load costs. (FPL at 5-6)	The CAISO agrees and has so specified in Section 30.5.2.4, however, the CAISO agrees to clarify on compliance that such resources are required to enter into a Participating Generator Agreement with the CAISO in order to do so.
No specific tariff provision referenced	No specific tariff provision referenced	The CAISO should clarify the procedure in which a resource-specific import informs, or the CAISO assesses, the operational status of a resource-specific import. (FPL at 8)	The CAISO agrees to clarify on compliance that this will be done via SLIC.
No specific tariff provision referenced	No specific tariff provision referenced	The CAISO should file revisions that fully allow resource-specific imports to provide bid data and resource constraints. (FPL at 8)	The CAISO agrees and will do so in its compliance filing.
No specific tariff provision referenced	No specific tariff provision referenced	In the absence of a resource-specific import designation, an import should not be obligated to participate in the CAISO sequential markets unless it is chosen in the IFM. (FPL at 8-9)	If an import, whether it is a Resource-Specific System Resource or not, is not an RA resource then it has no obligation to participate in RUC or in the RTM if not chosen in the IFM. If it is RA, however, and not a Resource-Specific System Resource, then the CAISO believes it should be available in the RTM as well as RUC. If the resource is a Resource-Specific System Resource then its requirements for the RTM would depend on its Start-Up time; <i>i.e.</i> , long-start resources cannot be started in RT if not scheduled in the DA. To absolve RA imports from the requirement to offer past the DAM would be discriminatory vis-à-vis other RA resources. The CAISO commits to include this clarification in the tariff in its compliance filing.

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 17th day of May, 2006 at Folsom in the State of California.

 /s/ Charity Wilson

Charity Wilson