

119 FERC ¶ 61,076
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

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

California Independent System Operator
Corporation

Docket Nos. ER06-615-001
ER06-615-002
ER02-1656-027
ER02-1656-029
ER02-1656-031

ORDER GRANTING IN PART AND DENYING IN PART REQUESTS FOR
CLARIFICATION AND REHEARING

(Issued April 20, 2007)

1. In this order, the Commission responds to requests for clarification and/or rehearing of an order the Commission issued on September 21, 2006,¹ conditionally accepting for filing, subject to further modification, the tariff the California Independent System Operator Corporation (CAISO) filed to implement its Market Redesign and Technology Upgrade proposal (MRTU Tariff). Here, the Commission grants in part and denies in part requests for clarification and/or rehearing of the Commission's September 2006 Order.

2. As the Commission stated in the September 2006 Order, our goal throughout the numerous proceedings that culminated in the MRTU proposal has been to avoid a repeat of the California energy crisis of 2000-2001. We continue to believe that MRTU should achieve that goal by, among other things, ensuring sufficient resources, fixing flawed market rules, increasing price transparency, improving transmission congestion management, enhancing market power mitigation and streamlining the CAISO's daily operations. We have considered carefully and addressed the issues raised and, while we continue to find MRTU to be just and reasonable, we find that several suggested changes will further improve MRTU. Accordingly we have directed those changes herein.

3. We continue to be sensitive to the "seams" concerns raised by parties outside of the CAISO-controlled grid. Indeed, we held a technical conference last December in

¹ *Cal. Indep. Sys. Operator Corp.*, 116 FERC ¶ 61,274 (2006) (September 2006 Order).

Phoenix, Arizona to solicit input on this issue. We found the many pre- and post-technical conference comments filed in conjunction with the technical conference were informative and helpful. At the two-day conference, we discussed western concerns, and attempted to assist the CAISO and market participants outside the CAISO Control Area to identify all seams issues that require resolution prior to the implementation of MRTU. Participants were directed to identify particular seams issues and their nexus to the MRTU proposal. While the conference participants identified several pre-existing seams issues in the West, the participants generally agreed there were no new seams issues created by the MRTU proposal that necessitated a delay in its implementation in 2008. This is not to say that the commenters raised no seams issues, they did in both pre-and post conference comments. In this order, we address the concerns in detail. We find that it is imperative that the CAISO and neighboring control areas continue to work collaboratively to mitigate or resolve the pre-existing seams issues. We believe this structured approach is necessary to bring stakeholders to the table and their issues to closure. Resolving these issues will serve to ensure greater service reliability across the Western Interconnect at the lowest reasonable rates for customers.

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Background

4. On February 9, 2006, the CAISO filed its MRTU Tariff for Commission approval, requesting an effective date of November 1, 2007.² Significant components of the MRTU Tariff include: a day-ahead market for trading and scheduling energy; a more effective congestion management system; improved market power mitigation measures; system improvements to increase operational efficiency and enhance reliability; a more transparent pricing system; the opportunity for demand resources to participate in the CAISO markets under comparable requirements as supply; and, lastly, a process that respects the resource adequacy³ (RA or resource adequacy) requirements established by the states or Local Regulatory Authorities, with provisions to allow the CAISO to procure additional capacity to meet forecasted needs. On September 21, 2006, the Commission issued an order that conditionally accepted the MRTU Tariff. The Commission also ordered significant changes to be made to various aspects of the MRTU Tariff.

5. As the Commission noted in the September 2006 Order, by ensuring resource adequacy, fixing flawed market rules, bringing greater transparency to prices, improving congestion management,⁴ enhancing market power mitigation and streamlining the CAISO's daily operations, MRTU is expected to help prevent another California electricity crisis.

Procedural Matters

6. The parties shown in Appendix A⁵ to this order filed timely requests for rehearing, or requests for clarification and rehearing in response to the September 2006 Order. On

² We note that the CAISO recently filed a status report stating that the MRTU Tariff implementation date will be moved to January 31, 2008. *See* CAISO Jan. 2007 Status Report, Docket No. ER06-615-000, at 2 (filed Dec. 21, 2006) (CAISO Jan. 2007 Status Report).

³ Resource adequacy is the availability of an adequate supply of generation, transmission and demand responsive resources to support safe and reliable operation of the transmission grid.

⁴ The term "congestion management" refers to a process that properly recognizes the physical limitations of the existing transmission grid and, based on those limitations, adjusts the production of various generation and demand resources so as to avoid exceeding those physical limitations.

⁵ Appendix C also sets out the abbreviations used in this order to refer to parties to this proceeding. Appendix D sets out the acronyms that the Commission uses in this order.

November 7, 2006, CAISO filed an Answer to the Requests for Clarification and Rehearing of the September 2006 Order, and on November 13, 2006, Western Area Power Administration (Western) filed an Answer to the CAISO's Answer. Rule 713(d)(1) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.713(d)(1) (2006), prohibits an answer to a request for rehearing. Therefore, we will not accept the answers of the CAISO and Western.

7. The entities shown in Appendix B to this order filed comments regarding seams issues following the Commission's December 14-15, 2006 technical conference. On January 31, 2007, the CAISO filed an answer.

8. On November 16, 2006, Xcel Energy Services, Inc. (Xcel)⁶ filed a motion to intervene out-of-time. On January 19, 2007, Midwest Independent System Operator Corporation (Midwest ISO) filed a motion to intervene out-of-time. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2006), we will grant Xcel and Midwest ISO's motions to intervene out-of-time given their interest in these proceedings, and the absence of any undue prejudice or delay.

Miscellaneous Legal Issues

9. Lassen, Bay Area Municipals and Cities/M-S-R argue that the Commission erred in failing to suspend the MRTU Tariff for a nominal period to preserve its refund authority. Parties state that they fully recognize that the Commission's rate suspension decisions are subject to the Commission's discretion. However, in their opinion, in the instant proceeding, the Commission's decision to not suspend a rate filing is not a proper exercise of its discretion because numerous substantive issues remain unresolved and are subject to further compliance filings by the CAISO.

10. Lassen, Bay Area Municipals, Cities/M-S-R and SMUD also contend that the Commission has improperly switched the initial burden of proof in this Federal Power Act (FPA) section 205 proceeding from the filing utility to the protesting intervenors. Parties refer to specific language in paragraph 25 of the September 2006 Order, which, in their opinion, demonstrates that the Commission justified its decision to accept for filing the MRTU Tariff on the basis of the protestors' failure to prove that the MRTU Tariff is unjust and unreasonable.

⁶ Xcel states that it is intervening on behalf of Public Service Company of Colorado. Xcel notes that Public Service Company of Colorado has previously participated in this proceeding indirectly as a member of WestConnect, but would now like to separately intervene.

11. In addition, SMUD argues that the Commission should have set the instant proceeding for an evidentiary hearing. SMUD points to the voluminous filing of the CAISO and the extensive comments received by the Commission, as well as several hundred pages of testimony. In SMUD's opinion, the sheer size of submittals in this proceeding reflects a large number of pending factual disputes, which warrant an evidentiary hearing.

Commission Determination

12. Parties argue that the Commission should have suspended the effective date of the MRTU Tariff to preserve the panoply of its authority to order refunds. Under section 205 of the FPA, the Commission has discretion to suspend the effective date of a proposed rate or tariff change for up to five months; however, the FPA does not impose a statutory duty on the Commission to suspend tariff rates.⁷ In the September 2006 Order, the Commission conditionally accepted the MRTU Tariff for filing, subject to further modifications, to become effective November 1, 2007. The Commission directed all the modifications discussed in the September 2006 Order to be included in various compliance filings, the last of which is to be filed no later than 180 days prior to MRTU implementation. The Commission imposed such timelines to, among other things, ensure that all required modifications are fully reviewed and reflected in the final MRTU market design and sufficient time for review and comment is allowed. Moreover, we note that since the issuance of the September 2006 Order, the CAISO has moved the expected implementation date of the MRTU to the end of January 2008.⁸ In addition, as the Commission stated in the September 2006 Order, parties will have an opportunity to comment on whether the CAISO did indeed comply with the Commission's directives.⁹ For these reasons, we continue to find that there is no need to suspend the effective date of the MRTU Tariff.

13. We also disagree with the parties' interpretation of the language in paragraph 25 of the September 2006 Order, in which the Commission stated that:

[a]s explained more thoroughly in the body of this order, we find the MRTU Tariff, as modified by the CAISO in accordance with the directives contained in this order, to be just and reasonable, and that parties have failed to demonstrate that the tariff is unjust and unreasonable.

⁷ See, e.g., *Cities of Carlisle and Neola v. FERC*, 704 F.2d 1259 (D.C. Cir. 1983); *Coop. Power Ass'n v. FERC*, 733 F.2d 577, 581 (8th Cir. 1984).

⁸ See CAISO Jan. 2007 Status Report at 2.

⁹ See September 2006 Order, 116 FERC ¶ 61,274 at P 25 n.41.

14. Parties argue that, in the above quoted paragraph, the Commission placed the initial burden of proof on the protestors opposing certain portions of the MRTU Tariff proposal. This interpretation of the Commission's determination is misplaced. The initial burden of showing that the tariff proposal is just and reasonable is on the party making the FPA section 205 filing. In the September 2006 Order, the Commission found the CAISO's MRTU Tariff proposal to be just and reasonable. However, we note that there can be more than one just and reasonable proposal, and the proposal under consideration will be selected unless it is found unjust and unreasonable.¹⁰ Protestors in the instant proceeding submitted competing proposals in regard to various aspects of the MRTU Tariff; however, none made a showing that the CAISO's MRTU proposal is unjust and unreasonable. Accordingly, in the September 2006 Order, the Commission made two separate findings which are: (1) the CAISO's MRTU Tariff is just and reasonable, and (2) the protestors have failed to prove otherwise, where alternatives were being proposed.

15. We also reject SMUD's request that the Commission reconsider its decision not to set the MRTU Tariff proposal for an evidentiary hearing. The decision as to whether to conduct an evidentiary hearing is in the Commission's discretion.¹¹ In the September 2006 Order, the Commission stated that:

[w]e ... find it unnecessary to set the tariff for hearing. Parties have provided thousands of pages of testimony and exhibits in this proceeding, both supporting and opposing specific aspects of the tariff filing. While the sheer number of pages of filings and testimony alone does not resolve factual disputes, we have found the record sufficient to make determinations, and to direct compliance filings, where necessary, to modify the tariff.^[12]

Given the substantial record already established on which to base its decision, the Commission finds that requiring evidentiary hearings is unnecessary. Furthermore, evidentiary hearings would serve only to further delay implementation of the market improvements included in MRTU.

¹⁰ See, e.g., *S. Cal. Edison Co.*, 73 FERC ¶ 61,219, at 61,608 n. 73 (1995) (citing *Cities of Bethany v. FERC*, 727 F.2d 1131, 1136 (D.C. Cir.), cert. denied, 469 U.S. 917 (1984)).

¹¹ See, e.g., *Woolen Mill Ass'n v. FERC*, 917 F.2d 589, 592 (D.C. Cir. 1990) (citing *Cerro Wire & Cable Co. v. FERC*, 677 F.2d 124, 128 (D.C. Cir. 1982)).

¹² See September 2006 Order, 116 FERC ¶ 61,274 at P 25 (citation omitted).

16. In the September 2006 Order, the Commission also noted that it sought additional information from the CAISO on certain minor details/issue-specific matters, and parties would have the opportunity to comment on the information that the CAISO submits in response to these requests.¹³ For the above reasons, we continue to find that there is no need for an evidentiary hearing in the instant proceeding, and SMUD has failed to persuade us otherwise.

Discussion

I. Adoption of an LMP-Based Market

A. LMP

17. The Commission conditionally accepted the CAISO's adoption of Locational Marginal Pricing (LMP) for managing congestion, subject to modification.¹⁴ The Commission determined that, based upon the record before it, it continued "to believe that LMP market designs promote efficient use of the transmission grid, promote the use of the lowest-cost generation, provide for transparent price signals, and enable transmission grid operators to operate the grid more reliably."¹⁵ The Commission also found that "there are no disputed issues of material fact that require an evidentiary hearing and there is no need to convene a technical conference on this subject."¹⁶

18. On rehearing, SMUD contends that the CAISO did not adequately support with testimony the assertion that its LMP system improves efficiency. SMUD claims that the CAISO's reliance on the Commission's approval of LMP in other markets to support the benefits of LMP is misplaced because SMUD is not arguing that LMP is inherently unjust and unreasonable. Instead, SMUD takes issue with the LMP proposal submitted by the CAISO. According to SMUD, the CAISO's proposal is not a bona fide LMP model and circumstances unique to the western United States limit the benefits of applying the LMP models approved in other regions to California. SMUD points to the testimony of SMUD's Witness Alaywan that "when the substantial costs of implementation are taken into account, coupled with MRTU's compromises with LMP – particularly use of Load Aggregation Points (LAPs) in lieu of nodes – there is no net

¹³ *Id.* P 25 n.41.

¹⁴ *Id.* P 64.

¹⁵ *Id.* P 63.

¹⁶ *Id.*

enhancement of efficiency and consumers are, in fact, worse off.”¹⁷ SMUD contends that the CAISO’s use of only three LAPs rather than nodes for establishing prices undercuts one of the principal claimed benefits of incurring the considerable expenses of using the marginal cost system.¹⁸ Based upon this testimony, SMUD contends that there is a factual dispute about whether the CAISO’s LMP model is worth the implementation cost to consumers. SMUD also complains that neither the CAISO nor the Commission explains how this issue can be resolved without an evidentiary examination of the parties’ conflicting positions.

Commission Determination

19. The Commission addressed the substance of SMUD’s contention in the September 2006 Order. The Commission found that “the CAISO’s approach to calculating and settling energy charges for load based upon three LAP zones provides a reasonable and simplified approach for introducing LMP pricing, while minimizing its impact on load.”¹⁹ The Commission also directed the CAISO to increase the number of LAP zones in MRTU Release 2 and pointed out that “increasing the number of LAP zones will provide more accurate price signals,” among other things.²⁰ Further, the Commission directed the CAISO to “move to full nodal pricing for load in the future.”²¹ While the Commission recognized that LAP pricing may not be the optimal solution, it found it to be a just and reasonable transition mechanism.²² In the September 2006 Order, the Commission

¹⁷SMUD Oct. 23, 2006 Rehearing Request, Docket No. ER06-615-001, at 54 (quoting SMUD Apr. 10, 2006 Protest, Docket No. ER06-615-000, at 80 (SMUD Protest)) (SMUD Request for Rehearing).

¹⁸ *Id.* (citing Exh. SMD-1, at 76 (Alaywan Testimony)).

¹⁹ September 2006 Order, 116 FERC ¶ 61,274 at P 611.

²⁰ *Id.*

²¹ *Id.* P 614.

²² *Id.* P 611; *See also PJM Interconnection, L.L.C.*, 117 FERC ¶ 61,331, at P 68 (2006) (transition to full complement of delivery areas in PJM’s capacity market found to be a just and reasonable means by which parties can become familiar with and adjust to the new market structure prior to its full implementation); *Midwest Indep. Transmission Sys. Operator, Inc.*, 109 FERC ¶ 61,157, at P 80 (2004) (“the purpose of the safeguards is to give the Midwest ISO sufficient experience with operating the market and to afford market participants experience with locational pricing. . . . The purpose of the marginal loss transition safeguard is to allow market participants a period of time to see how this charge would affect their use of existing generation resources. . . . [T]he set of transition

provided an in-depth explanation for the market redesign and the positive aspects of LMP in the context of this market redesign.²³ Thus, we disagree with SMUD and continue to believe that the long-term benefits of LMP outweigh the initial costs of implementing MRTU. For these reasons, we reject SMUD's arguments and deny rehearing on this issue.

B. Marginal Losses

20. In the MRTU filing, the CAISO proposed incorporating marginal losses into LMPs to assure least-cost dispatch and establish nodal prices that accurately reflect the cost of supplying the load at each node.²⁴ The CAISO explained that, because marginal losses rise exponentially with transmission system flows, they exceed average losses roughly by a factor of two, resulting in an over-collection of loss revenues.²⁵ In response to concerns raised by market participants, in MRTU Tariff section 11.2.1.6, the CAISO proposed to credit the over-collection to entities that serve load (internal demand and exports), including those served under Existing Transmission Contracts (ETCs) and Transmission Ownership Rights (TORs), on each monthly settlement statement.²⁶ The CAISO proposed to calculate, on an hourly basis, the over-collection for the system and divide this number by the total Megawatt hours (MWh) of load (internal demand plus exports) to determine a per-MWh refund amount of the over-collection for the period of each settlement statement.²⁷ It stated that, for load not served under an ETC or TOR, its calculation is equivalent to a fixed reduction in each MWh of access charges paid by the Scheduling Coordinator.²⁸

21. In the September 2006 Order, the Commission conditionally accepted the CAISO's proposal to reflect marginal losses in its calculation of LMP because doing so

safeguards are measures to provide the system operators and market participants with room for learning and achieving an appropriate comfort level. . . .").

²³ September 2006 Order, 116 FERC ¶ 61,274 at P 1-97.

²⁴ *Id.* P 66. Marginal losses reflect the marginal cost of transmission losses associated with serving an increment of load. *Id.* P 66 n.68.

²⁵ *Id.* P 66.

²⁶ *Id.* P 67.

²⁷ *Id.*

²⁸ *Id.* P 68.

sends more accurate price signals and assures least-cost dispatch.²⁹ The Commission accepted the CAISO's proposed allocation of the over-collection because it allows the participants to pay the marginal cost of energy and allows the revenues to be disbursed more quickly and is responsive to those who would not have benefited from a reduction in the Transmission Access Charge (TAC) (*e.g.*, TORs and ETCs) under the CAISO's previous proposal.³⁰ Among other things, the Commission rejected PG&E's alternative allocation proposal.³¹ Finally, consistent with its directive on the LMP calculation, the Commission directed the CAISO to provide more detail on the marginal loss calculation based on stakeholder input obtained in the Business Practice Manual stakeholder process.³²

22. On rehearing, Bay Area Municipals³³ argue that the Commission should have rejected the marginal loss proposal or withheld making a determination on it until the CAISO provided all relevant terms and conditions of the marginal loss calculation. The Contesting Coalition³⁴ argues that, while the Commission concluded that the MRTU Tariff did not adequately explain the derivation of its marginal loss charges, the Commission failed to reject the filing as incomplete and instead simply directed the

²⁹ *Id.* P 90-92.

³⁰ *Id.* P 95.

³¹ *Id.*

³² *Id.* P 97.

³³ Bay Area Municipals, Lassen and Cities/M-S-R filed the same comments with respect to marginal losses; thus, when we refer to Bay Area Municipals' arguments in the marginal loss section, we are also referring to the arguments raised by Lassen and Cities/M-S-R. Those three parties have indicated that they support the Coalition Contesting the Use of Marginal Losses in MRTU's (the Contesting Coalition) rehearing request but note that their support of the Contesting Coalition's argument that the CAISO's economic efficiency reasoning for collection of marginal losses from load is baseless under the LAP and retail ratemaking modes should not be construed as support for nodal pricing.

³⁴ The Contesting Coalition is composed of the following intervenors: CMUA, Six Cities, San Francisco, LADWP, Modesto, SMUD and Turlock. CMUA and San Francisco do not join all the arguments made by the Contesting Coalition; the arguments that they have joined are indicated below. SMUD and Constellation/Mirant have filed requests for rehearing that restate the Contesting Coalition's rehearing arguments; therefore, when we refer to the Contesting Coalition's arguments, we are also referring to the arguments raised individually by SMUD and Constellation/Mirant.

CAISO to provide more detail on the marginal loss calculation based on stakeholder input obtained in the Business Practice Manual stakeholder process. The Contesting Coalition asserts that the Commission's action contravenes the Commission's regulations requiring a utility to file full and complete rate schedules.³⁵

23. Bay Area Municipals assert that the Commission's reliance on *Atlantic City*³⁶ to approve the marginal loss proposal was misplaced for two reasons. First, Bay Area Municipals assert that, in *Atlantic City*, the Commission was compelled to find that PJM Interconnection, LLC (PJM) should implement marginal losses based upon the language of the PJM tariff. Second, in *Atlantic City*, PJM demonstrated that using marginal losses would reduce the cost of meeting load by about \$100 million per year. According to Bay Area Municipals, the CAISO failed to make such a demonstration. Similarly, TANC argues that the proposal should have been rejected because the CAISO did not demonstrate that the benefits of incorporating marginal losses into LMP outweigh the potential costs.³⁷

24. Bay Area Municipals also argue that the Commission did not find that the current loss mechanism was unreasonable. Specifically, Bay Area Municipals state that, although the Commission found that an average loss mechanism results in prices that produce a higher cost dispatch and adds to uplift charges, the Commission did not make any specific determination as to the unreasonableness of the CAISO's current average loss approach (known as "scaled marginal" losses).

25. Several parties, including the Contesting Coalition³⁸ and Bay Area Municipals, assert that the marginal loss proposal was approved based solely on the theoretical benefits of marginal loss price signals. The Contesting Coalition contends that the Commission's reliance on theory was arbitrary given the inconsistency between (1) the testimony that CAISO's proposal will not produce marginal loss price signals because customers will pay zonal, not nodal, marginal losses³⁹ and (2) the Commission's conclusion that the benefits of marginal losses derived from the fact that the price

³⁵ Citing 18 C.F.R. § 35.1(a) (2006); *S. Co. Serv., Inc. v. FERC*, 353 F.3d 29, 35 (D.C. Cir. 2003); *Elec. District No. 1 v. FERC*, 774 F.2d 490, 493 (D.C. Cir. 1985); *Cal. Indep. Sys. Operator Corp.*, 112 FERC ¶ 61,009, at P 114 (2005).

³⁶ *Atlantic City Elec. Co. v. PJM Interconnection, L.L.C.*, 115 FERC ¶ 61,132, at P 4 (2006) (*Atlantic City*).

³⁷ TANC concurs with the Contesting Coalition's arguments in this regard.

³⁸ CMUA and San Francisco join this argument.

³⁹ Contesting Coalition Oct. 23, 2006 Rehearing Request, Docket No. ER06-615-001, at 7 (citing Alaywan Testimony at 72-82) (Contesting Coalition Rehearing Request).

customers are paying (based on marginal losses) is the correct marginal cost for the energy they are purchasing.⁴⁰

26. Bay Area Municipals also contend that the Commission's rationale for including marginal losses in LMP "because doing so sends more accurate price signals and assures least-cost dispatch" is not fully supported. Similarly, the Contesting Coalition argues that the rebate of the over-collection mutes the price signal. The Contesting Coalition also contends that the Commission did not address the following question raised by SMUD: If an Independent System Operator (ISO) or Regional Transmission Organization (RTO) uses LAPs rather than nodes to set congestion charges, *and* if it then returns the over-collection to customers anyway, does use of a marginal loss methodology really do anything meaningful to promote least cost dispatch?

27. The Contesting Coalition⁴¹ and Bay Area Municipals also argue that the Commission did not address certain evidence or factual issues raised. Specifically, the Contesting Coalition contends that the Commission did not address SMUD's contention that (1) the uncertainty associated with marginal losses and the inability to hedge them will impair the functioning of the market; (2) the CAISO had failed to demonstrate that its filing produced *accurate* marginal loss charges; and (3) that the CAISO's proposal is not a marginal loss methodology.⁴² Similarly, Bay Area Municipals contend that parties raised factual issues that were not addressed such as whether: (1) the marginal loss methodology is the least-cost method as applied in the CAISO market; (2) the CAISO can fairly and reasonably allocate the over-collection at the MRTU start date; (3) the CAISO's proposal reflects marginal loss pricing to load; (4) the unhedgeable nature of the charges creates severe planning problems for long-term firm transmission customers; and (5) the CAISO's proposal to deny customers the ability to self-supply losses is appropriate.

28. Bay Area Municipals and the Contesting Coalition⁴³ argue that the Commission unlawfully reversed the applicable burden of proof when it rejected objections to the CAISO's marginal loss proposal on the grounds that no party had shown that the use of

⁴⁰ Citing September 2006 Order, 116 FERC ¶ 61,274 at P 92, 94.

⁴¹ CMUA and San Francisco join this argument.

⁴² Contesting Coalition Rehearing Request at 6 (citing Alaywan Testimony at 26-27, 72-82; Exh. SMD-2, at 12-14 (Ingwers Testimony)).

⁴³ CMUA and San Francisco join this argument.

marginal losses is unjust and unreasonable. Bay Area Municipals and the Contesting Coalition argue that FPA section 205 and Administrative Procedure Act section 556(d)⁴⁴ place the burden on the filing utility to show that its proposal is just and reasonable.

29. The Contesting Coalition⁴⁵ states that the Commission failed to address SMUD's objection that the CAISO did not consult with stakeholders to determine whether implementation costs would exceed the benefits of the CAISO's marginal loss proposal although the Commission had previously directed the CAISO to do so. The Contesting Coalition points to the Commission's statement that, while "a marginal loss approach provides for the most efficient dispatch," it "would be concerned if [the CAISO's] application were to substantially raise implementation costs of the CAISO's market redesign."⁴⁶ The Contesting Coalition notes that the Commission stated that:

if in the process of further developing the marginal loss proposal and tariff language the CAISO and market participants determine that use of average losses at inception would be more easily administered and less costly, then the CAISO may file to use average losses when it makes its tariff filing.^[47]

It claims that SMUD demonstrated through testimony that SMUD and others had repeatedly asked the CAISO to discuss this issue at stakeholder meetings but were rebuffed.⁴⁸

30. The Contesting Coalition⁴⁹ also argues that the Commission did not address objections that the CAISO's proposal does not permit customers to self-provide losses even though: (1) Order No. 888 gives customers that option and the CAISO is required to offer customers service as good as or better than that available under Order No. 888;⁵⁰

⁴⁴ 5 U.S.C. § 556(d) (2000).

⁴⁵ CMUA and San Francisco join this argument.

⁴⁶ *Citing Cal. Indep. Sys. Operator Corp.*, 107 FERC ¶ 61,274, at P 147 (2004) (June 2004 Order)

⁴⁷ *Id.*

⁴⁸ Contesting Coalition Rehearing Request at 5 (citing Alaywan Testimony at 75-76).

⁴⁹ CMUA and San Francisco join this argument.

⁵⁰ *Citing Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities*, Order No. 888, FERC Stats. & Regs. ¶ 31,036

and (2) the Commission itself had advised the CAISO three years ago that the CAISO had failed to explain how customers could accurately self-provide losses under the CAISO's proposal.⁵¹ According to the Contesting Coalition, in the October 2003 Order, the Commission questioned how the CAISO could compensate an entity that self-provides for incremental losses. The Contesting Coalition states that, in its response, the CAISO acknowledged that a party looking to self-provide losses could only *estimate* incremental losses, but had no mechanism for dealing with the certainty that such parties will either over-provide or under-provide losses.⁵² The Contesting Coalition adds that the CAISO noted that a problem with self-providing of losses in eastern RTOs was that "while the resource can self-schedule the *approximate* MW quantity, it may not be able to accurately predict the dollar amount."⁵³ According to the Contesting Coalition, that problem also afflicts the CAISO marginal loss proposal. The Contesting Coalition requests that the Commission require the CAISO to develop a way to allow customers to self-provide their losses.

31. TANC argues that the CAISO's marginal loss proposal produces costs that participants cannot fully hedge, which unreasonably exposes load to new risks, and will impede the Commission's objective of ensuring adequate transmission infrastructure. Similarly, the Contesting Coalition argues that the Commission failed to address that the unhedgeable nature of the losses creates severe planning problems for long-term firm transmission customers. TANC contends that, consistent with its direction to the Midwest ISO,⁵⁴ the Commission should direct the CAISO to work with stakeholders to develop an effective hedge against marginal losses.

32. PG&E and Bay Area Municipals argue that the CAISO's proposal to allocate the over-collection does not recognize the differences between transmission systems in

(1996), 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 relevant part sub nom. *Transmission Access Policy Study Group v. FERC*, 225 F.3d 667 (D.C. Cir. 2000) (*TAPS*), aff'd sub nom. *New York v. FERC*, 535 U.S. 1 (2002) (New York).

⁵¹ Citing *Cal. Indep. Sys. Operator Corp.*, 105 FERC ¶ 61,140 (2003) (October 2003 Order).

⁵² Citing CAISO Jan. 14, 2004 Response, Docket No. ER02-1656, at 2.

⁵³ Quoting *id.* at 5 (emphasis added).

⁵⁴ Citing *Midwest Indep. Transmission Sys. Operator, Inc.*, 108 FERC ¶ 61,163, at P 239 (2004) (TEMT II Order), order on reh'g, 109 FERC ¶ 61,157 (2004) (TEMT II Rehearing Order), order on reh'g, 111 FERC ¶ 61,176 (2005).

California and leads to a distorted allocation of the over-collection. PG&E states that the Commission has previously allowed the over-collection to be allocated on a less than system-wide basis, until a just and reasonable system-wide allocation is determined.⁵⁵ Also PG&E states that the CAISO has formed a stakeholder group that is currently studying this issue and the initial results appear to show that there is a basis for an allocation of the over-collection that is more fair to market participants and more consistent with cost-causation principles than the methodology that the Commission accepted in the September 2006 Order. Thus, PG&E requests that the Commission order the CAISO to continue this study and retract its acceptance of a methodology that is unfair and outdated.

33. PG&E also points out that, with respect to the Midwest ISO, the Commission expressed concern that refunding over-collected marginal losses over too broad an area could result in cross-subsidies and required the Midwest ISO to study the impacts within smaller areas than those proposed by the Midwest ISO.⁵⁶ PG&E also states that, in *Atlantic City*, the Commission gave parties additional time to resolve, through a stakeholder process, issues associated with PJM's loss methodology.⁵⁷ PG&E states that PJM subsequently noted that it would welcome a technical conference convened by the Commission to consider this issue.⁵⁸ PG&E argues that, to the extent that the Commission relies upon the success or prior implementation of market design features without the need for factual hearings or evidence, the existence of ongoing implementation issues in those other markets suggests that the basis for the September 2006 Order may be legally inadequate if not supported by similar mechanisms for recognizing, accommodating and resolving ongoing problems analogous to those occurring in other markets.

34. PG&E contends that, in light of the requirements on entities making FPA section 205 filings and the Commission's precedent on the problematic nature of marginal loss over-collection refunding mechanisms, a stakeholder study is a necessary prerequisite to the design and development of any methodology for the allocation of the over-collection. Thus, PG&E requests that the Commission direct the CAISO to complete its study of

⁵⁵ Citing *Midwest Indep. Transmission Sys. Operator, Inc.*, 109 FERC ¶ 61,285, at P 171-75 (2004), *reh'g denied*, 111 FERC ¶ 61,053, at P 46 (2005), *reh'g denied*, 112 FERC ¶ 61,086, at P 18 (2006).

⁵⁶ Citing *Midwest Indep. Transmission Sys. Operator, Inc.*, 111 FERC ¶ 61,053 at P 50-51.

⁵⁷ Citing *Atlantic City*, 115 FERC ¶ 61,132 at P 1-2.

⁵⁸ Citing PJM Aug. 3, 2006 Compliance Filing, Docket No. EL06-55-000, at 4. PG&E notes that the Commission has not yet ruled on this filing.

alternative methodologies and file appropriate revisions to its marginal loss proposal with the Commission. PG&E emphasizes the need for stakeholder involvement in this process and asserts that its request for further study and revisions should not delay MRTU because the CAISO has already acknowledged the need for subsequent compliance filings.

35. TANC asserts that the allocation of the over-collection ignores cost-causation principles. Bay Area Municipals submit that returning the over-collection based on cost causation is not going to eliminate price signals because, to the extent a market participant has contributed to marginal losses, that market participant will pay the actual cost and be dispatched in a least-cost or most-efficient manner. Bay Area Municipals state that, if the over-collection is distributed to entities according to their payment for losses, entities still receive a price signal because all parties are not paying the same average loss rate.

36. According to TANC, allocation of over-collection should be based on the proportionate share of a Scheduling Coordinator's actual marginal loss charges to the total marginal loss charges, rather than the Scheduling Coordinator's load share. TANC states that PG&E and others argued that this straightforward "who paid" basis for reallocation would be a far more equitable method of allocation as opposed to the arbitrary demand-based approach proposed by the CAISO.

Commission Determination

37. We deny the requests to reverse the Commission's decision to accept the CAISO's proposal to reflect marginal losses in the calculation of LMP. In the September 2006 Order, the Commission conditionally accepted the CAISO's proposal because the proposal would send more accurate price signals and assure least-cost dispatch.⁵⁹ None of the parties has presented convincing arguments to dispute the Commission's conclusions. We disagree with the contention that the use of average LAP LMPs for loads and the refund of the loss over-collection to load will preclude least-cost dispatch. Similarly, we disagree with parties who argue that the economic efficiency benefits of marginal losses claimed in the September 2006 Order will not materialize under MRTU because customers will pay zonal, and not nodal, prices. Because all suppliers will receive nodal prices that reflect the cost of marginal losses, the use of a marginal loss mechanism will encourage least-cost dispatch, whether customers pay a nodal or a zonal price, for the following reason. In choosing among alternative sources of supply, a load (purchasing bilaterally) or the CAISO (in purchasing for the spot market) will need to consider which sources have the lower delivered cost to the load. The delivered cost of a source depends on its cost at the source's location, plus costs for losses and congestion.

⁵⁹ September 2006 Order, 116 FERC ¶ 61,274 at P 90-92.

Since all suppliers will receive nodal prices under MRTU, the difference in marginal loss charges will be the same whether the load pays a nodal or a zonal price, as explained more fully in the footnote below.⁶⁰ Thus, the ranking of resources in terms of relative delivered costs will be the same whether loads pay nodal or zonal costs. Similarly, rebating the over-collection to loads on a load-ratio share basis will not affect the relative loss costs of alternative supply sources. That is because a customer's rebate will be virtually the same regardless of its choice of supply sources,⁶¹ so the difference in loss charges between supply sources will not be affected by the rebate.

38. The basis for SMUD's argument that the marginal loss methodology may be incorrect is a statement made by FPL Energy during a technical conference in January 2004.⁶² According to SMUD Witness Alaywan, FPL Energy stated that, for a given load level, the marginal loss at each bus is calculated to be the same amount with or without transmission congestion. Stated differently, the marginal loss calculation produces the same number regardless of whether the marginal power generation can actually flow on

⁶⁰ Consider a load whose energy price would be \$70/MWh if loads were to pay nodal prices, but whose zonal price would be \$75/MWh under the MRTU LAP mechanism. The load is considering whether to purchase from a supplier at Node A (where the LMP is \$50/MWh) or from a supplier at Node B (where the LMP is \$55/MWh). To simplify the discussion of losses, suppose that there is no congestion on the grid. When no congestion exists, the loss charge to move energy from a supplier's source to the load is calculated as the difference in the energy prices at the two locations. If loads were to pay nodal prices, the loss charge to move energy from the supplier at A to the load would be \$20/MWh (*i.e.*, \$70/MWh - \$50/MWh), while the loss charge to move energy from the supplier at B to the load would be \$15/MWh (*i.e.*, \$70/MWh - \$55/MWh). Thus, the difference in loss charges would be \$5/MWh (*i.e.*, \$20 - \$15); that is, the load would be charged \$5/MWh more for losses to purchase from A than from B. If loads pay a zonal price, the loss charge from A to the load would be \$25/MWh (*i.e.*, \$75/MWh - \$50/MWh), while the loss charge from B to the load would be \$20/MWh (*i.e.*, \$75/MWh - \$55/MWh). The difference in loss charges would be \$5/MWh (*i.e.*, \$25 - \$20), the same as when loads face nodal prices. Thus, the relative delivery costs of the two sources would be the same whether the load paid a nodal or a zonal price. As a result, the load (or the CAISO) would be able to select the lower-cost source whether the load pays a zonal or a nodal price.

⁶¹ Any difference in revenue surplus associated with the choice among suppliers by a customer would be shared by all loads in the CAISO, so the share of the difference in surplus retained by the customer would be very small.

⁶² SMUD Request for Rehearing at 31 (citing SMUD Protest at 47; Alaywan Testimony at 81-82).

the entire transmission system. According to SMUD Witness Alaywan, FPL Energy concluded that, because the methodology measures incremental losses without regard to transmission constraints, the result is that the CAISO model produces marginal losses at congestion points larger than are physically possible.

39. It is not clear from SMUD Witness Alaywan's testimony how FPL Energy reached the conclusion that "for a given load level, the marginal loss at each bus is calculated to be the same amount with or without transmission congestion." SMUD Witness Alaywan does not elaborate on the details or the discussion of this argument or in what context it was made. Thus, we lack sufficient detail and context in which to evaluate the validity of the conclusion. As a result, we deny SMUD's request for rehearing on this issue.

40. However, we note that, in the September 2006 Order, the Commission directed the CAISO to file tariff language with a more detailed description of the calculation of LMP and marginal losses based on stakeholder input obtained in the Business Practice Manuals development process.⁶³ We find that SMUD's argument is directly related to those calculations; therefore, we direct the CAISO to address SMUD's concern when it makes that filing.

41. We also disagree with Bay Area Municipals' argument that the Commission's reliance on *Atlantic City* in the September 2006 Order was misplaced. While it is true that the PJM tariff required the use of marginal losses when it became feasible for PJM to do so and there is no similar tariff language in the current CAISO tariff, the economic benefits outlined by the Commission in *Atlantic City* are applicable to the use of marginal losses in the CAISO. This point is underscored by the fact that the same efficiency goals outlined by the Commission in *Atlantic City* underpin the Commission's acceptance of similar marginal loss provisions in the Midwest ISO, the New York Independent System Operator (New York ISO) and ISO New England.⁶⁴ Similarly, the assertions that the CAISO should have either provided a quantitative cost/benefit analysis or otherwise demonstrated that there is a specific quantity of savings achieved through the use of marginal losses are unnecessary. The benefits of using marginal losses are well

⁶³ See September 2006 Order, 116 FERC ¶ 61,274 at P 64.

⁶⁴ See *Midwest Indep. Transmission Sys. Operator, Inc.*, 102 FERC ¶ 61,196, at P 53, 56, *order on reh'g*, 103 FERC ¶ 61,210, at P 28-29 (2003); *Central Hudson Gas & Elec. Corp.*, 86 FERC ¶ 61,062, at 61,213-14, *order on reh'g*, 88 FERC ¶ 61,138, at 61,384-85 (1999); *New England Power Pool*, 100 FERC ¶ 61,287, at P 64, 71, *order on reh'g*, 101 FERC ¶ 61,344 (2002); *Northeast Utilities Serv. Co.*, 105 FERC ¶ 61,122 at P 18-20; *reh'g denied*, 109 FERC ¶ 61,204 at 21, 14-15.

documented.⁶⁵ As explained in the September 2006 Order, the use of marginal losses will necessarily reduce the cost of meeting load because it will take full account of the effect of losses on the marginal cost of delivering alternative sources of energy to load.⁶⁶ Because the qualitative benefits of using marginal losses are certain, it is not necessary to quantify the benefits here, and the Commission has accepted proposals to use marginal losses elsewhere without relying on a quantitative estimate of benefits.⁶⁷

42. We disagree with the Contesting Coalition's and TANC's argument that the marginal loss mechanism should be rejected because customers cannot hedge marginal loss charges.⁶⁸ While it is economically desirable for customers to be able to hedge uncertain costs, the ability to hedge all costs is not a prerequisite for just and reasonable rates. In addition, we note that to date, no other RTO or ISO has been able to develop a hedging mechanism for marginal losses because, as the CAISO has pointed out, hedging mechanisms for marginal losses are in the experimental stage.⁶⁹ Furthermore, we find that the overall benefits of marginal losses outweigh the perceived difficulties in hedging marginal losses. As a result, we deny rehearing on this issue.

43. The Contesting Coalition argues that the Commission should have rejected the marginal loss proposal because the CAISO's description of the marginal loss calculation methodology in the MRTU Tariff was incomplete and because the Commission's requirement for further description of the methodology once the Business Practice Manuals were complete was insufficient. We disagree. The process of developing the

⁶⁵ See, e.g., CAISO Feb. 9, 2006 Transmittal Letter, Attachment F, Kristov Testimony, Docket No. ER06-615-00, at 25 (Kristov Testimony); CAISO Feb. 9, 2006 Transmittal Letter, Attachment I, Rahimi Testimony, Docket No. ER06-615-000, at 40-46 (Rahimi Testimony); *Midwest Indep. Transmission Sys. Operator, Inc.*, 102 FERC ¶ 61,196 at P 53; *Central Hudson Gas & Elec. Corp.*, 88 FERC ¶ 61,138 at 61,384-85; *New England Power Pool*, 100 FERC ¶ 61,287; *Northeast Util. Serv. Co.*, 105 FERC ¶ 61,122 (2003), *reh'g denied*, 109 FERC ¶ 61,204 (2004).

⁶⁶ September 2006 Order, 116 FERC ¶ 61,274 at P 92.

⁶⁷ See, e.g., *New England Power Pool*, 100 FERC ¶ 61,287 (accepting LMP proposal, including the use of marginal losses); *Northeast Util. Serv. Co.*, 105 FERC ¶ 61,122 (denying complaint claiming that inclusion of marginal losses in LMP or the refund mechanism for over-recovered losses in the New England ISO is no longer just and reasonable).

⁶⁸ See also discussion in ETC section.

⁶⁹ CAISO May 16, 2006 Reply Comments, Docket No. ER06-615-000, at 63 (quoting Rahimi Testimony at 104) (CAISO Reply Comments).

Business Practice Manuals allows the stakeholders to point to specific information, discovered in discussions during the Business Practice Manuals process that they feel is necessary for inclusion in the MRTU Tariff. This process also provides parties with a substantial amount of time to equip themselves with the information necessary to provide complete comments at the time the CAISO makes its compliance filing. Further, the process preserves the parties' rights to file additional comments at the time of the compliance filing, which will occur before MRTU is implemented. Thus, we find that this process is more constructive than simple rejection of the CAISO's proposal, and it protects the rights of all parties.

44. TANC asserts that the allocation of the over-collection ignores cost-causation principles. However, we note that there is no way to determine the contribution of any individual customer to the over-collection, and, thus, there is no cost-causation principle to follow to determine the over-collection allocation. It is a widely accepted principle of economics that prices in efficient, competitive markets reflect the marginal cost of producing and delivering the product or service to the customer. It is just and reasonable for a customer to pay a price for electricity that reflects the marginal cost of producing and delivering it to the customer. Marginal cost includes the cost of marginal losses. The cost-causation argument advanced by TANC presumes that it is possible to determine a cost below marginal cost that any individual caused as a result of that customer's use of electricity. That presumption is incorrect; the cost incurred to serve any customer (while serving all other customers) is the marginal cost of delivering electricity to the customer. Under cost causation principles, no customer is entitled to a rebate below the marginal cost of serving that customer. The over-collection resulting from the marginal loss mechanism is the result of the total service provided to all customers in the aggregate; it is not possible to determine the contribution of any individual customer to the over-collection. However, as a matter of equity, it is reasonable to distribute the over-collection broadly. The CAISO's proposal to allocate the over-collection to all customers on a load-ratio basis satisfies this equity objective while also satisfying the objective of ensuring that the allocation does not distort the marginal cost price signal. Thus, we continue to find the CAISO's proposed method of allocating over-collection to be just and reasonable and deny this rehearing request. Accordingly, we reject all requests for rehearing of the over-collection allocation methodology.

45. We disagree with Bay Area Municipals and the Contesting Coalition regarding the issue of burden of proof. Bay Area Municipals argue that the Commission must find that the current loss proposal is unreasonable in order to approve the marginal loss proposal. The Commission is not required to make such a finding in order to accept the CAISO's proposal. Since the CAISO filed its proposal under FPA section 205, it must show that its proposed changes are just and reasonable, but it is not required to show that the existing policy is unjust and unreasonable. We also disagree with the assertion of Bay Area Municipals and the Contesting Coalition that the Commission unlawfully reversed the burden of proof with the statement that "no party has shown that the use of marginal

losses is unjust and unreasonable.” The Commission did not place the burden of proof on the protestors. To the contrary, in the September 2006 Order, the Commission reached its conclusion that the CAISO’s marginal loss proposal was just and reasonable based upon the attributes of using marginal losses in the CAISO markets. Once it completed this discussion that was the basis for its determination, the Commission merely noted that no one had convinced it otherwise.⁷⁰

46. We also find that the CAISO’s decision to implement marginal losses is consistent with previous orders, contrary to SMUD’s assertion that the CAISO was required to consult with stakeholders. In the June 2004 Order, the Commission required an explanation from the CAISO to the extent that it and its stakeholders determined that implementing marginal losses would be substantially more costly than implementing average losses.⁷¹ In the MRTU filing, the CAISO neither represents to the Commission that using marginal losses would raise the implementation cost of MRTU, nor did it propose to use average losses. Accordingly, we find that the CAISO acted in accordance with the June 2004 Order, and we deny the rehearing request.

47. The arguments that the marginal loss proposal does not permit customers to self-supply losses are unfounded. As the Contesting Coalition asserts in its argument, the CAISO has explained that entities can estimate the amount of losses and self-supply accordingly. This does not preclude entities from conservatively estimating losses, thus, guaranteeing that they fully self-supply their losses. Accordingly, we find that this allows service consistent with Order No. 888 because the parties are provided flexibility to self-supply losses. For this reason, we deny the request for rehearing.

48. Finally, while parties provided lengthy requests for rehearing on the over-collection allocation issue, they have presented nothing new. The Commission addressed these argument in the September 2006 Order.⁷² Thus, we deny the requests for rehearing on the over-collection issue.

⁷⁰ *Id.* P 92.

⁷¹ June 2004 Order, 107 FERC ¶ 61,274 at P 147.

⁷² September 2006 Order, 116 FERC ¶ 61,274 at P 93-96.

II. Market Structure

A. Day-Ahead Market

1. Curtailement Priority for Balanced Self-Schedules

49. Under MRTU Tariff section 31.4, the CAISO proposed to give equal priority to balanced and unbalanced self-scheduled load in times when uneconomic adjustments to the schedule need to be made in order to manage congestion. Prior to the September 2006 Order, Six Cities supported alternative proposals by SoCal Edison and PG&E, which suggested that, in the event of non-economic intervention by the CAISO, the curtailment priority list should provide that Scheduling Coordinators that have provided balanced self-schedules shall receive priority over Scheduling Coordinators that have not. The September 2006 Order rejected such a proposal, because granting such priority could undermine the CAISO's ability to optimize the use of supply resources and create an incentive for parties to self-schedule.⁷³

50. On rehearing, Six Cities again argue that in circumstances where curtailments of demand become necessary, unbalanced schedules should be curtailed first. Six Cities contend that the Commission's concern that, permitting matched supply and demand schedules to be given curtailment priority will provide an incentive for self-scheduling is speculative. Six Cities state that there are factors other than the threat of non-economic intervention by the CAISO that drive the decision to self-schedule, such as: (1) Investor Owned Utilities (IOUs), Electric Service Providers (ESPs) and Community Choice Aggregators, collectively (LSEs) may prefer the price and delivery certainty of using their own resources protected by Congestion Revenue Rights (CRRs) rather than an "optimized" solution; and (2) scheduling conflicts with neighboring control areas may prevent the CAISO from using the "optimal" solution.⁷⁴

51. Six Cities state that granting priority to balanced schedules will create incentives for LSEs to procure long-term resources to cover load in order to avoid the pricing instability associated with the spot market. Six Cities argue that Scheduling Coordinators that have procured sufficient resources to fulfill the requirements of their loads should not

⁷³ *Id.* P 116.

⁷⁴ Six Cities provides the following example: bilateral trading in the Western Electricity Coordinating Council (WECC) region closes at 7:00 AM, but the results of the Integrated Forward Market (IFM)/RUC processes will not be known until 1:00 PM at the earliest, preventing LSEs from rearranging schedules with neighboring control areas in the event their schedules are optimized through the IFM/RUC processes.

face curtailment as a result of the failure by other Scheduling Coordinators to balance their demands with supply resources.

Commission Determination

52. Six Cities do not present new arguments or information regarding the curtailment priority of balanced self-schedules.⁷⁵ We reiterate that granting such a priority could undermine the CAISO's ability to optimize the use of supply resources and adversely impact the CAISO's ability to effectively manage congestion and maintain reliability. Moreover, the fact that a Scheduling Coordinator submits an unbalanced schedule does not indicate whether the Scheduling Coordinator has procured sufficient resources to meet its loads. For example, a Scheduling Coordinator with sufficient resources may choose to submit price bids for its resources into the spot market, rather than to self-schedule the resources. As a result, depending on how much of its supply bid is accepted, the Scheduling Coordinator's scheduled supply may not be in balance with its scheduled demand. Such price bidding – with its resulting unbalanced schedule – provides a benefit to the Scheduling Coordinator and the market as a whole because it allows a lower-cost resource to produce energy in place of the Scheduling Coordinator's higher-cost resources when such lower-cost resources are available. This more efficient result could be discouraged if priority is given to Scheduling Coordinators who submit balanced schedules, as Six Cities argue. Also, this prioritization is not expected to have any detrimental impact on reliability as we expect that sufficient resources would be procured for all loads within the CAISO service territory, including loads represented by Scheduling Coordinators submitting unbalanced schedules, because of the State of California and MRTU requirement with respect to resource adequacy. We therefore deny Six Cities' request for rehearing.

B. Residual Unit Commitment Process

1. Capacity Eligible for RUC Participation

53. In the September 2006 Order, the Commission found reasonable the argument that the CAISO's Residual Unit Commitment (RUC) proposal should honor multi-block hour constraint bids as a bidding parameter of System Resources under the RUC process. On rehearing, the CAISO contends that the Commission should not require it to honor multi-hour block constraint bids as a bidding parameter. The CAISO asserts that this approach is unreasonable because it does not dispatch resources on a multi-hour basis in real time. In addition, the CAISO states that RUC is a market for designating capacity, not energy, to be available in real time. It explains that although a resource is obligated to submit a

⁷⁵ See September 2006 Order, 116 FERC ¶ 61,273 at P 111 (summarizing Six Cities' previous arguments on this issue).

real-time energy bid for RUC capacity accepted in the day-ahead market, there is no guarantee that the CAISO will dispatch the energy associated with the RUC capacity in real time. Because the real-time market processes do not dispatch energy on a multi-hour basis, the CAISO asserts that the Hour-Ahead Scheduling Process (HASP) cannot observe the multi-hour block constraints for dispatch. The CAISO claims that the enforcement of such a bidding parameter would potentially increase RUC costs without achieving the underlying objective (*i.e.*, awarding the System Resource a constant energy schedule over the block time period). The CAISO urges the Commission to reverse its finding on this issue.

Commission Determination

54. In section 31.5.1.1 of the MRTU Tariff, the CAISO proposed that System Resources eligible to participate in the RUC will be considered on an hourly basis.⁷⁶ In the September 2006 Order, the Commission considered a competing proposal by SoCal Edison suggesting that the CAISO should honor multi-hour block constraint bids as a bidding parameter for System Resources under RUC.⁷⁷ The Commission found SoCal Edison's proposal to be reasonable and directed the CAISO to "examine whether such software changes could be implemented by Release 1 and report in a compliance filing whether changes to Release 1 are realistic and if not when the CAISO can implement the software changes."⁷⁸

55. Conceptually, the CAISO argues that RUC procures capacity and there is no nexus that the associated energy will actually be dispatched in real time. The CAISO further explains that the real-time market process does not dispatch energy on a multi-hour basis and consequently honoring multi-hour block constraints will be of little value. While we believe that there can be instances where capacity selected in RUC could have associated energy dispatched in real time (*e.g.*, generators producing energy at minimum output), we agree that there are limitations to the value of multi-hour block constraint bids.

56. Moreover, in its November 20, 2006 compliance filing, the CAISO states that the RUC multi-hour block constraint will cost approximately \$500,000, including support for additional functional and integration testing, and would take up to 14 additional weeks to

⁷⁶ This means that RUC will not observe any multi-hour block constraints that may have been submitted in conjunction with energy bids in the IFM.

⁷⁷ See September 2006 Order, 116 FERC ¶ 61,274 at P 141, for a description of SoCal Edison's proposal.

⁷⁸ *Id.* P 143.

develop and test.⁷⁹ Based on the latest information from the CAISO, we find that the costs of implementation and potential delay to MRTU cited by the CAISO outweigh the potential benefits of including this functionality at this time. Consequently, we grant the CAISO's request for rehearing on this matter and direct the CAISO to implement this bidding parameter in Release 2 of MRTU.

2. Allocation of RUC Bid Costs

57. Six Cities request rehearing of the Commission's determination that RUC costs should not be allocated to exports. Six Cities believe that there are circumstances in which the CAISO may dispatch RUC capacity to support exports. For example, according to Six Cities, LSEs that export generation outside of the CAISO Control Area will benefit from RUC if the generator becomes unavailable in real time and the CAISO does not adjust the export accordingly. Under these circumstances, Six Cities explain that the CAISO would continue to serve the export obligation using internal resources, including those committed through the RUC process. Six Cities further contend that because the CAISO may use RUC capacity to support exports, the CAISO should allocate a share of the costs of those resources to exports, consistent with the principles of cost causation, unless the CAISO can demonstrate that it is always able to pair the output of the generator and the export.

58. State Water Project and Metropolitan seek clarification or rehearing of the allocation of RUC cost to their load.⁸⁰ State Water Project explains that the CAISO procures RUC capacity when there is a discrepancy between the energy cleared in the day-ahead market and the CAISO's demand forecast. State Water Project notes that the CAISO uses State Water Project schedules in its demand forecast for purposes of RUC. As a result, State Water Project claims that the CAISO does not acquire RUC generation to meet State Water Project's load because there can never be a difference between the CAISO's demand forecast and State Water Project's load. Moreover, State Water Project contends that the CAISO should not have to acquire incremental or decremental

⁷⁹ See CAISO Nov. 20, 2006 Compliance Filing, Docket No. ER06-615-003, at 7 (CAISO Nov. 20, 2006 Compliance Filing).

⁸⁰ Metropolitan claims on rehearing that the Commission failed to respond to the argument of State Water Project regarding the allocation of RUC cost to loads that did not have to be served by the CAISO through the RUC process. See Metropolitan Oct. 23, 2006 Request for Rehearing, Docket No. ER06-615-001, at 12-14. State Water Project also alleges that the CAISO has acknowledged, in previous communication with State Water Project, that the CAISO will not acquire or charge State Water Project any RUC costs. See State Water Project Oct. 23, 2006 Request for Rehearing, Docket No. ER06-615-001, at 37 n.103 (State Water Project Request for Rehearing).

resources based on day-ahead schedules of participating load or generation that provide HASP schedules to the CAISO. Because the CAISO uses State Water Project schedules in its demand forecast for purposes of RUC, State Water Project contends that the CAISO should not penalize market participants with socialized RUC costs to all metered load, including that of State Water Project and Metropolitan. State Water Project states that the Commission failed to discuss the merits of this issue in the September 2006 Order.

59. At a minimum, State Water Project suggests that the Commission should require the CAISO to allocate RUC and other costs based on net negative deviations that the CAISO receives from HASP schedules of participating load or generation. In addition, State Water Project contends that the Commission should clarify that deviations for generation and participating load should be calculated based on adjustments made from HASP schedules.

60. Metropolitan also urges the Commission to direct the CAISO to post on Open Access Same-Time Information System (OASIS)⁸¹ the instances in which it has over-procured RUC in order to provide market transparency of the frequency and magnitude of RUC over-procurement.

Commission Determination

61. In the September 2006 Order, the Commission found it inappropriate for the CAISO to allocate RUC costs to export schedules because the RUC process was not established to ensure that on-line capacity was made available to meet outside control area needs.⁸² Six Cities argue that there are circumstances that may cause the CAISO to dispatch RUC capacity to support exports (*e.g.*, generator outages). We disagree with this argument. While the CAISO may serve the export obligation using internal resources, the CAISO will not use RUC capacity to support an export under these circumstances because RUC capacity serves an internal reliability need. We understand that, if a generator is unable to provide export generation in real time, the export would have the option to either procure the energy from the CAISO spot market or outside of the CAISO Control Area.⁸³ In other words, an export generator that needs additional energy to meet a demand spike or unexpected curtailment would have the ability to support its energy need from real-time spot market transactions rather than RUC resources. As a result, we find no reason to reverse the determination, in the September

⁸¹ OASIS facilitates the distribution of transmission information and the reservation of services.

⁸² See September 2006 Order, 116 FERC ¶ 61,274 at P 171.

⁸³ See MRTU Tariff section 34 - "Real-Time Market."

2006 Order, to remove exports from the allocation of RUC bid cost. Accordingly, we deny rehearing on this issue.

62. We also deny State Water Project and Metropolitan's request for clarification. In the September 2006 Order, the Commission acknowledged that State Water Project raised a number of specific issues with respect to the treatment of participating load under the MRTU Tariff.⁸⁴ The Commission directed the CAISO to work with State Water Project to improve the mechanism for addressing unique constraints posed by participating load under MRTU, and to make a compliance filing revising the tariff accordingly. We find premature State Water Project and Metropolitan's request for clarification of how the CAISO will allocate RUC costs to their load. We direct the CAISO to continue to work with State Water Project to resolve the treatment and allocation of RUC costs to participating load under the RUC process and make a compliance filing with the Commission upon completion, as directed in the September 2006 Order.

63. With respect to Metropolitan's request that the Commission require the CAISO to post RUC procurement results on the CAISO's OASIS website, we find this request reasonable. We believe that the CAISO should post this information in order to give market participants the opportunity to assess the impact of any over-procurement and to forecast the potential RUC costs that the CAISO will allocate to its metered demand. We also believe that the disclosure of this information will allow market participants to self-manage their business activities and risk in the forward markets, while evaluating the conditions that led to the CAISO's over-procurement of RUC generation. Thus, we grant rehearing and direct the CAISO to post this information on its OASIS website upon implementation of the MRTU.

3. RUC Compensation

64. On rehearing, Six Cities state that the September 2006 Order accepted for filing section 8.10.8.1 of the MRTU Tariff (Rescission of the Payment for Undispatchable Ancillary Service Capacity or RUC Capacity) without addressing the inconsistencies or payment obligations highlighted by Six Cities in their MRTU protest filing.⁸⁵ Six Cities reiterate on rehearing that the second paragraph of section 8.10.8.1 of the MRTU Tariff provides that, when capacity committed in RUC from an RA resource becomes undispatchable capacity, the payment obligation⁸⁶ shall be equivalent to a payment

⁸⁴ See September 2006 Order, 116 FERC ¶ 61,274 at P 701.

⁸⁵ Six Cities refer to the September 2006 Order, 116 FERC ¶ 61,274 at P 165-68.

⁸⁶ In this case, the payment obligation is the penalty paid by the resource to the CAISO for having undispatchable capacity.

obligation which would arise if the resource were eligible to receive a RUC availability payment. By contrast, Six Cities claim that the third paragraph of section 8.10.8.1 of the MRTU Tariff provides that if the undispachable capacity is capacity committed in RUC and is from a generating unit, participating load, system unit or system resource that is a RA resource, there is no payment obligation to the CAISO for the undispachable RUC capacity.

65. Six Cities contend that there should be a payment obligation associated with undispachable capacity. They argue that the payment obligation should be equal to the CAISO's cost to replace the capacity because the replacement cost will avoid the need for neutrality adjustments that result in excess revenues or revenue deficiency. Six Cities request that the Commission clarify the scope of and the circumstances under which the availability payment will apply. Alternatively, Six Cities request rehearing of the Commission's refusal to require the payment obligation for undispachable capacity to be equal to the CAISO's replacement cost.

Commission Determination

66. We agree with Six Cities that the second and third paragraphs of section 8.10.8.1 of the MRTU Tariff seem to conflict. We agree that undispachable RUC capacity from both RA and non-RA resources should be disqualified from the receipt of a capacity payment. However, we find that section 8.10.8.1 creates some confusion regarding the payment obligations of RA resources and non-RA resources. It is our understanding that, since RUC resources that are RA resources are compensated for availability through their RA contracts, they do not receive a RUC availability payment, and accordingly would have no payment to be rescinded by the CAISO. Further, we believe that Local Regulatory Authorities can impose penalties on RA resources for not adhering to the terms and conditions of their RA contracts. As such, we find it inappropriate for the CAISO to impose additional payment obligations upon RA resources that would otherwise be imposed by Local Regulatory Authorities. Therefore, we direct the CAISO to submit tariff sheets, in conjunction with the compliance filings it will make on or before August 3, 2007, clarifying MRTU Tariff section 8.10.8.1 to indicate that no payment obligation applies to RA resources and that the CAISO will notify the appropriate Local Regulatory Authority of any non-compliance of RA resources.

67. With respect to Six Cities' contention that there should be an additional payment obligation for undispachable capacity equal to the CAISO's replacement cost of RUC capacity, we disagree. The CAISO does not acquire replacement capacity for RUC capacity that is undispachable in real-time and consequently there would be no replacement costs for undispachable RUC capacity. Notwithstanding, the CAISO would need to acquire energy in the real-time to meet load and it would pay the spot market price for this energy. But the CAISO would have also paid the real-time spot market price for energy if the RUC resource was dispatchable.

68. For these reasons, we deny Six Cities' request for rehearing on this issue and grant the request for clarification of the scope of and the circumstances under which the availability payment will apply.

4. Reliability Must Run (RMR) Capacity under RUC

69. Williams seeks rehearing of the Commission's determination that WPTF/IEP's assertion that the CAISO may designate Condition 2 RMR capacity for not only local area requirements but also for control area shortfall, is unfounded.⁸⁷ Williams states that it does not dispute that when a Condition 2 RMR unit is dispatched for local reliability service in or before the day-ahead market and such dispatch is ultimately represented in RUC as a self-schedule, that the RMR unit is providing local reliability service, in accordance with the restrictions set forth in the RMR contract. However, it argues that the CAISO fails to provide assurance that the CAISO will not dispatch a Condition 2 RMR unit higher than its local reliability requirement if the CAISO needs additional capacity in RUC to make up the difference between bid-in demand and the CAISO's demand forecast. Williams contends that while MRTU Tariff section 41.9 authorizes the CAISO to dispatch Condition 2 RMR units for control area shortfalls under exceptional conditions, the CAISO should not have the ability to use this section frequently as a mechanism to procure additional RUC capacity.

70. Accordingly, Williams requests that the Commission grant rehearing and direct the CAISO to include language in section 31.5 of the MRTU Tariff that prevents the designation of Condition 2 RMR units from providing capacity in RUC for reasons other than local reliability, unless the CAISO has first complied with the requirements of MRTU Tariff section 41.9.1.

Commission Determination

71. We deny Williams' request for rehearing. We believe it is unnecessary for the CAISO to include additional RMR language in section 31.5 of the MRTU Tariff. The tariff clearly explains the CAISO's rights and limitations to dispatch RMR generation in section 41 of the tariff. Specifically, section 41 of the MRTU Tariff explains that the CAISO has the right to call on RMR generators to generate energy, black start or voltage support to meet *local reliability* needs, with the exception of section 41.9 that gives the CAISO the ability to dispatch Condition 2 RMR units to provide energy through an exceptional dispatch. For this reason, we continue to believe that section 41 of the tariff provides RMR generators with a reasonable amount of detail and assurance that the

⁸⁷ Williams refers to the September 2006 Order, 116 FERC ¶ 61,274 at P 429.

CAISO will not, except in unusual situations, dispatch RMR generation beyond *local reliability* requirements.⁸⁸ Thus, we deny Williams' request for rehearing.

5. Other RUC Issues

72. Constellation/Mirant request that the Commission clarify that the implementation of convergence bidding does not replace the need for the CAISO to reflect the impact of RUC commitments on day-ahead LMP prices.⁸⁹ Constellation/Mirant agree that convergence bidding is an important tool to remedy the incentive for underbidding that is created when RUC commitments are not permitted to set the LMP clearing price. However, Constellation/Mirant state that convergence bidding does not correct an LMP that inaccurately reflects the dispatch price of the marginal unit. According to Constellation/Mirant, in order for market participants to be able to manage their energy prices properly, the CAISO must produce accurate and transparent prices. Thus, Constellation/Mirant request clarification that the implementation of convergence bidding does not replace the need for the CAISO to improve its LMP calculations by including RUC commitments.

Commission Determination

73. We find that Constellation/Mirant do not present us with any information that would convince us that LMP calculations should include RUC commitments to ensure accurate and transparent prices and therefore we deny their request for clarification. We continue to find that the CAISO should not reflect the energy component of RUC commitments in the day-ahead LMP calculations, as the RUC is not based on physical supply and demand schedules but rather the CAISO's forecasted demand for the next operating day. We believe that it would be inappropriate for the CAISO to include its forecast demand in the day-ahead LMP calculations because the LMP price would not accurately reflect the physical constraints or market conditions on the system. In addition, as the Commission found in the September 2006 Order, the CAISO's RUC proposal is a reliability mechanism designed to procure capacity in advance of *real time*, making the energy from that capacity available to meet load in *real time*.⁹⁰ Because the

⁸⁸ While the CAISO has introduced exceptional dispatch as a new term under the MRTU Tariff, we note that the Commission has previously addressed the parameters in which the CAISO may dispatch Condition 2 RMR units for system reliability in an order on Tariff Amendment No. 60. *Cal. Indep. Sys. Operator Corp.*, 108 FERC ¶ 61,022, at P 42-51 (2004).

⁸⁹ Mirant/Constellation refer to the September 2006 Order, 116 FERC ¶ 61,274 at P 181.

⁹⁰ See September 2006 Order, 116 FERC ¶ 61,274 at P 181.

energy is not procured in the day-ahead market and there is no guarantee that the energy will be dispatched in real time, we continue to support our conclusion that the day-ahead LMP calculation should not include the energy component of RUC commitments. Contrary to Constellation/Mirant's interpretation of the Commission's determination in the September 2006 Order, the Commission never suggested that the implementation of convergence bidding would replace the need for the CAISO to calculate LMPs accurately. In the September 2006 Order, the Commission only found that the inclusion of RUC commitments would not result in more accurate LMPs. As for convergence bidding, the Commission determined that it is the appropriate mechanism to address the incentive for LSEs to underschedule in the day-ahead market.⁹¹

C. Hour-Ahead Scheduling Process and Real-Time Market

1. Discrimination Against In-State Generators

74. Under MRTU, the CAISO proposed the HASP which provides hour-ahead financial settlements for imports and exports. Prior to the September 2006 Order, Williams argued that this proposal discriminated in favor of import supply resources, because in-state generating resources were not given the same bidding and settlement options as external resources. However, the September 2006 Order noted that internal and external generating resources are not similarly situated, because imports cannot be dispatched on a five-minute basis while internal resources can. Thus, the Commission found that "while the treatment of internal and external resources is different, it is not unduly discriminatory given such different operating characteristics."⁹²

75. On rehearing, Williams argues that the Commission erred by failing to direct the CAISO to provide in-state generators the opportunity to participate in the HASP pre-dispatch. Williams states that if the CAISO must develop software to provide full-hour pre-dispatch to external resources, it should offer the same dispatch and settlement opportunities to in-state resources. Williams explains that it is not requesting that external resources be subjected to five-minute dispatch and settlement; rather, it requests that the CAISO offer hourly dispatch and settlement to in-state generators. Should the Commission not grant this request, Williams' requests that the Commission require the CAISO to justify why it cannot provide such non-discriminatory service to in-state generating units.

⁹¹ *Id.*

⁹² *Id.* P 207.

Commission Determination

76. We find that Williams has not raised any new arguments or offered new information in its request for rehearing on this topic. While we understand that both internal and external generators are capable of hourly dispatch, it is a fact that external generators are not capable of five-minute dispatch that makes it necessary for external resources to have the unique opportunity for full-hour pre-dispatch. We reiterate that internal and external generating units are operationally different (*e.g.*, only internal resources are capable of five-minute dispatch). Introducing a full-hour pre-dispatch for in-state generators will substantially complicate the settlement and billing processes and increase the CAISO's operating and administrative costs. As the Commission stated in the September 2006 Order, "given the increased implementation and operating costs, as well as the amount of time necessary to develop a third market," we do not at this time require the implementation of a full hour-ahead market.⁹³ We reiterate here that the benefits of implementing the MRTU, complete with LMP and a security-constrained financially-binding day-ahead market, outweigh certain HASP limitations. While we continue to believe that a full hour-ahead market is desirable and that the CAISO should continue development of one, the Commission has accepted the HASP proposal for MRTU Release 1 as an improvement over its existing processes, and does not now find a basis for reversing this prior determination.

2. Non-Market Power Acquisition Information Posting

77. State Water Project contends that the CAISO should post on its website, no less frequently than on a weekly basis, the following information for all non-market CAISO power acquisitions, rather than only for CAISO power purchases using Exceptional Dispatch: total hourly volumes and hourly weighted average prices, by load pocket, and by reason for such non-market intervention.

Commission Determination

78. State Water Project does not provide support or justification for its request for the CAISO to post additional information regarding non-market power acquisitions. The only support that State Water Project offers is a reference to an ISO New England order,⁹⁴ which is not apposite. The ISO-NE Order required ISO-NE to post on its website monthly reports concerning "external affairs" and "corporate communications." These external affairs did not include out-of-market power transactions, as is the case here; rather, the "external affairs" were used in reference to an account for public outreach and

⁹³ *Id.* P 204.

⁹⁴ *ISO New England, Inc.*, 117 FERC ¶ 61,070, at P 52 (2006) (ISO-NE Order).

educational expenses. State Water Project has offered no reasoning other than the Commission precedent which is not relevant here, to persuade us that there are benefits to posting the additional information on the CAISO's website. We hereby reject State Water Project's request for additional information to be posted by the CAISO. If, however, at a later date, it is discovered that the posting of the information in question is necessary for the operation of the CAISO's grid, State Water Project or any other market participant may bring this issue to the Commission's attention in a FPA section 206 proceeding.

3. Exceptional Dispatch Setting the LMP Clearing Price

79. Constellation requests clarification of paragraph 266 of the September 2006 Order. Constellation agrees with the Commission's finding that manual dispatch may or may not reflect dispatch of the marginally-priced unit and that a manually-dispatched unit should not set the clearing prices. However, Constellation argues that when the manually-dispatched unit is the marginally-priced unit, it should set the clearing price. Accordingly, Constellation requests clarification that manually-dispatched units will set the LMP clearing price when those units are the marginally-priced units. Constellation adds that the clarification should also state that, if this correction requires any modifications to the MRTU software or settlements, such modifications will be made no later than 12 months after MRTU Release 1.

Commission Determination

80. As the CAISO states,⁹⁵ Exceptional Dispatches are designed to cope with events that occur outside of normal market operations, in order to address specific reliability problems. For example, section 34.9.1 of the MRTU Tariff states that the CAISO may dispatch resources, in addition to or instead of resources dispatched by the real-time market optimization software, during a system emergency or to prevent a reliability event that cannot be addressed by the real-time market optimization and system software. Therefore, Exceptional Dispatches, by definition, differ from those derived from the real-time market optimization software. Thus, units dispatched under the CAISO's Exceptional Dispatch authority do not represent the marginal units, which are used to establish LMPs. Therefore, it would be inappropriate to allow Exceptional Dispatches to set the price, as this would send inaccurate price signals. We, therefore, deny Constellation's request for manually-dispatched units to set the LMP clearing price, because those units will not represent the marginally-priced units that establish LMPs.

⁹⁵ See CAISO Reply Comments at 293.

4. Exceptional Dispatch Cost Allocation to MSSs

81. SoCal Edison argues that costs related to Exceptional Dispatches made by the CAISO to resolve congestion internal to a Metered Subsystem (MSS) that the MSS is unable to relieve should be allocated to that MSS, rather than to the Participating Transmission Owner (PTO) in whose service territory the transmission issue arose. SoCal Edison notes that the September 2006 Order recognized this argument and the CAISO's commitment to make a corresponding tariff change; however, the Commission did not direct the CAISO to make such a compliance filing. SoCal Edison requests clarification that the Commission is directing the CAISO to make a compliance filing to allocate these Exceptional Dispatch costs to the responsible MSS, rather than the PTO.

Commission Determination

82. In paragraph 264 of the September 2006 Order, the Commission stated that:

[t]he CAISO agrees with SoCal Edison'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. The CAISO commits to making the necessary tariff modifications in a compliance filing.^{96]}

Although the September 2006 Order did not contain an expressly-stated directive for the CAISO to submit a compliance filing, we clarify that in the September 2006 Order, the Commission intended to direct the CAISO to make a compliance filing to amend the MRTU Tariff to state that if an MSS is unable to relieve congestion internal to its system, then any Exceptional Dispatches made by the CAISO to resolve this congestion should be allocated to the responsible MSS. We also note that in its November 20, 2006 compliance filing in Docket No. ER06-615-003, the CAISO has proposed to revise section 27.5.2 of the MRTU Tariff to address the allocation of Exceptional Dispatch costs to MSS. Accordingly, we clarify here that while the Commission is requiring the CAISO to submit a compliance filing on this matter, the proposed revision will be addressed in that proceeding.

5. Self-Scheduling of Exports

83. NCPA states that the September 2006 Order accepted the CAISO's proposal of an inferior scheduling priority for exports in the HASP, if the resources supporting the exports were designated as RA or RUC.⁹⁷ NCPA states that since Roseville is not subject

⁹⁶ September 2006 Order, 116 FERC ¶ 61,274 at P 264.

⁹⁷ *Id.* P 216-17.

to California Public Utilities Commission (CPUC) or CAISO resource adequacy requirements, it has no need to designate its share of the resources that it owns in the CAISO Control Area as RA or RUC and therefore, will not be negatively impacted by the CAISO's inferior scheduling priority for exports that are designated as RA or RUC. However, NCPA contends that problems could arise if the SMUD/Western Control Area, in which Roseville is situated, institutes its own resource adequacy requirements and if the CAISO prohibition would apply to resources designated under that program. NCPA adds that since this is not a problem at this time, this issue is less pressing.

Commission Determination

84. NCPA presents an issue that is not ripe for resolution. NCPA presents a hypothetical situation and raises questions in regard to the SMUD/Western Control Area. However, to date, the SMUD/Western Control Area has not presented any resource adequacy requirements or program. Therefore, the Commission cannot act on this hypothetical. If the SMUD/Western Control Area institutes resource adequacy requirements in the future, the Commission will address NCPA's concerns if they still exist at that time. We do not find that the CAISO's scheduling priority, as proposed, limits any future determinations regarding resource adequacy programs in other Control Areas. Therefore, we deny NCPA's request to address this issue here, without prejudice to NCPA raising this issue in the future if and when the issue it describes arises.

D. Ancillary Services

1. Ancillary Services Substitution

85. The MRTU Tariff allows for ancillary service substitution⁹⁸ after the close of the day-ahead market only in the event of an outage. The September 2006 Order noted that protestors argued for broader ancillary services substitution provisions, to allow ancillary services to be substituted for reasons other than an outage.⁹⁹ However, the September 2006 Order noted that, according to the CAISO, the Release 1 software will not have the capability to provide Scheduling Coordinators with the ability to substitute ancillary services for reasons other than an outage and the Commission found this reasonable for Release 1.¹⁰⁰

⁹⁸ Ancillary service substitution occurs in the HASP and is the substitution of a resource that was awarded ancillary services in the day-ahead market for another resource to provide those awarded ancillary services.

⁹⁹ September 2006 Order, 116 FERC ¶ 61,274 at P 296.

¹⁰⁰ *Id.* P 301.

86. On rehearing, Williams states that it is unclear why the MRTU Tariff allows suppliers to substitute day-ahead ancillary services in HASP if an outage is declared, but not under other circumstances. Williams contends that if the CAISO software can accommodate substitutions during an outage, it is not apparent why the software cannot also be used in circumstances where no outage is declared. Williams requests that the Commission direct the CAISO to modify the MRTU Tariff to allow market participants to substitute day-ahead ancillary services in HASP without requiring them to first declare an outage, or require the CAISO to justify why declaring an outage is required in order to be able to substitute day-ahead ancillary services in HASP.

Commission Determination

87. As noted in the September 2006 Order, the CAISO states that the Release 1 software will not have the capability to provide Scheduling Coordinators with the ability to substitute ancillary services for reasons other than an outage.¹⁰¹ While we agree that additional flexibility could increase the efficiency of ancillary services procurement process, we find that it would not be an efficient use of the CAISO's resources to modify the software for this flexibility prior to Release 1. However, we note that the September 2006 Order directed the CAISO to address the ancillary services flexibility issue in future MRTU releases.¹⁰² For Release 1, however, the Commission has accepted the ancillary service substitution proposal, and we do not find there is a basis for reversing this prior determination. Therefore, we deny Williams' request for rehearing on this issue.

2. Ancillary Services Cost Allocation

88. Under MRTU, the CAISO proposed to set regional limits for ancillary services procurement, while allocating ancillary services procurement costs on a CAISO Control Area-wide basis. In the September 2006 Order, the Commission accepted the CAISO's proposal, finding that procured ancillary services support the use of the entire CAISO M Control Area and therefore, it is appropriate to allocate the associated costs to all load in the CAISO Control Area.¹⁰³

89. On rehearing, Williams states that it agrees with the CAISO that ancillary services should be procured on a regional basis; however, Williams argues that by allocating ancillary services costs on a Control Area-wide basis, the benefits of procurement on a regional basis to provide accurate price signals about the value of capacity in certain

¹⁰¹ *Id.* P 301.

¹⁰² *Id.* P 303.

¹⁰³ *Id.* P 309.

areas will be diminished. Williams notes that, while ancillary services support the entire control area, it is the control area operator's duty to ensure that those ancillary services are properly distributed so that the reserves can be fully delivered following a contingency. Williams explains that ensuring that reserves are properly distributed may mean establishing minimum ancillary service requirements for load pockets or maximum ancillary service requirements for generation pockets. Williams argues that the price signals that result from this regional procurement are important indicators of the relative value of capacity in those areas and that diluting these signals by allocating costs on a control area basis creates cross-subsidies. Williams states that less restricted, lower cost areas will subsidize the more refined procurement in higher cost areas.

90. Further, Williams states that allocating ancillary services costs on a control area basis diminishes the value of capacity in higher cost areas because LSEs in those areas will only be charged the discounted control area rate and will therefore be discouraged from directly contracting with resources in those more refined areas to provide those services. Williams states that allocating ancillary services costs to areas on the basis of the cost in that area is consistent with cost causation and allocating on a control area basis is not. Williams requests that the Commission direct the CAISO to allocate ancillary services costs on a regional level, consistent with the Commission's direction on how those ancillary services should be procured.

Commission Determination

91. Williams raises arguments that the Commission already considered and addressed in the September 2006 Order.¹⁰⁴ We reiterate that the CAISO's procured ancillary services support the use of the entire CAISO Control Area and, therefore, it is appropriate to allocate the costs associated with this procurement to all load in the CAISO Control Area. We note that regional limits on ancillary service self-provision will be enforced to prevent possible cost allocation distortion;¹⁰⁵ this means that lower cost regions will not be subsidizing higher cost regions by allowing transactions that are not physically possible, given system constraints. Accordingly, we do not find there is a basis for reversing the Commission's decision on ancillary service cost allocation and therefore reject Williams' request for rehearing on this issue.

3. Contingency Only Reserves

92. MRTU Tariff section 34.8 provides that, during normal operating conditions, the CAISO will dispatch resources that have contracted to provide spinning and non-spinning

¹⁰⁴ *Id.* P 304-09.

¹⁰⁵ *Id.* P 325.

reserves, except for those reserves designated as contingency only. It further provides that, in the event of an unplanned outage, a contingency or a threatened or actual system emergency, the CAISO may dispatch contingency only reserves, based on the original energy bids. MRTU Tariff section 33.7 also contains contingency only provisions and provides that all operating reserves procured in the HASP are contingency only operating reserves. In the September 2006 Order, the Commission accepted MRTU Tariff sections 34.8 and 33.7 as proposed by the CAISO.¹⁰⁶

93. On rehearing, NCPA seeks clarification as to whether reserves are to be dispatched economically or only for contingencies. NCPA notes a discrepancy regarding reserves in the September 2006 Order, between paragraphs 190 (which refers to MRTU Tariff section 34.8) and 227 (which refers to MRTU Tariff section 33.7), in which it is not clear whether operating reserves will be used only for contingencies.

Commission Determination

94. We find that NCPA's confusion may be between the *procurement* of operating reserves, which can be "contingency only" or not "contingency only" in the day-ahead market, and "contingency only" in the HASP, and the *dispatch* of those operating reserves. Thus, we hereby provide a clarification of our determination regarding operating reserves for NCPA's benefit. Operating reserves bid into the day-ahead market may or may not be designated as "contingency only." Accordingly, as paragraph 190 of the September 2006 Order discusses, operating reserves that are procured in the day-ahead market that are not "contingency only" may be dispatched in the normal optimization process with energy; *i.e.*, economically. On the other hand, as paragraph 227 of the September 2006 Order discusses, operating reserves procured in the HASP must be "contingency only," because following the HASP, any shortage of energy that occurs between the HASP and real time will be covered by RUC capacity. The only need for operating reserves following the HASP will be to maintain adequate operating reserves to respond to contingencies. Accordingly, any "contingency only" operating reserves procured in the day-ahead market and all operating reserves procured in the HASP (which will by default be "contingency only") will be dispatched only for contingencies.

95. We further clarify that, in paragraph 190 of the September 2006 Order, the CAISO's statement regarding the exploration of an hourly designation for the "contingency only" flag is referring to a more enhanced designation option from daily flags to hourly flags day ahead, not any change to the "contingency only" flag designation between the day-ahead market and the HASP.

¹⁰⁶ *Id.* P 34, 227.

4. Ancillary Services Regional Constraints

96. The CAISO seeks rehearing or clarification of the Commission's directive to modify the MRTU Tariff to ensure that all ancillary services, self-provided or not, are subject to the same regional constraints.¹⁰⁷ The CAISO states that the MRTU Tariff already ensures that all ancillary services are subject to regional constraints, including self-provided ancillary services. The CAISO states that MRTU Tariff section 8.3.3 provides that:

Within the Expanded System Region, the System Region, and any Sub-Regions, the CAISO may establish limits on the amount of Ancillary Services that can be provided from each region or can be provided within each region. When used, these limits identify either a maximum or a minimum...amount of Ancillary Services to be obtained within the region.

The CAISO contends that there is nothing in the text of this section to suggest that these limitations do not apply to both ancillary services purchased by the CAISO as well as self-provided ancillary services.

97. Further, the CAISO notes that MRTU Tariff section 8.6.2 states that "the CAISO will determine whether Submissions to Self Provide Ancillary Services are feasible with regard to...regional constraints." The CAISO states that that section also provides a mechanism for allocating awards of self-provided ancillary services in situations when the total amount of otherwise qualifying self-provided ancillary services exceeds the applicable regional limitation for the specific service. The CAISO requests that the Commission clarify that no further modification of the MRTU Tariff is necessary to address the issue of all ancillary services being subject to the same regional constraints.

Commission Determination

98. We note that the CAISO has clarified that its intent is to subject self-provided ancillary services to the same regional constraints as ancillary services that it procures. We accept the CAISO's clarification and hereby, reverse the Commission's directive in the September 2006 Order, which required the CAISO to modify the MRTU Tariff on this matter.

¹⁰⁷ *Id.* P 326.

5. Self-Provision of Ancillary Services: Western's Boulder Canyon Project

99. Western states that its Boulder Canyon Project (Project) customers in the CAISO Control Area currently self-provide ancillary services from the Project over the intertie and into the CAISO Control Area. Western contends that the September 2006 Order is unclear as to whether these customers can continue to self-provide ancillary services from Western's Control Area to the CAISO Control Area. Western states that the Project customers have power purchase agreements with Western and that they are allowed to self-provide ancillary services today even though such transactions are not under an ETC.

100. Western states that, in the event the Commission does not allow this practice to continue, it will no longer provide ancillary services to these customers in the CAISO Control Area. Western explains that the resale of federal power is prohibited and under the MRTU Tariff an entity would need to sell its ancillary services at the intertie and then purchase ancillary services from the CAISO. Western considers the sale of ancillary services at the interties to be a resale of federal power. Western argues that the loss of ancillary services from the Project would affect the Project customers and the amount of ancillary services available in the CAISO markets. Western requests that the Commission clarify that these federal customers can continue to self-provide ancillary services from the Project.

Commission Determination

101. Western states that it is currently allowed to self-provide imports of ancillary services from its Project even though it is not a transaction under an ETC. As was noted in the September 2006 Order, the CAISO presently allows this because, in the current market, congestion management is run prior to the running of the ancillary services markets; thus, the CAISO determines the amount of transmission capacity that is available on the interties for imports of ancillary services, and can accept self-provided ancillary services accordingly.¹⁰⁸ Alternatively, under MRTU, in order to accept imports of self-provided ancillary services, the CAISO would have to reserve transmission capacity for imports of self-provided ancillary services prior to the market optimization of bid-in imports of energy and ancillary services.¹⁰⁹ As a result, under MRTU, imports of self-provided ancillary services would be given a higher priority for the use of intertie transmission capacity.¹¹⁰

¹⁰⁸ *Id.* P 314 n 168.

¹⁰⁹ *Id.* P 314.

¹¹⁰ *Id.*

102. The Commission recognizes Western's concern that a loss of imports from the Project would affect the Project customers, as well as the amount of ancillary services available to the CAISO. The Commission does not want to discourage the imports from the Project and recognizes the reliability benefits that the CAISO receives from all available sources of ancillary services. However, we find that for MRTU Release 1, the CAISO has offered an acceptable work-around for ancillary services imports that were previously self-provided; they will be bid in at \$0 or a negative price. The outcome of this work-around feature will be essentially the same as in the case of self-provision of ancillary services imports.

103. As for Western, we find that we do not have sufficient information to determine whether the CAISO's work-around feature would be acceptable to Western in light of prohibition on the resale of federal power. Without a complete record, we cannot make a determination on this issue at this time.

104. Accordingly, the Commission will not reconsider its determination in the September 2006 Order on this issue, at this time. We, therefore, deny Western's request that the Commission clarify that the Project customers can continue to self-provide ancillary services from the Project under the MRTU Tariff as proposed. However, we direct the CAISO to work with Western to determine whether the CAISO's work-around is acceptable to Western or, if not, to develop additional provisions for the MRTU Tariff, which will allow imports of federal power without violating the restriction on the resale of federal power. We hereby direct the CAISO to propose any necessary tariff revisions in a compliance filing to be submitted no later than 180 days prior to the implementation of MRTU Release 1.

E. Convergence Bidding

105. The CAISO did not include any convergence bidding provisions in the MRTU Tariff it filed,¹¹¹ despite prior Commission directives requiring convergence

¹¹¹ Convergence bidding involves the submission of bids to buy or sell energy in the day-ahead market that will not ultimately be produced or consumed by the bidder in real-time. Convergence bidding allows a participant to buy (or sell) electricity in the day-ahead market and to simultaneously assume an opposite obligation to sell (or buy) an identical amount of electricity in the real-time market. Convergence bidding transactions are financial transactions only, and have no effect on real-time physical energy consumption or the physical commitment of energy resources for purposes of system reliability. *See generally Cal. Indep. Sys. Operator Corp.*, 107 FERC ¶ 61,274, at P 154 n.94 (2004); Nov. 30, 2004 Letter from former Chairman Pat Wood to Senator Dianne Feinstein, Docket No. ER02-1656-017.

bidding.¹¹² The CAISO explained that it needed additional time, and was initiating a special stakeholder process to facilitate completion of this design element.¹¹³ The CAISO proposed to include convergence bidding in an expedited release, “Release 1A,” approximately 12 months after MRTU’s effective date. In the September 2006 Order, the Commission, concluded that the harm that would ensue from further delaying MRTU’s benefits outweighed the potential gains that would accrue from requiring implementation of convergence bidding in Release 1.¹¹⁴ Accordingly, the Commission accepted the MRTU Tariff without requiring convergence bidding provisions in MRTU Release 1, but nevertheless required the CAISO to file for Commission review tariff language that would implement convergence bidding within 12 months after the effective date of MRTU Release 1.¹¹⁵ In addition, to allay concerns that, without convergence bidding, LSEs may have economic incentive to underschedule in the day-ahead market, the Commission required the CAISO to develop and file interim measures, no later than 180 days prior to the effective date of MRTU Release 1, to address this potential problem.¹¹⁶ These “load mitigation measures” were to remain in effect until successful implementation of convergence bidding.

106. Williams and EPIC/SESCO request rehearing, arguing that, without convergence bidding provisions, the MRTU Tariff is unjust, unreasonable and unduly discriminatory. They urge the Commission to direct the CAISO to implement convergence bidding simultaneously with the implementation of the day-ahead market. EPIC/SESCO insist that delays in implementation of convergence bidding will distort the market, preserve the unmitigated market power of existing utilities and increase consumer costs. Williams requests that, at a minimum, the Commission convene an on-the-record technical conference to test the CAISO’s claim that incorporating convergence bidding into Release 1 is not feasible.

¹¹² See September 2006 Order, 116 FERC ¶ 61,274 at P 447 & n.202 (citing *Cal. Indep. Sys. Operator Corp.*, 110 FERC ¶ 61,041, at P 33 (2005); *Cal. Indep. Sys. Operator Corp.*, 108 FERC ¶ 61,254, at P 75 (2004); June 2004 Order, 107 FERC ¶ 61,274 at P 159).

¹¹³ The CAISO subsequently initiated a convergence bidding design process with a panel discussion on June 6, 2006, publishing its convergence bidding stakeholder materials on its website. See www.caiso.com/19-7/180799617020.html.

¹¹⁴ September 2006 Order, 116 FERC ¶ 61,274 at P 451.

¹¹⁵ *Id.* P 452.

¹¹⁶ *Id.*

107. EPIC/SECSO argue that, given the CAISO's history of failing to comply with past Commission convergence bidding directives, the Commission should carefully oversee the implementation process by instituting a timetable for each step and requiring regular progress reports from the CAISO.

108. Williams states that it is not clear whether the Commission is directing the CAISO merely to file tariff sheets for review within 12 months of Release 1 implementation, or whether the Commission is directing the CAISO actually to implement convergence bidding at that time. Williams also contends that it is unclear whether the Commission intends the "effective date" of MRTU Release 1 to be the November 1, 2007, or the actual date that Release 1 will be implemented.

109. Williams requests that, if the Commission does not grant rehearing and direct the CAISO to implement convergence bidding simultaneously with MRTU Release 1, it should direct the CAISO to file convergence bidding tariff language for the Commission's review prior to Release 1, for implementation on a date certain shortly after Release 1 (as opposed to a full 12 months after Release 1 implementation).

110. EPIC/SESCO state that if the Commission does not mandate the inclusion of convergence bidding in Release 1, it should instead direct the CAISO to provide the Commission with tariff sheets to implement convergence bidding not less than 180 days before the implementation of Release 1 and to fully implement convergence bidding by no more than 90 days after the implementation of Release 1.

111. SoCal Edison and the CPUC argue that the Commission erred in directing the CAISO to address perceived incentives for LSEs to underschedule in the day-ahead market prior to the implementation of convergence bidding. Moreover, the CPUC contends that the Commission did not weigh the limited potential benefits of such actions against the potential detriments.

112. According to SoCal Edison and the CPUC, the MRTU market structure will contain appropriate incentives for LSEs to fully schedule load ahead of real time. SoCal Edison states that load has a natural incentive to schedule day-ahead in order to avoid volatile real-time prices, and adds that the MRTU design, even without convergence bidding, addresses reliability concerns and explicitly contemplates that not all load will be served in the day-ahead market. Additionally, the CPUC argues that its resource adequacy program will also ensure that RA resources are scheduled in the day-ahead market.

113. The CPUC points out that one potential detriment to consumers from the Commission's proposed requirements is that load will be held hostage to suppliers in the day-ahead market, while non-RA suppliers -- who will not be required to participate in

the day-ahead market -- could withhold energy. The CPUC concludes that load's inability to submit price responsive bids could thus raise day-ahead market prices.

114. SoCal Edison asserts that the CAISO should be required to monitor market performance, and if the CAISO actually observes undesirable amounts of load in real-time, the CAISO should take action at that time. SoCal Edison argues that the Commission should not order the CAISO to implement additional interim measures to address underscheduling, but instead, the CAISO should alert the Commission of indications of potential problems based on actual market performance.

115. Finally, EPIC/SECSO submit that the prompt implementation of convergence bidding will avoid the need for interim measures to prevent LSEs from underscheduling in the day-ahead market. EPIC/SESCO argue that diverting the attention of CAISO staff away from convergence bidding will likely lead to further delays in its implementation, and that the Commission should direct the CAISO to focus its efforts on developing a convergence bidding plan.

116. If convergence bidding is not implemented simultaneously with Release 1, Williams requests that the Commission expressly direct the CAISO to implement specific Commission-determined interim measures to address underscheduling in the day-ahead market. Williams contends that the Commission cannot leave it to the CAISO's unfettered discretion to develop and implement adequate interim measures to check underscheduling when the CAISO has repeatedly demonstrated its reluctance to move forward at an acceptable pace with the market mechanism that will resolve the concern. Williams further states that, because the Commission did not condition its approval of MRTU on the approval of these interim measures, it is concerned that the CAISO's response to the Commission's directives may be that nothing need be done. To guard against any claims of lack of feasibility, Williams requests that the Commission require the CAISO to file tariff language implementing the interim measures within 30 days of its order on rehearing in this proceeding.

Commission Determination

117. We agree with Williams and EPIC/SESCO regarding the benefits of convergence bidding.¹¹⁷ Nevertheless, prior to issuing the September 2006 Order, the Commission weighed the benefits of requiring convergence bidding at the inception of MRTU against the costs of further delaying the implementation of MRTU and, as the Commission stated in that order, found that "the harm of further delaying the substantial benefits of MRTU outweigh[ed] the potential benefits that are to be gained by implementing convergence

¹¹⁷ See *id.* P 449-51 (discussing benefits of convergence bidding).

bidding in Release 1.”¹¹⁸ Parties have raised no new arguments on rehearing that could tip that balance, and we are not persuaded to change the Commission’s determination. The parties have not shown or argued that the interim measures that were ordered will not serve to mitigate demand side market power until a fully developed convergence bidding program can be implemented. Nevertheless, to alleviate concerns of further delay, we clarify the September 2006 Order’s directive that the CAISO must implement convergence bidding within 12 months after the implementation of MRTU Release 1.¹¹⁹ While we encourage an earlier implementation date for convergence bidding, we clarify that, at the latest, within 60 days prior to the one-year anniversary of Day 1 of MRTU operation, the CAISO must file tariff sheets implementing convergence bidding with a proposed effective date of that first anniversary.

118. In addition, we reiterate a second directive that the CAISO must develop and file interim measures to address the potential exercise of demand-side market power within 180 days prior to the effective date of MRTU Release 1. Contrary to the CPUC’s and SoCal Edison’s position that these interim measures are unwarranted, we find that the potential exercise of demand-side market power necessitates the simultaneous implementation of provisions with MRTU Release 1 that will address the potential economic incentives to underschedule in the day-ahead market. We do not agree with EPIC/SESCO that these interim mitigation measures will adversely impact the CAISO’s ability to implement convergence bidding expeditiously.¹²⁰ While we have directed the CAISO to implement interim measures, we do not prescribe what form those interim measures should take. Therefore, particularly since the choice of interim measures is within the CAISO’s control, it is premature to assess whether these interim measures will necessarily be unduly burdensome to the CAISO, or prevent the CAISO from implementing convergence bidding as directed. Furthermore, in response to SoCal Edison, we have not decided against any particular mitigation or monitoring proposal. We will reserve judgment on the effectiveness of the CAISO’s proposal until after it is filed with the Commission. Consequently, contrary to William’s assertion, we are not giving the CAISO “unfettered discretion” on these interim measures. Rather, we simply

¹¹⁸ *Id.* P 451

¹¹⁹ We clarify that this 12 month period begins on the actual effective date of MRTU.

¹²⁰ However, we decline to convene a technical conference or hearing to assess the veracity of the CAISO’s assertion that it cannot implement convergence bidding upon the start of MRTU due to software issues. We are concerned that this would unnecessarily delay both the interim measure and the implementation of convergence bidding. In addition, we decline at this time, before we have seen the interim proposal, to mandate deadlines for interim steps and/or require the CAISO to submit progress reports.

give the CAISO some initial discretion as to the specific design elements, but the proposal must be filed according to our prescribed deadlines. Further, as stated above, we will evaluate the effectiveness of the proposal prior to ordering its implementation.

119. Finally, we note that these interim measures are not intended to prevent LSEs from taking steps to reduce the costs of serving their load. Instead, these interim measures should be designed to prevent uneconomic behavior. More specifically, we expect the interim measures to address the problem of persistent underscheduling in the day-ahead market on occasions when energy prices suggest that it would be economic to buy in the day-ahead market.

F. Inter-Scheduling Coordinator Trades

120. In its MRTU filing, the CAISO proposed to continue providing settlement services for Scheduling Coordinators that enter into bilateral transactions of energy and ancillary services at generation nodes and at aggregated pricing points within the CAISO Control Area (Inter-SC Trades).¹²¹ The CAISO stated that the Inter-SC Trade settlement proposal contains two essential elements: (1) MRTU Tariff section 28.1.6 that sets forth a physical validation procedure for Inter-SC Trades at specific generation nodes; and (2) MRTU Tariff section 27.3 that creates Existing Zone (EZ) Gen Trading Hubs for each of the pre-existing congestion management zones, NP 15, SP 15 and ZP 26.¹²² Under MRTU Tariff section 28.1.6, Inter-SC Trade settlement services at generation nodes are subject to a physical validation procedure but Inter-SC Trades at trading hubs and LAPs are not.¹²³ MRTU Tariff section 28.1.2 does not permit Inter-SC Trades at interties.¹²⁴ The Commission accepted the proposal, subject to modification.¹²⁵

1. Inter-SC Trades at Interties

121. On rehearing, Burbank and Turlock dispute the Commission's acceptance of MRTU Tariff section 28.1.2 that does not permit Inter-SC Trades at interties. They argue that the CAISO's proposal is unduly discriminatory because it creates undue burdens on exporters. Burbank and Turlock claim that the September 2006 Order only addresses the

¹²¹ September 2006 Order, 116 FERC ¶ 61,274 at P 453.

¹²² *Id.* P 455.

¹²³ *Id.* P 456-57.

¹²⁴ *Id.* P 458. Under MRTU, control area interties are referred to as Scheduling Points.

¹²⁵ *See id.* P 463, 470, 472, 478-79.

impact that the MRTU Tariff will have on imports. Burbank and Turlock request that the Commission grant rehearing of the September 2006 Order to direct the CAISO to modify the MRTU Tariff to provide for Inter-SC Trades at the interties.

122. Burbank and Turlock state that the party scheduling the export incurs all of the CAISO load-based charges. Burbank and Turlock argue that, while the lack of Inter-SC Trades at interties only requires importers to resolve who will be responsible for congestion costs, exporters will be forced to allocate both congestion costs and load-based charges. According to Burbank and Turlock, the existence of Inter-SC Trades at the interties would allow the exporter to schedule the export in all cases and would reduce the risk in export transactions, thereby simplifying negotiations and reducing transaction costs.

123. Burbank and Turlock also claim that the lack of Inter-SC Trades at interties will force parties holding existing contracts specifying the intertie as the delivery point to either use the “contract for differences” model, or alternate delivery points when exporting out of the CAISO Control Area. They claim that such an outcome will cause the abrogation of existing contracts and is unjust, unreasonable and unduly discriminatory.

124. Similarly, SMUD argues that the double payments that will arise under existing bilateral agreements will unjustly and unreasonably alter the terms of these existing bilateral arrangements and that the CAISO’s solution unduly discriminates against parties to wheel-through schedules. Specifically, SMUD argues that parties that do not qualify for the Inter-SC Trade settlement service must establish different counter-settlement procedures because they cannot continue to operate bilaterally under MRTU without reforming their contracts.

Commission Determination

125. We deny these requests for rehearing. Specifically, with regard to Burbank and Turlock’s claim that the September 2006 Order unjustly discriminates against exports, we are not persuaded that the occurrence of load-based charges on export transactions warrant providing the Inter-SC Trade service at interties. As explained in the September 2006 Order, there is no double payment issue that the Inter-SC Trade proposal was designed to offset.¹²⁶ Furthermore, the lack of Inter-SC Trades at interties does not preclude parties from negotiating, as part of their bilateral contract, who will ultimately be responsible for paying load-based charges. This settlement can be performed outside the Inter-SC Trade settlement service.

¹²⁶ *Id.* P 469-70.

126. In the September 2006 Order, the Commission also addressed the assertion that the lack of Inter-SC Trades at interties will result in parties to bilateral transactions having to establish different settlement procedures. We explained that settlement procedures at the interties are not necessary, whether for imports, exports or wheel-through transactions, because the party responsible for the congestion charges can schedule the intertie transaction.¹²⁷ If one party is responsible for scheduling the intertie transaction, there will be no double payments to sellers or double charges to load.¹²⁸ The Inter-SC Trade settlement procedure offsets the unavoidable double payment/charge that arises under an LMP-based market during the settlement of internal CAISO Control Area bilateral transactions amongst multiple market participants. Therefore, SMUD's argument that the Inter-SC Trade settlement procedures unduly discriminate against parties to wheel-through schedules is unfounded. Furthermore, with the exception of seller's choice contracts, we note that the Inter-SC Trade settlement service is voluntary, and, therefore, we find that, contrary to Burbank and Turlock's assertion, the service does not impose alternate delivery points.

G. Concerns Raised by Commenters on Seams Issues

127. In the September 2006 Order, the Commission agreed that seams issues are critically important.¹²⁹ The Commission noted that, first and foremost, the major seams issue facing the West is how to establish a well-functioning California market that does not repeat the problems of 2000-2001. The Commission believes that the MRTU design accomplishes that goal.¹³⁰ The Commission was not able to respond to commenters' general concerns over increased costs and the burden of differing market rules because commenters did not provide specifics.¹³¹ However, contrary to the general assertions made, the Commission stated that it believed that the implementation of MRTU would lessen certain of the existing seams issues, such as differences in scheduling times.¹³² The Commission did agree that it is important to remain vigilant in coordinating on seams issues and directed the CAISO, with the assistance of the parties in the West, to continue working towards addressing any seams issues as they develop.¹³³

¹²⁷ *See id.* P 469.

¹²⁸ *Id.*

¹²⁹ September 2006 Order, 116 FERC ¶ 61,274 at P 485.

¹³⁰ *Id.*

¹³¹ *Id.* P 486.

¹³² *Id.*

¹³³ *Id.*

128. The Commission denied the requests to reject or defer action on the MRTU filing because, although MRTU presents a different way of using the electric grid, the economic and reliability gains associated with the implementation of MRTU were necessary and would benefit the western grid as a whole, even though other western entities conduct operations differently.¹³⁴ The Commission also found that there were no issues of material fact that necessitated an evidentiary hearing.¹³⁵ With respect to concerns on the adoption of an LMP-based market design with financial congestion rights, the Commission explained that the proposal was not a move to a financial rights model, but rather a further modification of an existing financial rights model.¹³⁶ The Commission added that it was confident that these concerns were not insurmountable because they had been addressed by the eastern RTOs that have moved to LMP-based markets that border control areas without such markets.¹³⁷ The Commission disagreed with the assertion that the CAISO had not taken into account MRTU's impact on the reliability of the Western Interconnection.¹³⁸

129. The Commission explained that its action was rooted in the belief that MRTU would not adversely affect the nature of commercial practices and relationships currently in place in the CAISO markets and in the West.¹³⁹ The Commission further explained that, while certain new mechanisms and market rules would be introduced and implemented in the CAISO markets, it believed that existing commercial practices could be accommodated within the MRTU framework.¹⁴⁰ Noting the importance of resolving any seams issue that would hinder the reliable, competitive functioning of western markets and the CAISO and other western control areas working together to resolve those issues, the Commission directed its staff to convene a technical conference to assist the CAISO and parties outside the CAISO Control Area to identify seams issues that require resolution.¹⁴¹ The Commission also directed the CAISO and neighboring control areas

¹³⁴ *Id.*

¹³⁵ *Id.*

¹³⁶ *Id.* P 487.

¹³⁷ *Id.*

¹³⁸ *Id.* P 488.

¹³⁹ *Id.* P 489.

¹⁴⁰ *Id.*

¹⁴¹ *Id.* P 490.

to: (1) meet as needed to resolve seams issues between them and (2) jointly report on the progress of these efforts in quarterly status reports.¹⁴²

130. On December 14 and 15, 2006, the Commission held a technical conference to provide parties an opportunity to identify and discuss solutions to resolve alleged MRTU-related seams issues that exist between the CAISO and neighboring systems. The Commission also gave parties the opportunity to file post-technical conference comments, and encouraged parties to specifically identify any seams concerns they may have, prioritize which of those they believed must be addressed prior to MRTU implementation and propose a work plan for addressing those concerns.¹⁴³

131. We address both the seams-related requests for rehearing and post-technical conference comments below.

132. We note that commenters' views have evolved over the latter part of this proceeding regarding the timing of and the means to resolve seams issues. For example, on rehearing, parties restated their request for an evidentiary hearing on seams, in essence, requesting that the Commission itself assume direct responsibility for resolving these issues. However, at the technical conference the general consensus was that an evidentiary hearing was not necessary. Specifically, in response to questioning by Commissioners, there was consensus among panelists from a wide industry spectrum that most of the seams issues were West-wide concerns (thus not specific to MRTU), that it would be preferable for the Commission to allow WECC to work with market participants to develop proposed seams solutions before the Commission acts, and that the remaining seams issues that were MRTU-specific should be addressed through collaborative meetings among WECC, CAISO and other market participants.¹⁴⁴

133. Rather than rushing to direct certain outcomes to resolve the seams issues, the panelists asked the Commission to closely monitor and oversee the work that others would undertake in the first instance to address seams issues. Most parties have also expressed this preference in their post-technical conference comments. In response to the

¹⁴² *Id.*

¹⁴³ See Notice Inviting Comments, 71 Fed. Reg. 78,411 (2006).

¹⁴⁴ See *e.g.*, SoCal Edison Jan. 16, 2007 Post-Technical Conference Comments, Docket No. ER06-615-002, at 2 (agreeing “with comments from the majority of participants at that technical conference that seams issues identified – whether related to MRTU or not – can be resolved through collaborative work among the parties”) (SoCal Edison Post-Technical Conference Comments).

requests from a number of parties, we find that it is appropriate that we allow market participants to work within the existing WECC process to resolve many of these issues.

134. We also note that, in the post-technical conference comments, parties moved away from the broad arguments raised on rehearing to specific detailed concerns, which we address in detail here. The technical conference participants agreed that there were no seams issues that would require a delay in MRTU implementation. As noted by WECC in its post-technical conference comments, “no reliability or seams issues requiring resolution prior to MRTU implementation were identified in the technical conference.”¹⁴⁵ The CPUC agreed, stating that “[t]o date, no substantive seams issues have been identified that would argue for delay of MRTU implementation.”¹⁴⁶ In their post-technical conference comments, other commenters have also indicated that any issue that may need to be addressed prior to MRTU implementation can be resolved without delaying the MRTU start-up date.¹⁴⁷

¹⁴⁵ WECC Jan. 16, 2006 Post-Technical Conference Comments, Docket No. ER06-615-002, at 2 (WECC Post-Technical Conference Comments).

¹⁴⁶ CPUC Jan. 16, 2007 Post-Technical Conference Comments, Docket No. ER06-615-002, at 5 (CPUC Post-Technical Conference Comments).

¹⁴⁷ Control Area Coalition Jan. 16, 2007 Post-Technical Conference Comments, Docket No. ER06-615-002, at 2 (“the [Control Area Coalition] recommends the development of a flexible work plan that will allow for prioritized resolution of these and other seams issues . . . without threatening delay in implementation of MRTU Release 1”) (Control Area Coalition Post-Technical Conference Comments); TANC Jan. 16, 2007 Post-Technical Conference Comments, Docket No. ER06-615-002, at 6 (with the proposed effective date of MRTU now set at January 31, 2008, there is time to take proposed steps to resolve seams before MRTU becomes effective); Salt River Jan. 16, 2007 Post-Technical Conference Comments, Docket No. ER06-615-002, at 2 (“With the CAISO and neighboring control areas taking prompt and good faith action on each of the metrics, the resolution of these five seams issues will not delay implementation of MRTU.”); WestConnect Jan. 16, 2007 Post-Technical Conference Comments, Docket No. ER06-615-002, at 4 (“resolution of these seams issues will not delay the planned implementation of MRTU”); Western Jan. 16, 2007 Post-Technical Conference Comments, Docket No. ER06-615-002, at 4 (“Western believes that by working collaboratively, prior to the implementation of MRTU, the CAISO and neighboring control areas should be able to identify and address any operating issues which have the potential to affect reliability.”) (Western Post-Technical Conference Comments); PG&E/SDG&E Jan. 16, 2007 Post-Technical Conference Comments, Docket No. ER06-615-002, at 3 (“Although participants in the December 14-15 technical conference identified certain issues that warrant further consideration, no party identified any issue that would justify a delay in implementing the MRTU tariff.”) (PG&E/SDG&E Post-

135. We believe that there is still work to be done on seams in several areas. Therefore, in several determinations in the section addressing post-technical conference comments, we have directed the CAISO -- and encouraged WECC and market participants -- to take further measures in those areas. To that end, we note that the CAISO has filed two joint seams status reports thus far and that several parties have filed comments on the CAISO's status reports. The resolution of seams in the West is an on-going process that began prior to MRTU and is continuing. We are encouraged by market participants' commitment to resolve these issues collaboratively and will assist them in this process when necessary.

1. Requests for Rehearing

a. Burden of Proof and Evidence of Seams Issues

136. TANC, Lassen, Modesto, Bay Area Municipals and Cities/M-S-R contend that the Commission erred when it did not address the commenters' concerns because the commenters had not enumerated the costs of the seams issues. Lassen, Modesto, Bay Area Municipals and Cities/M-S-R state that the commenters could not enumerate the costs of some of the seams issues because of the lack of specificity in the MRTU Tariff. TANC asserts that some issues are not susceptible to quantification. The Control Area Coalition¹⁴⁸ and Imperial argue that the Commission misapplied the burden of proof by holding that it is not able to address commenters' concerns about the costs of MRTU's seams because commenters "have not enumerated the costs at issue."¹⁴⁹ Imperial argues that, in its comments, it raised the concern that marginal losses and treatment of ETCs and TORs under MRTU will increase its costs.

137. The Control Area Coalition also argues that the CAISO has failed to meet its burden of proof that MRTU is just and reasonable and that it is the CAISO that failed to enumerate the seams issues and provide studies showing how MRTU will impact seams. The Control Area Coalition argues that, if the record before the Commission is

Technical Conference Comments); SoCal Edison Post-Technical Conference Comments at 2.

¹⁴⁸ As noted in Appendix B, the composition of this group has changed. For purposes of rehearing, the Control Area Coalition does not include BPA or Western. SMUD, a member of the Control Area Coalition, makes arguments similar to those of the Control Area Coalition and incorporates the Control Area Coalition's rehearing request by reference. Therefore, when we refer to the Control Area Coalition's arguments, we also refer to SMUD's arguments.

¹⁴⁹ Quoting September 2006 Order, 116 FERC ¶ 61,274 at P 486.

insufficient to assess the seams-related costs and burdens of MRTU, then the Commission should order an evidentiary hearing to determine those costs and burdens. The Control Area Coalition alleges that the Commission has arbitrarily rejected and ignored the substantial evidence on seams provided by the Control Area Coalition and other commenters.¹⁵⁰ The Control Area Coalition points to the following seams impacts/costs that parties have enumerated: (1) CRRs are a move to pure financial rights, while the CAISO's neighbors all operate physical rights markets;¹⁵¹ (2) the requirement to settle bilateral contracts through the CAISO eviscerates the price certainty that is a cornerstone of bilateral contracts and the reason parties use them;¹⁵² (3) marginal losses will add a new layer of cost, complexity, risk and uncertainty to trading in the West;¹⁵³ (4) the MRTU market places new restrictions on imports and exports, with restrictions on exports negatively affecting reliability because the export restrictions could pass emergency shortfalls on to neighboring control areas, rather than isolating them in the CAISO and restrictions on imports discouraging neighboring control areas from trading with the CAISO, which could cause reliability problems due to the CAISO's dependence on imports;¹⁵⁴ (5) the MRTU markets have opening and closing timelines that do not match the bilateral market timelines used by all other control areas in the West and, because the CAISO's daily bidding process is not complete until noon, bidders will incur more risk to bid into the CAISO's market and will raise their prices to compensate for this risk;¹⁵⁵ and (6) border entities will need to invest substantial resources to obtain staff expertise needed to actively manage the complex hedging arrangements that would be necessary to mitigate the market risks and uncertainties in conducting day-to-day energy transactions in the MRTU market.¹⁵⁶

¹⁵⁰ Control Area Coalition Oct. 23, 2006 Request for Rehearing, Docket No. ER06-615-001, at 7 (citing Alaywan Testimony at 20-45) and 15 (citing Control Area Coalition Apr. 7, 2006 Comments, Docket No. ER06-615-000, at 10-11 (Control Area Coalition Apr. 7, 2006 Comments); Alaywan Testimony at 20-45) (Control Area Coalition Request for Rehearing). The Control Area Coalition also references in general other comments raising seams concerns.

¹⁵¹ *Id.* at 6 (citing Control Area Coalition Apr. 7, 2006 Comments at 10).

¹⁵² *Id.* (citing Control Area Coalition Apr. 7, 2006 Comments at 11; Alaywan Testimony at 33-37).

¹⁵³ *Id.* (citing Control Area Coalition Apr. 7 2006 at 11).

¹⁵⁴ *Id.*

¹⁵⁵ *Id.* at 6-7 (citing Alaywan Testimony at 25).

¹⁵⁶ *Id.* at 7 (citing Alaywan Testimony at 31; Exh. Ingwers Testimony at 15).

138. According to the Control Area Coalition, the Commission did not have an evidentiary basis for determining that the benefits of the redesign outweighed the costs, burdens and risks, and that the MRTU proposal is just and reasonable and a benefit to the western grid. In particular, the Control Area Coalition argues that the Commission's holding that "MRTU does not create new seams with the bilateral markets in the West,"¹⁵⁷ ignores contrary testimony submitted by the Control Area Coalition, BPA, SMUD and other commenters.¹⁵⁸ It contends that the Commission did not address BPA's argument that MRTU disproportionately burdens or disadvantages imports, thereby discouraging needed imports of power and increasing the cost of energy in the CAISO, in the following areas: (1) congestion charges on imports of ancillary services that are not levied on ancillary services within the CAISO Control Area; (2) the inclusion of control area resources and the exclusion of imports in the RUC process and availability payments; and (3) limiting HASP to bids from imports and self-schedules.

139. In addition, the Control Area Coalition argues that the Commission did not address evidence that the CAISO had failed to satisfy its own promise to address seams in its MRTU filing.¹⁵⁹ The Control Area Coalition adds that, due to the Commission's experience with the Midwest ISO market redesign, the Commission knows that the creation of Day 2 LMP markets will create seams with neighboring physical rights markets. The Control Area Coalition asserts that Midwest ISO and Mid-Continent Area Power Pool entered into a seams operating agreement to ensure that parallel flows and impacts are recognized and controlled in a reliable manner.

140. TANC also asserts that the following issues it raised were not rebutted by the CAISO or addressed by the Commission: (1) MRTU Tariff section 4.5.3.2 - The CAISO's reference to "intertie interconnection schedules" is unclear and the apparent reference to generator or new interconnections is misplaced; (2) MRTU Tariff section 7.8.1 - The CAISO limits entities' ability to manage over-generation by not allowing or accepting export bids; (3) MRTU Tariff section 11.2.4.4.1 - The "pro-ration" process involving the use of "net total hourly shortfalls" fails to specify whether the calculation is based on units or value of units; (4) MRTU Tariff section 11.2.4.4.2 - The "pro-rata"

¹⁵⁷ *Id.* at 11 (quoting September 2006 Order, 116 FERC ¶ 61,274 at P 8).

¹⁵⁸ The Control Area Coalition points again to LMP settlement, marginal losses, treatment of exports, scheduling timelines, the further move away from physical rights and the cost and operational impact on physical border entities. *Id.* at 12 (citing Control Area Coalition Apr. 7 2006 Comments at 10-11; Alaywan Testimony at 20-45).

¹⁵⁹ *Id.* at 10 (citing Control Area Coalition Apr. 7 2006 Comments at 3-4 (citing MD02 Comprehensive Design Proposal, Apr. 3, 2002; CAISO 2006-2008 Three-Year Strategic Corporate Business Plan at 2 (Mar. 2, 2006))).

process involving the use of "hourly shortfalls" fails to specify whether the calculation is based on units or value of units; (5) MRTU Tariff section 28.1.2 - Prohibiting Inter-SC trades at scheduling point jeopardizes ETC holders and burdens their ability to use their ETC; and (6) MRTU Tariff section 31.4(c) - The CAISO has not explained its use of the term "global ETC priorities;" the term requires explanation for the section to have meaning.¹⁶⁰

Commission Determination

141. We disagree with the assertion that the Commission unlawfully reversed the burden of proof. We agree that the CAISO has the burden to show that its MRTU Tariff is just and reasonable, and the Commission has found that the CAISO met that burden.¹⁶¹ To challenge that finding, a party must present more than unsupported allegations.¹⁶² Requiring parties to provide some evidence in support of a bare allegation does not amount to a shift in the burden of proof.¹⁶³ Here, commenters made unsupported allegations that, under MRTU, their costs would be increased and differing market rules may be burdensome.¹⁶⁴ Such unsupported allegations are not sufficient to challenge the Commission's finding that MRTU is just and reasonable. To the extent that meaningful evidence was provided, the Commission carefully considered such evidence in the September 2006 Order and made its determinations accordingly.

¹⁶⁰ TANC Oct. 23, 2006 Rehearing Request, Docket No. ER06-615-001, at 16 (citing TANC Apr. 10, 2006 Protest, Docket No. ER06-615-000, at 22-24).

¹⁶¹ See September 2006 Order, 116 FERC ¶ 61,274 at P 25.

¹⁶² *Sierra Pacific Power Co.*, 106 FERC ¶ 61,155, at 20 (2004).

¹⁶³ *Id.*

¹⁶⁴ See September 2006 Order, 116 FERC ¶ 61,274 at P 486. For example, WestConnect commented that the MRTU's use of financial rights "will further balkanize the CAISO from its neighbors" without elaborating how. WestConnect Apr. 10, 2006 Comments, Docket No. ER06-615-000, at 7. SMUD argued that the financial rights model of transmission service in CAISO and the physical rights model of the rest of the West currently use different timelines and deadlines for scheduling and the close of markets. SMUD claimed that differing scheduling timelines have caused market inefficiencies and seams over the past few years and that changes proposed in MRTU threaten to exponentially exacerbate these seams. SMUD Apr. 10, 2006 Protest, Docket No. ER06-615-000, at 10). Neither SMUD's protest nor the supporting exhibit attached to it provided a basis for the speculation that MRTU would "exponentially exacerbate these existing seams."

142. With respect to the seams impact or costs enumerated by the Control Area Coalition on rehearing, we find that the alleged costs are either unfounded or the benefits of MRTU outweigh the costs. First, with respect to CRRs, in the September 2006 Order, the Commission determined that the MRTU congestion management scheme, with its combination of physical and financial rights, is superior to a pure physical rights approach to congestion management.¹⁶⁵ Consequently, the Commission determined that the benefits of moving to the MRTU congestion management scheme outweigh the possible costs.

143. Second, the Control Area Coalition incorrectly states that, under MRTU, bilateral contracts will have to be settled through the CAISO. As explained in the September 2006 Order and again in this order,¹⁶⁶ we find that Inter-SC Trades at interties are unnecessary. Furthermore, with the exception of seller's choice contracts, the Inter-SC Trade settlement service is voluntary. Therefore, we find that the alleged costs associated with the settlement of bilateral contracts are unfounded.

144. Third, with respect to marginal losses, in the September 2006 Order, the Commission conditionally accepted the CAISO's proposal to reflect marginal losses in its calculation of LMP because doing so sends more accurate price signals and assures least-cost dispatch.¹⁶⁷ As such, the Commission has concluded that these benefits outweigh the possible costs.

145. Fourth, with respect to restrictions on imports and exports, we are granting rehearing requests on some MRTU provisions related to exports that will eliminate potential seams.¹⁶⁸ In addition, contrary to the Control Area Coalition's contention that issues related to restrictions on imports were not addressed in the September 2006 Order, the Commission addressed the issues related to imports raised in protests to the MRTU filing.¹⁶⁹

¹⁶⁵ *See id.* P 900.

¹⁶⁶ *Id.* P 469-70; discussion in Inter-SC Trades section of this order.

¹⁶⁷ *Id.* P 90-92; discussion in marginal losses section of this order.

¹⁶⁸ For example, in this order, we direct the CAISO to file amended tariff sheets modifying MRTU Tariff section 40.6.11 to provide that the CAISO may curtail exports from RA capacity to prevent or alleviate a system emergency and direct the CAISO to work with Imperial to address pro-rata allocation of derates to partial RA capacity.

¹⁶⁹ For example, the Commission explained why it rejected BPA's and others' call for an hour-ahead market, why application of congestion charges to imports is appropriate, and why BPA's contention that imports to the CAISO system are selectively

146. Fifth, with respect to differences in market timelines, as discussed in the post-technical conference comments section, mismatches between the CAISO's scheduling timelines and other control areas' timelines exist today. The later closing of markets under MRTU improves the ability of market participants to participate in the CAISO markets. Also, we have not heard from any of the CAISO LSEs or generators that differing CAISO and western scheduling timelines hinders their ability to import into or export out of the CAISO. Therefore, we decline to require a change in scheduling timelines under MRTU at this time. But, to the extent that there are opportunities to improve scheduling practices in the West, we encourage WECC and its committees to address this issue.

147. Finally, we find that the increase in possible staff costs to transact in the MRTU market is offset by the benefits of a more feasible and economically-dispatched CAISO system.¹⁷⁰ For these reasons, we also deny the Control Area Coalition's request that we

exposed to LMP is incorrect. *See* September 2006 Order, 116 FERC ¶ 61,274 at P 204, 396, 613.

¹⁷⁰ We note that, in its list of seams issues on pages 10-11 of its Apr. 7, 2006 comments, the Control Area Coalition repeatedly refers to a list of unsupported allegations. On rehearing, the Control Area Coalition has cited to testimony it argues supports these concerns. In this discussion, we have addressed all but two issues on that list. One such issue relates to the lack of provision for long-term firm transmission service. The other relates to the CAISO's ability to fairly and transparently calculate LMP for nodes that interface with other control areas. Since the Control Area Coalition has not restated these two concerns on rehearing, we treat them as satisfactorily addressed in the September 2006 Order.

We add that the Control Area Coalition seeks to incorporate by reference arguments raised not only in its prior pleading but also in other commenters' prior pleadings. *See* Control Area Coalition Request for Rehearing at 15 & n.60. The incorporation of arguments from prior pleadings in a rehearing request is inconsistent with section 313 of the FPA, 16 U.S.C. § 825l (2000), which states that "[t]he application for rehearing shall set forth specifically the ground or grounds upon which such application is based." *See City of Santa Clara v. Enron Power Marketing, Inc.*, 112 FERC ¶ 61,280, at P 8 n.4 (2005) (citing *Standardization of Generator Interconnection Agreements and Procedures*, Order No. 2003-B, FERC Stats. & Regs. ¶ 31,171, at P 47 n.17 (2004), *order on reh'g*, Order No. 2003-C, FERC Stats. & Regs. ¶ 31,190 (2005), *aff'd sub nom. Nat'l Ass'n of Regulatory Util. Commissioners v. FERC*, No. 04-1148, 2007 U.S. App. LEXIS 626 (D.C. Cir. 2007)); 18 C.F.R. § 713(c)(1) (2006). Furthermore, such an incorporation of arguments by reference in a rehearing request places the Commission in the untenable position of determining which arguments are still relevant following the issuance of a Commission order on the issues. *Id.* For

revisit the Commission's finding that MRTU does not create new seams with the bilateral markets in the West.

148. We also disagree with the Control Area Coalition's assertion that the Commission did not address BPA's argument that MRTU disproportionately burdens or disadvantages imports. The Commission addressed BPA's argument on (1) congestion charges for imports of ancillary services in the ancillary services section of the September 2006 Order;¹⁷¹ (2) the exclusion of imports from the RUC process and availability payments in the RUC process section of the September 2006 Order;¹⁷² and (3) limiting HASP to bids from imports and self-schedules in the HASP and real-time market section of the September 2006 Order.¹⁷³

149. With respect to the Control Area Coalition's argument that the CAISO has failed to satisfy its promise to address seams issues in its MRTU filing, we point out that, in the years leading up to the MRTU filing, the Control Area Coalition's members and other parties have had ample opportunity to raise their concerns about aspects of MRTU that in their view create seams issues. They have had the opportunity to participate in the CAISO stakeholder process and to file comments on several CAISO filings seeking Commission approval of conceptual MRTU elements. Finally, the Control Area Coalition has raised seams issues in this proceeding and the Commission has considered the Control Area Coalition's arguments and addressed them. While the CAISO did not identify specific seams issues as a part of its MRTU filing, many of the issues the parties have raised as seams issues have been debated by the CAISO and the parties and are addressed by the Commission.¹⁷⁴ Therefore, we disagree with the Control Area Coalition's contention that the CAISO has failed to satisfy its promise to address seams issues in its MRTU filing. With regard to the Control Area Coalition's argument that experience shows that the creation of Day 2 LMP markets will create seams with neighboring physical rights markets, we disagree with the parallel drawn by the Control Area Coalition between MRTU and Day 2 markets. As the Commission stated in the September 2006 Order, MRTU does not represent a move from physical rights to

these reasons, we will not consider the arguments the Control Area Coalition seeks to incorporate by reference here.

¹⁷¹ See September 2006 Order, 116 FERC ¶ 61,274 at P 393-96.

¹⁷² *Id.* P 138-43.

¹⁷³ *Id.* P 197, 203-06.

¹⁷⁴ For example, the issues related to imports into and exports from the CAISO, CRR allocation, and marginal losses have been raised by parties and addressed by the Commission.

financial rights as would be the case in a Day 2 market.¹⁷⁵ Rather, MRTU represents a further modification of an existing financial rights model.¹⁷⁶ In addition, as the Midwest ISO points out, “[l]oop flow impacts from the centralized economic dispatch of a market are no different from loop flow impacts due to the centralized economic dispatch of traditional control areas. The only difference is the economic method used to determine which units are dispatched first...”¹⁷⁷ Unlike in a Day 2 market start-up that includes transition to centralized economic dispatch, the CAISO already conducts a centralized economic dispatch and will continue to do so under MRTU. Therefore, the Control Area Coalition’s analogy is inapposite, and we deny its rehearing request.

150. As for the specific issues raised by TANC, we deny rehearing for the following reasons. First, we note that MRTU Tariff section 4.5.3.2, including the language TANC claims is unclear, contains currently effective tariff language. Therefore, the MRTU Tariff section does not create a seams issue, as alleged. Second, MRTU Tariff section 7.8 addresses the CAISO’s management of over-generation conditions in real-time. Therefore, we find that, contrary to TANC’s assertion, this section does not impose any limitations on scheduling coordinators’ ability to bid exports in HASP. Third, with respect to MRTU Tariff section 28.1.2, as explained in the September 2006 Order¹⁷⁸ and again as discussed above, we find that Inter-SC Trades at interties are unnecessary. Further, there is nothing before the Commission that would indicate the Inter-SC Trade proposal will adversely affect ETCs. The Inter-SC Trade proposal is designed to offset double payments and charges that occur when participants bilaterally contract within the CAISO. There is no double payment issue with transactions at interties. Additionally, we again note that, with the exception of seller’s choice contracts, the Inter-SC Trade settlement service is voluntary. Finally, TANC has not explained how seams are created by its claimed lack of specificity in MRTU Tariff sections 11.2.4.4.1 and 11.2.4.2 related to the units to be used in calculations in the pro-rationing process and the term “global ETC priorities” in MRTU Tariff section 31.4(c). However, we direct the CAISO to consider including the specificity TANC seeks in the CAISO’s Business Practice Manuals. We encourage TANC to raise the issue of whether specific language should be included in the MRTU Tariff or in the Business Practices Manuals in the upcoming technical conference on Business Practice Manuals.

¹⁷⁵ See September 2006 Order, 116 FERC ¶ 61,274 at P 487.

¹⁷⁶ *Id.*

¹⁷⁷ Midwest ISO Jan. 19, 2007 Post-Technical Conference Comments, Docket No. ER06-615-002, at 8.

¹⁷⁸ *Id.* P 469-70.

b. Requests for Impact Studies, Evidentiary Hearing and Conditional Acceptance of MRTU

151. The Control Area Coalition requests that the Commission require the CAISO to provide seams impact studies before the Commission determines whether MRTU is just and reasonable. Furthermore, it requests that the Commission require the CAISO to conduct and publish a seams impact study performed on data available one year after MRTU implementation to ensure that neighboring control areas will have a formalized means to measure MRTU's impact on seams and help resolve issues as they arise.

152. The Control Area Coalition also requests that the Commission reconsider its rejection of the request for an evidentiary hearing on seams issues. The Control Area Coalition argues that there is no evidentiary basis for the Commission's determination that "MRTU is designed, in many ways, to mitigate the existing seams and enhance trade between the differing regions within the West."¹⁷⁹ The Control Area Coalition argues that the CAISO has not made such a representation in its MRTU filing and that the Control Area Coalition and other parties provided substantial evidence that MRTU would create new seams. In addition, it states that, in the CAISO's answer, the CAISO admitted that many current seams will continue to exist in the MRTU market.¹⁸⁰ The Control Area Coalition also contends that the CAISO has overtly resisted addressing seams issues.¹⁸¹ According to Control Area Coalition, unresolved material facts include: (1) the nature, identity and extent of current seams; (2) the extent to which MRTU will exacerbate the impact of these current seams; (3) the nature, identity and extent of new seams created by MRTU; and (4) the cost impact of the preexisting, exacerbated and newly created seams on non-CAISO entities in the West. It claims that, without an evidentiary hearing, the Commission's rejection of the substantial seams evidence is arbitrarily based on the "belief that the MRTU proposal will not adversely affect the nature of commercial practices and relationships currently in place in the CAISO markets and in the West."¹⁸²

153. In addition, the Control Area Coalition states that the Commission erred in ordering only a technical conference and meetings on seams. The Control Area Coalition contends that, absent an evidentiary hearing on seams, there are no procedural

¹⁷⁹ *Id.* P 8.

¹⁸⁰ Control Area Coalition Request for Rehearing at 19 (citing CAISO Reply Comments at 26, 31).

¹⁸¹ *Id.* (citing Control Area Coalition Apr. 7, 2006 Comments at 5-6 (citing Phoenix Consulting "Know the ISO Event Report" of Aug. 16-18, 2005 MRTU Stakeholder Meeting, at 2)).

¹⁸² *Quoting* September 2006 Order, 116 FERC ¶ 61,274 at P 489.

mechanisms in place to ensure that the full scope of seams issues can be vetted and the assertions of the parties tested under cross-examination. The Control Area Coalition also seeks clarification that the seams technical conference will take place on the record.

154. TANC, Lassen, Modesto, Bay Area Municipals and Cities/M-S-R state that several commenters have argued that MRTU creates barriers to interregional trade, limits competition and adversely affects reliability. They argue that the Commission recognized that seams issues should not be allowed to hinder the reliable, competitive functioning of markets in the West but failed to condition implementation of MRTU on the successful resolution of seams issues. They further assert that the sheer volume of seams issues to be resolved raises the concern that important seams will not be resolved by MRTU start-up.

155. TANC, Lassen, Modesto, Bay Area Municipals and Cities/M-S-R further argue that it was premature for the Commission to conclude that MRTU will reduce seams issues when so many important provisions of MRTU are yet to be finalized and submitted. TANC alleges that the Commission failed to consider the fact that MRTU is a novel design in the West and that, on balance, MRTU will create, not diminish, seams issues. TANC, Lassen, Modesto, Bay Area Municipals and Cities/M-S-R argue that the Commission's conclusion that MRTU reduces seams is inconsistent with the determination that a technical conference is needed to resolve seams issues. Therefore, they request that the Commission condition the start of MRTU on the resolution of seams issues.

Commission Determination

156. We deny commenters' request for seams impact studies for the reasons set forth in the post-technical conference determinations below. We also reject the request that the Commission reconsider its decision not to set the MRTU Tariff proposal for an evidentiary hearing. The decision as to whether to conduct an evidentiary hearing is in the Commission's discretion.¹⁸³ In the September 2006 Order, the Commission stated that:

[w]e ... find it unnecessary to set the tariff for hearing. Parties have provided thousands of pages of testimony and exhibits in this proceeding, both supporting and opposing specific aspects of the tariff filing. While the sheer number of pages of filings and testimony alone does not resolve factual disputes, we have found the record sufficient to make

¹⁸³ See, e.g., *Woolen Mill Ass'n v. FERC*, 917 F.2d 589, 592 (D.C. Cir. 1990) (citing *Cerro Wire & Cable Co. v. FERC*, 677 F.2d 124, 128 (D.C. Cir. 1982)).

determinations, and to direct compliance filings, where necessary, to modify the tariff.^{184]}

157. Given the substantial record already established (including comments filed related to the seams technical conference) on which to base our decision, we find that requiring evidentiary hearings would serve only to further delay implementation of the essential market improvements included in MRTU. The technical conference and pre- and post-technical conference comments allowed the parties to vet fully the seams issues related to MRTU market implementation. Contrary to the protestors' assertion, the seams issues that need to be addressed prior to the implementation of Release 1 of MRTU have been identified, significant evidence has been provided and considered, and, below, the Commission has directed the CAISO to take the necessary actions to resolve those issues prior to the implementation of MRTU Release 1. For these reasons, we deny these requests for rehearing.

c. Treatment of Exports

158. Imperial argues that the MRTU Tariff restricts exports outside the CAISO's Control Area and therefore discriminates against exports, which impedes interstate commerce in violation of the Commerce Clause of the U.S. Constitution. Imperial contends that the September 2006 Order accepts tariff provisions that will harm reliability, competition and customers located outside of the CAISO by allowing the CAISO to trap generation within the CAISO's Control Area and denying others access to that generation. Imperial asks that the MRTU Tariff be amended so that resources in the CAISO Control Area that have bilateral contracts with entities outside the CAISO Control Area are not subject to RA rules. Furthermore, Imperial asks that the MRTU Tariff be amended to address the treatment of partial RA resources under derate conditions. Finally, as support for its argument that exports are treated in a discriminatory manner, Imperial lists a number of examples, including that external LSEs must expend a considerable amount on CRRs, LSEs in the CAISO are given unduly preferential rights to CRRs, LSEs outside the CAISO are exposed to nodal LMPs whereas internal CAISO LSEs pay average LAP prices, and the MRTU Tariff is unclear about whether firm exports will continue to preserve their scheduling priority above interruptible, non-firm transmission.

Commission Determination

159. In this order, we have addressed Imperial's concerns regarding restrictions on exports. In the resource adequacy section of this order, we grant rehearing and direct the CAISO to revise the MRTU Tariff to address export restrictions on capacity not under

¹⁸⁴ See September 2006 Order, 116 FERC ¶ 61,274 at P 25 (citation omitted).

RA obligation. We also direct the CAISO to address the generator derate issue raised by Imperial. Therefore, contrary to Imperial's assertion, the MRTU Tariff does not 'trap' resources located inside the CAISO control area that are not receiving a resource adequacy capacity payment. With regard to allocation and availability of CRRs to LSEs outside the CAISO, and the concern that LSEs outside the CAISO are exposed to nodal LMPs while internal CAISO LSEs pay average LAP prices, as we explain in the CRR section of this order, we disagree that the treatment of external LSEs is unduly discriminatory because internal and external load are not similarly situated. Finally, in the resource adequacy section of this order, we have responded to Imperial's claim that the MRTU Tariff section 40.6.11 is unclear as to whether firm exports will continue to preserve their scheduling priority above interruptible, non-firm transmission. As we have explained therein, we disagree with Imperial that exports of energy provided by RA capacity are firm. Instead, consistent with North American Electric Reliability Corporation (NERC) and WECC guidelines, they are non-firm opportunity sales that should be subject to curtailment to prevent or alleviate a system emergency. Curtailment in this situation is appropriate because the resource providing exports has already received a capacity payment in return for making itself available when needed by the CAISO. Accordingly, we disagree with Imperial's claim that MRTU impedes interstate commerce or unduly discriminates against some market participants. For these reasons, we find that Imperial's claim that MRTU traps generation inside the CAISO control area and denies other access to that generation in violation of the Commerce Clause is unfounded.

d. Oversight of Inter-Control Area Operations

160. PG&E argues that, given the complexity of inter-control area operations under MRTU, the CAISO's Department of Market Monitoring (DMM) and the CAISO's Market Surveillance Committee (MSC) should be charged with oversight of inter-control area operations that might affect the CAISO grid in the areas of pricing, reliability, leaning, loop or inadvertent flow or other effects to prevent gaming or market manipulation by utilities outside the CAISO's Control Area.

Commission Determination

161. We deny PG&E's request because the CAISO's DMM and MSC already have broad mandates to monitor the CAISO markets, including "design flaws and inefficiencies in the CAISO tariff, BPMs, and operating procedures, including the potential for problems between the CAISO and other independent power markets or exchanges insofar as they affect the CAISO markets."¹⁸⁵ The CAISO is not prevented from using its DMM and MSC for monitoring inter-control area operations that might

¹⁸⁵ MRTU Tariff section 38.2.2.

affect the CAISO-controlled grid. Further, the CAISO, its market monitor or any market participant can always refer any perceived gaming or market manipulation claims to the Commission's Office of Enforcement. The Commission is responsible for investigating alleged gaming and market manipulation, and it takes this responsibility seriously.

2. Technical Conference and Post-Technical Conference Comments

162. At the outset, we reiterate that it is important to resolve any seams issues that will hinder the reliable, competitive functioning of the markets in the West.¹⁸⁶ To that end, the Commission directed that a technical conference be convened to assist the parties in identifying seams issues that require resolution. As mentioned above, on December 14-15, 2006, the Commission held a technical conference on alleged MRTU-related seams issues and provided an opportunity to comment. In their post-technical conference comments, commenters responded to the Commission's request that they specifically identify any seams concerns, prioritize those they believed had to be addressed prior to MRTU implementation and propose a work plan for addressing those concerns.¹⁸⁷ We will not directly address the pre-technical conference comments because the post-technical conference comments represent the sum of commenters' concerns following the technical conference.

163. Below, we discuss the parties' post-technical conference comments and set forth our determinations regarding which seams issues must be resolved prior to the implementation of MRTU Release 1, which seams issues are not tied to MRTU or the implementation of MRTU Release 1 and must be resolved through a WECC-wide effort, and how the process for the resolution of seams issues should move forward.

a. Issues Commenters Identified as Requiring Resolution Prior to MRTU Implementation

i. LMP and Loop Flow

164. The Public Power Council contends that MRTU may change energy flows in neighboring systems, which could affect reliability outside the CAISO and require control areas to change operations to maintain their compliance with reliability standards. Salt River,¹⁸⁸ the Control Area Coalition¹⁸⁹ and WestConnect¹⁹⁰ argue that, under WECC

¹⁸⁶ September 2006 Order, 116 FERC ¶ 61,274 at P 490.

¹⁸⁷ See Notice Inviting Comments, 71 Fed. Reg. 78,411 (2006).

¹⁸⁸ SMUD supports Salt River's post-technical conference comments. SMUD separately argues that the seams issues that it has raised are created or exacerbated by

policies and procedures, prior to MRTU implementation, the CAISO has the obligation to conduct a base case market simulation of MRTU's impacts on neighboring control areas (including a study of flow changes on interties) and other WECC members are obliged to provide peer-review of the CAISO study designs and study results through public, inclusive meetings and document review. While the Control Area Coalition acknowledges that WECC does not customarily require members to conduct such studies for new market designs, it argues that experience has shown that significant changes in market design directly impact use and reliability of the transmission facilities. Salt River and the Control Area Coalition assert that the simulations of energy flows are needed to initially quantify reliability impacts from MRTU economic dispatch, the full network model and LMP. Arizona Public Service Company (Arizona Public Service) supports the need for full and adequate testing of the full network model and other aspects of MRTU prior to start-up.

165. Salt River and the Control Area Coalition claim that the CAISO will not need to incur delays in assembling new data bases or incur significant expenses because, as a member of the WECC, it has access to WECC's data bases of base cases of energy flows and system conditions that can be used for the initial simulations of MRTU impacts, with sensitivity analyses of various fuel price assumptions. Salt River and the Control Area Coalition assert that neighboring control areas can immediately review the CAISO study designs and stand ready to review results as well.

166. WestConnect argues that the MRTU dispatch software is not tested under simulated market conditions. WestConnect asserts in other RTOs and ISOs, the use of black box dispatch software resulted in a lack of generation where needed and overloading on the interties that affected neighboring systems.

MRTU and have not been caused by SMUD's decision to "leave the CAISO" and form its own control area.

¹⁸⁹ As noted in Appendix B, the composition of this group has changed. For purposes of its post-technical conference comments, the Control Area Coalition does not include BPA, Los Angeles Department of Water and Power or Western. TANC, SMUD and Imperial support the Control Area Coalition's post-technical conference comments. Imperial also supports the Control Area Coalition's White Paper filed on November 30, 2006 in Docket No. ER06-615-002 and Supplemental Seams Report filed on January 16, 2007 in Docket No. ER06-615-000.

¹⁹⁰ As noted in Appendix B, the composition of this group has changed. For purposes of its post-technical conference comments, WestConnect does not include the Tri-State Generation and Transmission Association.

167. Xcel argues that the operation of MRTU will likely have significant energy flow impacts on both the transmission system operated by the CAISO and on neighboring systems within the WECC. Xcel submits that these impacts must be acknowledged and addressed. If not, Xcel claims that the users of common transmission lines may not be able to engage in transactions going forward that are commonplace today, resulting in economic harm to those users. The Public Power Council contends that the CAISO's redispatch of generation to relieve congestion inside the CAISO may result in loop flows and affect congestion on the interfaces between the CAISO and other control areas.

168. The Public Power Council contends that the method chosen by the CAISO for calculating flows within the CAISO could negatively impact transmission providers outside of the CAISO. The Public Power Council argues that, prior to MRTU implementation, the CAISO should simulate MRTU's effects on ATC amounts outside the CAISO. Xcel asserts that other RTOs have addressed the potential for changes in system flows upon market implementation by adopting seams agreements that allocate transmission capacity between the RTO and neighboring systems based on utilization of that capacity as of a given date prior to market start-up. Xcel believes that a similar allocation of capacity on common transmission lines is needed for the CAISO and transmission systems in WECC outside of the CAISO to maintain the *status quo* with respect to the utilization of common transmission lines upon MRTU implementation. Xcel adds that, to the extent that utilization of transmission capacity shared by the CAISO and neighboring systems is not appropriately allocated, the CAISO may find that it cannot adequately fund its CRRs because sales of those rights may not be based on a realistic understanding of the availability of transmission capacity.

169. The Control Area Coalition contends that MRTU implementation will change power flows and that optimizing the use of the grid is the purpose in pursuing MRTU.¹⁹¹ In order to quantify and address the impact of changes in energy flows, the Control Area Coalition states that CAISO should be directed to conduct a base case simulation of power flows in the Western Interconnection prior to implementation of MRTU and a comparison to post-implementation flows that models external ties. It argues that the Commission should require the CAISO to commit to complying with the WECC unscheduled flow procedures in accordance with the "hold harmless" principle and to

¹⁹¹ The Control Area Coalition claims that the Midwest ISO and PJM have recognized in congestion management seams agreements with Mid-Continent Area Power Pool (MAPP) and Tennessee Valley Authority (TVA) that the centralized economic dispatch performed in RTO spot markets causes untagged loop flows and parallel flows in neighboring control areas. Control Area Coalition Post-Technical Conference Comments at 8-9 (citing Report of Seth Blumsack of Carnegie Mellon Electricity Center, at 12 (filed by Control Area Coalition, Nov. 30, 2003, Docket No. ER06-615-002)).

conforming operations under MRTU to those procedures because the flow changes introduced by MRTU will cause an incompatibility between WECC procedures and the MRTU design. The Control Area Coalition asserts that, to demonstrate that its MRTU software is compliant, the CAISO should run simulations and release those simulations for peer review within the WECC. The Control Area Coalition contends that the satisfactory completion of this requirement should be one of the CAISO's readiness criteria.

170. Salt River adds that the CAISO is also obligated to develop appropriate mitigation as a condition precedent to MRTU implementation. Salt River contends that the CAISO should also file with the Commission tariff provisions specifying any mitigation procedures or process developed by the CAISO and impacted control areas in the Western Interconnection. Salt River and the Control Area Coalition also believe that mitigation can be collaboratively tailored to address any negative impacts these initial studies reveal. Salt River adds that this mitigation should "hold harmless" other control areas. Salt River requests that the impact studies and Commission-approved mitigation procedures be a readiness criterion.

171. WestConnect contends that MRTU implementation could alter historic generation dispatch patterns in the Western Interconnection and increase congestion and unscheduled energy flow in neighboring control areas that use physical rights congestion management models. WestConnect proposes that, prior to MRTU implementation, CAISO should (1) affirm its intent to continue to comply with the WECC unscheduled flow procedures; (2) submit a plan for mitigation of unscheduled flows on non-qualified paths caused by MRTU operations; (3) obtain a finding from WECC of no adverse impacts on the reliability and operations of neighboring control areas and the Western Interconnection; and (4) support any WECC-sponsored efforts to update the Unscheduled Flow Mitigation Plan¹⁹² to make it applicable, if necessary, to additional paths.

172. Salt River contends that the CAISO should commit to complying with the WECC Unscheduled Flow Mitigation Plan, specifically exhausting all internal means, including dispatch of generating units out of economic order in the CAISO Control Area, prior to seeking curtailments and other mitigation steps from embedded and bordering control areas. Salt River proposes that compliance with WECC unscheduled flow procedures be a readiness criterion. Salt River argues that, to comply with this criterion, the CAISO

¹⁹² The Unscheduled Flow Mitigation Plan is a WECC procedure by which controllable devices and schedule adjustments are used to control loop flows and to prevent excessive amounts of unscheduled flows from creating constrained WECC transfer paths.

could conduct an appropriate range of realistic model runs showing how it will perform both day-ahead unit commitment and then real-time re-dispatch to resolve overloading on both internal transmission facilities and on the interties with other control areas. Salt River states that the simulations can be peer-reviewed to ensure that the CAISO manual process is successful in committing and re-dispatching all of its controlled generation units and loads to resolve the overloads it created prior to requesting assistance from other control areas.

173. WECC notes the considerable discussion of the need for additional studies to evaluate the impact of MRTU to the Western Interconnection and concerns with transparency of and access to models and data that have been used by the CAISO in evaluations to-date. WECC states that its project, the "West-wide System Model," is currently under development and is scheduled for full implementation prior to the end of 2008. It states its belief that early phases of the West-wide System Model project will provide the information required for use in any modeling effort that would evaluate MRTU's impact on the Western Interconnection. WECC states that it is currently working with the CAISO to incorporate the CAISO's Bulk Power System information into the West-wide System Model.

174. The CPUC argues that unscheduled power flow concerns should be viewed seriously but not with undue alarm. The CPUC states that the Western Interconnection, with its long, radial supply-to-load and integrated network configuration, has been susceptible to unscheduled flow impacts for years, even before the CAISO was formed, and that there is no evidence that MRTU will increase the risk of other control areas experiencing unscheduled flows. It notes that there are West-wide procedures in place to address unscheduled flow and related congestion management problems, including the WECC unscheduled flow procedures,¹⁹³ the Western Interchange Tool project and an on-going, multi-stakeholder effort to develop a comprehensive West-wide System Model. The CPUC states that each control area should accurately identify the impact of loop flows from within its own control area, calculate the impacts of these flows at the interties with other control areas, and report these flows and their impacts to the appropriate WECC committees/subcommittees.

¹⁹³ The CPUC notes that the Commission has proposed approving the WECC unscheduled flow procedures as a regional difference in proposed mandatory national reliability standards, citing the advantages of the WECC unscheduled flow procedures' use of flow control devices to complement conventional reliance on schedule cutting. CPUC Post-Technical Conference Comments at 7 (citing *Mandatory Reliability Standards for the Bulk-Power System Notice of Proposed Rulemaking*, 71 Fed. Reg. 64,770 (Nov. 3, 2006), FERC Stats. & Regs. ¶ 32,608, at P 564 (2006)).

175. PG&E/SDG&E contend that there is no basis to delay MRTU implementation on claims that MRTU will significantly alter loop flows or have adverse congestion impacts on other control areas. PG&E/SDG&E argue that loop flows will likely be better managed after MRTU implementation than today. PG&E/SDG&E assert that, like today, all internal constraints on the CAISO-controlled grid will be enforced, and interties will be managed according to WECC ratings under the conventional contract path approach. PG&E/SDG&E add that, under MRTU, the CAISO will continue to rely on WECC's unscheduled flow procedures for managing real-time loop flow.

176. Nevada Power Company/Sierra Pacific Power Company (Nevada/Sierra Pacific) acknowledge that it would be very difficult, if not impossible, to perform an impact study of MRTU. Nevada Power/Sierra Pacific state that only with experience will the rest of the Western Interconnection be able to determine whether MRTU causes impacts that require remediation.

177. The CAISO argues that parties are inappropriately attempting to revisit the use of LMP that has already been addressed by the Commission in prior orders by characterizing it as a seams issue. With regard to loop flows, the CAISO asserts that its real-time dispatch under MRTU will be very similar to currently existing dispatch and that MRTU does not add or subtract resources or change the inherent cost structure of the available resources and therefore does not exacerbate loop flows. It states that under MRTU it will continue to adhere to WECC standards, including respecting path ratings and utilizing WECC's unscheduled flow procedures to manage congestion on the interties and loop flows. The CAISO contends that discrepancies between the day-ahead schedule and the real-time dispatch are due to the contract path approach used throughout the West today that does not consider loop flows. The CAISO agrees that the contract path approach used in WECC is not efficient and expresses its willingness to work within the appropriate WECC process to develop a WECC-wide network model and day-ahead data exchange protocol to reduce the discrepancy between day-ahead schedules and real-time flows. The CAISO does not believe that MRTU should be delayed due to this issue.

178. The CAISO criticizes the white papers filed by the Control Area Coalition on November 30, 2006: (1) the ZGlobal Inc.-sponsored white paper on the alleged effects of MRTU implementation (ZGlobal White Paper)¹⁹⁴ and (2) the whitepaper authored by Seth Blumsack of Carnegie Mellon on the alleged effects of LMP in the Eastern Interconnect (Blumsack White Paper).¹⁹⁵ The CAISO asserts that the ZGlobal White

¹⁹⁴ MRTU Seams Issues Whitepaper by ZGlobal Inc. filed by the Control Area Coalition, Nov. 30, 2003, Docket No. ER06-615-002.

¹⁹⁵ CAISO Jan. 16, 2007 Post-Technical Conference Comments, Att. A and B, Docket No. ER06-615-002, at 9-12 (CAISO Post-Technical Conference Comments).

Paper errs in claiming that MRTU implementation will lead to changes in inter-control area scheduling practices and that MRTU will substantially change the CAISO's dispatch of generation resources internal to the CAISO. The CAISO claims that the potential for loop flow exists regardless of MRTU and that WECC path ratings and transmission path scheduling protocols are in place to manage this reality. It also contends that MRTU does not change the generation resources available to the CAISO or change the configuration of the CAISO or WECC transmission grid. The CAISO adds that today's real-time dispatch is very similar to how resources will be dispatched in real time under MRTU. It further claims that its proposed use of a radial network model is consistent with WECC's scheduling practices and has no implications on control areas external to the CAISO. The CAISO states that the use of the radial model is relevant only to how the CAISO predicts the impact of interchange transactions on the transmission constraints internal to the CAISO Control Area.

179. The CAISO and the Midwest ISO argue that there are several inaccuracies in the Blumsack White Paper. First, the CAISO notes that, contrary to the assertion in the Blumsack White Paper, the PJM market is operated as a single electrical control area with separate transmission tariff zones. Second, the CAISO claims that, contrary to the assertion in the Blumsack White Paper, transmission loading relief (TLR) activity has decreased in 2006 as a result of PJM and Midwest ISO expansion and PJM has experienced a decline in both duration and number of TLRs since 2004 when numerous PJM market integrations occurred. Third, the CAISO notes that RTO markets provide constraint relief and better alternatives for physical market operators to maintain grid reliability because RTO markets can more accurately quantify and control unscheduled power flows through flow-based congestion management and LMP pricing. The CAISO claims that the inaccuracies in the ZGlobal and Blumsack White Papers distort the impact of MRTU on seams in the West.

180. The Midwest ISO notes that, contrary to the assertion in the Blumsack White Paper, the Midwest ISO and the MAPP do have a separate, Commission-approved congestion management process.¹⁹⁶ The Midwest ISO explains that the purpose of the CMP between PJM, TVA and the Midwest ISO and the CMP between the Midwest ISO and MAPPCOR was to address how different congestion management methodologies (market-based and traditional) will interact to ensure that parallel flows and impacts are recognized and controlled to ensure consistent system reliability. The Midwest ISO states that, contrary to the assertion in the Blumsack White Paper, there is no recognition in the CMPs or elsewhere that RTO's spot markets' centralized dispatch cause untagged loop flows and parallel loop flows in neighboring control areas. The Midwest ISO states

¹⁹⁶ Midwest ISO Jan. 19, 2006 Motion to Intervene Out-of-Time, Docket No. ER06-615-002, at 6 (citing Midwest ISO and MAPPCOR Seams Operating Agreement (SOA), Art. 7.1 and Att. A (Congestion Management Process (CMP))).

that it has no reason to believe that contention is correct and it did not enter into any of its seams agreements under that premise. The Midwest ISO further states that there is no difference between the loop flow impacts of the centralized economic dispatch of a market and the loop flow impacts of the centralized economic dispatch of traditional control areas. The Midwest ISO explains that the only difference is the economic method used to determine which units are dispatched first.

181. The Midwest ISO also states that the Blumsack's White Paper incorrectly asserts that the historical transmission service interfaces between the Midwest ISO and physical rights-based systems and within the Midwest ISO are treated as grandfathered agreements (GFAs) and subject to separate protocols. The Midwest ISO argues that the data presented for the proposition that TLR events of Level 1 or higher have increased by several orders of magnitude since the onset of the Eastern Interconnect's restructuring and market operations is suspect and requires careful analysis and supplementation. The Midwest ISO states that the data collected thus far for the period after 2005 indicates that, although the number of TLR events in the Midwest ISO may not have decreased, the amount of energy transactions actually curtailed during such events has decreased significantly. The Midwest ISO explains that an important goal of the CMP was to replace TLR interruptions with an economic solution to congestion-based on redispatch obligations that were based on historical system usage. The Midwest ISO adds that, with the development of reporting obligations for market flows, both market and non-market flows are monitored and subjected to TLR when appropriate.

Commission Determination

182. We disagree with the commenters that argue that MRTU's LMP-based market design, in itself, will change loop flows in a way that requires conditioning MRTU implementation on additional unscheduled flow mitigation mechanisms beyond those currently employed in the West. Loop flows are affected by a combination of factors, including energy trading patterns, generation additions and retirements, generation dispatch, load levels, and transmission line additions and outages, most of which are not affected by MRTU implementation. The internal dispatch of CAISO generation is only one of many factors that affect loop flows in the West. We have no reason to believe that LMP or the CAISO's full network model will dramatically change the CAISO's generation dispatch pattern because the local, zonal and intertie transmission constraints that the CAISO observes today in the least-cost economic dispatch of CAISO resources will also be observed in economic dispatch under MRTU. In addition, the underlying factors affecting generation and trade patterns West-wide (*e.g.*, fuel costs, hydro generation levels, energy trades, seasonal differences, time of day, etc.) have a more significant impact on loop flows and those factors will not change under MRTU. Accordingly, such factors should continue to affect loop flows in the same way as they typically do regardless of MRTU. For example, the ZGlobal White Paper points out that:

[h]istorical patterns of flow have developed as a result of available hydropower and base loaded coal and nuclear resources. However, these flow patterns change significantly on a seasonal basis as a consequence of the availability of hydropower and the use of more expensive fossil fuel resources, when needed.^[197]

Even large daily energy schedule changes from on-peak to off-peak periods cause loop flows.¹⁹⁸ It is inefficient to try to remedy seams issues related to loop flow every time there is a change in the flows in the Western Interconnection – *e.g.*, when there are infrastructure additions to the grid. Rather, as we discussed below, the resolution of loop flow seams issues should be considered and addressed in a comprehensive, West-wide context.

183. Given the physical constraints within which the CAISO will dispatch its system under MRTU, it is not evident that changes in the CAISO dispatch pattern as a result of MRTU will have a significant impact on loop flows compared to factors such as West-wide trading patterns, transmission additions and generation additions and retirements. Under MRTU, the day-ahead market and the full network model will ensure that day-ahead load and generation schedules and the CAISO's unit commitment decisions respect all constraints (encompassing what is referred to in the CAISO's current market design as intra- and inter-zonal transmission constraints). These market elements are expected to improve reliability in the CAISO compared to the current practice of accepting infeasible day-ahead schedules that disregard intra-zonal transmission constraints that will have to be dealt with by committing generation through the must-offer waiver process or by redispatching the system in real time. However, both under the current practice and under MRTU, the real-time dispatch of the CAISO system will respect the internal and intertie transmission constraints, including established internal and intertie path ratings. We have not been presented with convincing evidence that the current practices of operating within established path ratings and relying on the WECC unscheduled flow mitigation will be insufficient to deal with any changes to the dispatch pattern that might result from MRTU. Indeed, the CAISO recently made changes to its dispatch and unit commitment and no party raised loop flow concerns as a result of these changes.¹⁹⁹

¹⁹⁷ ZGlobal White Paper, App. A, at 2.

¹⁹⁸ See Chuck Durick, Idaho Power Company, Dec. 14, 2006 Opening Comments at Seams Technical Conference, Docket No. ER06-615-002 (filed Dec. 14, 2006).

¹⁹⁹ For example, under the CAISO's Interim Reliability Requirements Program that went into effect in May 2006, new generator must-offer obligation rules took effect, with generators having resource adequacy obligations being committed before others.

184. Finally, the CAISO grid often operates at maximum capacity.²⁰⁰ We have no indication that this has created seams issues. To the extent that the CAISO grid is operated more efficiently under MRTU as is expected, such operation will continue to be subject to reliability standards and good utility practice. We believe MRTU does not present a departure from the current reliable operation and will not adversely impact the reliability of neighboring systems.

185. With regard to the commenters' concerns about the impact of MRTU on ATC in neighboring systems, we reiterate that we have not been presented with persuasive evidence that MRTU in itself will significantly change the magnitude of loop flows in the West. In addition, it should be noted that the CAISO is not the only system in the West that affects loop flows. Long distance energy transactions common in the West and the generation dispatch of other control areas in the West, for example, are factors that affect loop flows as well. Therefore, the impact of loop flows on ATC and allocation of capacity on common transmission lines is properly addressed in the context of a West-wide evaluation of the issue. WECC, in its post-technical conference comments, states that the Seams Issues Subcommittee will provide a forum for identification and resolution of seams issues. We encourage WECC members to use the Seams Issues Subcommittee and other appropriate WECC committees to address this issue in a collaborative manner and develop a regional solution for loop flow issues.

186. Since we disagree with the contention that the MRTU start-up will significantly affect loop flows, we will not condition MRTU start-up on the CAISO conducting seams impact studies as some commenters have advocated. WestConnect and Salt River ask that the CAISO commit to complying with the WECC Unscheduled Flow Mitigation Plan and support any WECC-sponsored efforts to update the plan. As reflected in the CAISO's post-technical conference comments on seams issues, the CAISO has committed to continue to follow all WECC standards and operating procedures, including the Unscheduled Flow Mitigation Plan. We expect that the CAISO will follow any standards and procedures now in place or to be established by WECC to address loop flows in the future, consistent with its obligation to operate the CAISO-controlled grid pursuant to reliability standards and consistent with good utility practice.

187. WestConnect requests that the CAISO obtain a finding from WECC of no adverse impacts on the reliability and operations of neighboring control areas. WestConnect does not point to any such WECC requirement per NERC or WECC standards. In addition, WECC, in its comments on the technical conference, states that it "is aware that no reliability or seams issues requiring resolution prior to MRTU implementation were

²⁰⁰ For example, under summer conditions, imports into the CAISO often approach intertie limits, and the CAISO's internal transmission paths (*e.g.*, Path 26) often operate near or at their limits.

identified in the technical conference.”²⁰¹ Therefore, we will not condition the MRTU start-up on a finding by WECC of no adverse impacts. However, as we stated above, we expect that the CAISO will continue to adhere to all WECC rules and will fully participate in WECC efforts to evaluate and resolve seams issues.

188. Arizona Public Service and the Control Area Coalition request that the CAISO demonstrate prior to MRTU start-up that its MRTU software is fully tested and functional. We agree that it is critically important that the CAISO’s software and systems are fully tested and ready prior to MRTU start-up. As stated in the September 2006 Order, we are committed to a sound and orderly MRTU implementation plan and will not approve the start of MRTU until we receive the CAISO’s readiness certification and have considered any stakeholder concerns about the CAISO’s readiness.²⁰² The CAISO is developing measurable readiness criteria through its collaborative stakeholder process, and we encourage the neighboring control areas to participate in that process and provide input to the CAISO. We also encourage the CAISO to provide periodic updates to the appropriate WECC committees and subcommittees such as Seams Issues Subcommittee on the status of its readiness efforts. Finally, we direct the CAISO and neighboring control areas to include in their joint quarterly reports on seams the input and comments received from WECC Committees.²⁰³

189. Finally, we disagree with Xcel’s comment that the CAISO may find that it cannot adequately fund its CRRs because sales of those rights may not be based on a realistic understanding of the availability of transmission capacity. The CAISO will determine the amount of CRRs based on transmission constraints and scheduling rights at interties. Therefore, the quantity of CRRs will be based on availability of transmission capacity.

ii. Hold Harmless Provision

190. The Control Area Coalition argues that a hold harmless standard should apply to the development of seams mitigation procedures. According to the Control Area Coalition, this standard would place the burden on the CAISO to study the impact of its change in market design on neighboring control areas, have its studies peer-reviewed and adopt measures to ensure that MRTU implementation does not adversely affect its neighbors. The Control Area Coalition claims that this standard was applied to the

²⁰¹ WECC Post-Technical Conference Comments at 2.

²⁰² September 2006 Order, 116 FERC ¶ 61,274 at P 1414.

²⁰³ *See Id.* P 490.

mitigation of seams between the Midwest ISO and MAPP and between PJM and TVA.²⁰⁴ It contends that this standard would require the CAISO to adopt practices that ensure that neighboring systems will not be adversely affected by MRTU implementation. The Control Area Coalition contends that this standard is consistent with the Commission's recognition that utilities operating in an interconnected system have a general duty not to jeopardize the reliability of a neighboring system or diminish a neighbor's ability to utilize its own system in the most economical manner.²⁰⁵

191. SoCal Edison argues that the "hold harmless" concept is impractical and unreasonable. SoCal Edison states that there is no precedent or justification for requiring a transmission service provider to "hold harmless" another entity as a condition of implementing tariff provisions that the Commission has found just and reasonable. SoCal Edison also argues that, while it is reasonable to expect that MRTU will have some impact on the dispatch of CAISO resources, there has been no evidence filed with the Commission that demonstrates that MRTU will unjustly and unreasonably impact other control areas. SoCal Edison notes that, while some want to be held harmless for the possible negative impacts of MRTU, no entity has proposed to compensate the CAISO for the benefits of MRTU, such as a more feasible and economically-dispatched CAISO system.

192. SoCal Edison adds that, because the CAISO committed to continue to honor its obligations to provide emergency assistance to neighboring control areas, the "hold harmless" argument appears to be focusing on financial rather than reliability concerns. If so, SoCal Edison argues that, because of the dynamic nature of the western-interconnected grid, it is unrealistic to believe that all factors contributing to the system-wide grid flow can be controlled and that the impact of a change in the CAISO's dispatch

²⁰⁴ Control Area Coalition Post-Technical Conference Comments at 13, (citing ZGlobal White Paper at 12; *Alliance Cos.*, 100 FERC ¶ 61,137, at P 53 (2002); *Commonwealth Edison Co.*, 106 FERC ¶ 61,250, at P 6 (2004)). Public Power Council claims that a formal Seams Operating Agreement (SOA) should contain hold-harmless provisions with substantive reciprocal obligations, as provided in the Midwest ISO and MAPP congestion management process. *Citing Midwest Indep. Transmission Sys. Operator, Inc.*, 110 FERC ¶ 61,290 (2005).

²⁰⁵ *Id.* at 15 and n.21 (citing *N. Ind. Public Serv. Co. v. Midwest Indep. Transmission Sys. Operator, Inc.*, 116 FERC ¶ 61,006, at P 11 (2006); *American Elec. Power Serv. Corp.*, 49 FERC ¶ 61,377, at 62,381 (1989) (*AEP*), *reh'g denied*, 50 FERC ¶ 61,192 (1990); *E. Ky. Power Coop.*, 114 FERC ¶ 61,035, at P 40 & n.29 (citing *AEP*, 49 FERC ¶ 61,377 at 62,381)).

can be accurately determined. Rather, SoCal Edison contends that a multitude of factors impact WECC-wide grid flows and the resulting loop flow, such as significant swings in hydroelectric production from year to year, disparate load growth/contraction throughout the WECC, new generation additions, generation retirements, transmission expansions, subregional weather conditions, impacts of transmission and generation outages, the operation of grid elements outside of the CAISO's control (such as phase shifters) and expiring transmission contracts.

193. The CAISO opposes a "hold harmless" provision. It argues that a "hold harmless" provision will perpetuate the subsidies that some parties receive today as a result of lack of transparency in congestion management. The CAISO adds that, although changes to one control area's dispatch of resources to serve its load can affect flows in other control areas, such impacts are related to the configuration of the interconnected transmission system and the control area boundaries, not to the algorithms for dispatching and pricing energy from supply resources, and are appropriately addressed through existing procedures for managing inter-control area flows in the Western Interconnection. The CAISO claims that, in this regard, the ZGlobal White Paper misrepresents the basis for the hold harmless provisions agreed to in connection with the Midwest ISO's implementation of inter-control area dispatch within its footprint and the expansion of the PJM footprint in 2004 and 2005. The CAISO states that those provisions did not concern the implementation of LMP, but rather the change in control area boundaries and elimination of tags for transactions within the expanded Midwest ISO and PJM footprints. The CAISO adds that there is no historical precedent for imposing hold harmless provisions in conjunction with LMP implementation.

194. The CAISO asks that instead the Commission encourage parties to focus their efforts on improving inefficiencies in existing practices, such as (1) the West-wide day-ahead scheduling and congestion management process developed through Seams Steering Group-Western Interconnect in 2003 and identified by the WECC Seams Issues Subcommittee as a work item for 2007; and (2) development of transparent real-time dispatch service currently under consideration by the Commission in the Order No. 888 reform rulemaking in Docket No. RM05-25-000.

Commission Determination

195. We find no merit in the argument that a "hold harmless" standard should apply to the development of seams mitigation procedures. With regard to reliability and operational issues, first, as noted in the discussion of loop flows, we do not believe that MRTU in itself will be a significant contributor to changes in loop flows. Second, with the exception of the modifications that we order herein, no reliability or operational seams issues have been identified that require resolution prior to MRTU start-up. Therefore, a "hold harmless" provision for reliability and operational seams is unnecessary. Additionally, we note that adherence to reliability standards and regional

operational rules and protocols is the surest way that all those involved in operating the grid hold each other harmless. As we stated before, we expect that the CAISO will continue to follow all reliability standards and fulfill its commitments under any operating agreements with neighboring systems. We also find it unnecessary to require a “hold harmless” standard for the financial impacts of MRTU. As the Commission stated in the September 2006 Order, the costs borne by parties under MRTU may be different than the ones they bear today.²⁰⁶ The Commission has also explained in the September 2006 Order and in this order why the various components of MRTU (*e.g.*, CRRs, marginal losses, etc.) are just and reasonable. Therefore, we will not require a “hold harmless” standard as a condition or component of the resolution of seams issues.

196. With regard to Control Area Coalition’s contention that the Commission has required hold harmless provisions elsewhere, we note that those arrangements developed as a result of different circumstances. For example, choices made by utilities in the Midwest to join PJM and the Midwest ISO resulted in irregular configurations of the resulting RTO footprints. These choices were conditionally accepted by the Commission on the assumption that actions such as the development of a Joint Operating Agreement would mitigate any adverse impact related to the seams resulting from these choices.²⁰⁷ In other instances, “hold harmless” provisions have been proposed as incentives for joining RTOs at start-up.²⁰⁸ In contrast, MRTU is not changing the boundaries of the CAISO, and, as observed earlier, we do not anticipate any drastic changes in external flow patterns resulting from MRTU. Consequently, we do not believe a “hold harmless” arrangement is either necessary or appropriate as a pre-condition to the implementation of the MRTU markets.

iii. Protection of Firm Exports Scheduled From Partial Resource Adequacy Units

197. The Public Power Council argues that the CAISO needs to distinguish between those portions of generation resources that are and are not designated as RA units. Salt River, WestConnect²⁰⁹ and the Control Area Coalition²¹⁰ assert that, under MRTU, when the CAISO needs additional generation within the CAISO Control Area, the CAISO can curtail firm export schedules for generation from generating resources whose capacity is

²⁰⁶ September 2006 Order, 116 FERC ¶ 61,274 at P 486.

²⁰⁷ *See Alliance Cos.*, 100 FERC ¶ 61,137 at P 40, 48, 53.

²⁰⁸ *Id.* P 35.

²⁰⁹ Western supports WestConnect’s arguments on this issue.

²¹⁰ Western also supports the Control Area Coalition’s arguments on this issue.

at least partially designated as RA capacity. WestConnect is concerned about the firmness of a schedule from the portion of the resource that is not designated RA capacity. Salt River claims that at times firm schedules from such partially-designated resources will actually be schedules for generation that is not designated as RA capacity. Salt River and the Control Area Coalition contend that, if the CAISO cuts those schedules, the control area expecting to receive that firm energy will be deprived of energy it needs to serve its own load, and the control area will have to find alternative sources of energy to continue to serve its load and balance its system. The Control Area Coalition asserts that, although the CAISO has stated that it does not intend to curtail exports from units that are partially designated as RA resources, neither its tariff language nor the procedures it currently has in place provide adequate assurance that its intentions will be reflected in practice. Nevada Power/Sierra Pacific claim that, if the CAISO cannot distinguish between the RA and non-RA portion of a unit, then California's reliability problems will be exported to the rest of the Western Interconnection. The Public Power Council argues that curtailment protocols are needed to identify schedules to be curtailed to meet reliability criteria at interfaces with other control areas.

198. Salt River and the Control Area Coalition argue that this operational and reliability risk must be resolved prior to MRTU implementation. Salt River, WestConnect and the Control Area Coalition assert that this issue can be resolved by the CAISO releasing model runs and results to all neighboring control areas and demonstrating the MRTU software can and will distinguish between a generating resource's capacity that is and is not designated as resource adequacy and that the MRTU will not cut any schedules for non-designated generation. WestConnect asks that the CAISO demonstrate that the MRTU software can follow changes in designation of RA and non-RA capacity hour to hour or on-peak/off-peak from a generating unit. Salt River proposes that resolution of this issue be a readiness criterion.

199. SoCal Edison notes that MRTU Tariff section 40.4.6.2 allows load in the CAISO Control Area to receive priority sourcing from RA resources because those customers have paid for the resource adequacy benefits of those resources, but this priority creates a concern that firm export sales sourced by RA resources may not be "firm" because those sales do not share the same priority as load inside the CAISO Control Area. SoCal Edison contends that it is necessary to address this concern to ensure that California receives the benefits of the RA products it has procured and that the trading of firm exports sourced from the CAISO will continue in the West.

200. SoCal Edison argues that entities that have paid for resource adequacy resources to serve their load must be able to realize the reliability benefits of those resources by having a higher priority to utilize those RA resources over entities that have not paid for the resources' RA benefits. SoCal Edison also contends that MRTU must accommodate the sales of firm energy exports where "firm" is consistent with the existing WSPP agreement, under which western entities have been making sales for years that benefit

customers inside and outside California. SoCal Edison claims that the CAISO's proposed solution, allowing firm exports only from non-RA resources, does not fully address this issue. SoCal Edison notes that it proposed a solution in its comments to the CAISO's November 20, 2006 compliance filing. SoCal Edison encourages the CAISO to continue to work with stakeholders to address this issue.

201. The CAISO acknowledges that a potential seams issue exists regarding the curtailment priority of exports from RA resources. However, because the issue relates to the resource adequacy program and its interaction with CAISO market rules, the CAISO states that the proper forum for addressing this issue is the CAISO stakeholder process in conjunction with the CPUC and other local regulatory authorities. The CAISO commits to engaging in this process to find a solution consistent with the CAISO's resource and software constraint and without delaying MRTU implementation.

Commission Determination

202. We agree with Salt River, WestConnect, Public Power Council and the Control Area Coalition that curtailment priority of exports from generating units that have committed only part of their output as RA capacity in CAISO must be resolved prior to MRTU. If this issue is not resolved, the portion of capacity from a generator that does not otherwise have a resource adequacy commitment within the CAISO could become trapped in the CAISO and entities outside the CAISO will not be able to contract on a firm basis for such capacity. Such a situation could create unnecessary adverse reliability and financial consequences for those entities that have bought or sold, or intend to buy or sell, capacity from a partial RA generating unit. In addition, to the extent that an entity relies on the capacity from a partial RA generating unit for its own resource adequacy needs, curtailment of such generation can create reliability impacts for such an entity. Therefore, we direct the CAISO to resolve this issue prior to the implementation of MRTU Release 1 and ensure that the MRTU systems and software can properly account for partial RA units. As part of its readiness certification, we direct the CAISO to affirm that the MRTU systems and software can accommodate partial RA units or that the CAISO has developed a manual work-around.

203. With regard to SoCal Edison's concerns and proposed solution for the issue of firm energy exports from RA resources, we will address this issue in the order on the CAISO's compliance filing.

iv. Identification and Accumulation of Key Data

204. Arizona Public Service notes that the CAISO voiced its need for data exchange with the adjacent and embedded control areas. Arizona Public Service proposes that the CAISO meet in an open forum with all neighboring control area operators throughout the Western Interconnection to identify the type, quantity and frequency of data needed and

the reciprocal flow of information. It states that, even if all the data cannot be fully incorporated into the full network model prior to start-up, such discussions would help improve the operation of the full network model and reduce seams impacts as soon as practicable. The Public Power Council asks that a two-way data exchange be in place before MRTU start-up to ensure reliability.

205. Western requests that the Commission require the control areas to develop a formal and fair process for exchanging information between control areas to ameliorate seams issues. Western contends that the data exchange must protect the confidential nature of all parties' data and be administered by a non-market participant. Western claims that, in other situations where the exchange of information was required, the CAISO has employed an unfair process that benefited certain market participants to the disadvantage of other participants (*e.g.*, for meaningful access to the full network model the CAISO requires Western's consultants to pass a security clearance that is administered by the IOUs rather than the CAISO).²¹¹ Western argues that the procedures for exchanging data should be developed between the control areas, be clear and preclude the disclosure of unnecessary personal information (such as an individual's social security number).

206. NCPA and CMUA²¹² request increased transparency of the information necessary for market participants to plan for MRTU and engage in appropriate risk management. NCPA argues that data and model transparency is vital for entities inside and outside the CAISO Control Area and thus is vital for the resolution of seams issues. NCPA states that it has previously expressed its concern about the difficulty in obtaining the full network model (without being forced to forfeit legal rights) and has asked the Commission to address the terms of the CAISO's Non-Disclosure Agreement that imposes burdensome terms on small entities seeking access to it.²¹³ NCPA urges action on its motion.

²¹¹ Western claims that the CAISO did not articulate the security clearance procedures until Western filed at the Commission. Western Post-Technical Conference Comments at 14, (citing CAISO Dec. 21, 2006 Security Check Process). Western also criticizes the security procedures. *Id.* at 14-15 (citing Western Dec. 12, 2006 Compliance Filing Comments, Docket No. ER06-615-003).

²¹² SMUD supports CMUA's post-technical conference comments.

²¹³ NCPA Jan. 16, 2007 Post-Technical Conference Comments, Docket No. ER06-615-002, at 3 (citing NCPA Dec. 22, 2006 Comments and Motion on Compliance Filing, Docket No. ER06-615-003, at 4-7).

207. CMUA claims that it has been actively seeking information, such as the full network model, from the CAISO for several months and that obstacles remain. CMUA is concerned that the conditions for use of these tools will be so burdensome as to prejudice smaller market participants. It urges the Commission to resolve any remaining disputes. CMUA proposes that, by February 15, 2007, the CAISO submit to the Commission any Non-Disclosure Agreement or similar instrument that it proposes to govern release of or access to analytical tools, including the full network model. CMUA suggests that the Commission give market participants seven days to comment on the Non-Disclosure Agreement and propose changes. CMUA suggests that the Commission could then issue an order by mid-March resolving all potential disputes and paving the way for access to the full network model and other tools necessary to prepare for MRTU start-up. CMUA claims that any further delay will prejudice the ability of market participants to prepare for the CRR allocation process.

Commission Determination

208. The need for better data exchange among control areas in the West is not a seams issue related to MRTU. There was no disagreement among commenters that the exchange of data among control areas – for example the exchange of day-ahead load forecast, schedules and outages – will contribute to improved reliability and better enable operators to position the grid for the next day's operations. WECC adds that the West-wide System Model, currently under development, will provide information required for improved modeling efforts. Therefore, we encourage the commenters to work through the appropriate WECC committees to identify and put in place a process for exchange of data among WECC control areas and take advantage of the West-wide System Model. We expect the CAISO to participate fully in this process and direct it and neighboring control areas to include in their quarterly joint seams reports the status of efforts on data exchange and modeling.

209. With regard to NCPA, CMUA and Western's concerns about access to the full network model, we agree that they should have the ability to obtain data and information, subject to reasonable non-disclosure safeguards. However, as we noted above, this is an already existing issue regardless of MRTU. In addition, it has been raised by parties in their December 22, 2006 comments on the CAISO's November 20, 2006 compliance filing. We will address this issue in an order on the CAISO's compliance filing.

v. Calculation and Hedging of Marginal Losses

210. Several commenters complain about the use of marginal losses in MRTU and their inability to hedge such marginal losses and characterize these issues as seams issues. The Control Area Coalition requests that the Commission require the CAISO to include a hedging mechanism for congestion and marginal losses for all transactions because the absence of such a mechanism will impede regional trade. WestConnect contends that the

use of marginal losses in MRTU creates price uncertainty for transmission customers external to the CAISO that cannot be hedged. Arizona Public Service states that hedging has been an issue in all “Day 2” markets. WestConnect argues that the impact of charging marginal losses could be significant due to the shifts in interconnection-wide power flow patterns related to northwest hydropower availability and seasonal resource and load fluctuations and to potential additional flow changes due to LMP re-dispatch. The Public Power Council argues that the CAISO should modify MRTU to provide a mechanism for hedging congestion and marginal losses and accommodate self-scheduling to hedge LMP risk.

211. The Control Area Coalition and the Public Power Council argue that the need for a hedging mechanism can be addressed after MRTU implementation, while Arizona Public Service recommends that the CAISO study the Control Area Coalition’s alternative marginal losses calculation set forth in the ZGlobal White Paper and, if feasible, implement it prior to market start-up.

212. WestConnect suggests an alternative approach to refund the over-collection of marginal loss fees that are not allocated in direct relation to the overcharges to each customer: creating two buckets for allocation of refunds based on the type of schedules. According to WestConnect, the first bucket would record revenues to be refunded to Scheduling Coordinators that schedule into the EZ Gen Hub or LAP, and the second bucket would record revenues to be refunded to the Scheduling Coordinators that schedule source and sink from and to specific nodes. WestConnect states that this approach would allow entities that are required to schedule at a specific bus and are charged the LMP price at their specific bus to have their over-collection based on the scheduled nodes.

213. The CAISO argues that parties are inappropriately attempting to revisit the treatment of marginal losses that has already been addressed by the Commission in prior orders by characterizing it as a seams issue.

Commission Determination

214. We have addressed the arguments regarding hedging of marginal losses at length under the marginal losses section of this order and denied the request that the marginal loss mechanism be rejected because customers cannot hedge marginal loss charges.²¹⁴ We will not adopt WestConnect’s proposed alternative for refunding over-collection of marginal losses because the Commission has previously found that the CAISO’s proposal is just and reasonable.

²¹⁴ See also discussion in ETCs/TORs section of this order.

vi. Outage Scheduling

215. WestConnect states that the current lead time required under WECC rules for notification of scheduled outages is 72 hours. WestConnect notes that MRTU requires notification of scheduled outages on or before 45 days before the scheduled outage. WestConnect asserts that MRTU's lead time for outage scheduling is unreasonable and that the CAISO must work with other control area operators to revise the lead time to a reasonable length.

216. Western is concerned that the MRTU Tariff would change the minimum notice requirement for a maintenance outage from 72 hours to 30-60 days in advance of the first of the month for a "significant" transmission maintenance outage, with "significant" defined as any outage that would have a significant impact on CRR revenue adequacy. Western contends that, through this change, the CAISO places a greater emphasis on the market than reliable operation of the transmission system. It contends that canceling or postponing maintenance outages eventually could result in reliability issues on the interties. Western states that, while the maintenance outages should be coordinated, the MRTU Tariff must be flexible to ensure utilities can complete necessary maintenance activities.

Commission Determination

217. We have addressed the issues related to outage scheduling in the other tariff issues section of this order. As we discuss in more detail in that section, the Commission has accepted similar advance scheduling of transmission outages procedures for other electricity markets, and we have not been persuaded that the MRTU Tariff language is not just and reasonable.

vii. Scheduling/Market Timelines

218. WestConnect²¹⁵ argues that the introduction of day-ahead and hour-ahead markets under MRTU results in the CAISO having opening and closing timelines that do not match the scheduling timelines used by all other control areas in the West. WestConnect argues that these timeline mismatches could impede trading within the Western Interconnection. WestConnect states that, for example, if Party X buys energy day ahead from a non-CAISO supplier by the 7 a.m. deadline used in the rest of the Western Interconnection, then Party X will not be able to confirm that it has CAISO transmission to wheel its energy until six hours later because the CAISO will not confirm day-ahead bids for transmission until 1 p.m. The Public Power Council argues that, prior to MRTU

²¹⁵ Western supports WestConnect's arguments on this issue.

implementation, the CAISO needs to modify the MRTU scheduling timelines because they are not consistent with the rest of the WECC and thus may impair trade.

Commission Determination

219. We do not agree with WestConnect that the introduction of MRTU results in a mismatch between scheduling timelines used by the CAISO and other control areas in the West. Mismatches between the CAISO's scheduling timelines and other control areas' timelines exist today, prior to MRTU implementation. The simplified hour-ahead market will align more closely the scheduling timelines between the CAISO and the rest of the West by allowing schedules to be submitted closer to real-time. In addition, we have not heard from any of the CAISO LSEs or generators that differing CAISO and western scheduling timelines hinder their ability to import into or export out of the CAISO. The absence of objections on their part is significant because these entities rely heavily on imports and exports into and out of the CAISO Control Area; therefore, to the extent MRTU scheduling timelines create trade barriers, one would have expected these entities to have raised objections. We find it important to continue to work to address this issue but find that it would be unreasonable to delay MRTU implementation and making its benefits available to all users until such a pre-existing condition is resolved. Therefore, we will not require a change in scheduling timelines under MRTU at this time. However, to the extent that there are opportunities to improve scheduling practices in West, we encourage WECC and its committees to address this issue. We expect the CAISO to participate in such a WECC process and direct it and other control areas to include the status of any such WECC efforts in their joint quarterly seams status reports.

viii. TORs Generally

220. Imperial urges the Commission to require the CAISO to address issues related to TOR provisions prior to MRTU implementation because the TOR provisions could (1) dissuade new transmission investment; (2) unlawfully subject non-PTOs that are TOR holders to large marginal loss charges and uncertainty; and (3) abrogate ETCs. Imperial claims that new transmission investments in the CAISO's balancing authority area, such as the Green Path line that Imperial, SDG&E and Citizens Energy are developing, will be deterred if co-owners of transmission are subject to substantially inflexible scheduling provisions that result in large marginal losses and congestion charges when such owners are simply using their own share of capacity in the transmission line. Imperial seeks assurances that, under MRTU Tariff provisions, TOR holders will be able to self-supply marginal losses under MRTU. Imperial argues that transmission investment will be stymied if the CAISO is not allowed the flexibility to negotiate operating agreements with TOR holders that provide the TOR holders with cost certainty and enable them to self-supply their own losses when they are using their own transmission capacity. The Public Power Council seeks clarification on the charges entities outside the CAISO who have partial ownership rights over transmission capacity within the CAISO will face,

how MRTU will be modified to remove the disincentives to transmission capacity construction by entities seeking to have ownership rights outside the CAISO and how ETCs will be treated under MRTU. The Public Power Council states that it believes issues related to new transmission capacity can be addressed after MRTU implementation.

Commission Determination

221. We have addressed the issues related to TORs and ETCs more fully in the transmission rights section of this order. With regard to Imperial's concern that co-owners of new transmission projects may face large congestion and marginal loss charges, we disagree because, in most instances, new transmission capacity will be eligible to receive CRRs and, as discussed below, owners of new transmission projects may elect to self-provide losses. That said, however, we cannot make a determination without knowledge of the co-ownership agreement provisions and the specifics of the transmission project. The Commission will make case-by-case determinations regarding operating agreements governing co-ownership arrangements. However, we point out that the Commission has supported infrastructure development by providing incentives for investment commensurate with risk and will continue to do so.²¹⁶

ix. TORs Related to Pacific AC Northwest/Southwest Intertie (PACI)

222. Western states that MRTU must accommodate the existing relationships on the PACI. Western explains that, while it owns portions of the PACI in northern California and Arizona, the CAISO is responsible for operating the PACI in California. Western claims that MRTU will create seams issues associated with Western's responsibilities to enforce statutory and regulatory requirements associated with the sale of federal power. First, Western notes that, due to the discontinuation of the ability to self-provide ancillary services per MRTU Tariff sections 8.1 and 8.2.3.2, Western will no longer be able to provide ancillary services from the Boulder Canyon Project, a federal hydroelectric project, into the CAISO. Western states that it and the CAISO have set up a meeting to discuss this issue and Western is hopeful a solution will be developed prior to MRTU implementation.

²¹⁶ See *Promoting Transmission Investment Through Pricing Reform*, Order No. 679, 71 Fed. Reg. 43,294 (July 31, 2006), FERC Stats. & Regs. ¶ 31,222 (2006), *order on reh'g*, Order No. 679-A, 72 Fed. Reg. 1152 (Jan. 10, 2007), FERC Stats. & Regs. ¶ 31,236 (2006), *reh'g pending*; see also *San Diego Gas & Elec. Co.*, 118 FERC ¶ 61,073 (2007). We note that the Commission is issuing Order 679-B concurrently on this agenda.

223. Second, Western raises issues with treatment of a Transmission Exchange Agreement (TEA) under MRTU. Western explains that it owns one of the high voltage PACI lines from the Malin Substation (Malin) to the Round Mountain Substation (Round Mountain) and has limited use to a priority right to schedule 400 Megawatt (MW) from Malin to the Tracy Substation (Tracy). According to the TEA, in exchange for priority scheduling rights, the CAISO may use Western's remaining 1200 MW of transmission capacity from Malin to Round Mountain. Western states that, under MRTU, it will receive a TOR from Malin to Round Mountain and an ETC from Round Mountain to Tracy. It is concerned that designating the Round Mountain to Tracy portion as an ETC will create unintended problems, such as renewal of the TOR. Western is uncertain of the workload and cost implications of bifurcating this right. Western adds that, under the CAISO's current operating procedures, Western cannot make excess transmission capacity under the TEA available on the OASIS, even though it is allowed to do so under the TEA.²¹⁷ Western explains that, currently when it has any excess capacity, it is forced to be a Scheduling Coordinator; because Western cannot shoulder the financial burdens and responsibilities of that role for non-federal statutory open access customers, it argues that it is precluded from posting its excess capacity on the OASIS.

Commission Determination

224. We have addressed the issue of self-provision of ancillary services from Boulder Canyon Project in the ancillary services section of this order. With regard to the treatment of Western's TEA under MRTU, Western states that it is in the process of setting up a meeting with the CAISO to address this issue. Therefore, we will not prejudge the outcome of these discussions at this point and will allow Western and the CAISO to attempt to resolve the issue in the first place. We direct the CAISO and Western to include in their joint quarterly seams report the status of their discussions on this issue.

x. E-Tagging

225. The Public Power Council contends that there is a lack of clarity on the CAISO's policies on e-tagging, especially regarding internal CAISO schedules, which could affect curtailments. The Control Area Coalition argues that the CAISO must adhere to the WECC's electronic tagging protocols to confirm transactions. According to the Control Area Coalition, without a valid e-tag, then (1) transactions in the WECC will not flow; (2) non-CAISO market participants will not receive the level of certainty from the CAISO that they do from participants in the rest of the WECC; and (3) untagged and

²¹⁷ Western explains that, under sections 8.1.1 and 8.1.2 of the TEA, Western can sell its share of any excess capacity on the PACI one year after the TEA was executed (*i.e.*, 2004).

parallel flows will cause congestion and reliability issues and reduce the number of options that system operators in traditionally organized markets have to mitigate those congestion and reliability effects because only tagged transactions can be used in mitigation. WestConnect states that the CAISO must affirm that it will: (1) follow the WECC data requirements and conventions for electronic tagging and (2) comply with WECC timelines for submission, approval and modification of e-tags, or (3) submit a proposed deviation from the WECC standard to WECC and obtain a finding from the WECC of no adverse impacts on the reliability and operation of neighboring control areas and the Western Interconnection. The Control Area Coalition and the Public Power Council argue that this issue must be addressed prior to MRTU implementation.

226. NCPA states that, although MRTU Tariff section 30.5.2.4 specifies that a NERC tag is required for supply bids for system resources, it does not appear to address the mechanics of how the process will work. NCPA contends that the failure to fully develop the mechanics of implementing NERC required electronic tagging in MRTU will affect all imported energy schedules. It states that, as part of the contemplated MRTU optimization process, the CAISO is basically the purchasing entity for all supply in the market and the selling entity for all demand in the market. NCPA claims that, because the optimization does not specifically match supply schedules (imports) with specific LSEs (or a balanced schedule), the CAISO cannot link a specific energy schedule to an LSE, and LSEs will therefore not have all the information needed to generate the electronic tag. NCPA argues that, although the CAISO will be the last identifiable link in the transaction chain for imports, and thus an obvious identifiable entity for tagging responsibility, it does not appear from the MRTU filing that CAISO intends to get into the NERC e-tagging business. It requests that the CAISO clarify how NERC e-tagging will be accomplished for imports under MRTU.

227. CMUA claims that MRTU may discourage bilateral trades of system resources at the interties. CMUA explains that, under MRTU, if the LSE designates a system resource outside the CAISO Control Area as a RA resource, the resource is subject to the must-offer obligation, but there are many hours in which the RA resource is not needed to meet the load obligations of the LSE. CMUA states that, under MRTU, if the owner of the resource desires to sell the output to an entity outside the CAISO Control Area, it must sell that resource through the IFM.

228. CMUA argues that what is now a bilateral trade between two market participants with load and resources outside the CAISO Control Area becomes more complicated under MRTU. Specifically, CMUA claims that, under MRTU, it becomes a centralized market transaction using the IFM, with the LSE selling the resource into the IFM, the counterparty buying out of the IFM, and a contract-for-differences to ensure accurate settlement. CMUA argues that, for market participants outside the CAISO Control Area that have choices, the requirement that this transaction clear through the CAISO IFM makes it less attractive, all things being equal, than a simple bilateral transaction. CMUA

adds that CAISO charges are likely to apply to the transaction, the financial settlement for the transaction through the CAISO is not as timely as bilateral options, and the IFM timelines make the transaction even more difficult.²¹⁸ The CMUA contends that a CMUA member seeking to enter into the bilateral trade must either pass on the bilateral market opportunity, sell the output in bilateral markets as non-firm, a less desirable product, or enter into the transaction and then bid high hoping not to clear the CAISO IFM. It states that the last scenario is not an appealing option and may even run afoul of market behavior rules because there will be nothing backing the bid into the CAISO IFM. CMUA believes that the likely outcome is that there will be reduced volumes in bilateral markets involving such resources and reduced opportunities for CMUA members to sell excess capacity from resources they own or control that may be outside of the CAISO Control Area. It suggests that this seam can be remedied through a specialized tagging process in the IFM that recognizes a system resource paired with a balanced load bid from outside the CAISO Control area.

Commission Determination

229. We find that WestConnect's and the Control Area Coalition's concerns regarding the CAISO's adherence to e-tag rules are misplaced because the CAISO must adhere to all NERC and WECC standards on e-tagging. To this end, we direct below the CAISO to provide information to the stakeholders on the mechanics of e-tagging interchange transactions. We disagree, however, with the contention that the CAISO must go beyond existing WECC practices and e-tag internal transactions that are not otherwise required to be tagged under NERC/WECC standards. First, as we have stated above, we disagree with the contention that the internal dispatch of the CAISO under MRTU will be so drastically different from what it is today that it will require the CAISO alone to mitigate loop flows. Therefore, we disagree that e-tagging of internal CAISO transactions is required. Second, to the extent that some entities in WECC believe that e-tagging of internal control area transactions is desirable, they should bring the issue to the appropriate WECC committees so that a region-wide standard can be developed and implemented.

230. We agree with NCPA's concern about the lack of clarity in the MRTU e-tagging requirements and mechanics. Lack of clarity in transaction rules can create barriers to trade. Therefore, we direct the CAISO to include in its readiness activities a stakeholder process to further address concerns raised by commenters' about e-tagging rules. We note that the Commission has issued a notice of proposed rulemaking (NOPR) on Standards for Business Practices and Communication Protocols for Public Utilities that relates to reliability and communications and protocols for energy transfers between

²¹⁸ CMUA states that, while bilateral trades are consummated by 6:30 a.m., schedules in the IFM are submitted by 10:00 a.m. and do not clear until 1:00 p.m.

balancing authorities.²¹⁹ Through this rulemaking, the Commission seeks to ensure that the Coordinate Interchange business practices standards that the Commission incorporates by reference in its regulations function compatibly with NERC's proposed reliability standards, currently under review in Docket No. RM06-16-000, in the event that the Commission approves such standards.²²⁰ We believe that this rulemaking will help ameliorate some of the concerns raised by parties about e-tagging rules. The CAISO should include in the next quarterly seams report a proposal on how it will address e-tagging issues with the stakeholders.

231. With regard to CMUA's concern about barriers to bilateral trades from resource adequacy resources outside the CAISO Control Area, we note that the MRTU Tariff provides options in how LSEs participate in resource adequacy. For example, modified reserve sharing LSEs must submit to the IFM a self-schedule or bid equal to 115 percent of their hourly demand forecast. Those LSEs that believe they have excess capacity that they wish to market at times as firm energy can choose the modified reserve sharing option. Since we believe that the MRTU Tariff provides flexibility in how resource adequacy obligations are fulfilled, we deny CMUA's request for added functionality prior to MRTU start-up. However, we encourage the CAISO to evaluate additional functionality that facilitates trading opportunities for resource adequacy resources in future release of MRTU.

xi. Imports/Exports of Energy and Ancillary Services

232. The Public Power Council argues that some MRTU provisions could either ease or restrict exports and imports of energy and ancillary services and such commercial effects should be identified and mitigated, if necessary. It argues that this issue must be addressed prior to MRTU implementation.

²¹⁹ *Standards for Business Practices and Comm'n Protocols for Pub. Util.*, 72 Fed. Reg. 8318 (Feb. 26, 2007), FERC Stats. & Regs. ¶ 32,612 (2007).

²²⁰ *Id.*

Commission Determination

233. The Public Power Council has not provided us with sufficient detail to address its concern. Without information on the MRTU provisions that raise these concerns and the exact nature of the concern, we are not able to evaluate Public Power Council's argument and provide a response.²²¹ For this reason, we reject this request.

xii. Long-Term Firm Transmission Rights

234. The Control Area Coalition claims that the CAISO's long-term firm transmission rights proposal that responds to Order No. 681²²² does not address the needs of customers serving loads outside its control area that are dependent on the CAISO grid for transmission service. The Control Area Coalition requests that the Commission direct the CAISO to commence an open, collaborative process with neighboring control areas to devise a plan for making long-term firm transmission service available to LSEs in neighboring control areas. The Control Area Coalition contends that the absence of long-term firm service hampers regional trade and the development of long-term power supply arrangements. It argues that this issue must be addressed prior to MRTU implementation.

235. NCPA maintains that the imposition of burdensome conditions on CRR and long-term firm transmission right access for entities outside the control area amounts to discriminatory treatment for the City of Roseville, an NCPA member formerly in the CAISO Control Area, who is now in the SMUD-Western control area.

236. SoCal Edison and Arizona Public Service argue that any issues related to long-term firm transmission rights should be raised in the proceeding addressing the CAISO's long-term firm transmission rights proposal filed on January 29, 2007.

Commission Determination

237. We agree with SoCal Edison and Arizona Public Service that issues related to long-term firm transmission rights should be raised in the proceeding addressing the CAISO's long-term firm transmission rights proposal. Parties have been given the

²²¹ Rule 713(c) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.713(c) (2006).

²²² *Long-Term Firm Transmission Rights in Organized Electricity Markets*, Order No. 681, 71 Fed. Reg. 43,564 (Aug. 1, 2006), FERC Stats. & Regs. ¶ 31,226 (2006) (Long-Term Firm Transmission Rights Final Rule), *on reh'g and clarification*, Order No. 681-A, 71 Fed. Reg. 68,440 (Nov. 27, 2006), 117 FERC ¶ 61,201 (2006), *reh'g pending*.

opportunity to raise their concerns regarding that proposal in Docket Nos. ER07-475-000 and ER07-475-001.

xiii. Implementation Schedule

238. Western contends that the CAISO's proposed new MRTU market redesign initiative represents a significant and fundamental change in the way energy transactions are conducted in the western United States. Western argues a contract-based scheduling system is being supplanted by a flow-based approach and LMP is being implemented over transmission and generation assets constructed under a legacy regulatory scheme. Western is concerned that the breadth and scope of the proposed new market change being contemplated is significantly greater than what has been implemented elsewhere and wants to minimize the occurrence of any unintended consequences. Western requests that the Commission direct the CAISO to implement its proposed new MRTU initiative in a more measured and incremental, phased-in approach. It also requests that the Commission carefully monitor CAISO's progress and approve its implementation in a measured manner and only when a clear and substantial majority of the stakeholders are confident that the expected outcomes will be realized.

239. PG&E/SDG&E agree that the West will benefit from the timely implementation of a well-functioning California market that eliminates the existing market flaws.²²³ PG&E/SDG&E state that, although participants at the technical conference identified certain issues that warrant further consideration, no party identified any issue that would justify delaying MRTU implementation. PG&E/SDG&E urge the Commission to move MRTU forward expeditiously because core features of MRTU, especially the more accurate full network model, will ensure feasible day-ahead scheduling, which will enhance reliability in California and neighboring control areas.

Commission Determination

240. In the September 2006 Order and in the implementation section of this order, the Commission has considered and rejected the requests that MRTU be implemented in stages. As stated in the September 2006 Order, we are strongly committed to a sound and orderly MRTU implementation plan. However, the CAISO market redesign effort commenced over five years ago and the Commission has supported a comprehensive redesign, including the use of LMP and CRRs, and we have not been convinced by commenters' arguments for a staged implementation.²²⁴ Because Western has not presented any new arguments, we deny Western's request.

²²³ PG&E/SDG&E Post-Technical Conference Comments at 3 (citing September 2006 Order, 116 FERC ¶61,274 at P 485).

²²⁴ September 2006 Order, 116 FERC ¶ 61,274 at P 1381.

xiv. Tariff Provisions for Unintended Consequences

241. Arizona Public Service argues that the MRTU Tariff should include provisions to promptly address any unintended consequences that affect seams, such as persistent loop flows on non-qualified paths outside the CAISO Control Area. Arizona Public Service requests that the MRTU Tariff provide parties with a means to agree to an interim resolution of any adverse operational impacts caused by such loop flows pending a more comprehensive resolution.

Commission Determination

242. We have already addressed above the arguments regarding loop flow. Also, as we have stated above, the CAISO will adhere to all WECC reliability rules and standards. Furthermore, the MRTU Tariff already provides the CAISO with the authority to take emergency measures to address a reliability issue.²²⁵ Therefore, we disagree that it is necessary for the MRTU Tariff to contain additional provisions to address unintended consequences, as Arizona Public Service requests.

xv. Establish an Open and Neutral Standing Committee to Identify and Mitigate Seams Issues

243. Salt River and the Control Area Coalition propose that, as in other ISOs and RTOs, the centralized market entity and neighboring, impacted control areas should form a standing committee to quickly act when seams issues arise and to develop prompt mitigation processes to avoid lingering negative impacts. The Control Area Coalition requests that the Commission require the CAISO to establish one or more open and neutral standing committees to identify and mitigate seams issues as they arise, including development of MRTU Tariff provisions for submission to the Commission. Salt River and the Control Area Coalition suggest that the CAISO work with other control areas to develop such a committee, which should have technical expertise and the ability to develop fair mitigation that follows sound power engineering solutions and honors the principle of allocating costs in proportion to cost causation. The Control Area Coalition argues that this issue must be addressed prior to MRTU implementation. Salt River proposes that the formation of this committee be a readiness criterion.

Commission Determination

244. The development of a process for prompt resolution of seams issues that affect reliability is a worthy goal. We agree with many commenters that suggest the WECC (*e.g.*, the Seams Issues Subcommittee) is best situated for addressing seams issues with

²²⁵ See MRTU Tariff section 42.1.

West-wide implications in a collaborative manner, and the CAISO has stated its commitment to work within the WECC committee process toward the resolution of any seams issues.²²⁶ Therefore, we will require the CAISO to abide by this commitment but do not find it necessary to direct the CAISO to create a seams committee outside the WECC process.

xvi. Develop Comprehensive Contingency Plan to Discontinue MRTU Elements Threatening Reliability

245. Salt River and the Control Area Coalition suggest that the CAISO develop a comprehensive contingency plan to ensure an orderly discontinuation of any MRTU elements that may be found to threaten reliability in the Western Interconnection after implementation. The Control Area Coalition argues that the CAISO should develop the plan through a collaborative process with peer review of results. The Control Area Coalition argues that this issue must be addressed prior to MRTU implementation. Salt River proposes that the development of this plan be a readiness criterion.

Commission Determination

246. With regard to Salt River's and Control Area Coalition's request that the CAISO develop a contingency plan before-MRTU implementation, we believe that a sound transition to MRTU should include a contingency plan that addresses any failure of MRTU software and systems to function as designed. We expect that the CAISO's readiness certification will include a description of such a contingency plan. We do not find it necessary to require the CAISO to develop its contingency plan through a collaborative process.

b. Issues Commenters Identified as Not Tied to Start-Up

i. Accounting for External Flows in the Full Network Model

247. Once the CAISO and neighboring control areas exchange data on a regular basis and that data is incorporated into the full network model, Arizona Public Service argues that a more accurate representation of the interties, other than as radial lines, should be developed. Arizona Public Service contends that, with this data, the CAISO will be able to more accurately predict any loop flows caused by actions within the CAISO and model the availability of CRRs at the interties.

²²⁶ CAISO Post-Technical Conference Comments at 13-14.

248. WestConnect also notes that the full network model models the interties with the rest of the Western Interconnection as radial lines. WestConnect argues that better modeling of the Western Interconnection on the other side of the interties is needed to minimize errors in analyses of flow and LMP impacts that could overload the ties and create increased unscheduled flows to interconnecting control areas and utilities. WestConnect contends that the level of detail of the data needed on the other sides of the interties needs to be determined. WestConnect states that the CAISO and neighboring control areas need to collaborate to develop procedures for reciprocal data exchanges.

249. PG&E/SDG&E urge the Commission to note that any preventable discrepancies that may occur between day-ahead scheduling and real-time operations are largely a product of the contract path approach used throughout the West today. PG&E/SDG&E state that the CAISO currently accommodates the use of the contract path approach by relying upon a radial intertie model and MRTU does not change that practice. PG&E/SDG&E contend that the reliance on the contract path approach by other control area operators in the Western Interconnection is aggravating the potential for discrepancies between day-ahead schedules and real-time operations, producing unscheduled real-time flows and inefficient use of limited transmission resources. PG&E/SDG&E argue that this problem is unrelated to MRTU. PG&E/SDG&E commit, however, to working with others in the region through WECC to develop an improved West-wide network model, better exchange of day-ahead scheduling information and more transparent dispatch procedures for congestion management purposes.

250. The Control Area Coalition requests that the CAISO immediately release to other control areas in the Western Interconnection for review any modeling that may exist of the external ties in the full network model.

251. The CPUC is skeptical of criticisms that the full network model has limitations for managing scheduling and congestion because it does not include a full network representation of neighboring control areas. It contends that these criticisms fail to acknowledge that (1) the full network model is an improvement over present practices, (2) it is a move in the direction of valuable West-wide network modeling to supplement or replace more simplistic contract path-based scheduling and congestion management, and (3) the potential for more accurate anticipation of network flows and constraints in neighboring control areas depends on better sharing of day-ahead schedules by all control areas.

Commission Determination

252. We believe that the full network model is an improvement over the current modeling of the CAISO grid, even if it models interties as radial lines. A more accurate modeling of the transmission grid outside of the CAISO may provide a better indication of the feasibility of the CAISO's day-ahead schedules by taking into account

transmission constraints outside the CAISO. However, the modeling of the transmission system alone does not provide the full picture of grid conditions because, as we have discussed above, the loads, generation and interchange schedules of the control areas outside the CAISO also affect the flows within and outside of the CAISO. Therefore, to achieve better day-ahead modeling, an improved modeling of the transmission system in the full network model must be combined with an exchange of data among the WECC control areas.

253. As we discussed earlier, the need for better data exchange among control areas in the West is not a seams issue related to MRTU. Nor is the goal of improving the CAISO's modeling of its system an issue unique to MRTU. The exchange of data among control areas and improved modeling will contribute to improved reliability and better enable operators to position the grid for the next day's operations. WECC recognizes the importance of data exchange and accurate modeling and, to that end, has undertaken the "West-wide System Model." Accordingly, we again encourage the commenters to work through the appropriate WECC committees to identify and put in place a process for exchange of data among WECC control areas, including the possible implementation of the West-wide System Model.

ii. Allocation of CRRs at the Interties

254. Arizona Public Service believes that the issue of the availability and quantity of CRRs at the interties is important and the discussion of the availability and allocation of CRRs at interties should continue upon completion of the CRR Dry Run that should be completed in March 2007 and subsequent CAISO compliance filing on intertie capacity.

255. WestConnect asserts that CRRs do not provide a priority for physical scheduling. Because the rest of the Western Interconnection schedules transmission pursuant to physical rights, WestConnect asserts that it is unclear how these disparate approaches will affect trading. It notes that CRRs will be obligation rights that can turn negative and that the obligation rights will pose complications for western trading in conjunction with frequently shifting flow patterns caused by season and availability of hydropower from the Pacific Northwest. WestConnect contends that, without a mitigation procedure to address differences between CRRs and physical transmission rights, MRTU may create barriers to continued transmission of southwest base load resources and northwest hydro resources into and through California. WestConnect argues that the CRR allocation process under MRTU needs to reflect capacity limits on external interties. The Public Power Council states that, after MRTU implementation, the CAISO needs to clarify how it will ensure that trade between the CAISO and other control areas will not be impaired by the auction of CRRs at interties.

256. SoCal Edison argues that the Commission should not modify the CRR allocation methodology accepted by the Commission in the September 2006 Order. It asserts that

parties at the technical conference presented no new evidence that would necessitate a change to the CRR allocation process accepted by the Commission. SoCal Edison argues, that while no party received every concession it requested, the Commission-accepted CRR allocation methodology is reasonable and its method of balancing a host of stakeholder concerns should not be revisited at this very late stage. SoCal Edison contends that, consistent with the process used by most ISOs and RTOs, the CRR allocation methodology allows the initial benefits of a CRR to flow back to CAISO load. SoCal Edison asserts that the argument that the CRR process results in discriminatory access to the CAISO's transmission system is misplaced because, to the dissatisfaction of many parties within the CAISO's Control Area, the MRTU Tariff makes special accommodations to address issues raised by external parties. It states that these accommodations include providing the ability for qualified parties outside the CAISO to receive CRR allocations, withholding certain CRRs on import paths from the allocation process and reserving them for the auction, and not entitling CRR holders to any preferences in physical access or usage of the transmission system.

257. The CAISO argues that parties are inappropriately attempting to revisit the reservation of intertie capacity for CRR auction that has already been addressed by the Commission in prior orders by characterizing it as a seams issue.

Commission Determination

258. As discussed in the CRR section of this order, issues relating to the allocation and auction of intertie CRRs are actively being addressed. More specifically, in the September 2006 Order, the CAISO was directed to file with the Commission the results of its CRR Dry Run and propose any necessary changes to the CRR proposal.²²⁷ The CAISO's proposal to release CRRs at interties will be a part of this evaluation. The Commission will determine at that time whether modification to the CRR proposal is warranted. With regard to WestConnect's concern about the disparity between physical and financial transmission rights at the CAISO boundary, as the Commission stated in the September 2006 Order, the CAISO's current market design employs financial transmission rights to manage congestion between its existing pricing zones and the MRTU Tariff does not represent a proposal to move from a physical rights to financial right model; rather it represents a further modification of an existing financial rights model.²²⁸ Therefore, the disparity between physical and financial transmission rights would exist regardless of MRTU. MRTU and CRRs do not create new seams issues. However, to the extent that WestConnect and other commenters believe there are barriers to trade in the West because of the disparity of the physical and financial transmission rights at the CAISO boundaries, we encourage WestConnect and others to utilize the

²²⁷ September 2006 Order, 116 FERC ¶ 61,274 at P 714, 830.

²²⁸ *Id.* P 487.

WECC committees, for example the Seams Issues Subcommittee, to find a West-wide solution for resolving these seams issues.

iii. Firm Wheel-Through Rights

259. WestConnect and the Control Area Coalition complain that the CAISO's MRTU proposal does not address the creation of firm wheel-through transmission service products for entities outside of its control area. WestConnect states that long-distance, long-term contracting for transmission service has long been employed in the Western Interconnection to connect remote resources to loads and to export northwest hydropower. The Control Area Coalition argues that the absence of firm service from the CAISO for wheel-throughs not only violates Order No. 681 but also creates a barrier to the development of renewable and other resources because LSEs outside the CAISO Control Area cannot obtain CRRs for wheel-throughs when firm service is needed to transmit power from a needed resource. WestConnect argues that, like PJM in the Eastern Interconnection, the CAISO must eliminate this barrier to trade and create a firm wheel-through transmission service product. The Control Area Coalition requests that the Commission require the CAISO to offer CRR options and an allocation for CRRs to external LSEs on a basis equivalent to that used for internal LSEs. The Public Power Council seeks information on the risks wheel-throughs will face in the future and how these risks can be managed. The Control Area Coalition argues that this seams issue requires a plan for prompt, collaborative resolution after MRTU implementation.

Commission Determination

260. We address the issue of type and availability and the term of CRRs in the CRR section of this order. We also address the availability of CRRs for wheel-through transactions in the CRR section of this order and require that the CAISO make CRRs available for wheel-through transactions, if the LSE meets the eligibility requirements. With respect to LSEs' ability to obtain long-term CRRs to hedge wheel-through transactions, the Commission will address this issue when it acts on the CAISO's compliance filing on the Long-Term Firm Transmission Rights Final Rule, in Docket No. ER07-475-000. With regard to the commenters' request for physical transmission rights, we point out that the parties are complaining about a pre-existing issue because the current CAISO tariff does not provide for such rights. Therefore, the lack of a firm wheel-through service, defined in terms of physical rights, is not an issue created by MRTU. We encourage those seeking additional financial transmission right products to participate in the CAISO stakeholder process for future releases of MRTU so that the need for and the nature of these products can be properly vetted by the stakeholders and addressed by the CAISO.

iv. Block Scheduling System Resources in RUC

261. CMUA claims that the requirement that system resources that submit bids but do not clear in the day-ahead market must bid and be available for hourly selection for RUC capacity is extremely burdensome for system resources that need to be block scheduled (*e.g.*, scheduled as a 16-hour on-peak block). CMUA contends that, if a RA system resource that needs to be block scheduled for the on-peak 16 hours (commonly traded in the WECC market) bids into the day-ahead market at 10:00 a.m. and only clears for eight hours, then, it is required to bid into RUC for the remaining eight hours instead of being available for bilateral trades with counterparties outside the CAISO markets. CMUA argues that it is not clear that RA system resources can simply bid capacity into RUC if the resource must be dispatched for energy because it is a must-take energy contract. CMUA states that, if this is the case, then those RA system resources will not have the choice to bid and will have to self-schedule (*i.e.*, act as price takers). CMUA claims that this scenario is risky for the LSE controlling a system resource if it has not been awarded sufficient CRRs to mitigate congestion costs. CMUA adds that, even assuming a RA system resource can bid capacity into the RUC market at zero, there is still no guarantee that it will be selected for all hours it bids. It contends that, despite not being selected, the system resource still must be block scheduled, which causes potential operational problems for the LSE. CMUA states that a system resource that is not selected in the day-ahead market will not be needed for reliable system operations. Therefore, it concludes that, if a system resource that must be block scheduled is not selected in the day-ahead market, there is no compelling reason why this resource must participate in the RUC process and thus it should be exempt from RUC.

Commission Determination

262. We deny CMUA's request to exempt from RUC the block schedule system resources that are not selected in the day-ahead market. Contrary to CMUA's assertion, the CAISO's need for resources does not necessarily end at the close of the day-ahead market. A RUC process is necessary to ensure that there is enough capacity to meet the CAISO's reliability requirements if the total amount of load scheduled in the day-ahead market is less than the CAISO's load forecast. Therefore, exempting system resources with a RA obligation from RUC is inappropriate and contrary to the obligation of these resources to be available to meet the reliability needs of the CAISO.

v. Implementation of Convergence Bidding

263. Arizona Public Service supports the Commission's decision to require the CAISO to provide for the implementation of convergence bidding within 12 months following the effective date of initial market start-up. But, to the extent that delays in market implementation allow for an earlier introduction of convergence bidding, Arizona Public Service argues that the CAISO should make such efforts.

Commission Determination

264. The timing of the implementation of convergence bidding is not a seams issue. This issue was addressed in the convergence bidding section of the September 2006 Order²²⁹ and is addressed in the convergence bidding section of this order. However, as we note in the section on convergence bidding, we have no objection to implementation of convergence bidding sooner than 12 months after market start-up if CAISO is able to voluntarily do so.

vi. Implementation of TORs and ETCs

265. Due to the negotiation requirements for ETCs, Arizona Public Service urges the CAISO to begin these discussions expeditiously so that all counterparties holding TORs and ETCs are aware of how their contracts and rights will be affected in the MRTU market. Arizona Public Service contends that there will be some cases where such discussions should include multiple counterparties.

Commission Determination

266. We agree that it is important that TOR and ETC holders are aware of how their contracts and rights will be affected under MRTU and that they are ready for MRTU start-up. We encourage counterparties to TORs and ETCs to discuss the implementation of their contracts under MRTU. We note that, on March 9, 2007, the CAISO made a filing in Docket No. ER07-613-000 that, among other things, sets forth the information on TOR and ETC that the CAISO will need for MRTU implementation.²³⁰

c. Process for Moving Forward

i. Bilateral Approach

267. Arizona Public Service contends that the CAISO's executed Interconnected Control Area Operating Agreements (ICAOAs) with neighboring control areas on file at the Commission do not address some of the complexities that will be introduced by MRTU. Arizona Public Service urges the CAISO and affected neighboring control areas to revisit these agreements. It contends that these agreements could address TORs, ETCs and control-area specific data exchange needed to ensure that the MRTU market functions properly.

²²⁹ *Id.* P 452.

²³⁰ CAISO Mar. 9, 2007 Transmittal Letter, Docket No. ER07-613-000, at 4-5 (seeking to amend CAISO tariff to facilitate timely implementation of MRTU markets).

268. The Public Power Council argues that the existing ICAOAs are not a proper platform for resolving seams issues because they do not address some seams issues, they are bilateral agreements not suited to seams issues that are multilateral in nature, not all neighboring systems have ICAOAs, and there is no assignment of responsibility in the ICAOAs for MRTU's impact on reliable operations and commercial transactions. The Public Power Council recommends that only issues related to jointly-owned transmission facilities within the CAISO and ETCs be addressed through bilateral negotiations.

269. The CAISO states that no seams issue requires a delay of MRTU implementation. The CAISO adds that no party has demonstrated the existence of any seams issues that warrant a modification of the MRTU Tariff or a delay in MRTU implementation. It acknowledges, however, that the implementation of MRTU may require certain modifications to the CAISO's coordination with its neighboring control areas. The CAISO argues that any such modification should be made through revisions to existing bilateral ICAOAs. Because each control area interconnected with the CAISO has unique features, the CAISO proposes to address these issues through bilateral ICAOAs rather than through a "one size fits all" global approach. The CAISO intends to identify any issues that should be addressed based on an exchange of data with embedded and adjacent control areas and meet with the control areas to discuss appropriate modifications to the ICAOAs. For those neighboring control areas that do not have an ICAOA with the CAISO, the CAISO proposes to develop a *pro forma* ICAOA to use for bilateral discussions with the control areas that wish to enter into an ICAOA.

ii. Regional/Multi-lateral Approach

270. The CPUC states that there are already seams issues in the West, including non-CAISO seams issues. The CPUC further states that MRTU will not create new seams. The CPUC contends that, instead, by providing increased transparency with more efficient signaling of costs and more accurate and proactive management of congestion, MRTU should improve the ability of the CAISO and its embedded and adjacent control areas to manage seams issues. The CPUC argues that MRTU should not be blamed for current inefficiencies at the seams but, rather, viewed as an important step towards mitigation of West-wide seams issues. The CPUC notes that there are appropriate on-going processes to address seams in the West. The CPUC states that, if WECC identifies substantive seams issues, those issues should be reported and mitigated as necessary through WECC structures.

271. The CPUC argues that the Commission need not accommodate the concerns expressed by certain parties that reflect aversion to an open, non-discriminatory market based on LMP, firm transmission rights and hedging or aversion to the behavior required to participate in such a market. The CPUC states that MRTU represents a move to enhanced efficiency and transparency in the West, which is supported by most California stakeholders, including the CPUC. The CPUC states that, despite the preferences of

certain entities that are not members of the CAISO Control Area, California will not be moving back to a physical rights or contract path-type market that lacks transparent locational prices. The CPUC argues that the concerns of these entities may inform the fine tuning of certain MRTU features and potentially yield incremental improvements to market functioning and grid reliability but should not hold up MRTU implementation, especially because MRTU will be subject to continuous improvement.

272. WECC argues that its Market Interface Committee²³¹ and Seams Issues Subcommittee²³² are appropriate and effective fora for discussion, evaluation and development of possible solutions for regional seams issues in the West, including possible MRTU seams issues.

273. Arizona Public Service contends that the best approach to addressing issues it raised²³³ is through a WECC Seams Issues Subcommittee regional stakeholder workshop that will ensure more consistent treatment of regional issues and provide for company-specific discussions on local issues that can be included in the bilateral ICAOAs.

274. The Arizona Corporation Commission (Arizona Commission) supports the idea of a facilitated discussion on seams issues. The Arizona Commission recommends that WECC act as the process manager for resolving or managing seams issues. It requests that, as the process manager, WECC take the following steps to resolve or manage seams issues: (1) establish and submit goals and objectives to the Commission; (2) determine and solicit appropriate participation; (3) identify and prioritize issues as immediate issues for MRTU implementation and long-term issues before and after MRTU implementation; (4) develop and implement work plans; (5) report quarterly to the Commission on

²³¹ WECC explains that the mission of the Market Interface Committee is to develop, advise and make recommendations to the WECC Board regarding commercial business practices for the Western Interconnection.

²³² WECC explains that the Seams Issues Subcommittee is a subcommittee of the Market Interface Committee that was created to assess market and reliability activities in order to identify seams issues that need in-depth evaluation. WECC adds that the Seams Issues Subcommittee is responsible for investigating all potential seams issues within the Western Interconnection, including potential seams issues related to MRTU implementation, and make recommendations on how the issues may be addressed.

²³³ These issues include: updating interconnected control area operating agreements, MRTU tariff provisions for unintended consequences, performance of peer-reviewed testing, identification and accumulation of key data, accounting for external flows in the full network model, calculation and hedging of marginal losses and implementation of TORs and ETCs.

progress identifying accomplishments and problems; and (6) cease Commission reporting after primary objectives are met.

275. WestConnect argues that, while there are some unique seams issues that should be dealt with between individual control areas and the CAISO, open public meetings between the CAISO and other control area operators in the WECC, as well as the potential use of the WECC process, including the Operating Committee and the Seams Issues Subcommittee of the Market Interface Committee, are the best way to resolve many of the operational seams issues in a regionally-consistent manner. It contends that the following issues should be resolved through a regional approach: assessment of case studies of flow changes for interties and appropriate responses that can be used in real time; establishment of a contingency plan to quickly respond to any element of MRTU shown to threaten reliability; and specific changes to MRTU software to ensure that firm exports from non-resource adequacy capacity are not curtailed by the CAISO when it needs additional generation to support load it serves in the CAISO Control Area. WestConnect supports including seams mitigation in regulated tariffs and rate schedules so that its members are assured that the Commission will oversee and enforce the mitigation procedures to help hold other WECC members harmless from any potential negative reliability impacts arising from MRTU. WestConnect adds that the resolution of these seams issues will not delay the planned MRTU implementation but will help facilitate the ongoing, coordinated efforts that WestConnect and WECC members use to maintain reliability throughout the WECC.

276. WestConnect argues that the CAISO and bordering control area operators must commit to an ongoing process to coordinate timely identification and resolution of seams issues as they arise during and after MRTU implementation and in future MRTU revisions.

277. Western believes that by working cooperatively, prior to the implementation of MRTU, the CAISO and neighboring control areas should be able to identify and address any operating issues that have the potential to affect reliability. However, if resolution of reliability-related issues is not possible, Western recommends that the parties be allowed to bring such issues to the Commission for resolution.

278. The Control Area Coalition asserts that any viable work plan developed to resolve seams issues must start with multilateral negotiations and proceed simultaneously on multiple parallel tracks to avoid delaying MRTU implementation. The Control Area Coalition argues that bilateral negotiations could result in a patchwork of conflicting approaches to resolving problems that are common to, and impact, many control areas. The Control Area Coalition recommends the development of a seams resolution work plan that would create three collaborative, multilateral committees composed of representatives from the CAISO and neighboring control areas that would address three categories of seams issues: (1) reliability issues; (2) operating issues; and (3) congestion

management issues.²³⁴ The Control Area Coalition states that these issues should be placed on two tracks – issues that require resolution before MRTU goes live and issues that should be addressed concurrently but need not necessarily be completed before MRTU implementation. The Control Area Coalition also suggests each of the committees proceed at the same time (not sequentially). The Control Area Coalition claims that its proposal reflects the approach used and approved by the Commission to address seams issues between the Midwest ISO, PJM and the New York ISO and their neighboring control areas. The Control Area Coalition also argues that the orderly and collaborative development of mitigation procedures for the seams issues is essential for the successful implementation of MRTU.

279. The Public Power Council argues that multilateral negotiations are needed to address loop flows, curtailment protocols, e-tags, the effects of redispatch on congestion, wheel-throughs, ATC, imports/exports, physical/financial rights, data exchanges, self-scheduling, risk management, CRRs and new transmission capacity. The Public Power Council contends that the multilateral issues should be addressed through a formal Seams Operating Agreement (SOA) with separate exhibits for each topic. The Public Power Council requests that the Commission direct the negotiation of an umbrella SOA with common provisions plus a set of optional exhibits for specific functions that need to be coordinated across seams (*e.g.*, emergency procedures, telemetry, data exchange, loop flow management or outage scheduling). The Public Power Council states that the CAISO and counterparties would select the optional exhibits that are pertinent to their specific circumstances. The Public Power Council suggests that there are lessons to be learned from the seams agreements in the Eastern Interconnection and that the precedent for the establishment of seams agreements between centralized and decentralized market areas and seams working groups among centralized RTO/ISO markets should be observed in the West.

280. The Public Power Council recommends that, by March 1, 2007, the CAISO file with the Commission its proposed scope of issues to be addressed in the SOA and that the SOA be in place no later than 90 days before MRTU start-up. Public Power Council also asks that SOAs allow for modifications after MRTU implementation and that the Commission stand ready to review and approve amendments to SOAs and require modifications to SOAs when necessary to ensure they remain just and reasonable.

²³⁴ TANC adds that the multilateral joint operating agreements should address congestion management issues, such as long-term firm transmission rights across control areas, hedging marginal transmission line losses, MRTU's impact on pre-existing contract rights, coordinated regional transmission planning and implementation of approved reliability plans.

281. The CAISO believes that the WECC Seams Issues Subcommittee is the appropriate forum to consider West-wide seams issues. The CAISO states that such issues could include solutions to the flaws in the current contract path approach in the West, regional congestion management to reduce unscheduled flow and revisions to the tagging requirement related to data requirements and timelines. The CAISO anticipates that WECC's seams resolution efforts will be longer-term activities that will extend beyond the MRTU implementation date.

iii. Varied Approach

282. The CPUC notes that, to date, no substantive seams have been identified that would justify delaying MRTU implementation. In particular, the CPUC claims that alleged barriers to economic trade (such as limits on exports of resource adequacy capacity from the CAISO Control Area, volatility or unpredictability of LMPs and marginal losses costs, CRRs and their allocation; calculation and consequences of LMPs at the interties with neighboring control areas and scheduling/tagging practices and timelines) have existed before MRTU and likely will exist in the future regardless of MRTU and can be addressed through existing WECC-sponsored West-wide and other inter-control area processes. The CPUC adds that many challenges or concerns can be addressed through bilateral and multilateral coordination between control areas. The CPUC supports the joint efforts of the CAISO and adjacent/embedded control areas in working towards resolution of outstanding seams issues prior to MRTU start-up. The CPUC pledges to actively assist in prompt and complete resolution of any and all valid trade-inhibition concerns that are revealed in the on-going WECC-sponsored and bilateral/multilateral processes or by actual experiences under MRTU.

283. SoCal Edison argues that there are three broad approaches for addressing seams issues: (1) CAISO stakeholder process resulting in tariff changes filed with the Commission; (2) use of the WECC process and its committees; and (3) discussions between the CAISO and an individual neighboring control area regarding specific operational issues (*i.e.*, ICAOAs). SoCal Edison encourages the CAISO to formalize a stakeholder process to allow parties throughout the West to address specific MRTU implementation issues that impact neighboring control areas. SoCal Edison requests that the CAISO file quarterly reports to inform the Commission of its progress in addressing these issues and allow for MRTU tariff changes that support viable solutions. SoCal Edison agrees that the CAISO should continue to work closely with neighboring control areas to address MRTU testing and transition issues to ensure a successful implementation. As for non-MRTU related seams issues, SoCal Edison contends that parties have the ability to address some of these seams issues through existing organizations in the West such as the WECC. Finally, SoCal Edison states that relationships among entities in the West should be improved and strengthened independent of any market design through a forum that discusses concerns, develops solutions and communicates key messages to policymakers.

284. PG&E/SDG&E agree that seams at the borders between the CAISO and other regions within the West and across the entire Western Interconnection exist today. PG&E/SDG&E believe it would be most effective to resolve issues that affect the Western Interconnection generically through WECC. As for the issues that arise at the boundaries of the CAISO with its neighbors, PG&E/SDG&E urge the CAISO and neighboring control areas to resolve their differences by modifying their ICAOAs. PG&E/SDG&E add that it would be constructive for the Commission to facilitate resolution of legitimate seams issues by requiring periodic reports through which it can monitor and track progress.

285. Imperial argues that most of the seams issues can be resolved either through collective agreements among control areas in WECC or bilateral agreements between the CAISO and individual control area operators. The Public Power Council believes that the seams quarterly progress reports that the Commission required in the September 2006 Order are helpful but are not a substitute for binding or enforceable seams agreements. The Public Power Council recommends that the Commission assign each seams issue to one of the following five forums for resolution: the CAISO, bilateral negotiations, multilateral negotiations, WECC work groups/committees or the Commission itself. Regardless of the forum chosen to resolve a seams issue, the Public Power Council asks that the Commission ultimately review the resolution of all seams issues and all bilateral and multi-lateral agreements per its obligations under the FPA.

Commission Determination

286. The seams issues raised by commenters that require resolution fall into three categories: MRTU-related seams issues requiring resolution prior to MRTU start-up; MRTU-related issues that can be resolved after MRTU start-up; and seams issues not specific to MRTU that require a West-wide solution. In discussing these various issues, we have laid out the process for resolving them. The MRTU-related seams issues we have identified in the discussion on protection of firm exports scheduled from partial RA units and e-tagging are best addressed and resolved by the CAISO or through the CAISO stakeholder processes. We have directed the CAISO and neighboring control areas to report to the Commission progress on resolving these issues through the joint quarterly seams reports. In addition, we have required the CAISO to affirm in its readiness certification that certain seams issues have been addressed and resolved.

287. With regard to seams issues not specific to MRTU, we agree with many commenters²³⁵ that these issues require West-wide solutions and that the WECC is the appropriate venue for addressing these issues. WECC already has in place committees

²³⁵ For example, the CPUC, the Arizona Commission, SoCal Edison, PG&E/SDG&E, Arizona Public Service, the CAISO and WECC.

tasked with addressing West-wide seams issues, and the CAISO and other commenters have stated their commitment to participate in the WECC process to resolve seams issues. Where appropriate, we have directed the CAISO and neighboring control areas to include in the joint quarterly seams reports the status of the efforts to resolve West-wide seams issues.

288. While the CAISO may choose to do so where efficient,²³⁶ we will not require the CAISO to enter into multilateral or umbrella seams agreements or to form new seams committees, as the Public Power Council and the Control Area Coalition suggest. We believe that the process we have outlined above is sufficient to address seams issues and that requiring multi-lateral agreements may delay the resolution of seams issues. With regard to the arguments that the Commission has approved multilateral seams agreements in eastern RTOs, we note that such arrangements (*e.g.*, the Joint Operating Agreement between the Midwest ISO and PJM) were proposed in the context of the specific nature of the seams in those markets. We do not find that similar circumstances exist here.

d. Other Process Issues

i. Joint Quarterly Seams Reports

289. With respect to the joint quarterly seams reports required by the September 2006 Order, WestConnect argues that a small group of representatives from regional groups (*e.g.*, WestConnect, Control Area Coalition, northwest entities) should meet with the CAISO to draft the reports, WestConnect should post the draft on the WestConnect website for comments, and dissenting comments should be attached to the reports that are submitted to the Commission.

290. We encourage the CAISO and the parties to include in the joint quarterly seams reports the views of all stakeholders. However, we will not prescribe the specific process the parties should follow for informing and soliciting comments from stakeholders, *e.g.*, where the draft report is to be posted for stakeholder comment. We will allow the CAISO and those interested in participating in the joint quarterly seams reports to determine how best to participate in preparing the report. Any party who believes its views are not adequately represented in the joint quarterly seams report is free to file comments with the Commission on the report and make its views known.

²³⁶ See, *e.g.*, CAISO Post-Technical Conference Comments at 13: "...the CAISO is prepared to develop a pro forma Interconnected Control Area Operating Agreement that can be used as a basis for bilateral discussions with any Control Area that wishes to enter into an agreement with the CAISO."

ii. Expedited Dispute Resolution Process

291. Nevada Power/Sierra Pacific request that the Commission provide an expedited dispute resolution process for MRTU-related issues. Nevada Power/Sierra Pacific argue that the highly complex rules and changes designed and administered by a single state for a single state requires an independent dispute resolution process instituted, controlled and monitored by the Commission.

292. We deny Nevada Power/Sierra Pacific's request that the Commission provide a separate dispute resolution process for MRTU-related issues. The MRTU Tariff contains dispute resolution provisions.²³⁷ In addition, Nevada Power/Sierra Pacific or any other party may raise any MRTU-related issues with the Commission and request settlement judge or other dispute resolution procedures.²³⁸

iii. Market Monitoring

293. Nevada Power/Sierra Pacific argue that, because the Commission is responsible for just and reasonable pricing and reliability and because it is difficult before implementation to model the impact of MRTU on the existing system, the Commission should be vigilant and exercise rigorous and timely oversight of MRTU. Nevada Power/Sierra Pacific request that the Commission assume a new market-monitoring role over MRTU implementation and operation to ensure that MRTU does not cause harm and, if it does, to take action to eliminate the problem and require reimbursement.

294. We deny Nevada Power/Sierra Pacific's request that the Commission assume a new market-monitoring role because this function already exists. The Commission will exercise rigorous and timely oversight of MRTU as it does with energy markets nationally. In addition, we have directed the CAISO to file a statement certifying market readiness and post-MRTU implementation quarterly reports that demonstrate compliance with NERC reliability standards and an assessment of the CAISO system's ability to meet the ancillary service control, capability and availability standards set forth in the MRTU Tariff.²³⁹

²³⁷ MRTU Tariff Article 13.

²³⁸ For example, parties may take advantage of any of the Commission's alternative dispute resolution services at <http://www.ferc.gov/legal/adr.asp>.

²³⁹ See September 2006 Order, 116 FERC ¶ 61,274 at P 1414, 1417.

iv. Scope of RA Technical Conference

295. The Public Power Council asks that the scope of the technical conference on allocation of import capacity for resource adequacy be expanded to include a general discussion of the commercial impact of MRTU on trade between the CAISO and the rest of the West and how MRTU should be modified and/or monitored to ensure efficient trade continues.

296. We deny the Public Power Council's request. The RA technical conference had a limited scope and was intended to address the specific issue of allocation of transmission import capacity to the CAISO LSEs for RA counting purposes. Expanding the scope of the RA technical conference could have resulted in unnecessary delay in timely resolution of this issue and, therefore, would have been inappropriate.

H. Cost Recovery and Allocation Issues

1. Metering, Measured Demand, and Unaccounted for Energy

297. State Water Project argues that the September 2006 Order erred in its determination with regard to metering and unaccounted for energy (unaccounted for energy or UFE). State Water Project explains that the September 2006 Order's directive to allocate costs for measured demand requires the use of adequate metering without assuring that adequate metering has been maintained.²⁴⁰ It states that the CAISO has not complied with prior Commission directives which required the CAISO to submit a compliance report in July 2003 identifying: (1) Scheduling Coordinators that do not have adequate metering; (2) the reasons for non-compliance; and (3) the anticipated date of compliance.²⁴¹ State Water Project explains that, without this report, it will be impossible for the CAISO to follow cost causation principles regarding unaccounted for energy. It therefore requests that the Commission direct the CAISO to comply with the metering requirements identified in the May 2003 Order.

298. State Water Project also argues that the definition of measured demand inappropriately excludes unaccounted for energy, and asserts that the CAISO does not accurately charge Scheduling Coordinators responsible for loads that do not have adequate metering. It states that this allows such loads to avoid the responsibility for CAISO costs that they cause. State Water Project requests that the Commission require

²⁴⁰ State Water Project cites to *Cal. Indep. Sys. Operator Corp.*, 103 FERC ¶ 61,260, at P 25 (2003) (May 2003 Order).

²⁴¹ *Id.*

cost allocation to gross demand, which includes measured demand plus the unaccounted for energy attributed to the Scheduling Coordinator.

299. State Water Project states that MRTU Tariff section 11.5 improperly socializes costs associated with CAISO-wide unaccounted for energy and imbalance energy. State Water Project explains that section 11.5 determines settlements by adding uninstructed imbalance energy (uninstructed imbalance energy or UIE), instructed imbalance energy, and unaccounted for energy, and allocating the costs associated with that energy on a *pro rata* share of their measured demand. State Water Project contends that these costs result from energy balancing errors of a local distribution company and should not be allocated evenly across all wholesale customers.²⁴² It argues that this creates a “free rider” problem when Scheduling Coordinators like State Water Project that have invested in metering will be forced to subsidize the entities that have inadequate metering. State Water Project states that in the September 2006 Order, the Commission should have excluded unaccounted for energy from the settlement in section 11.5. State Water Project argues that the Commission’s determination in the September 2006 Order is insufficient because MRTU Tariff section 11.5.3 does not prevent section 11.5’s additional, socialized allocation of the CAISO’s unaccounted for energy that is combined with imbalance energy under section 11.5. State Water Project proposes that, on rehearing, section 11.5 be modified to read as follows:

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 does not equal zero, the CAISO will assess Charges or make Payments for the resulting differences to all Scheduling Coordinators based on the allocation of UFE in section 11.5.3.

Commission Determination

300. The Commission disagrees with State Water Project’s interpretation of the May 2003 Order. The Commission did not direct the CAISO or any other market participant to install metering, and will not do so at this time. Rather, the Commission requested a report, identifying the Scheduling Coordinators that did not have meters in place, the reasons for the lack of the meters and the anticipated date when the meters would be

²⁴² State Water Project cites to *Midwest Indep. Transmission Sys. Operator*, 115 FERC ¶ 61,006, at P 23 (2006).

installed.²⁴³ The CAISO addressed these issues in a compliance filing²⁴⁴ which is pending before the Commission. In the meantime, we find that MRTU Tariff section 11.5.3 provides a reasonable means by which entities that have installed revenue quality metering can assure they are only assigned unaccounted for energy costs that they caused. The CAISO will allocate all other Scheduling Coordinators a *pro rata* share of the remaining costs. It is not unjust, unreasonable and unduly discriminatory for the CAISO to allocate costs to entities which are not similarly situated, in a different manner. We therefore find that it is appropriate for the CAISO to socialize costs to entities that have not invested in metering as long as they have an option to calculate unaccounted for energy for entities with the requisite metering to do so. The CAISO's proposed tariff language does just this. We also note that State Water Project has revenue quality meters, and therefore, can request separate treatment under MRTU Tariff section 11.5.3 to assure they are not assigned unaccounted for energy costs incurred by other parties.

301. Further, the Commission denies State Water Project's request for rehearing with respect to the issue of gross demand. State Water Project failed to raise this issue in its comments and reply comments in the Docket No. ER06-615-000 proceeding. By offering this new argument at the rehearing stage of the proceeding, State Water Project is attempting to amend its previous pleadings. Such revisions are not appropriate on rehearing, particularly because other parties are not permitted to respond to rehearing petitions.²⁴⁵ Out of concern for fairness, the Commission has consistently been reluctant to consider new issues presented for the first time at the rehearing stage of Commission proceedings.²⁴⁶ Accordingly, we deny State Water Project's request for rehearing on this issue.

302. The Commission grants in part and denies in part rehearing with respect to State Water Project's proposed revisions of section 11.5. Upon further consideration, we find that State Water Project's proposal²⁴⁷ to remove the term "UFE [unaccounted for energy]" from section 11.5 should not have been rejected. We agree with State Water

²⁴³ May 2003 Order, 103 FERC ¶ 61,260 at P 25.

²⁴⁴ CAISO July 7, 2003 Compliance Filing, Docket Nos. ER03-608-003, ER00-2019-010 and ER01-819-005.

²⁴⁵ 18 CFR § 386.713(d) (2006).

²⁴⁶ See, e.g., *Cities and Villages of Albany and Hanover v. Interstate Power Co.*, 61 FERC ¶ 61,362, at 62,451 (1992); *N. States Power Co.*, 54 FERC ¶ 61,242, at 61,711 (1991).

²⁴⁷ State Water Project Apr. 10, 2006 Comments, Docket No. ER06-615-000, at 33.

Project that when the sum of settlement amounts of instructed imbalanced energy and uninstructed imbalance energy does not net to zero, the result is unaccounted for energy. Unaccounted for energy is the difference between the net energy delivered (generation, imports and exports) into the relevant service area (*e.g.*, CAISO-wide or a utility or any other), adjusted for the service area transmission losses, and the total metered demand (load) within the service area (adjusted for distribution losses using distribution system loss factors approved by the Local Regulatory Authority). If we assume that all schedules are perfectly balanced in aggregate (implying a zero UFE), then any actual unaccounted for energy can be described solely in terms of the deviations from schedules. These deviations manifest themselves as uninstructed deviations which are addressed by corresponding instructed deviations from the CAISO. Just as the schedules are balanced in aggregate, the deviations from schedules (instructed and uninstructed) must also balance. Any mismatch between the measured instructed and uninstructed deviations (assuming losses are included) adds up to UFE, as indicated by State Water Project.

303. The Commission finds that the MRTU Tariff language, as proposed, is confusing, and should be modified. The inclusion of the term “UFE,” as indicated by State Water Project, appears redundant, and supposes that unaccounted for energy could include something other than the difference between instructed imbalance energy and uninstructed imbalance energy, which as we discussed above, is not feasible. We therefore find that the CAISO should removed the term “UFE” from section 11.5 as indicated by State Water Project, and further explained below.

304. While we agree with State Water Project’s proposed revisions to the extent they pertain to what unaccounted for energy consists of, we disagree with their proposed revision to include a reference to section 11.5.3 in section 11.5.

305. We find that section 11.5.3 adequately allows entities with approved metering to request a separate calculation for unaccounted for energy and do not believe a reference to that fact, coupled with the record present in this proceeding, necessitates a change in tariff language. The Commission directs the CAISO to submit tariff sheets, in conjunction with the compliance filings it will make on or before August 3, 2007, modifying section 11.5 to read as follows:

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. In addition, the CAISO shall settle UFE as part of the Real-Time Market Settlements. To the extent that the sum of the Settlement Amounts for IIE, and UIE 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.

2. Cost Allocation for Unaccounted-For Energy

306. SMUD states that, for the same reason that it is unreasonable to allocate RUC costs to load outside the CAISO's Control Area, there is no logical basis for allocating UFE costs to load outside the CAISO Control Area that operate behind revenue quality meters. SMUD explains that wheel-throughs and exports, by definition, serve load in non-CAISO control areas and as such, these separate control areas are responsible for their own UFE-type costs. Further, SMUD contends, "UFE related costs are principally related to distribution level issues,"²⁴⁸ whereas wheel-throughs are delivered over high-voltage transmission level facilities that are not interconnected with the CAISO's distribution level facilities. SMUD argues that there is sufficient evidence in the record that it is not just and reasonable for the CAISO to assess UFE costs to SMUD or other similarly situated parties.²⁴⁹ SMUD argues that the Commission should direct the CAISO to modify MRTU Release 1 so that UFE costs are not collected from entities that operate revenue quality meters.

Commission Determination

307. We find that the CAISO should not allocate UFE costs to wheel-throughs or exports from the CAISO Control Area. UFE charges arise from non-transmission related issues, such as theft and load profiling errors. We do not find it appropriate to allocate such costs to a customer, such as SMUD, whose load is outside the CAISO Control Area and who is responsible for matching delivered energy with load. UFE charges are more relevant to customers with load within the CAISO Control Area. Similarly, wheel-throughs and exports would be subject to possible UFE charges in the control areas they sink in. Moreover, there are sophisticated revenue quality meters between Control Area boundaries and any deviations between actual and scheduled interchanges at such boundaries are handled as inadvertent energy. UFE has historically been a control-area-based charge and for the reasons discussed we find that it should remain so. As such, the CAISO should not charge UFE to load that sinks outside of the CAISO Control Area. Therefore, SMUD's request for rehearing is granted and the CAISO is directed to make a

²⁴⁸ See SMUD Request for Rehearing at 35.

²⁴⁹ SMUD cites to *Cal. Indep. Sys. Operator Corp.*, 101 FERC ¶ 61,219, at P 18 (2002). SMUD states that, in that order, the Commission held that "all market participants with revenue-quality meters at ISO take-out points should be allowed to pay their own UFE calculated separately with data from their own meter."

compliance filing, in conjunction with the compliance filings it will make on or before August 3, 2007, to modify the tariff such that wheel-throughs and exports will not be charged UFE.

3. Two-Tier Real-Time Bid Cost Recovery Allocations

308. The CAISO requests rehearing of the Commission's directive on the two-tier bid cost recovery allocations.²⁵⁰ The CAISO argues that it is impossible to allocate real-time bid cost recovery uplift costs in two tiers, similar to day-ahead bid cost recovery costs. The CAISO asserts that while the two-tier day-ahead market and RUC approach follows a cost causation rationale, this rationale does not exist in the real-time market. The CAISO explains that the two-tier approach would be impossible in a situation where the CAISO forecast is not met in the day-ahead market, and, as a result, the procurement of RUC capacity is required. The CAISO further argues that in cases where real-time demand is less than the capacity committed in the RUC process, those RUC capacity costs cannot be allocated according to cost causation principles because the costs were caused by a disparity between the forecast and real-time demand. The CAISO requests that the Commission reverse its determination on this issue in the September 2006 Order and revert to the originally filed cost allocation model for real-time bid cost recovery.

Commission Determination

309. The Commission grants rehearing with respect to the two-tier allocation of real-time bid cost recovery costs. The disparities between the forecast and real-time demand are problematic and could lead to costs which cannot accurately be attributed to a specific market participant. We agree that cost causation principles are difficult to follow in situations where procurements are made in order to assure grid reliability. We recognize that the CAISO and State Water Project have had some discussion regarding this issue and believe an alternative approach may be feasible. However, the proposals before the Commission at this time are incomplete and may be based on assumptions that have not been thoroughly analyzed. As such, we grant the CAISO rehearing and accept the language in section 11.8.6.6 as originally filed. Furthermore, we direct the CAISO to work with stakeholders to develop a proposal for two-tiered allocation of real-time bid cost recovery costs that could be included in MRTU Release 2.

²⁵⁰ September 2006 Order, 116 FERC ¶ 61,274 at P 539.

III. Supply Issues

A. Uninstructed Deviation Penalties

310. Under MRTU Tariff section 11.23, the CAISO proposed to include an UDP provision in the MRTU Tariff.²⁵¹ Like the provision under the current tariff, the CAISO proposed to suspend the UDP provision unless and until it separately files under section 205 of the FPA to implement UDP.²⁵²

311. In its comments, Powerex had argued that the UDP should take effect on the MRTU implementation date because it would induce generators and System Resources to be more accurate in their generation output.²⁵³ However, the Commission found that “it is reasonable for the CAISO to have the ability to implement the UDP provision...during adverse market conditions”²⁵⁴ and “the CAISO’s voluntary suspension of the UDP provision because conditions do not warrant its application at this time indicates that the affected generators performance has improved, concurrent with improved market conditions, such that the current magnitude of the penalty is no longer necessary.”²⁵⁵ Accordingly, the Commission accepted the provision subject to modification.²⁵⁶

312. On rehearing, Powerex argues that the UDP should be implemented when MRTU takes effect because neither the CAISO nor the Commission has identified any harm that might be caused by implementing the UDP when the MRTU takes effect. According to Powerex, the UDP serve as a deterrent for non-compliant operations and thus, help ensure reliability. Powerex states that, if generators’ performance and market conditions have improved and suppliers do not engage in uninstructed deviations, then these suppliers will not incur any UDP. However, Powerex adds that, if suppliers engage in uninstructed deviations, such conduct poses a serious threat to the reliability of the CAISO system that the CAISO should seek to deter through the UDP.

²⁵¹ *Id.* P 581.

²⁵² *Id.*

²⁵³ *Id.* P 585.

²⁵⁴ *Id.* P 592.

²⁵⁵ *Id.* P 593.

²⁵⁶ *Id.* P 591-94.

313. Powerex has not identified any new issues with respect to the UDP that the Commission did not address in the September 2006 Order.²⁵⁷ Accordingly, for the reasons the Commission gave in the September 2006 Order, we deny Powerex's request for rehearing on the issue.

IV. Demand Issues

A. LAP Load Settlement

314. Under MRTU Tariff section 27.2, the CAISO proposed to charge consumers for the quantity of energy they use based on an aggregation of locational marginal prices over a large area or zone.²⁵⁸ The CAISO proposed to calculate and settle energy charges for the majority of loads in the CAISO Control Area according to the zone in which the load is located.²⁵⁹ The CAISO has created three LAP pricing zones.²⁶⁰ The three pricing zones correspond to the service territories of the three major California IOUs: PG&E, SoCal Edison and SDG&E.²⁶¹ For each pricing zone, the CAISO calculates an average zonal price based upon the weighted average of the nodal LMPs within that zone.²⁶² The Commission determined that the CAISO proposal was an acceptable starting point, subject to modification.²⁶³

315. On rehearing, Imperial contends that LAP pricing sends inaccurate price signals that impede transmission investment. Imperial also asserts that LAP pricing violates cost causation principles because customers at less congested nodes subsidize customers at highly congested nodes. In addition, Imperial argues that LSEs within the CAISO are protected from nodal prices through LAP pricing while LSEs outside of the CAISO are exposed to nodal price risk.

316. The CPUC argues that the Commission's decision to increase the number of LAPs at a pre-set date, without regard to evidence of market conditions, does not address

²⁵⁷ *Id.* P 580-94.

²⁵⁸ *Id.* P 596.

²⁵⁹ *Id.*

²⁶⁰ *Id.*

²⁶¹ *Id.*

²⁶² *Id.*; *see also id.* P 596 n.279.

²⁶³ *Id.* P 611-18.

potential detriment to ratepayers and, thus, is arbitrary, capricious and lacks reasoned explanation. The CPUC asserts that the CAISO should analyze the market a year after implementation of MRTU and then assess whether and where the new LAPs may be appropriate in order to determine whether the benefits of more LAPS outweigh the detriments to consumers. Similarly, Bay Area Municipals, NCPA, SoCal Edison and Santa Clara contend that the CAISO and market participants should be given time to evaluate LMP prior to being required to increase the number of LAPs. SoCal Edison adds that the CAISO should have a full stakeholder process as part of this study and should formulate recommendations for the Commission.

317. SoCal Edison posits that creating additional LAPs may be costly for MRTU participants. For example, SoCal Edison asserts that its infrastructure for procurement, forecasting, meter gathering, scheduling and billing are all designed for transactions based on a single LAP. It contends that dividing a single LAP into multiple LAPs would potentially render the current systems unusable, or at least inadequate. Similarly, Bay Area Municipals and Santa Clara argue that software difficulties, higher congestion costs, curtailments and unforeseeable problems could make such an increase in MRTU Release 2 impractical.

318. NCPA argues that the Commission's effort to send price signals to loads based on location, through requiring more LAPs, will be nullified by the retail rate structure in California. It states that, if a PTO's service territory is divided up into several zones or multiple nodes (*i.e.*, more LAPs), the CPUC's retail rate structure will average all of those prices before calculating the retail rate for each customer class.

319. SoCal Edison argues that increasing the number of LAPs beyond the three that represent the service areas of the existing IOUs will result in geographically differentiated prices for energy for retail customers that are not being served by one of the three IOUs and the bundled customers of those IOUs. According to SoCal Edison, the CPUC does not allow geographically differentiated retail rates. Thus, it states that imposing additional LAPs would result in one of two alternatives: (1) the IOU retail rates would remain geographically undifferentiated, in which case some non-IOU customers would receive an energy cost windfall compared to their neighbors, or would be exposed to higher energy costs than their neighbors, or (2) the CPUC would be forced to geographically differentiate retail rates to avoid the inefficiency and inequity of (1). SoCal Edison states that, if the CPUC does not change its retail rate structure, then customers in geographic areas whose LAP price for energy is less than the IOU aggregated LAP price would have an economic incentive to leave bundled service to chase a lower retail rate driven by the wholesale price aggregation rules. SoCal Edison also argues that the creation of additional LAPs can result in a situation where customers within its service area see one price for energy on the CAISO's OASIS, yet pay a different price because they are billed an average retail rate determined by the CPUC.

320. According to NCPA, imposition of LMP pricing for nodal load in PG&E's service territory would only send a pricing signal to loads for municipals and cooperatives in northern California and customers of aggregators and independent service providers because these entities are: (1) located in congested areas; (2) small; (3) usually served at a single node; and (4) have no provision for averaging their costs with anyone else. Thus, according to NCPA, the only effect of LMP pricing to nodal load, absent the LAPs, would be the immediate creation of a price squeeze that invites the transfer of aforementioned entities' customers to PTO suppliers.

321. Bay Area Municipals and Santa Clara argue that the Commission's decision to require an increase in the number of LAPs is inconsistent with its finding that the current description of LMP is incomplete. They believe that it is contradictory for the Commission to definitively conclude that disaggregating the LAPs will enhance LMP while simultaneously finding that LMP has not yet been adequately explained. Bay Area Municipals and Santa Clara also contend that there is no record support for the Commission's statement that it "continue[s] to believe that increasing the number of LAP zones will provide more accurate price signals and assist participants in the hedging of congestion charges."²⁶⁴ Bay Area Municipals also claims that the implicit goal of encouraging demand response by disaggregating to more nodes is unnecessary and encroaches upon retail ratemaking issues beyond the scope of MRTU.

322. NCPA also notes that it has notified the CAISO of some problems with the real-time LAP settlement price formulas. According to NCPA, due to the problems, LAP settlement purchase prices can result in a LAP price for power higher than the highest nodal price within the LAP. Similarly, the LAP sale prices can be lower than the lowest nodal price within the LAP. NCPA states that it understands that the CAISO has developed a proposed fix for this problem; however, it raises the issue here to preserve it.

Commission Determination

323. As discussed in the September 2006 Order,²⁶⁵ we agree with Imperial that nodal pricing sends more accurate price signals than LAP pricing. However, we note that we have previously found that transitional mechanisms are acceptable in cases where markets structures are adjusting to locational pricing.²⁶⁶ We also agree with Imperial that

²⁶⁴ Quoting September 2006 Order, 116 FERC ¶ 61,274 at P 611.

²⁶⁵ *Id.* P 614.

²⁶⁶ See *PJM Interconnection, L.L.C.*, 117 FERC ¶ 61,331 at P 68 (transition to full complement of delivery areas in PJM's capacity market found to be a just and reasonable means by which parties can become familiar with and adjust to the new market structure prior to its full implementation); *Midwest Indep. Transmission Sys. Operator, Inc.*,

LAP pricing involves some level of subsidization, thus the description of LAP as an average or aggregated pricing scheme.²⁶⁷ However, we remain convinced that LAP pricing is a reasonable transition mechanism for the reasons discussed in the September 2006 Order:

Since the beginning of the CAISO's operations, the prices for energy at any given time have been the same for all generators and loads within a large area. The introduction of locational marginal pricing reflects a shift in that approach, one that provides different prices at different locations to reflect locational differences in costs. As a result, LMP will provide transparent price signals that should serve to enable appropriate decisions concerning investment in new generation and transmission. The CAISO argues, however, that such location price differences should not apply, at least initially, to loads. The reason, according to the CAISO, is that consumers in congested, high-priced areas should not be punished based on infrastructure investment decisions made under the prior regulatory regime. While it is appropriate for suppliers to be paid prices that reflect the cost of providing energy at each point on the grid, the CAISO argues that consumers in congested, high price areas should receive some protection by paying an aggregated or average price for energy regardless of their location on the grid.²⁶⁸

[T]he CAISO's approach to calculating and settling energy charges for load based upon three LAP zones provides a reasonable and simplified approach for introducing LMP pricing, while minimizing its impact on load. We appreciate that some areas could experience higher prices under a nodal model and, thus, understand the CAISO's interest in softening the distributional impacts of LMP. We also recognize that LMP could create an economic hardship on entities located in load pockets. Accordingly, we find that the instant proposal is an acceptable starting point. However,

109 FERC ¶ 61,157 at P 80 (“the purpose of the safeguards is to give the Midwest ISO sufficient experience with operating the market and to afford market participants experience with locational pricing. . . . The purpose of the marginal loss transition safeguard is to allow market participants a period of time to see how this charge would affect their use of existing generation resources. . . . [T]he set of transition safeguards are measures to provide the system operators and market participants with room for learning and achieving an appropriate comfort level. . . .”).

²⁶⁷ September 2006 Order, 116 FERC ¶ 61,274 at P 595.

²⁶⁸ *Id.* P 595.

consistent with the Commission's prior guidance, we direct the CAISO to increase the number of LAP zones for Release 2. We continue to believe that increasing the number of LAP zones will provide more accurate price signals and assist participants in the hedging of congestion charges.²⁶⁹

324. However, Imperial's desire for an *immediate* move to nodal pricing for load ignores the impact of nodal pricing upon load. As discussed in the September 2006 Order,²⁷⁰ requiring nodal pricing for load upon implementation of MRTU could create economic hardship for entities located in load pockets. Imperial has not persuaded us otherwise. Thus, we continue to find that LAP pricing is a reasonable transition mechanism that balances the needs of all market participants.

325. We also find that, in the September 2006 Order, the Commission addressed the claim that entities within the CAISO are protected from nodal pricing through LAP, while external entities are not.²⁷¹ We find that Imperial raises no new issues in this regard. Accordingly, we deny Imperial's rehearing request.

326. Several parties argue that the CAISO should not have to increase the number of zones until the CAISO and market participants gain experience with the new market design. The Commission accommodated that request by not directing this change until MRTU Release 2, which is scheduled to occur three years after MRTU implementation.²⁷² The Commission also accommodated the CPUC's request that the CAISO have flexibility with respect to designing where the LAPs occur by not mandating a specific number of LAPs.²⁷³ Similarly, the Commission's directive did not preclude the CAISO from accommodating the CPUC's request that the CAISO analyze the market a year after implementation, when a record may be developed.²⁷⁴ Rather, our expectation is that the CAISO will provide the relevant information it relied upon, which may include market studies or other analysis, to justify the proposed number of disaggregated LAP zones it proposes to adopt when it makes its compliance filing.

²⁶⁹ *Id.* P 611 (footnotes omitted).

²⁷⁰ *Id.*

²⁷¹ *Id.* P 613.

²⁷² *Id.* P 611.

²⁷³ See *id.*

²⁷⁴ *Id.*

327. Some parties, such as SoCal Edison, Bay Area Municipals and Santa Clara, are concerned that expanding the number of LAPs could require market participants to incur additional expenses or otherwise argue that various issues could arise that prevent the use of additional LAPs in MRTU Release 2. To address this concern, in the September 2006 Order, the Commission gave the CAISO until MRTU Release 2 to make this change.²⁷⁵ This target date provides market participants with ample time to begin preparation and vet issues with the CAISO prior to the CAISO filing a proposal with the Commission. We direct the CAISO to consult with stakeholders during this period on this issue. Arguments concerning the appropriate number of LAPs and potential costs are more appropriately raised at the time the CAISO submits its proposal to the Commission. We also note that the September 2006 Order stated that increasing the number of LAP zones would provide more accurate price signals.²⁷⁶ More accurate prices should reduce the occurrence of customer-to-customer cost subsidization within the LAP zones.

328. NCPA argues that the CPUC has the ability to eliminate the locational price signal to some loads through its retail ratemaking structure. That may be within the CPUC's purview. However, unless wholesale prices provide accurate wholesale price signals, the CPUC will lack the opportunity to design retail rates that reflect accurate wholesale price signals. From our standpoint, one purpose of disaggregating the LAPs further is to provide transparency in the *wholesale* price signals for load.

329. In response to NCPA and SoCal Edison's arguments concerning the possible effects of disaggregation and possible changes that may be made at the retail rate level by the CPUC, we agree that this process may require significant involvement and work on the part of all parties. Thus, we encourage all parties to provide significant input to the CAISO so that a method may be developed at the wholesale level that meets the goal of transparency, while simultaneously resulting in an acceptable methodology for the CPUC and other parties.

330. At this time, we will not address NCPA's arguments concerning the impact of nodal pricing on load and the price signal that certain entities, such as independent service providers, may receive because we have not required full nodal pricing. We have only required further disaggregation of the LAPs. This argument is more appropriately raised and addressed at the time the CAISO submits its full nodal pricing proposal to the Commission.

331. As explained in the September 2006 Order, we disagree with Bay Area Municipals and Santa Clara's arguments that increasing the number of LAPs is

²⁷⁵ *Id.*

²⁷⁶ *Id.* P 611.

inconsistent with our finding that LMP has not been fully described in the tariff.²⁷⁷ In addition, Bay Area Municipals and Santa Clara's assertion that there is no record support for the statement that "increasing LAP zones will provide more accurate price signal and assist participants in the hedging of congestion charges" is incorrect. For load, the LAP price (*i.e.*, an average price over a zone) signal is not as accurate as a nodal (single price point or node) price signal for each particular load because it is an average of many points rather than just the one node or particular set of nodes the load is using. And, as pointed out by Witness Harvey, "[a]s disaggregation increases, so does the quantity of feasible CRRs that may be initially allocated to the LSEs serving load within a zone."²⁷⁸ Thus, we deny Bay Area Municipals and Santa Clara's request for rehearing on these two issues. We also disagree with Bay Area Municipals' argument that encouraging demand response is unnecessary and encroaches upon retail ratemaking outside the scope of MRTU. Encouraging demand response can provide many benefits, as we have noted in the September 2006 Order and in previous orders,²⁷⁹ such as by mitigating market power and by moderating price increases during periods of tight supplies. Moreover, our requirement to increase the number of LAPs does not impinge on the CPUC's retail ratemaking authority. To the contrary, our requirement increases the ratemaking options available to the CPUC. Specifically, as discussed above, our requirement provides the CPUC with an opportunity (should it wish to do so) to design rates that more accurately reflect the actual marginal costs of serving loads in different locations and at different times.²⁸⁰

B. Metered Sub-Systems

332. The September 2006 Order conditionally accepted the MRTU Tariff provisions dealing with Metered Sub-systems.²⁸¹ The CAISO's MSS proposal endeavored to

²⁷⁷ *Id.* P 64.

²⁷⁸ See CAISO Feb. 9, 2006 Transmittal Letter, Attachment H, Docket No. ER06-615-000, at 97 (Harvey Testimony).

²⁷⁹ September 2006 Order, 116 FERC ¶ 61,274 at P 614; *Cal. Indep. Sys. Operator Corp.*, 112 FERC ¶ 61,013, at P 36 (2005) (July 2005 Order).

²⁸⁰ We note that Six Cities' objection to LAP pricing on the grounds that it exposes LSEs with internal resources to the risk of congestion charges for the use of their own resources to serve their own loads is discussed in this order in the CRR section.

²⁸¹ September 2006 Order, 116 FERC ¶ 61,274 at P 630.

A Metered Sub-system is a geographically contiguous system located within a single zone that has been operating as an electric utility prior to the CAISO's operation date as a municipal utility, water district, irrigation district, State agency or Federal power

provide MSSs with maximum flexibility in attempting to integrate them into the MRTU market design. Under MRTU, MSS operators have the option of being treated like any other market participant, but, if the MSS prefers treatment that recognizes its unique features and functions, the CAISO will accommodate the MSS operator accordingly. Under MRTU, three initial decisions must be made for each MSS agreement: (1) whether the MSS operator will follow its own load; (2) whether the Scheduling Coordinator will select gross CRRs and gross settlements, or net settlement and net CRRs;²⁸² and (3) whether the MSS operator will or will not opt into the RUC procurement process.²⁸³ The CAISO explained that these decisions are not independent, but interrelated, from the perspective of both the MSS operator and the CAISO.²⁸⁴

1. Load-Following MSS

333. On rehearing, NCPA and Santa Clara argue that the September 2006 Order improperly limits an RMR unit from being designated as a load-following resource under an MSS agreement. NCPA states that it is currently working with the CAISO to determine whether it is possible to allow RMR units to be load following. Santa Clara explains that NCPA and Santa Clara sometimes rely on RMR units to be available as planning reserves in the case of a forced outage of a generating unit. Santa Clara and NCPA argue that they may be unable to responsibly and reliably follow load in the event that the CAISO and NCPA cannot reach agreement on this matter. NCPA also notes that if these tariff restrictions are not relaxed, it is unclear whether it will be able to timely terminate its RMR contracts with the CAISO prior to the effective date of the MRTU Tariff. NCPA believes that the CAISO will propose a compromise solution in a

administration. An MSS is subsumed within the CAISO Control Area and encompassed by CAISO-certified revenue quality meters at each interface point with the CAISO-controlled grid and encompassed by 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 an MSS Agreement.

See MRTU Tariff, Appendix A, Master Definitions Supplement.

²⁸² Under gross settlement, the CAISO will pay the MSS for its generation and bill the MSS's load for its demand. Under net settlement, the CAISO will net the MSS's generation against its demand prior to billing the MSS's load for excess demand or paying for excess generation, as appropriate. September 2006 Order, 116 FERC ¶ 61,274 at P 619 & n.293.

²⁸³ *Id.* P 620.

²⁸⁴ *Id.* P 621; *see also* CAISO Feb. 9, 2006 Transmittal Letter, Docket No. ER06-615-000, at 86 (CAISO Transmittal Letter).

compliance filing, but requests rehearing in the event that a mutually agreeable solution is not proposed. Santa Clara requests rehearing and asks the Commission to allow RMR resources to be eligible for designation as load-following resources under the MRTU Tariff.

334. NCPA also argues that its preview of estimated generation should not become a binding dispatch instruction from the CAISO. NCPA explains that the classification of estimated MSS load-following instructions as binding instruction results in additional concerns, which were not assuaged by the Commission's direction to clarify the language in MRTU Tariff section 11.23. NCPA states that the classification of regulation energy and the use of estimated dispatch instructions in the settlement of instructed imbalance energy are particularly troublesome. NCPA argues that the CAISO should use actual regulation energy instead of derived quantities to achieve accurate settlements. NCPA further adds that the September 2006 Order's requirement to identify MSS load-following energy as an explicit and binding dispatch instruction compounds the problem of accurate settlements. NCPA states that it is currently working with the CAISO to further develop the implementation details for load-following MSSs, but requests the right to dispute these issues to the extent that a reasonable agreement between NCPA and the CAISO fails to develop.

335. NCPA also argues that defining MSS load-following energy as instructed imbalance energy in section 11.5.1 subjects NCPA to increased grid management charges that hinder NCPA's ability to follow load. NCPA explains that this classification imposes large costs without a change in NCPA practice. NCPA asks the Commission to direct the CAISO to revise the tariff to eliminate this charge.

Commission Determination

336. As a preliminary matter, NCPA's request for rehearing, in the event that it does not endorse the compromise solution the CAISO may eventually propose concerning RMR designations and MSS generation forecasts, is effectively a request for extension of time to request rehearing. We cannot extend the rehearing deadline because it is statutory.²⁸⁵ Instead, we will treat this as a timely request for rehearing of our determination in the September 2006 Order.

337. We deny NCPA's and Santa Clara's requests for rehearing concerning RMR designations and MSS generation forecasts. In the September 2006 Order, the Commission recognized that "local reliability concerns justify the CAISO's decision not to allow an MSS to designate an RMR resource as a load-following resource."²⁸⁶ No

²⁸⁵ See FPA section 313(a), 16 U.S.C. § 8251(a) (2000).

²⁸⁶ September 2006 Order, 116 FERC ¶ 61,274 at P 671.

party, including NCPA, Santa Clara and the CAISO, has suggested an alternative approach to allay this concern, nor has any party demonstrated that the Commission's concern was misplaced. Nevertheless, we encourage the CAISO and MSSs to continue their discussions on this issue, keeping in mind the paramount importance of reliability, and will entertain any proposed tariff revisions filed with us in the future that address our concerns. Finally, we note that, since the CAISO enters into RMR contracts on an annual basis, and since the implementation of MRTU has been delayed until January 2008, NCPA's concerns regarding possible timing issues related to its RMR contracts with the CAISO appear to be moot.

338. We also deny NCPA's request for rehearing with respect to the use of MSS estimates as binding forecasts. The CAISO has submitted tariff language addressing this issue in the compliance filing it made in accordance with the September 2006 Order.²⁸⁷ The September 2006 Order directed the CAISO to clarify its intentions with respect to MSS forecasts in MRTU Tariff section 34.12, and to assure that load-following MSSs are not hindered from following their load. In response to this directive, the CAISO filed a revised MRTU Tariff section 34.12 that indicates that CAISO dispatch instructions, which are based on an MSS's 120 minute preview, are only binding for MSS non-load-following resources. The CAISO's proposed tariff modifications also state that MSS load-following resources can deviate from the dispatch instructions in real-time to facilitate the following of load without being subject to the uninstructed deviation penalty. The CAISO's compliance filing will be addressed in a future Commission order.

339. With respect to the issue NCPA raises concerning potential additional grid management charges, we agree that a load-following MSS should not be assessed instructed imbalance energy costs if the imbalances are a result of differences between the load-following estimate the MSS sends to the CAISO and its obligation to follow its load in real time. We reiterate our principle that MSS entities should not be hindered from following their loads.²⁸⁸ Consequently, we direct the CAISO to submit a compliance filing, in conjunction with the compliance filings it will make on or before August 3, 2007, to modify the MRTU Tariff to ensure that load-following MSSs are not subject to instructed imbalance energy costs if those costs are a result of imbalances caused by following load in real time.

²⁸⁷ See CAISO Dec. 23, 2006 Compliance Filing, Docket No. ER06-615-003, at 17-18.

²⁸⁸ September 2006 Order, 116 FERC ¶ 61,274 at P 662.

2. MSS LAP

340. Santa Clara argues that the Commission erred in accepting the CAISO's proposal to allow net-settling MSSs to have their demand settled at the MSS LAP. Santa Clara states that the Commission wrongly assumes that CRRs will provide a complete hedge against the congestion that makes the use of the MSS LAP undesirable. Santa Clara asserts that a load pocket with external generation may not have its prices offset by the CRRs. Santa Clara claims that it is unjust and unreasonable for the Commission to order MSSs that choose net settlements to have their load settled at the MSS LAP because they cannot be fully hedged by the CRRs, which are inadequate.²⁸⁹ Santa Clara requests that the Commission grant rehearing and allow net-settling MSSs to have their net load settled at the default LAP.

Commission Determination

341. We deny Santa Clara's request for rehearing regarding net-settling MSSs for two reasons. First, net-settling MSSs must settle at the MSS LAP in order to account for a market inefficiency that would be created if they were allowed to settle at the default LAP.²⁹⁰ As explained in the January 19, 2006 CAISO board memorandum,²⁹¹ allowing net-settling MSSs to settle at the default LAP price would create a disincentive for an MSS that is located in an area where the locational price tends to be higher than the default LAP price to operate its local higher-priced generation to help relieve congestion. This is because that generation would implicitly earn the lower default LAP price rather than the higher locational price. It is the combination of net settlement in conjunction with default LAP pricing that creates this perverse incentive not to operate a high-cost generator when it should be able to earn a high locational price to relieve a constraint. As explained in the January 19, 2006 CAISO board memorandum, the use of the MSS LAP for net-settling MSSs eliminates this disincentive because the local generator will receive the locational price for all the energy it generates.²⁹²

342. Second, a net-settling MSS's ability to settle at the MSS LAP is an advantage not realized by other LSEs. MSSs that elect net settlements are not subject to any congestion charges to the extent they use internal generation to serve load, and are only subject to congestion charges to the extent that they must obtain external generation. The Commission disagrees with Santa Clara's argument that the inability of CRRs to fully

²⁸⁹ *Id.* P 732.

²⁹⁰ *See* CAISO Transmittal Letter at 86 & n.69.

²⁹¹ *See id.* Attachment N, CAISO Board Documents, Attachment N-8, at 2.

²⁹² *See id.* at 3.

hedge against congestion is reason enough to allow net-settling MSSs to settle at the default LAP in light of the other market inefficiencies it would create. If an MSS does not believe it has adequate generation to meet its load, and will not receive enough CRRs to cover congestion charges that result from the use of external generation, then it should use the gross settlement option that will guarantee it receives the default LAP price. Accordingly, we do not find that the requirement for net-settling MSSs to settle at the MSS LAP would result in rates that are unjust, unreasonable and unduly discriminatory, and, therefore, we deny Santa Clara's request for rehearing on this point.

C. Demand Response and Participating Load

343. The CPUC seeks clarification, and in the alternative rehearing, that the Commission does not intend to interfere with the state's jurisdiction to develop demand response programs appropriate for California retail ratepayers and to integrate these demand-side programs into the CPUC's planning for resource adequacy. The CPUC states that if the CAISO was able to select which state-approved demand response programs to include within its calculation of resources available to support load, it might dispatch traditional generation over demand response resources because of a perception that such resources are more reliable rather than following least cost dispatch principles or the state's adopted loading order. The CPUC argues that the CAISO should be required to comply with CPUC directives regarding priority of dispatch, which would, "of necessity incorporate CAISO criteria for reliability and deliverability to load."²⁹³ The CPUC concludes that such an obligation would encourage the CAISO to work with the CPUC to develop and integrate demand-side resources.

344. State Water Project argues that because the Commission and the CAISO have previously stated that participating load should be settled at nodal levels, all tariff references to "Base Load" of participating load should be removed.²⁹⁴ It contends that MRTU Tariff Appendix A defines "Base Load" as "the maximum consumption of a Participating Load as bid in the CAISO Markets by Scheduling Coordinators," and sections 11.5.2 and 11.5.2.2 provide that the "Base Load" of a participating load is settled on an aggregated LAP basis.

²⁹³ CPUC Oct. 23, 2006 Request for Rehearing, Docket No. ER06-615-001, at 13 n.17 (CPUC Request for Rehearing).

²⁹⁴ State Water Project Request for Rehearing at 29-33 (citing *Cal. Indep. Sys. Operator Corp.*, 113 FERC ¶ 61,151, at P 23, 26 (2005), and CAISO Feb. 9, 2006 Transmittal Letter, Attachment G, Harvey & Pope Testimony, Docket No. ER06-615-000, at 66-67 (Harvey & Pope Testimony)).

Commission Determination

345. As the Commission noted in the September 2006 Order, we recognize the importance of demand response in the effective operation of electricity markets.²⁹⁵ We are committed to working with states to increase the number of effective demand response programs available. As such, the Commission directed the CAISO to “work with market participants to present additional opportunities for demand response resources to participate in the CAISO market.”²⁹⁶

346. As discussed further below in the RA section, we note that MRTU Tariff section 40.4.1 already defers to the CPUC or other Local Regulatory Authorities with respect to designating demand response as a RA resource. We grant the CPUC's request for clarification in part. While the CAISO must be allowed to make technical determinations as to whether a particular resource (whether a generator or demand response) can support grid reliability, we agree that it should respect California's determination that energy efficiency and demand-side resources receive the highest priority in meeting future reliability needs. We therefore direct the CAISO to coordinate with the CPUC to minimize the potential for disagreements as to whether particular demand-side resources qualify on a technical basis in meeting resource adequacy requirements.

347. As stated in the November 2005 Order and cited by State Water Project, we agree that participating load should be settled on a nodal basis. Accordingly, we grant State Water Project's request for rehearing. Therefore, we direct the CAISO to remove from the MRTU Tariff provisions, including sections 11.5.2 and 11.5.2.2, language that results in participating load being settled on a LAP basis and to make a compliance filing, in conjunction with the compliance filings it will make on or before August 3, 2007, reflecting these changes.

V. Transmission Rights

A. CRRs

348. Under MRTU, the CAISO proposed to conduct an annual process that releases seasonal CRRs, and to conduct a separate process each month for the release of monthly CRRs.²⁹⁷ In each of these processes, the CAISO will release CRRs applicable to two

²⁹⁵ September 2006 Order, 116 FERC ¶ 61,274 at P 689.

²⁹⁶ *Id.*

²⁹⁷ *See generally* September 2006 Order, 116 FERC ¶ 61,274 at P 706-15; *see also* MRTU Tariff section 36.

time-of-use periods, peak and off-peak. The CRRs will be obligations, not options.²⁹⁸ Additionally, the CAISO proposed two components of each annual and monthly CRR release process: the CRR allocation and the CRR auction. Participation in the allocation process is limited to LSEs. The annual and monthly CRR allocations will be followed by an auction for CRRs.²⁹⁹ Participation in the CRR auction is open to all entities that satisfy certain criteria, such as credit requirements.

349. Under MRTU Tariff section 36.9, the CAISO proposed to allocate CRRs to LSEs serving load outside the CAISO Control Area (external load) in exchange for prepayment of the wheeling access charge. The CAISO explained that the prepayment amount will equal the number of MWs of CRRs requested times the per MW wheeling access charge. In addition, the MRTU Tariff requires LSEs serving external load to demonstrate to the CAISO “legitimate need” for the CRRs requested. Section 36.9.2 of the MRTU Tariff specifies that legitimate need can be shown through either contracts for generation located within the CAISO covering the time period of CRRs nominated, or ownership of generation in the CAISO Control Area. The CAISO explained that, while the CRR proposal provides an opportunity for LSEs serving load outside the CAISO Control Area to receive CRRs through the allocation process, it takes into account the differences between external loads and internal loads with respect to their need to rely on the CAISO-controlled grid and the level of certainty that LSEs serving load outside the CAISO Control Area will continue to pay CAISO access charges and congestion charges.³⁰⁰

350. In general, the CAISO stated that sources for CRRs in the allocation process can be either pricing nodes or trading hubs, and that sinks for CRRs can be either LAPs or sub-LAPs. However, the CAISO explained that an interconnection between a neighboring control area and the CAISO (i.e., an intertie) can also be a CRR source to the extent that certain requirements set forth in the MRTU Tariff are satisfied. The CAISO argued that this will allow LSEs to obtain CRRs to avoid congestion costs associated with

²⁹⁸ Harvey & Pope Testimony at 91. With obligation CRRs, if congestion costs are negative, the CRR holder will have to make a payment. In contrast, option CRRs grant the right to collect positive congestion revenues but do not impose an obligation to pay negative congestion revenue. Option rights tend to be less financially risky instruments. However, option rights also tend to reduce the total quantity of CRRs available to the system, which could result in an LSE being awarded fewer CRRs. *See* September 2006 Order, 116 FERC ¶ 61,274 at P 706 & n.316; MRTU Tariff sections 36.2.1 and 36.2.2.

²⁹⁹ September 2006 Order, 116 FERC ¶ 61,274 at P 706-15.

³⁰⁰ *Id.* P 716-19.

imports. Additionally, the CAISO proposed that 50 percent of the residual inertie capacity be reserved in the CRR allocation to make it available in the CRR auction.³⁰¹

1. External Load

351. Modesto, TANC, SMUD, Imperial, Cities/M-S-R and NCPA request rehearing on the grounds that the CAISO's CRR proposal discriminates against external load. More specifically, these parties argue that there is no reason to treat external load differently than internal load, and that LSEs serving external load should not have to prepay the wheeling access charge in order to be eligible to participate in the CRR allocation process.

352. Additionally, NCPA argues that the requirement to prepay a year's worth of access charges is burdensome. TANC, Modesto and Cities/M-S-R state that entities external to the CAISO may have to leverage other assets in order to fund the wheeling access charge prepayments, potentially creating an obstacle to financing that entities within the CAISO do not face. Modesto asserts that there is no basis for this increase in costs. SMUD argues that the prepayment is disproportionate to the stated objectives.

353. NCPA contends that the CRR proposal imposes a capacity charge on external LSEs while imposing no analogous charge on any internal load. NCPA also contends that external loads would be prohibited from requesting an allocation of CRRs for firm contracts that are not unit-contingent. Since the CAISO has acknowledged the ability to allocate CRRs for firm contracts delivered to internal loads, NCPA asserts that there can be no non-discriminatory rationale for this restriction.

354. Modesto highlights the Commission's statement in the September 2006 Order that it is concerned that LSEs outside the CAISO Control Area will either not use CRRs or otherwise use them as financial instruments.³⁰² However, Modesto claims that the Commission ignores its arguments that access to CRRs comes with financial implications if the CRRs are not used or scheduled. Accordingly, Modesto concludes that the risk is not as great as the Commission appears to believe that external load will either hoard or purchase CRRs with the intent to simply resell for profit in the secondary market. Moreover, Modesto argues that the Commission does not explain why the risks it fears are not also present for internal load.

³⁰¹ *Id.* P 825.

³⁰² Modesto Oct. 23, 2006 Rehearing/Clarification Request, Docket No. ER06-615-001, at 9 (citing September 2006 Order, 116 FERC ¶ 61,274 at P 767-68).

355. TANC submits that there is simply no factual or policy basis for distinguishing load served outside a control area from load inside a control area with respect to CRRs. TANC argues that the effect of the CRR proposal is to balkanize regions rather than promote seamless tariffs and regulations. It contends that the result inexplicably runs counter to everything the Commission has advocated with respect to transmission, markets and regulation.

356. Cities/M-S-R and Modesto point out that the Commission finds the prepayment requirement to be consistent with the treatment of external load in other energy markets, citing the NYISO. However, Cities/M-S-R and Modesto assert that this comparison is unwarranted, because there are differences between the two markets. Additionally, according to Cities/M-S-R and Modesto, the Commission does not address the linkage between price certainty and reliability. Cities/M-S-R and Modesto assert that one of the key factors LSEs use in making their procurement decisions is price. Cities/M-S-R and Modesto argue that exposure to price volatility will affect reliability.

357. Cities/M-S-R and Modesto also assert that the ability to participate in the CRR auction markets does not mitigate the harm caused by the proposed CRR process. Cities/M-S-R and Modesto argue that the harm is caused by impairing the ability for LSEs external to the CAISO Control Area to obtain a stable class of CRRs. SMUD adds that given the limited amount of CRRs that will be available at auction, the matter could not be resolved on the basis of the written record and should have been set for hearing.

358. Additionally, SMUD argues that the Commission's determination that there is no discrimination against external load not only makes no sense, but also runs counter to the CAISO's own representations. SMUD states that it pointed out in its protest that the CAISO did not expect external LSEs to request allocations of CRRs and that the CRR prepayment condition was intended to prevent external LSEs from requesting an allocation of CRRs.

359. SMUD asserts that the Commission arbitrarily disregarded evidence that SMUD is dependent on the CAISO's transmission to meet its load requirement and that there is no basis for the assumption that external load is less dependent on the CAISO grid than internal load. SMUD argues that, at a minimum, customers should be able to demonstrate reliance before prepayment is required. Moreover, SMUD claims that the MRTU tariff does not require internal load to make a showing of legitimate need. However, SMUD asserts that even if external load demonstrates legitimate need, the external load still receives inferior treatment. For example, SMUD claims that the Commission never explained why, to qualify for a CRR allocation, external load must demonstrate its desire to export power for the purpose of serving its external load.

360. SMUD and Imperial explain that a basic underlying principle of CRR allocation is that parties who support the embedded costs of the CAISO transmission grid are entitled

to an allocation of CRRs in accordance with the nature and extent of their support for these costs. However, SMUD submits that the CAISO's allocation mechanism does not follow this basic underlying principle of CRR allocation and that the Commission did not explain why it is reasonable to base prepayment obligations on CRR allocations when control area customers do not pay for transmission they do not use. Imperial states that access fees should be based on what is actually scheduled and not based on load projections made a year in advance. Furthermore, SMUD argues that the Commission's finding in its September 2006 Order is inconsistent with its finding in *New England Power Pool*, where SMUD claims the Commission ruled that entities paying embedded transmission costs should be allocated financial transmission rights.³⁰³

361. SMUD asserts that there was evidence offered that the legitimate need criteria and prepayment obligation were concocted by the CAISO as a punitive measure for those who have chosen to leave its control area. SMUD claims that the CAISO makes no secret that its objective was punishment, rather than any concern about demonstration of "legitimate need."³⁰⁴

362. Imperial argues that the legitimate need provision is vague and open to discriminatory determinations and abuses by the CAISO. Furthermore, Imperial contends that this standard is contrary to the native load protections contained in section 217 of the FPA and the language contained in the current pro forma open access tariff regarding native load.³⁰⁵

363. SMUD states that the only way its discrimination claim can be resolved without an evidentiary hearing is for the Commission to resolve it *against* the CAISO. Absent such a ruling, SMUD asserts that the Commission cannot resolve the issue without an evidentiary hearing, and its failure even to address SMUD's contentions was arbitrary. Moreover, SMUD argues that the Commission's conclusion that prepayment is the only way a customer can show its intent to continue to utilize the CAISO grid is an unexplained departure from Order No. 679.³⁰⁶ Furthermore, SMUD asserts that the

³⁰³ SMUD Request for Rehearing Request at 40 (citing *New England Power Pool*, 100 FERC ¶ 61,287 at P 85).

³⁰⁴ *Id.* at 2 & n.2, 21-23.

³⁰⁵ Imperial Oct. 23, 2006 Request for Rehearing/Clarification, at 23 & n.59 (citing FPA § 217(a), *to be codified at* 16 U.S.C. § 824q(a)) (Imperial Request for Rehearing).

³⁰⁶ *Id.* at 1 & n.1, 17-20 (Order No. 679, FERC Stats. & Regs. ¶ 31,222).

September 2006 Order violates the bar in Order No. 888 against undue discrimination between transmission customers and the order's "as good or superior to" standard.³⁰⁷

364. Imperial argues that the Commission should require the CAISO to adopt the native load service obligation as defined in FPA section 217 and treat all native load service providers, whether inside or outside the CAISO, similarly with respect to the allocation of CRRs.

2. Through-and-Out Transactions

365. Cities/M-S-R and Modesto argue that the Commission erred in compounding the prepayment discrimination by approving the qualifications for allocation of CRRs. Cities/M-S-R and Modesto explain that the CRR allocation process requires LSEs external to the CAISO to demonstrate a legitimate need for those CRRs. However, Cities/M-S-R and Modesto point out one sub-criterion of showing legitimate need is to demonstrate that the entity is buying generation located in the CAISO Control Area. While the Commission noted in the September 2006 Order that this issue was raised, Cities/MSR contend that the Commission did not respond to the question of why the CAISO's refusal to allocate CRRs to wheel-throughs is appropriate.

366. Cities/M-S-R and Modesto assert that the Commission erred in not addressing this important question. However, even if the Commission did respond, Cities/M-S-R and Modesto argue that the Commission could not substantiate a conclusion that prohibits LSEs from being allocated CRRs for wheel-throughs, as there is no plausible basis for distinguishing wheel-throughs from exports by sources internal to the CAISO. Cities/M-S-R and Modesto contend both types of transactions rely on the CAISO grid and that entities using those CRRs all pay for the embedded costs of the CAISO grid.

367. Moreover, SMUD asserts that the CAISO acted arbitrarily in declaring that external load meeting the CAISO's legitimate need test would be able to participate in the CRR allocation process as if it were internal load. SMUD argues that this is contradicted by the MRTU Tariff, because external load cannot use its CRRs for transmission of resources external to the CAISO grid. SMUD points out that the CAISO Control Area customers do not have this limitation under the tariff. Imperial requests clarification, or in the alternative rehearing, that external load will be able to obtain CRR allocations from an intertie point to their export point.

³⁰⁷ *Id.* at 3 & n.3, 19-20 (citing Order No. 888 FERC Stats. & Regs. ¶ 31,036, at 31,770).

Commission Determination

368. As explained below, we deny rehearing requests challenging the requirement that, under MRTU, LSEs serving external load must assume the obligation to pay wheeling access charges on an annual basis and make a showing of legitimate need in order to receive CRRs. However, we grant two rehearing requests. First, we grant rehearing requests concerning the allocation of CRRs for wheel-through transactions, and direct the CAISO to modify the MRTU Tariff, in conjunction with the compliance filings it will make on or before August 3, 2007, to enable LSEs external to the CAISO Control Area to obtain CRRs to serve external load from facilities located outside the CAISO Control Area on a similar basis as external load is eligible to obtain CRRs to hedge transmission of resources within the CAISO. As explained below, this is necessary to avoid undue discrimination. Second, we find that, while the obligation to pay a fixed (minimum) amount of wheeling access charges on an annual basis is just and reasonable, the funding mechanism, *i.e.*, prepayment of the entire year's worth of wheeling access charges prior to participation in the CRR annual allocation process, may be unduly burdensome to certain external entities. Therefore, as discussed below, we direct the CAISO to offer external entities that meet creditworthiness requirements the option of meeting their annual payment obligation through monthly installment payments. As discussed below, agreement to pay a fixed amount of annual wheeling access charges on a monthly basis is analogous to the traditional long-term point-to-point agreements that external load typically entered into in the past. In addition, this approach will place external entities more closely on par with internal entities, which pay TACs on a monthly basis. Lastly, as discussed below, we direct two other compliance filings regarding the clarification of tariff provisions.

369. The MRTU Tariff provides both internal and external load with the opportunity to receive an allocation of CRRs on a similar, although not identical, basis, and allows both to purchase CRRs through the auction. This is consistent with the FPA,³⁰⁸ Commission precedent and the principle of equitable CRR distribution, *i.e.*, allocation of CRRs to those who have paid and continue to pay the embedded costs of the CAISO grid. Therefore, we deny Imperial's request that we require the CAISO to allocate CRRs to internal and external LSEs on an identical basis. We also decline to require the CAISO

³⁰⁸ We note that the Commission has interpreted new FPA section 217 as not requiring identical treatment for internal and external LSEs. *See Long-Term Firm Transmission Rights in Organized Electricity Markets*, Order No. 681-A, 71 Fed. Reg. 68,440, at 68,452 (Nov. 27, 2006), 117 FERC ¶ 61,201, at P 81 & n.74 (2006) (“[W]e have found in prior orders that, in allocating FTRs, it is not discriminatory for a transmission organization to impose additional requirements on customers external to the transmission organization's control area (external load) as a precondition to receiving such rights.”) (Rehearing Order on Final Rule), *reh'g pending*.

to incorporate EAct 2005's definition of native load obligation in its tariff; that issue will be considered upon evaluation of the CAISO's Long-Term Firm Transmission Rights Compliance Filing, Docket No. ER07-475-000. We further note that the FPA does not prohibit all discrimination, only undue discrimination.³⁰⁹ In general, discrimination is "undue" when there is a difference of rates, terms or conditions among similarly situated customers.³¹⁰ The Commission has broad discretion in determining when discrimination is undue.³¹¹ Here, there is no undue discrimination because internal and external load are not similarly situated with respect to either their membership in the CAISO or their ongoing reliance on the CAISO grid. In addition, as modified herein, the CAISO has reasonably tailored the additional requirements external load must meet to obtain CRR allocation – the obligation to pay a fixed annual amount of wheeling access charges and demonstration of legitimate need – to the CAISO's aim of ensuring that CRRs are allocated to entities that will continue to pay the embedded cost of the transmission system and intend to use the CRR as a hedge against congestion costs.

370. In Order No. 2000, the Commission expressed its concern that non-PTOs may receive the benefits of an RTO in its region without accepting any of the burdens of participation in the RTO.³¹² Consequently, the Commission allowed RTOs to justify, on a case-by-case basis, rates, terms and conditions of transmission service that recognize the customer's participatory status. In the September 2006 Order, the Commission found that the CAISO had sufficiently justified different CRR allocation procedures for external and internal load under the MRTU Tariff.³¹³ It found that these differences are not unduly discriminatory, but rather reflect the fact that external load is situated differently from internal load with respect to its ongoing reliance on the CAISO grid. LSEs located within the CAISO must rely primarily on the CAISO-controlled grid to serve their loads. In contrast, entities located outside the CAISO may have the option of serving their loads without using the CAISO-controlled grid. For example, an independent control area

³⁰⁹ 16 U.S.C. § 824d, 824e (2000).

³¹⁰ See, e.g., *Calpine Oneta Power, L.P.*, 116 FERC ¶ 61,282 (2006) (citing *El Paso Natural Gas Co.*, 104 FERC ¶ 61,045, at P 115 (2005)).

³¹¹ *TAPS*, 225 F.3d 667 at 721; *Bethany v. FERC*, 727 F.2d 1131 at 1138 ("Substantial deference must be given to FERC's judgment on the reasonableness of particular customer categories.")

³¹² *Regional Transmission Organizations*, Order No. 2000, FERC Stats. & Regs. ¶ 31,089, at 31,180 (1999), *order on reh'g*, Order No. 2000-A, FERC Stats. & Regs. ¶ 31,092 (2000), *aff'd sub nom. Pub. Util. Dist. No. 1 of Snohomish County, Washington v. FERC*, 272 F.3d 607 (D.C. Cir. 2001).

³¹³ September 2006 Order, 116 FERC ¶ 61,274 at P 766-69.

could ultimately decide to serve its load with its own resources and cease or limit its reliance on the CAISO-controlled grid. In contrast, internal load cannot avoid such use or related transmission charges. Therefore, requiring external load to prepay wheeling access charges is consistent with the principles of the CRR allocation process, *i.e.*, CRRs should be allocated to entities that will utilize the CAISO's transmission system to serve their load and, accordingly, pay the embedded cost of the transmission system. This obligation to pay a fixed amount of annual wheeling access charges helps ensure that CRRs will be allocated in an equitable manner and that they will be used as a congestion hedge by those who will take transmission service from the CAISO grid, and not simply function as a financial instrument. Additionally, contrary to some parties' assertions, the fixed payment amount is consistent with the parties' own expected usage of the CAISO transmission system.³¹⁴ As stated in the September 2006 Order, if "external load intends to continue to use the CAISO grid as a means of serving its load, pre-payment of the access charge is not unduly discriminatory."³¹⁵

371. Nor is it unduly discriminatory for the CAISO to require external load to make a showing of "legitimate need." Under the MRTU Tariff, an LSE serving external load qualifies for CRR allocation if, among other things, it demonstrates that it has existing energy contracts for generation internal to the CAISO Control Area that cover the time period of the CRRs nominated, or owns generation resources internal to the CAISO, and desires to export energy from these resources for the purpose of serving its external load.³¹⁶ Several parties challenge this requirement as discriminatory because customers in the CAISO Control Area do not have to make this demonstration. Here, again, internal and external load are not similarly situated. There is no question that internal load will be served by the CAISO grid and, consequently, internal load has a *per se* "legitimate need" for CRRs to hedge against congestion charges associated with the provision of electricity service. In contrast, at least a portion of external load will utilize transmission facilities outside the CAISO Control Area. Furthermore, unlike internal load, external load might only use the CAISO transmission system to serve part of its load, and accordingly, external load would pay CAISO-related transmission charges for a fraction of its load. The CAISO cannot "see" outside its control area, and so energy contracts or proof of

³¹⁴ See MRTU Tariff section 36.9.2, "For each MW of CRR nominated the nominating LSE must prepay one MW of the relevant Wheeling Access Charge."

³¹⁵ September 2006 Order, 116 FERC ¶ 61,274 at P 766.

³¹⁶ See MRTU Tariff section 36.9.1; *see also* Harvey & Pope Testimony at 101-02.

generation ownership appropriately enable the CAISO to verify external load's need for CAISO transmission service.³¹⁷

372. We are not persuaded by Cities/M-S-R and Modesto's claims that the CAISO's CRR proposal will adversely affect reliability. As the Commission stated in its September 2006 Order, "CRRs are merely financial transmission rights that serve to hedge participants against congestion charges."³¹⁸ The fundamental elements of reliability – existing generation and transmission assets – will be unchanged by the CRR proposal. We recognize that price certainty is an important factor in procurement decisions, and we note that the existence of CRRs will provide market participants greater price certainty, through their ability to hedge day-ahead congestion charges.

373. We deny SMUD's request that the Commission hold a hearing to ascertain undue discrimination and/or the extent of SMUD's reliance on the CAISO grid. Under these circumstances, a hearing would be an unnecessary use of administrative resources. At most, a hearing could determine the degree of SMUD's reliance on the CAISO grid on the date the opinion is rendered (or, more accurately, as of the date of the data on which SMUD bases its case), but it cannot resolve that issue on an ongoing basis, nor would it resolve the issue for other external entities. We also reject SMUD's suggestion that, at a minimum, it should be allowed to demonstrate reliance to avoid having to make a fixed annual payment. While the annual payment requirement may not be the only way for a customer to demonstrate its intention to continue to utilize the CAISO grid, it is a reasonable and expedient means of ensuring that external load incurs the same continuing obligation to pay the embedded costs of the CAISO grid as LSEs within the CAISO Control Area incur.³¹⁹ Furthermore, if an external LSE relies on the CAISO grid and intends to continue using the CAISO's transmission facilities on a long-term basis, it is difficult to see how the annual payment requirement discriminates against that LSE.³²⁰

³¹⁷ We note that the verification process used for the first annual allocation of CRRs, which requires internal load to show a link between historically used sources and sinks and desired CRRs, *see* CAISO Feb. 9, 2006 Transmittal Letter, Attachment G, LECG Testimony, Docket No. ER06-615-000, at 91 (LECG Testimony), is akin to the legitimate need showing imposed on external LSEs. Also, internal LSEs that lose load will forgo the right to renominate a corresponding proportion of their CRRs from the prior annual allocation in the priority allocation tier. *Id.* at 152.

³¹⁸ September 2006 Order, 116 FERC ¶ 61,274 at P 769.

³¹⁹ *See* LECG Testimony at 101.

³²⁰ We note that arguably external LSEs with long-term contracts that choose to prepay and be eligible for CRR allocation may be in a better position to forecast their

Payment of wheeling access charges will entitle external LSEs to obtain CRRs and hedge their day-ahead energy transactions on an equivalent basis as internal load.

374. In response to SMUD's and Imperial's concern that annual payment obligations are based on CRR allocations and not on actual transmission usage, the Commission noted in its September 2006 Order that by making this payment an "LSE signals its intention to continue to utilize the CAISO transmission system."³²¹ Therefore, refunding any residual wheeling access charge prepayment or reducing the payment obligation mid-term for the external LSE would undermine the significance of the payment obligation – commitment to use the CAISO transmission grid for the duration of the CRR. Regardless of how much energy the external LSE actually schedules, the prepayment amount is consistent with the congestion hedge it is allocated.³²² Whether or not a CRR holder schedules power and takes transmission service in accordance with its CRR holdings, the CAISO will pay that CRR holder a CRR payment in accordance with the MRTU Tariff. Therefore, we uphold our determination that it is appropriate to allocate any positive balance after the term of the CRR has expired to the relevant CAISO PTO.

375. We disagree with NCPA's assertion that the annual fixed payment requirement imposes a capacity charge on external LSEs, while imposing no analogous charge on any internal load. The annual fixed payment does not reserve capacity; rather, it entitles the external LSEs to a congestion hedge on equal footing with internal LSEs. Annual fixed payment is simply a prerequisite for being allocated CRRs, and not having a CRR does not preclude an entity from scheduling transactions and taking transmission service from the CAISO. Further, as noted above, the payment obligation is consistent with the external LSEs' intended utilization of the CAISO grid. Thus, it is no more than an agreement to pay in advance for services that the external LSE expects the CAISO to provide. Additionally, we disagree with Modesto's assertion that the degree of risk of hoarding CRRs is the same for LSEs serving internal load as it is for those serving external load.³²³ Instead, we find that the CRR proposal appropriately addresses concerns

annual needs and nominate CRRs than at least some LSEs serving internal load that lack such long-term agreements.

³²¹ September 2006 Order, 116 FERC ¶ 61,274 at P 766.

³²² We note that under MRTU there are certain checks in place that prevent both internal and external load from obtaining CRRs that they intend to use primarily as a source of revenue, rather than for the appropriate aim of hedging congestion.

³²³ The risk of internal loads acquiring CRRs for non-hedging purposes is relatively low because their eligibility to nominate CRRs is linked directly to their actual load, and, their ability to nominate priority CRRs is linked directly to their historical

that external loads will nominate CRRs in the allocation process solely based on financial interests.

376. We decline SMUD's request to hold a hearing to examine whether the CAISO's underlying motive, in requiring external load to prepay and demonstrate legitimate need, is punitive. ISO/RTO membership comes with benefits as well as responsibilities, and we have found that it is not inappropriate, under certain circumstances, for an ISO/RTO to treat members and non-members differently.³²⁴ Significantly, the conditions the CAISO has placed on external load's eligibility for CRR allocation reasonably balance external load's desire to hedge congestion costs incurred from continued use of the CAISO grid with the CAISO's goal of ensuring equitable allocation of its CRRs in an efficient manner. It is not inappropriate for the CAISO to require external load to meet additional requirements to ensure that external load genuinely needs the CRR and will support the embedded cost of the CAISO's transmission system.

377. We further conclude, contrary to SMUD's assertion, that the MRTU Tariff's annual fixed payment obligation and legitimate need requirements do not violate Order No. 888 because LSEs serving external load are not being denied transmission service, and all customers, internal or external, receive the same Open Access Transmission Tariff (OATT) service under the MRTU Tariff.³²⁵ Also, once they qualify for an allocation of CRRs, LSEs serving external load are eligible to obtain them on the same basis as LSEs serving internal load. Nor, in our view, does the CAISO's treatment of LSEs serving external load with generation resources within the CAISO conflict with Order No. 679, which held that charging existing customers incentive rates is not unfair because most existing transmission customers will likely also be future customers.³²⁶ LSEs serving external load are not being denied transmission service. Rather, all LSEs are eligible to receive transmission service under the MRTU Tariff, regardless of whether they own CRRs. We emphasize that CRRs are valuable instruments and it is the CAISO's prerogative to impose reasonable means to ensure their equitable allocation.

usage of the CAISO grid. Furthermore, to the extent an LSE serving internal load loses load, its subsequent annual CRR allocation will be proportionately reduced.

³²⁴ *E.g.*, Order No. 2000-A, FERC Stats. & Regs. ¶ 31,092 at 31,385

³²⁵ To the extent SMUD's argument boils down to an objection that external load must receive identical treatment to internal load, it can be viewed as an improper collateral attack on Order No. 2000. *See id.* at 31,385. ("We do not agree with the premise of some of the petitioners who conclude that rate differences of any type [between RTO participants and non-participants] would constitute undue discrimination.").

³²⁶ Order No. 679, FERC Stats. & Regs. ¶ 31,222 at P 119, 146-47.

378. We do, however, grant requests for rehearing that assert that annual lump-sum prepayment of the annual fixed payment requirement could be financially burdensome. While we find that the obligation to pay a year's worth of wheeling access charges is a just and reasonable means to ensure an equitable allocation of CRRs, we find that making this prepayment in its entirety prior to the CRR allocation process may be unduly burdensome to certain market participants. We again note that requiring external entities seeking to participate in the CRR allocation process to pay for transmission service consistent with the term and the quantity of the CRRs they are awarded appropriately addresses the fundamental differences between internal and external loads. However, we are sympathetic to external entities that argue they may face financing obstacles preventing them from receipt of an equitable amount of CRRs. Furthermore, we find that this treatment is inconsistent with the treatment of internal entities and that it has not been sufficiently justified. Therefore, we direct the CAISO to offer creditworthy external entities the option of paying for their annual transmission service on a monthly basis. This payment option is consistent with traditional long-term firm point-to-point service, under which customers agree to pay for a fixed amount of annual (or longer term) transmission service at a fixed price, payable on a monthly basis.³²⁷ Also, we caution external entities opting for this payment plan that their obligation to fulfill their financial commitments is unchanged. Accordingly, we direct the CAISO to file with the Commission, in conjunction with the compliance filings it will make on or before August 3, 2007, modified tariff sheets that provide external entities the option of meeting their prepayment obligation by paying for it on a monthly basis.

379. Additionally, we grant requests for rehearing and clarification concerning wheel-through transactions. The guiding principle underlying CRR allocation is contribution to the embedded costs of the grid and ongoing commitment to continue paying those costs in the future. Once an external LSE establishes this ongoing commitment and prepays its wheeling access charge, we see no reason to condition eligibility for CRR allocation on whether an external LSE is buying power located within the CAISO Control Area or not. As the Commission recognized in the Long-Term Firm Transmission Rights Final Rule, entities taking through-and-out service may have contributed and may continue to contribute to the embedded cost of the grid.³²⁸ Consequently, we find that the CAISO

³²⁷ See *Preventing Undue Discrimination and Preference in Transmission Service*, Order No. 890, 72 Fed. Reg. 12,266 (Mar. 15, 2007), FERC Stats. & Regs. ¶ 31,241 (2007), *reh'g pending*, Attachment A, Form of Service Agreement for Firm Point-to-Point Transmission Service.

³²⁸ Order No. 681-A, 117 FERC ¶ 61,201 at P 79; *see also New England Power Pool*, 100 FERC ¶ 61,287 at P 85 (holding that “entities paying for the embedded costs of [a] system through taking long-term firm service, including through and out transmission service, should be entitled to take [FTRs]”), *quoted in SMUD Request for Rehearing at 40.*

has failed to justify its proposal not to allocate CRRs to external load for historical contracts sourced external to the CAISO, even if the external LSE prepays the wheeling access charge. As discussed in the September 2006 Order, the prepayment of the wheeling access charge signifies the intent of external load to continue to use the CAISO grid as a means of serving its load.³²⁹ The Commission found in its September 2006 Order that CRRs should be allocated to market participants that will continue to use the transmission system and, accordingly, pay the embedded cost of the transmission system.³³⁰ Consistent with this finding, an external LSE should be eligible to be allocated CRRs, irrespective of where the generation resource is located. We direct the CAISO to modify the MRTU Tariff, in conjunction with the compliance filings it will make on or before August 3, 2007, or earlier, if necessary to meet its CRR implementation timetable, consistent with this determination. Among other modifications required by this determination, we specifically direct the CAISO to modify section 36.9.1 to allow external LSEs to use contracts or ownership of a generation source located outside the CAISO to demonstrate legitimate need.

380. Lastly, in response to NCPA's contention that external loads would be prohibited from requesting an allocation of CRRs for contracts that are not unit-contingent, we direct the CAISO to clarify how such historical contracts, if any, will be treated. Specifically, we direct the CAISO to clarify, in conjunction with the compliance filings it will make on or before August 3, 2007, whether MRTU Tariff section 36.9.4 is intended to limit allocation of CRRs to only those external loads that have unit-contingent contracts involving internal resources. Furthermore, we agree with Imperial that the CAISO's methodology for determining legitimate need is vague. Accordingly, we direct the CAISO to file with the Commission a more detailed explanation of how eligible quantities will be determined in section 36.9.3, in conjunction with the compliance filings it will make on or before August 3, 2007.

3. Intertie Capacity

381. Powerex states that after year one of CRR allocation, it is impossible to project accurately how many MWs of CRRs would be available in the CRR auction for intertie capacity. However, Powerex asserts that it appears that far less than 50 percent would be available because CRRs are not designated for the auction until the last applicable tier, and even then only half of whatever CRRs remain is put in the pool for auctioning. Powerex argues that by year three and beyond it is hard to see how the auction would include anywhere near 50 percent of intertie CRRs.

³²⁹ September 2006 Order, 116 FERC ¶ 61,274 at P 766.

³³⁰ *See id.* P 730, 767.

382. Powerex asserts that there is simply no incentive for LSEs to leave any valuable intertie CRRs for the auction, because LSEs do not have to pay for allocated intertie CRRs. Instead, Powerex asserts that LSEs have every incentive to make as full a nomination as possible, up to their eligible quantities.

383. Powerex states that it appears that the Commission expects or anticipates that 50 percent of the CRRs at the interties would be available through the auction. If this is the Commission's intent, Powerex submits that the Commission should clarify this would be an appropriate set-aside for the intertie CRRs prior to allocations taking place. Powerex argues that the Commission should clarify that the CAISO should amend its proposal to ensure 50 percent of CRRs on external interties.

Commission Determination

384. We clarify that the September 2006 Order *did not* anticipate that, under MRTU, 50 percent of the intertie capacity would be available for the CRR auction. Instead, we accepted the CAISO's proposal to set aside 50 percent of the intertie capacity remaining after intertie capacity was allocated in the source verification process.³³¹ In the September 2006 Order, the Commission stated that we were "sympathetic to Powerex's concern that it is not clear how much residual intertie capacity will be left after the source-verified allocation."³³² Additionally, as noted in the September 2006 Order, the CAISO also recognized that the CRR Dry Run may provide market participants with additional information regarding practices at interties, and that this information may require adjustment to the CRR proposal.³³³ Accordingly, the Commission directed the CAISO to further evaluate its proposal to allocate intertie capacity and to make a compliance filing if modification to its proposal became necessary. As discussed below, the CAISO has requested clarification that it can file to modify, if necessary, the amount of set-aside intertie capacity upon completion of the CRR Dry Run. We accept the CAISO's proposal, and accordingly, we find that the issues relating to the allocation of intertie capacity are actively being addressed. Therefore, we deny Powerex's rehearing request.

³³¹ September 2006 Order, 116 FERC ¶ 61,274 at P 730, 830. *See also* MRTU Tariff section 36.8.4.1.

³³² *Id.* P 830.

³³³ *Id.* P 826.

4. Incomplete proposal

385. Modesto, Bay Area Municipals, Santa Clara, Lassen and Cities/M-S-R seek rehearing of the Commission's decision to conditionally accept as just and reasonable the CAISO's CRR proposal, because the parties contend that the CRR proposal is fundamentally inadequate and incomplete. These parties provide a list of information, studies and analyses that they claim is pertinent to the implementation of the CRR proposal, and that they argue is still incomplete.

386. These parties contend that market participants should not be prohibited from reviewing and commenting on the entirety of the proposal, which at the very least should include the results of the CAISO's CRR Dry Run study. They argue that without the completed CRR study, the CAISO cannot affirm whether CRRs will provide a complete hedge against congestion. Furthermore, these parties assert that by finding the CAISO's CRR proposal to be reasonable and not unduly discriminatory, the Commission has condoned the CAISO's continuous filings of incomplete market redesign proposals. They note that the CAISO has been working on its proposed congestion management design for approximately six years, and still has not completed studies pertaining to numerous aspects of this design.

387. Additionally, these parties note that the Commission has already reserved making a conclusive finding as to whether the Business Practice Manuals should be included in the MRTU Tariff. In light of the fact that information found in the CRR Business Practice Manual(s) could significantly affect the CRR proposal, the parties argue that the Commission should similarly reserve judgment on the justness and reasonableness of the CRR proposal until the CRR Business Practice Manual is finalized.

388. Moreover, these parties argue that, despite acknowledging the importance of the CRR proposal to the MRTU Tariff redesign proposal, and recognizing the magnitude of information that is still unavailable, the Commission has failed to fulfill its statutory duty to ensure that the terms and conditions of this monumental and massive redesign, which will affect numerous entities in the West, are just and reasonable.

389. TANC contends that the Commission has failed to articulate a reasoned basis for accepting the potential inadequacies of the CRR proposal, and the Commission should have given full consideration to the potential shortcomings of the CRR proposal, rather than accepting the fact that the capacity is constrained.

390. TANC and Imperial argue, based on their assessment of the significance of these missing elements and information, and the fact that the Commission has directed the CAISO to submit compliance filings on a number of the pertinent details, that the Commission should reconsider accepting as just and reasonable a scheme that is still quantitatively and qualitatively incomplete. More specifically, they insist that the

Commission should have rejected the CRR proposal as premature for two reasons: (1) because of the inability to properly determine the substantive impacts of the proposed congestion management design, and (2) because the CAISO's failure to include such information into its MRTU filing renders the filing procedurally noncompliant with the requirements for section 205 rate filings under the Commission's Rules of Practice and Procedure.

Commission Determination

391. In the September 2006 Order, the Commission conditionally accepted the CRR proposal, finding that, while further refinement of the CRR proposal was necessary, "the CAISO's initial CRR allocation proposal is a reasonable approach to equitably award CRRs and is not unduly discriminatory."³³⁴ We disagree with parties' argument that, because further refinement is necessary, the Commission is unable to accept the CRR proposal as filed. The CRR provisions of the MRTU Tariff are the result of extensive collaboration among the CAISO, its consultant LECG, Inc. (LECG) and stakeholders, and input from prior Commission orders approving the CAISO's CRR proposal in concept. Section 36 of the MRTU Tariff provides a solid framework for the CAISO's congestion management system. Among other details, this section defines the CRR instruments, describes CRR annual and monthly allocation, as well as auction processes, CRR holder requirements, bilateral CRR transactions and transfer of CRRs, eligible sources and sinks for CRR allocation, load migration between LSEs, CRR allocation to LSEs serving external load and CRR allocation to MSSs. These provisions were supported by thorough explanatory testimony provided by the CAISO's expert consultants and CRR Study 2.³³⁵

392. Consequently, the Commission determined that the CAISO's filed CRR proposal was sufficiently complete to allow the Commission to find that the proposal is just and reasonable and not unduly discriminatory. Also in the September 2006 Order, the Commission directed the CAISO to file the results of the CRR Dry Run.³³⁶ The CAISO made its filing on March 30, 2007, and we provided parties with the opportunity to comment. Prior to inception of MRTU, the Commission will apply its "rule of reason" to assess whether features of the final CRR Business Practice Manual should be included in the MRTU Tariff. In sum, the foundational components of the CAISO's CRR proposal and implementing MRTU tariff provisions are sufficiently detailed for us to approve.

³³⁴ *Id.* P 730.

³³⁵ *See* Harvey & Pope Testimony.

³³⁶ September 2006 Order, 116 FERC ¶ 61,274 at P 741.

5. State Water Project

393. Under MRTU, the annual CRR allocation process will utilize 75 percent of the grid's transmission capacity and will base each LSE's eligibility to nominate CRRs on the LSE's prior year's usage.³³⁷ In the monthly CRR allocation process, the CAISO will utilize the remaining 25 percent of the transmission capacity and will base each LSE's monthly eligibility on the LSE's monthly forecast. State Water Project argues that the annual CRR allocation methodology and the September 2006 Order fail to take into consideration how different water pumping loads are from other, predominantly retail, end users. State Water Project contends that non-water pumping loads, for which the allocation methodology was designed, can be expected to change from year to year usually by some two to five percent. In contrast, State Water Project asserts that its load can shift as much as 60 percent up or down from year to year. State Water Project asserts that shifts of these magnitudes cannot be accommodated through allocation of the remaining 25 percent of capacity available through monthly CRRs. Furthermore, State Water Project argues that this situation could have very serious adverse consequences for State Water Project's ability to hedge its congestion costs.

394. State Water Project argues that nothing in the CRR proposal addresses the relatively large swings in State Water Project loads due to varying hydrological conditions. It contends that this discrimination contravenes congressional intent. State Water Project submits that under EPA of 2005, the Commission is required to ensure that water pumping entities such as State Water Project receive the same priority long term firm transmission as that provided to load serving entities.³³⁸

395. State Water Project proposes that the Commission direct the CAISO, in allocating annual CRRs to water pumping loads, to use a five-year average of prior usage – as opposed to the prior year's usage – to reasonably accommodate large variations in pump loads from year to year.

Commission Determination

396. Contrary to State Water Project's argument that the September 2006 Order failed to consider State Water Project's concerns, the September 2006 Order specifically directed the CAISO to make a compliance filing regarding the participation of State

³³⁷ See MRTU Tariff section 36.8.2.1.

³³⁸ State Water Project Request for Rehearing at 58 & n.150 (citing EAct 2005 section 1233, Pub. L. No. 109-58, § 1233, 119 Stat. 594, 957 (2005), to be codified at 16 U.S.C. § 824q (new FPA § 217(g)).

Water Project in the CRR allocation process.³³⁹ Accordingly, at this time, we will not direct the CAISO to use a prior five-years' average for determining historical grid usage, as requested by State Water Project. Instead, we direct the CAISO to continue working with State Water Project to resolve any outstanding issues associated with allocating CRRs to pump load entities, including how to treat water pumping facilities' greater annual load shifts than other load serving entities.³⁴⁰ Moreover, if the monthly CRR release is insufficient to accommodate year-to-year pump load fluctuations, we direct the CAISO to submit appropriate tariff language as part of its compliance filing, in conjunction with the compliance filings it will make on or before August 3, 2007, to modify the CRR allocation proposal as it relates to pump load entities. On the other hand, if the CAISO continues to believe that the monthly allocation process sufficiently addresses State Water Project's concern, the CAISO should provide appropriate empirical support, in conjunction with the compliance filings it will make on or before August 3, 2007. Therefore, since we have directed the CAISO to continue working with State Water Project to continue resolving these issues, we deny rehearing of these issues as premature.

6. CAISO

397. The CAISO explains that, in the September 2006 Order, the Commission directed the CAISO to file with the Commission, within 30 days of its completion, the complete results of the CAISO's CRR Dry Run.³⁴¹ Additionally, the CAISO notes that the Commission understood that the report on the CRR Dry Run would be available by the end of January 2007. On rehearing, the CAISO explains that between the submission of reply comments and the issuance of the September 2006 Order, the dates for the CRR Dry Run were modified. The CAISO states that it currently plans to conclude the CRR Dry Run on or about February 19, 2007, and that it intends to file with the Commission the results of the CRR Dry Run no later than one month following the conclusion of the

³³⁹ September 2006 Order, 116 FERC ¶ 61,274 at P 777.

³⁴⁰ We note that the CAISO did make a compliance filing that, according to State Water Project, partially addressed other issues raised by State Water Project. *See* State Water Project Dec. 22, 2006 Comments, Docket No. ER06-615-003, at 24-26 (citing CAISO Dec. 20, 2006 Compliance Filing Transmittal Letter, Docket No. ER06-615-003, at 8 (CAISO Dec. 20, 2006 Compliance Filing Transmittal Letter)).

³⁴¹ CAISO Oct. 23, 2006 Request for Clarification and Rehearing, Docket No. ER06-615-001, at page 17 (citing September 2006 Order, 116 FERC ¶ 61,274 at P 741) (CAISO Request for Clarification and Rehearing).

CRR Dry Run, which would be approximately March 21, 2007.³⁴² The CAISO asks the Commission to clarify that this schedule is acceptable.

398. Related to the results of the CRR Dry Run, the CAISO states that, in the September 2006 Order, the Commission directed the CAISO to further evaluate whether its proposal to set aside 50 percent of the residual transmission capacity on interties needs to be modified, and to make a compliance filing within 60 days of the date of that order, if necessary. The CAISO states that it is not confident that it will have sufficient information to be able to evaluate and determine whether any adjustment to the 50 percent set-aside proposal is necessary in the 60-day time period provided by the Commission.

399. The CAISO states that, in developing a proposal regarding the appropriate level of intertie capacity to be set aside for the auction, it is most prudent to fully evaluate the CRR Dry Run results. Noting that conclusion of the CRR Dry Run has been rescheduled to a later date, the CAISO therefore requests that the Commission clarify that the CAISO may provide an interim report on the intertie set-aside within 60 days based on data collected during the CRR Dry Run to-date, and then submit its proposal for any needed modification to the 50 percent set-aside at the time it submits its final report on the CRR Dry Run.

Commission Determination

400. Given that the dates of the CRR Dry Run have been modified, we conclude that it is reasonable to similarly modify the schedule for filing the results of the CRR Dry Run. Accordingly, we clarify that we accept the CAISO's proposal to file the results one month after CRR Dry Run is completed.

401. Additionally, we recognize that the results of the CRR Dry Run may assist the CAISO and market participants in determining whether the proposal to set aside 50 percent of intertie capacity for the CRR auction should be adjusted. Therefore, we accept the CAISO's proposal to file for any such modification at the same time it files the results of the CRR Dry Run.³⁴³

³⁴² The CAISO filed the results of the CRR Dry Run on March 30, 2007, in Docket Nos. ER06-615-000 and -003.

³⁴³ With respect to the CAISO's request to file interim results, we accept the proposal, and note the CAISO has already submitted such information. *See* CAISO Dec. 20, 2006 Compliance Filing Transmittal Letter at 21, Attachment E.

7. Miscellaneous Issues

402. TANC argues that the Commission failed to articulate a reasoned basis for the preference for CRR obligations when the CAISO itself conceded that the Commission has previously approved the use of both CRR obligations and CRR options and the eastern ISOs have successfully deployed both obligation and option instruments. Imperial argues that obligation CRRs will be an imperfect and potentially expensive hedge for LSEs with fluctuating loads. Imperial contends that if it does not always schedule the full extent of its CRRs, the CAISO could impose a congestion charge for not scheduling the full amount of the power because the CRRs are balanced based on a system of offsets. Therefore, Imperial concludes that the CRR proposal is unjust and unreasonable because, although it appears to protect against congestion costs, it will impose additional costs on CRR holders if they inadvertently cause congestion by not scheduling the full amount of their CRRs. Imperial suggests that a simple solution to this CRR obligation problem is that the CAISO should allocate and auction off CRR options.

403. Imperial also argues that not only can a CRR holder be exposed to congestion costs by not fully using its CRR, but also a CRR holder's rights vanish if its load varies after the day-ahead market closes. Similarly, TANC complains that the CRR proposal only provides a hedge for the day-ahead market. Additionally, Imperial request clarification that it should not be charged any congestion associated with the unscheduled amount of a CRR because, in its opinion, the CAISO transmission modeling of the interties is flawed and does not represent the actual physical characteristics of the system.

404. Six Cities object to LAP pricing, arguing that it exposes LSEs with internal resources to the risk of congestion charges for the use of their own resources to serve their own loads. Six Cities claim that the expansive LAP areas limit the availability of CRRs due to internal constraints within the LAP area. Further, Six Cities contend that the Commission's reliance on the availability of CRRs to protect load served by internal generation from phantom congestion costs assumes that CRRs will be fully funded, which the September 2006 Order later recognizes will not necessarily be the case. Six Cities states that a settlement mechanism that nets internal generation with the portion of load being served by such internal generation, thereby avoiding congestion charges, would ameliorate its concerns regarding the impact of LAP pricing.

Commission Determination

405. With respect to the CAISO's preference for obligation CRRs, as the Commission acknowledged in the September 2006 Order, obligation CRRs may result in a negative payment stream to the CRR holder. However, the Commission also explained that obligation CRRs tend to make more CRRs available to market participants than option

CRRs.³⁴⁴ Also, as noted in the September 2006 Order, the Commission previously accepted the CAISO's proposal to allocate obligation CRRs.³⁴⁵ At that time, it also encouraged the CAISO to continue the development of hedging tools that may be valued in the CAISO market. While we deny rehearing requests on this issue, we urge the CAISO to continue exploring the feasibility of implementing option CRRs in a subsequent MRTU release.

406. In regard to Imperial's assertions that CRR obligations impose additional costs on LSEs with fluctuating loads, we recognize that CRR obligation holders will be responsible for paying negative congestion charges. However, this is an issue that similarly affects all holders of obligation CRRs, and there is nothing before the Commission that would indicate otherwise. Additionally, as discussed in our September 2006 Order, the CAISO's proposal to release seasonal CRRs will help address some of the issues relating to load fluctuations.³⁴⁶ Furthermore, while we acknowledge that the CAISO is working to improve its power flow modeling, we disagree with Imperial that the CAISO's modeling is flawed and that Imperial should not be billed congestion costs associated with unscheduled inertie transactions.

407. The Commission has weighed the benefits of implementing MRTU with CRR obligations versus option CRRs and has found that the CAISO's proposal to offer CRR obligations as a hedging tool against congestion in the day-ahead market is reasonable.³⁴⁷ The advantage of obligations over options is that CRR obligations allow the CAISO to award a larger number of CRRs in both MW and dollar terms than would be the case if LSEs were awarded CRRs defined only as options. This is because 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 such counterflow.³⁴⁸ The net result is expanded ability to hedge against congestion. Furthermore, the CAISO's proposal to offer a day-ahead market congestion hedge is consistent with practices in other LMP-based markets that provide the opportunity to hedge congestion costs in advance of real time.³⁴⁹

³⁴⁴ See September 2006 Order, 116 FERC ¶ 61,274 at P 733.

³⁴⁵ See October 2003 Order, 105 FERC ¶ 61,140 at P 177.

³⁴⁶ See September 2006 Order, 116 FERC ¶ 61,274 at P 846.

³⁴⁷ See *Id.* P 733 & n.325 (citing October 2003 Order, 105 FERC ¶ 61,140 at P 172).

³⁴⁸ LECG Testimony at 19-21.

³⁴⁹ *E.g., Wis. Elec. Power Co. v. Midwest Indep. Trans. Operator*, 114 FERC ¶ 61,105 (2006); *TEMT II Order*, 108 FERC ¶ 61,163 at 3, 12; *Midwest Indep.*

408. In regard to Six Cities' objections, we disagree that netting generation internal to the LAP against the load being served by the internal generation would be an appropriate means to hedge against price divergences between internal generation and the LAP. We find that Six Cities' proposal would jeopardize the funding of CRRs and potentially result in proration of CRRs. Ultimately, this proposal could undermine the effectiveness of CRRs as providing a hedge against congestion costs. Therefore, we deny Six Cities' request to impose a settlement mechanism that nets internal generation with the portion of load being served by such internal generation.

409. We concur with Six Cities' general concern about the impact of LAPs. More specifically, we agree with Six Cities that aggregated pricing *could* result in fewer CRRs being awarded to market participants than would be available under a nodal load pricing system.³⁵⁰ Additionally, market participants could be exposed to congestion costs if their CRRs are prorated or if there are simply no CRRs available. As discussed in previous orders,³⁵¹ we recognize the benefits of an increased number of LAPs, and moreover the larger benefits of replacing a LAP system with a fully nodal pricing system, and we note that one of those benefits would be resolving the 'phantom congestion' issue raised by Six Cities.

410. However, in the September 2006 Order, the Commission had to weigh the benefits of nodal pricing against the potential hardships that could ensue from higher energy prices in load pockets, and found that, on balance, the three LAP zones provide a reasonable approach for introducing LMP.³⁵² In the September 2006 Order, the Commission also directed the CAISO to increase the number of LAPs and to ultimately move to a full nodal pricing system.³⁵³ We find that the issues raised by Six Cities are most effectively resolved with the implementation of an increased number of LAPs or nodal pricing for load. Accordingly, we deny rehearing of these issues.

Transmission Operator, 111 FERC ¶ 61,176 at P 62; *N.Y. Indep. Sys. Operator*, 108 FERC ¶ 61,075 (2004).

³⁵⁰ However, we note that the results of CRR Study 2 indicate that the application of aggregate pricing will not have a material impact on the quantity of CRRs that are simultaneously feasible. *See* Harvey & Pope Testimony at 20.

³⁵¹ *See, e.g.*, July 2005 Order, 112 FERC ¶ 61,013 at P 35.

³⁵² *See* September 2006 Order, 116 FERC ¶ 61,274 at P 611.

³⁵³ *See id.*

411. Lastly, we clarify that Imperial and other external loads will be able to sell any CRRs, either awarded in the CRR allocation process or purchased in the CRR auction, bilaterally through the secondary CRR market.³⁵⁴

B. Long-term Firm Transmission Rights

412. The September 2006 Order required the CAISO to comply with the Commission's Final Rule concerning Long-Term FTRs³⁵⁵ in Docket No. RM06-8-000.³⁵⁶ In addition, in the context of discussing transmission rights (or CRRs) in general, the Commission noted that it has already approved the institution of financial transmission rights, and concluded that neither the Energy Policy Act of 2005 (EPA 2005) nor the Long-Term Firm Transmission Rights Final Rule required a return to a pure physical rights model.³⁵⁷ Moreover, in the September 2006 Order, the Commission determined that the MRTU congestion management scheme, with its combination of physical and financial rights, is superior to a pure physical rights approach to congestion management. In particular, the Commission found that MRTU's congestion management scheme provides greater flexibility to accommodate changes in the usage of the transmission system over time, more accurate price signals and an opportunity to receive congestion revenue from CRRs or to sell them.³⁵⁸ The September 2006 Order further found the CAISO's proposal to allocate CRRs to sponsors of merchant transmission projects to be deficient, and directed the CAISO to submit a compliance filing.

413. On rehearing, several parties raise issues concerning the provision of long-term FTRs under MRTU, and even with the Commission's Long-Term Firm Transmission Rights Final Rule. Modesto, Lassen, NCPA, TANC, Bay Area Municipals and Cities/MSR argue that the Commission's determination that MRTU's financial rights, called CRRs, are equivalent to physical FTRs is arbitrary and capricious. They argue that this determination is incorrect both as a general matter, and in the particular context of the MRTU Tariff. In their view, the assertion that financial rights are equivalent to

³⁵⁴ See LECG Testimony at 179-80.

³⁵⁵ See Long-Term Firm Transmission Rights Final Rule, FERC Stats. & Regs. ¶ 31,226. The CAISO submitted its compliance filing with the Long-Term Firm Transmission Rights Final Rule on January 29, 2007, in Docket No. ER07-475-000.

³⁵⁶ See September 2006 Order, 116 FERC ¶ 61,274 at P 890.

³⁵⁷ *Id.* P 900.

³⁵⁸ *Id.*

physical rights is illogical and contrary to EPAAct section 1233.³⁵⁹ They complain that the Commission failed to engage in any reasoned analysis explaining the equivalency of the financial rights with physical FTRs. They assert that the MRTU Tariff's financial rights are qualitatively different from physical FTRs, and, therefore, not equivalent to physical FTRs. These parties argue that, whereas physical FTRs are hedged against both congestion and marginal losses, financial rights do not fully hedge against marginal losses, thereby exposing LSEs to unreasonable and unhedgeable risks with no proven net efficiency benefits.

414. Bay Area Municipals, NCPA, Cities/MSR, TANC, Lassen and Modesto further complain that the Commission's contention that it approved a "combined" aspect of physical and financial transmission rights is misleading and not based on reasoned decision making. They argue that the MRTU Tariff's financial transmission rights fail in the most fundamental way to be "physical" FTRs because the financial transmission rights do not grant access to physical transmission capacity. They argue that the lack of guaranteed access to any particular physical transmission path creates increased price uncertainty and fails to provide a hedge against congestion costs and losses that is comparable to truly physical transmission rights.

415. These parties also assert that the Commission erred by failing to consider the implications for infrastructure investment that flow from a market design that lacks physical FTRs. They charge that the Commission failed to recognize that financial rights do not provide long-term price certainty that is equivalent to that provided by physical rights. According to these parties, the absence of true physical rights in the CAISO's MRTU Tariff creates a significant disincentive to needed investment, and the Commission failed to engage in reasoned decision-making by ignoring the different implications on infrastructure investment that flow from a market design with financial versus physical congestion rights.

416. SMUD argues the Commission acted arbitrarily by failing to address SMUD's objection that a delay in MRTU implementation should not delay long-term rights implementation even if that requires the CAISO to offer interim physical rights service.

417. In its request for clarification/rehearing of the September 2006 Order, the CPUC raises concerns regarding the Commission's Long-Term Firm Transmission Rights Final Rule. Specifically, the CPUC asserts that the Commission determined in the Final Rule that ISOs/RTOs shall not grant priority in allocation of long-term FTRs to LSEs that have long-term power supply contracts. In the CPUC's view, not giving priority in allocation of long-term FTRs to load-serving entities that have long-term power supply contracts

³⁵⁹ Pub. L. No. 109-58, § 1233, 119 Stat. 594, 957 (2005) (to be codified at 16 U.S.C. § 824q).

violates the FPA, EPCRA 2005 and the ultimate purposes of this proceeding. Consequently, the CPUC requests rehearing of the September 2006 Order's incorporation of the Final Rule's failure to require priority for LSEs with long-term power supply contracts and/or obligations.³⁶⁰

418. The CAISO asked for clarification that it may file additional details concerning the allocation of CRRs to sponsors of merchant transmission projects on a schedule consistent with the timing requirements set forth in the Commission's Long-Term Firm Transmission Rights Final Rule.

Commission Determination

419. We decline to rule on the merits of clarification/rehearing requests concerning the provision of long-term FTRs under MRTU, except for the issue concerning the timing of filing additional details on the allocation of CRRs to sponsors of merchant transmission projects. As we emphasized in the September 2006 Order, the MRTU Tariff filed by the CAISO notably lacked any provision whatsoever for long-term FTRs, notwithstanding nearly a decade of Commission directives otherwise.³⁶¹ The September 2006 Order placed the CAISO on notice that it must provide long-term FTRs upon inception of MRTU, and further directed the CAISO to comply with the Commission's Final Rule on Long-Term FTRs.³⁶² At present, there are no tariff provisions addressing long-term FTRs before the Commission for evaluation in the MRTU proceeding, and we decline to resolve these issues in the abstract.³⁶³ The Long-Term Firm Transmission Rights Final Rule requires RTOs, including the CAISO, to submit compliance filings (including tariff provisions) by January 29, 2007, to implement long-term FTRs.³⁶⁴ The CAISO timely submitted its compliance filing with the Long-Term Firm Transmission Rights Final Rule in Docket No. ER07-475-000, requesting an effective date of July 1, 2007 for its first set of tariff sheets to implement long-term FTRs.³⁶⁵ The CAISO further requested action on

³⁶⁰ CPUC Request for Rehearing at 13-16.

³⁶¹ September 2006 Order, 116 FERC ¶ 61,274 at P 891, 892.

³⁶² *Id.*

³⁶³ Although parties argue here that financial rights are not equivalent to physical rights, they do not differentiate between short- and long-term financial rights, and we consider it more appropriate to address their arguments in the order on the CAISO's compliance filing in the Long-Term Firm Transmission Rights Final Rule.

³⁶⁴ Rehearing Order on Final Rule, 117 FERC ¶ 61,201 at P 111, 123.

³⁶⁵ CAISO Jan. 29, 2007 Compliance Filing, Docket No. ER07-475-000, at 3 (CAISO Jan. 29, 2007 Compliance Filing).

its proposal by May 1, 2007.³⁶⁶ The filing was noticed, and comments were due by February 23, 2007.³⁶⁷ Given that the MRTU filing is bereft of long-term FTRs provisions, and the CAISO has submitted both tariff provisions and a timetable for implementation of long-term FTRs in a separate document, we conclude that the compliance filing proceeding is the appropriate forum for addressing these concerns.³⁶⁸ We will address all substantive long-term transmission rights issues raised on rehearing in this MRTU proceeding when we act on the CAISO's compliance filing with the Long-Term Firm Transmission Rights Final Rule.³⁶⁹

420. In addition, the CPUC requested rehearing of what it views as the September 2006 Order's incorporation of the Long-Term Firm Transmission Rights Final Rule's failure to require priority for LSEs with long-term power supply contracts and/or obligations (Guideline 5 of the Final Rule).³⁷⁰ First, we note that, while the Final Rule did not require LSEs with long-term power supply arrangements to have priority over

³⁶⁶ *Id.* at 29-30.

³⁶⁷ See Combined Notice of Filing # 1, 72 Fed. Reg. 5695 (Feb. 7, 2007), as amended by Combined Notice of Filing #1, 72 Fed. Reg. 7024 (Feb. 14, 2007).

³⁶⁸ *Stowers Oil and Gas Co.*, 27 FERC ¶ 61,001, at 61,001 (1984) ("The Commission, like other agencies, is generally master of its own calendar and procedures. It is within the Commission's purview to determine how best to allocate its resources for the most efficient resolution of matters before it."); *Mobil Oil Exploration v. United Distrib. Cos.*, 498 U.S. 211, 239 (1991) ("An agency employs broad discretion in determining how to handle related, yet discrete issues in terms of procedures . . . [such as] where a different proceeding would generate more appropriate information and where the agency was addressing the question.").

³⁶⁹ We note that the CAISO's long-term firm transmission rights proposal builds on the approach it has taken to short-term transmission rights – CRRs – under the MRTU Tariff. Consequently, when we act on the CAISO's long-term firm transmission rights proposal, we may need to revisit determinations made in this proceeding concerning CRRs or other issues that may impact long-term firm transmission rights.

³⁷⁰ Guideline 5 provides that:

Load serving entities must have priority over non-load serving entities in the allocation of long-term firm transmission rights that are supported by existing capacity. The transmission organization may propose reasonable limits on the amount of existing capacity used to support long-term firm transmission rights.

Rehearing Order on Final Rule, 117 FERC ¶ 61,201 at P 15.

LSEs lacking such arrangements, it also did not preclude RTOs from giving LSEs with long-term power supply arrangements top priority, under certain circumstances. The Final Rule clarified that:

in cases where the transmission organization must limit the amount of existing capacity available for long-term firm transmission rights to a level that cannot support the 'reasonable needs' of all load serving entities, guideline (5) allows the transmission organization to give priority to load serving entities with long-term power supply arrangements in allocating the scarce capacity.³⁷¹

Second, we conclude that, as for other details concerning the CAISO's implementation of long-term FTRs, the proper forum for raising and addressing these concerns is Docket No. ER07-475-000, the CAISO's compliance filing with the Long-Term Firm Transmission Rights Final Rule. Therefore, we deny the CPUC's request for rehearing, although we will consider this issue in our evaluation of the CAISO's Long-Term FTRs compliance filing.

421. Finally, we grant the CAISO's requested clarification, and allow it to file additional details concerning the allocation of CRRs to sponsors of merchant transmission projects on a schedule consistent with the timing requirements set forth in the Commission's Long-Term Firm Transmission Rights Final Rule. While the September 2006 Order had required the CAISO to submit these details in the MRTU proceeding,³⁷² given the overlap of this issue with the Long-Term Firm Transmission Rights Final Rule, and in light of our decision to resolve all issues surrounding the CAISO's provision of long-term FTRs in the rulemaking proceeding, we grant the CAISO's requested clarification. Among other things, this consolidation of issues in one proceeding will enhance administrative efficiency, and conserve parties' time and resources. We will consider the merits of the CAISO's proposal for allocating CRRs to sponsors of merchant projects when we act on the CAISO's compliance filing in the rulemaking docket, or soon thereafter.³⁷³

³⁷¹ *Id.* P 65.

³⁷² September 2006 Order, 116 FERC ¶ 61,274 at P 844, 873.

³⁷³ We note that the CAISO's compliance filing states that it will comply with the Commission's directive to provide a detailed methodology by the spring of 2007, after it receives comments on a white paper. *See* CAISO Jan. 29, 2007 Compliance Filing at 20.

C. ETCs/TORs

422. Under MRTU, the CAISO will honor and integrate ETCs,³⁷⁴ while minimizing inefficiencies associated with such contracts. MRTU Tariff section 16 sets forth the CAISO's treatment of these contracts, including: (1) scheduling the use of ETC rights in the CAISO markets; (2) validating that ETC schedules submitted to the CAISO are consistent with ETC holders' contractual rights; and (3) settlement and allocation of CAISO charges associated with ETC schedules and schedule changes. The September 2006 Order conditionally accepted MRTU Tariff section 16, subject to certain modifications.³⁷⁵

423. Under section 17 of the MRTU Tariff, the CAISO will also honor and integrate all TORs in the CAISO markets.³⁷⁶ In the September 2006 Order, the Commission concluded that, "the parameters established for handling TORs under section 17 are generally reasonable, but require further clarification and modification."³⁷⁷ Consequently, the Commission directed the CAISO to submit a compliance filing to address certain tariff omissions and ambiguities.³⁷⁸

³⁷⁴ An ETC is an encumbrance, established prior to the start-up of the CAISO, in the form of a contractual obligation of a CAISO PTO to provide transmission service to another party in accordance with terms and conditions specified in the contract, utilizing transmission facilities owned by the PTO that have been turned over to CAISO operational control pursuant to the Transmission Control Agreement. *Cal. Indep. Sys. Operator Corp.*, 116 FERC ¶ 61,281, at P 1 n.1 (2006) (ETC Compliance Order 2006). *See also* MRTU Tariff, Appendix A, Master Definitions Supplement.

³⁷⁵ September 2006 Order, 116 FERC ¶ 61,274 at P 1, 919-20, 952, 969. The September 2006 Order required the CAISO to submit a compliance filing within 60 days, *see id.*, and the CAISO submitted such a compliance filing. *See* CAISO Nov. 20, 2006 Compliance Filing. The Commission will address the compliance filing in a separate order.

³⁷⁶ A TOR is the right to use transmission facilities that are located within the CAISO Control Area, but are either partially or wholly owned by an entity that is not a PTO. The transmission facilities are not incorporated into the CAISO-controlled grid. MRTU Tariff, Appendix A, Masters Definition Supplement; Kristov Testimony at 104. The CAISO intends to treat TORs and ETCs similarly in the CAISO markets for purposes of scheduling, settlements and validation. *See* CAISO Nov. 20 Compliance Filing, newly-proposed MRTU Tariff section 17. The Commission will address the compliance filing in a separate order.

³⁷⁷ September 2006 Order, 116 FERC ¶ 61,274 at P 987.

³⁷⁸ *Id.* P 988.

424. We discuss issues raised on rehearing regarding ETCs and TORs below. We note at the outset that the overarching “theme” of the MRTU Tariff provisions governing ETCs and TORs is that the CAISO will honor the letter of these agreements, while improving the efficiency of its market operations. Although we require the CAISO to submit a few further tariff clarifications, as discussed below, we generally leave our relevant determinations in the September 2006 order intact.

1. Scheduling Issues

425. MRTU Tariff section 16.6.2 describes the treatment of invalid ETC self-schedules. An ETC self-schedule can be invalid if it is inconsistent with the Transmission Rights and Transmission Curtailment Instructions (TRTC Instructions),³⁷⁹ is unbalanced, or exceeds the capacity amounts reflected in the ETC.³⁸⁰ In the September 2006 Order, the Commission conditionally accepted, subject to modification, MRTU Tariff section 16.6, and directed the CAISO to submit a compliance filing making certain tariff clarifications and modifications within 60 days of the date of the order.³⁸¹

426. Six Cities seek clarification that the changes directed by the Commission regarding the CAISO’s notification and correction process will also apply to Converted Rights self-schedules.³⁸² According to Six Cities, there is no basis for treating ETCs and Converted Rights differently with respect to scheduling. Six Cities state that these rights are analogous to one another, and therefore should be treated similarly. To the extent that the Commission declines to grant this clarification, Six Cities request rehearing of the Commission’s limitation of the notification and correction process only to ETC schedules.

427. With regard to Scheduling Coordinators’ opportunity to correct ETC scheduling errors, Imperial seeks clarification as to whether the opportunity also applies to schedules

³⁷⁹ The TRTC Instructions are operational directives developed between the existing rights holders and the PTO, and submitted to the CAISO in order to facilitate the existing rights in the CAISO markets. *See* MRTU Tariff, Appendix A, Masters Definition Supplement. The TRTC Instructions automate the procedure for verifying that submitted schedules utilizing ETC rights are consistent with the ETC.

³⁸⁰ *See* MRTU Tariff section 16.6.2.

³⁸¹ September 2006 Order, 116 FERC ¶ 61,274 at P 919.

³⁸² The term “Converted Rights” refers to those contractual rights and transmission facilities that were turned over to CAISO control subsequent to the initial start up of the CAISO. *See* CAISO Feb. 9, 2006 Transmittal Letter at 75-76; *see also* MRTU Tariff section 4.3.1.6.

that the CAISO finds are not feasible. In addition, Imperial asks the Commission to require the CAISO to make clear that TOR holders will continue to be able to change their schedules upward and downward (and match their supply and demand), in all three markets, the day-ahead market, the HASP and the real-time market. According to Imperial, currently the CAISO permits it to change its schedule for the Southwest Power Link line, which will become TOR capacity under MRTU, up until 30 minutes before real time. Imperial suggests that the CAISO should be required to accept all scheduling changes up to 30 minutes before real time to account for load fluctuations for LSEs, like Imperial, that own transmission or ETCs within the CAISO Control Area. Imperial argues that, without this assurance, its contract rights will be substantially diminished. If the Commission does not grant such clarification, Imperial seeks rehearing claiming these provisions are unjust, unreasonable, arbitrary, capricious and contrary to the U.S. Constitution.

Commission Determination

428. We grant the clarification requested by Six Cities, as discussed below. In the September 2006 Order, the Commission recognized the importance of accurate scheduling and the consequences for inaccurate scheduling that inure to the detriment of those parties eligible for the “perfect hedge” settlement under MRTU.³⁸³ The Commission agreed with protestors that the MRTU Tariff did not provide Scheduling Coordinators submitting ETC schedules with the opportunity to correct ETC scheduling errors that is commensurate with the opportunity other entities submitting bids have to correct errors, and further directed the CAISO to revise the MRTU Tariff to: (1) timely notify Scheduling Coordinators whether the ETC schedule is valid or invalid; and (2) provide the Scheduling Coordinator a reasonable opportunity to correct the identified errors prior to the close of the day-ahead market.³⁸⁴ In this order, we agree with Six Cities that opportunities offered to ETC rights holders to correct identified scheduling errors should also apply to Converted Rights holders and, moreover, to TOR holders as well. Since the scheduling process for these rights holders is similar,³⁸⁵ we conclude that,

³⁸³ September 2006 Order, 116 FERC ¶ 61,274 at P 920. Under the CAISO’s ETC proposal, the CAISO will apply an exact reversal in settlements of the congestion charges associated with valid ETC schedules in the day-ahead market or a valid post day-ahead schedule change. Because of this exact reversal, the CAISO has named the proposed mechanism the “perfect hedge.” *See, e.g., Cal. Indep. Sys. Operator Corp.*, 110 FERC ¶ 61,113, at P 58, 60 (2005) (ETC Guidance Order 2005).

³⁸⁴ September 2006 Order, 116 FERC ¶ 61,274 at P 920 & n.396.

³⁸⁵ ETCs, TORs and Converted Rights receive the “perfect hedge” and do not pay congestion costs on all valid and balanced schedules submitted in the day-ahead market. *See* MRTU Tariff section 11.2.1.5. For Converted Rights holders, this treatment will

with respect to scheduling, these parties are similarly situated. Therefore, we grant Six Cities' clarification on this issue, and direct the CAISO to submit a compliance filing, in conjunction with the compliance filings it will make on or before August 3, 2007, to modify MRTU Tariff sections 16 and section 17 accordingly.

429. With respect to Imperial's request for clarification regarding whether the opportunity to correct scheduling errors also applies to schedules that the CAISO finds are not feasible, we note that under the day-ahead market, all self-schedules (including ETCs and TORs) are respected to the maximum extent possible and are protected from curtailment in the congestion management process.³⁸⁶ These schedules submitted in the day-ahead market should reflect the TRTC Instructions for its ETC rights. Therefore, we expect that the CAISO will find a day-ahead schedule feasible, unless, for example, there is a derate of a transmission line or an outage of the transmission facility. Under MRTU, if the CAISO finds that an ETC day-ahead self-schedule is not feasible, it does not permit modification of the schedule. Rather, the CAISO adjusts the ETC schedule and unbalanced demand served using non-ETC or TOR facilities does not receive the perfect hedge. The Commission has previously concluded that this outcome is reasonable, so long as the ETC/TOR holder is permitted to voluntarily decrease load or independently procure replacement power if time, circumstance and its ETC/TOR contract permit.³⁸⁷ This is also consistent with the CAISO's treatment of non-ETC self-schedules under MRTU. Therefore, we deny Imperial's requested clarification.

430. As to Imperial's request that the Commission direct the CAISO to clarify that TOR holders will continue to be able to change their schedules upward and downward in the day-ahead market, the HASP and close to real-time, we find that section 7.1 of the

expire on December 31, 2010, *see* MRTU Tariff section 4.3.1.2, at which point they will be treated like existing CAISO PTOs, and subject to the error notification procedures for transmission customers. We further note that, since Converted Rights holders only receive the perfect hedge for the balanced portion of their day-ahead schedules, our requirement that the CAISO notify such rights holders of scheduling errors only extends to the Converted Rights holder's ability to correct errors in its day-ahead schedule, and this procedure should not be construed as extending the perfect hedge beyond the day-ahead market.

³⁸⁶ They are among the last bids to be adjusted in the day-ahead market to relieve congestion, and congestion costs associated with balanced ETC and TOR schedules are reversed. *See* MRTU Tariff section 31.4.

³⁸⁷ September 2006 Order, 116 FERC ¶ 61,274 at P 945.

Southwest Powerlink (SWPL) Operations Agreement³⁸⁸ states that “scheduling of all [Arizona Public Service and Imperial] SWPL Transactions shall be in accordance with the scheduling provision of the [CA]ISO Tariff, the [CA]ISO scheduling protocols, operating procedures and timelines.” Therefore, we clarify that although the CAISO may, as its current practice, permit schedule changes up to 30 minutes before the hour, we highlight the fact that, under MRTU, the CAISO will honor post day-ahead market schedule changes only to the extent permitted under the particular ETC or TOR agreement. It is just and reasonable and consistent with contract law for the CAISO to honor the letter of the underlying ETCs or TOR agreements, and we need not require the CAISO to go beyond what those agreements provide. We need not rule on Imperial’s Constitutional claim because even if Imperial were correct that the Takings Clause of the Fifth Amendment of the United States Constitution³⁸⁹ applies to charges or scheduling conditions made by the CAISO under its tariff, the MRTU Tariff does not take Imperial’s (or any other ETC/TOR holder’s) property because Imperial still has the ownership, use and value of its property and may make schedule changes to the extent it agreed to be allowed to make them in its ETC or TOR contract.³⁹⁰

2. External vs. Internal Scheduling Points

431. Imperial seeks clarification or, in the alternative, rehearing, as to whether available transfer capacity (ATC) for its ETCs will continue to be set-aside if, for some reason, one of the scheduling points for its ETC becomes internal to the CAISO. Imperial states that

³⁸⁸ The Commission accepted the SWPL Operations Agreement via Commission letter order. *See Cal. Indep. Sys. Operator Corp.*, 112 FERC ¶ 61,205 (2005). As the majority owner of the SWPL, SDG&E operates the line and serves as the scheduling coordinator for Arizona Public Service and Imperial’s transactions on the SWPL and is responsible for submitting schedules for such transactions to the CAISO.

³⁸⁹ U.S. Const., amend V (providing that private property shall not “be taken for public use, without just compensation”). Since the “takings” prohibition only applies to government action, and the CAISO is a private entity, the Constitution is inapplicable here. *See, e.g., Jackson v. Metro. Edison Co.*, 419 U.S. 345, 346, 351, 358-59 (1974) (finding no state action in utility’s termination of customer’s service pursuant to a tariff provision on file with the state public utility commission).

³⁹⁰ *Cf. Penn Central Transp. Co. v. N. Y. City*, 438 U.S. 104, 124 (1978) (finding no regulatory taking after balancing diminution in value to the property and interference with investment-backed expectations with the public interest served by the regulation); *Duquesne Light Co. v. Barasch*, 488 U.S. 299, 307 (1989) (“[T]he Constitution protects utilities from being limited to a charge for their property that is so ‘unjust’ as to be confiscatory.”)

although MRTU Tariff section 16.5(1) allows for the setting aside or reduction of ATC for rights holders that are external to the CAISO, section 16.5(2) states that “[f]or existing rights within the CAISO Control Area, the CAISO will only designate capacity associated with the existing rights to the extent that the Scheduling Coordinator submits a valid ETC Self-Schedule in the Day-Ahead Market.”³⁹¹ Imperial seeks clarification that if some of its ETC rights become “internal” to the CAISO, those rights will still receive designated ATC treatment.

Commission Determination

432. We deny Imperial’s rehearing request because treating a scheduling point that becomes “internal” to the CAISO differently from other internal scheduling points would be inconsistent with the MRTU Tariff and undermine the benefits obtained by the CAISO’s carefully crafted approach to honoring ETCs. Also, regardless of whether a scheduling point is internal or external to the CAISO, Imperial will still receive the perfect hedge and be allowed to make schedule changes to the extent permitted under its ETC, so Imperial will not be disadvantaged.

433. Under MRTU, the CAISO will honor ETCs and schedule changes permitted under those contracts. However, the way the CAISO will honor ETCs and schedule changes differs, depending upon whether the scheduling point is within the CAISO or located over an intertie (external to the CAISO). If an ETC scheduling point is over an intertie, the CAISO will set-aside and withhold from the day-ahead market the full capacity of the contract by reducing the ATC on the intertie for the operating hour by the amount of unscheduled ETC capacity, until the contract deadline for making schedule changes elapses.³⁹² If the scheduling points are internal to the CAISO system, however, the CAISO will only set aside capacity associated with an ETC to the extent it is scheduled in the day-ahead market. Nevertheless, as with external scheduling points, the CAISO will fully honor all valid post day-ahead schedule changes, as permitted under the ETC. The only difference is that, for internal scheduling points, the CAISO will honor these schedule changes by redispatching non-ETC resources.³⁹³ Treating internal and external scheduling points differently prevents the well-documented “phantom congestion” problem that has plagued the current CAISO market from also impacting scheduling points within the CAISO. Phantom congestion arises because, in order to accommodate schedule changes that ETC rights holders are allowed to make under their ETCs after the

³⁹¹ Imperial Request for Rehearing at 56.

³⁹² ETC Guidance Order 2005, 110 FERC ¶ 61,113 at P 21; MRTU Tariff section 16.5(1).

³⁹³ MRTU Tariff sections 16.5(2) and (4).

close of day-ahead scheduling, the CAISO carves out from ATC the total amount of capacity permitted under the ETCs.³⁹⁴ If, however, an ETC rights holder ultimately does not utilize the full capacity under its contract, this gives rise to phantom congestion – the appearance that the transmission line is utilized to full capacity, since it has been withheld from use by others – when in fact capacity is available. The result is underutilization of transmission capacity and inflated congestion costs.³⁹⁵ The CAISO proposed to limit this issue in MRTU by treating internal scheduling points differently, *i.e.*, by redispatching resources for internal ETCs, and only carving out capacity on the interties. The CAISO was not able to use this redispatch technique on the interties because it does not control facilities on the other side of the intertie, *i.e.*, outside the CAISO Control Area. Given this difference, the Commission found in the September 2006 Order that the CAISO need not have a uniform method for accommodating ETC capacity over interties and on its internal transmission system.³⁹⁶

434. In the event that, as Imperial suggests, a scheduling point under its ETC were to become internal to the CAISO Control Area, consistent with MRTU Tariff section 16.5(2), the CAISO would only set-aside capacity associated with existing rights to the extent that the Scheduling Coordinator submits a valid ETC Self-Schedule in the day-ahead market. Further, under MRTU Tariff section 16.5(4), the CAISO would redispatch non-ETC resources to accommodate all valid post-day ahead market schedule changes. We find this outcome to be just and reasonable, and see no reason to treat a scheduling point that has become internal as if it were still an external point over an intertie. We have previously determined that the CAISO's treatment of ETCs within the CAISO

³⁹⁴ See ETC Compliance Order 2006, 116 FERC ¶ 61, 281 at P 26; September 2006 Order, 116 FERC ¶ 61,274 at P 928 & n.4; ETC Guidance Order 2005, 110 FERC ¶ 61,113 at P 23, 34, 35; *Cal. Indep. Sys. Operator Corp.*, 91 FERC ¶ 61, 205, at 61,727 (2000). See generally CAISO Dec. 8, 2004 Proposal for Honoring ETCs under MRTU, Docket No. ER02-1656-021, at 17-26 and Attachment C (MSC Opinion) at 2-3 (CAISO 2004 ETC Proposal).

³⁹⁵ CAISO 2004 ETC Proposal, Docket No. ER02-1656-021, Attachment C at 2 (stating that phantom congestion prevents beneficial day-ahead and hour-ahead transactions from taking place; prevents scheduling of larger and less-expensive units with long ramp times; distorts relationship between day-ahead and real-time prices, with higher price differences between buses day-ahead reflecting phantom congestion). In addition, the CAISO has explained how setting aside internal capacity that is ultimately not used by the ETC holder and released in real-time would not only create systematic inconsistency between forward and real-time prices, but also require adding complex, expensive software. *Id.* at 18-19.

³⁹⁶ See September 2006 Order, 116 FERC ¶ 61,274 at P 930.

Control Area “fully preserves the ETC holders’ scheduling rights,” so that the ETC is not disadvantaged, and continue to do so here.³⁹⁷ Moreover, we have approved this treatment of ETCs within the CAISO Control Area because it makes additional capacity available for use by others in the day-ahead and real-time markets, reduces the likelihood and magnitude of phantom congestion, and promotes convergence of day-ahead and real-time prices.³⁹⁸ If we were to grant Imperial’s request, this would unnecessarily undermine the CAISO’s effort to eliminate phantom congestion. Therefore, we deny Imperial’s rehearing request because it is inconsistent with the MRTU Tariff, would undermine the benefits of the CAISO’s ETC approach, and does not disadvantage Imperial.

3. Settlement Issues: Perfect Hedge

435. Imperial states that the MRTU Tariff appears to alter an ETC holder’s ability to change its schedule in the day-ahead or real-time market. According to Imperial, the September 2006 Order states that the perfect hedge insulates ETC holders from LMP-related congestion charges, both in the day-ahead and real-time market; however, Imperial claims that the MRTU Tariff only allows ETC holders to make changes to the scheduled amount of *supply* after the submission of the HASP ETC self-schedules. Imperial seeks clarification, or in the alternative rehearing, that it will be allowed to change the demand or supply side of its schedule in the day-ahead and real-time markets. Imperial also argues that limiting the ability of ETC holders to change their demand schedules after the close of the day-ahead market will prevent them from using demand response in a way that could free up transmission capacity.

436. State Water Project asserts that the September 2006 Order fails to honor scheduling rights by denying a right to schedule ETC demand in the HASP. State Water Project states that the MRTU Tariff requires that schedules for ETCs must be balanced. It claims that it is not possible to demonstrate compliance with the requirement for a balanced ETC schedule in the HASP, when the MRTU Tariff only permits changes to one side of the balance, the supply side. In addition, State Water Project argues that the new restrictions in ETC scheduling of demand will give rise to imbalance charges, which the September 2006 Order erroneously presumed would remain unchanged.

437. Metropolitan argues that the Commission erred in failing to relax the balanced schedule requirement for holders of ETCs and TORs in the HASP. Metropolitan asserts that, in the September 2006 Order, the Commission rejected assertions that ETC holders will lose their current flexibility to change scheduled amounts of both supply and demand during the HASP. Metropolitan believes that most ETCs contain sufficient flexibility to

³⁹⁷ ETC Guidance Order 2005, 110 FERC ¶ 61,113 at P 34.

³⁹⁸ *Id.*

permit the ETC holder to submit a revised schedule within what is now established as the HASP deadline. Metropolitan states that the September 2006 Order fails to reconcile MRTU Tariff section 16.6.2.2, which provides that an unbalanced ETC schedule is invalid, with MRTU Tariff section 33, which prohibits submission of either demand bids or self-schedules in the HASP.

Commission Determination

438. We share the concerns raised by parties, and find that the CAISO needs to reconcile those tariff provisions that involve the balanced schedule requirement and the perfect hedge settlement rights with the ability to adjust only the supply side of an ETC/TOR schedule in the HASP. Specifically, as discussed below, the CAISO needs to clarify its tariff to ensure that when ETC/TOR rights holders submit schedule changes consistent with their agreements, the schedule is still considered balanced for purposes of reversing congestion charges using the perfect hedge.

439. With respect to scheduling, section 16.9.1 of the MRTU Tariff³⁹⁹ allows ETC holders whose ETC so provides, to “submit ETC self-schedules for the use of those rights by the deadline for the Market Close for the HASP.”⁴⁰⁰ This provision does not limit HASP self-schedules to changes in the supply-side only. However, MRTU Tariff section 33.3 allows Scheduling Coordinators to submit self-schedules in the HASP for energy *supply*, but not demand.⁴⁰¹ As for the congestion hedge, the CAISO provides the perfect hedge for ETCs (and TORs) by providing congestion credits for the HASP and real-time market⁴⁰² in accordance with MRTU Tariff section 11.5.7. Section 11.5.7 requires valid and balanced self-schedules.⁴⁰³ An ETC self-schedule is valid when the CAISO

³⁹⁹ Likewise, newly-proposed MRTU Tariff section 17.4.1 permits TOR holders to submit TOR self-schedules for the use of those rights by the deadline for the market close for HASP. *See* CAISO Nov. 20, 2006 Compliance Filing.

⁴⁰⁰ Moreover, under the CAISO’s real-time process in MRTU Tariff section 16.10, “the CAISO will honor those scheduling flexibilities that may be exercised by holders of Existing Rights through their respective Scheduling Coordinators....”

⁴⁰¹ MRTU Tariff section 33.3 prohibits self-schedules for exports in the HASP, unless they involve exports associated with ETC/TOR agreements, and the agreement allows post-day ahead modifications, or the self-schedule is for a through-and-out transaction. We note that this tariff provision needs to be reconciled with the lack of ability to change the demand-side of the schedule in other situations.

⁴⁰² Converted Rights holders receive the perfect hedge for day-ahead schedules only.

⁴⁰³ *See* MRTU Tariff section 11.5.7.

determines, among other things, that the schedule includes balanced sources and sinks, *i.e.*, balanced supply and demand, within the ETC's/TOR's capacity limits.⁴⁰⁴ Therefore, if under MRTU Tariff section 33.3, the Scheduling Coordinator may only adjust the supply bid in the HASP, the ETC/TOR schedule no longer contains balanced sources and sinks, and therefore is no longer balanced.⁴⁰⁵ We conclude that allowing adjustment of only supply bids in HASP under section 33.3 is inconsistent with the requirement under section 11.5.7 that self-schedules be balanced. Therefore, we direct the CAISO to submit a compliance filing, in conjunction with the compliance filings it will make on or before August 3, 2007, to reconcile section 11.5.7 and section 16.9.1⁴⁰⁶ with section 33.3, so that it is clear that the perfect hedge is still available with respect to any contract-permitted schedule changes submitted by the market close for the HASP.

4. Balanced Schedule Requirement For Converted Rights

440. Six Cities request that the Commission clarify its finding with respect to the balanced schedule requirement applicable to Converted Rights holders. Six Cities argue that the balancing requirement should be limited to pairing the Converted Rights that are eligible for the hedge with an equivalent amount of load, rather than requiring an entity holding Converted Rights that are eligible for the hedge to submit a balanced schedule for *all* loads and resources. Six Cities state that no party has explained why a fully balanced schedule is necessary to effectuate the perfect hedge mechanism. To the extent that the Commission intends for balanced schedule requirements to encompass fully, rather than limited, balanced schedules, Six Cities request rehearing of this issue.

Commission Determination

441. We grant Six Cities' request, and clarify that, under MRTU, Converted Rights holders are not required to submit a balanced schedule for *all* loads and resources, only those that can be paired with Converted Rights. Under MRTU, the perfect hedge provides Converted Rights holders' protection from day-ahead congestion charges for all source and sink pairs associated with a valid and balanced Converted Rights self-schedule.⁴⁰⁷ The balanced schedule is required to reverse the congestion charges that

⁴⁰⁴ See *id.* at section 16.6.1.

⁴⁰⁵ As Metropolitan points out, an unbalanced ETC schedule is invalid. *Id.* at section 16.6.2.2.

⁴⁰⁶ The CAISO should likewise address this issue for TORs, and similarly modify the newly-proposed MRTU Tariff section 17.3.1 that the CAISO included in its November 20, 2006 compliance filing. See CAISO Nov. 20, 2006 Compliance Filing.

⁴⁰⁷ See MRTU Tariff section 11.2.1.5.

would otherwise apply.⁴⁰⁸ To the extent that a Converted Rights holder, such as Six Cities, has additional load or generation beyond its Converted Rights, we clarify that the balanced schedule requirement does not apply, and Six Cities may submit demand and energy bids pursuant to MRTU Tariff section 31.1 for these loads and resources that are not subject to Converted Rights. These transactions are not eligible for the perfect hedge settlement.⁴⁰⁹

5. Nodal Settlement for ETCs

442. San Francisco states that the Commission failed to address the fundamental problem that singling out ETC load for nodal settlement when virtually all other load is settled at the LAP lacks any justification and is inherently discriminatory. San Francisco argues that the only other load settled at the nodal price is participating load which, by definition, has agreed to such pricing, and ETC load is not comparable. San Francisco states that, while the perfect hedge provides pricing protection for ETCs with respect to nodal congestion charges, the September 2006 Order failed to address the problems nodal settlement causes for the energy and marginal loss components of LMP. San Francisco states that ETC energy and marginal losses are not given price protection under the perfect hedge and therefore, have no price protection, unlike virtually all other load settled at the LAP. San Francisco requests that the Commission recognize and honor ETC rights by removing the prohibition against LAP settlement for ETC supply and demand.

443. San Francisco also argues that the September 2006 Order is arbitrary and capricious in failing to address the restrictions on scheduling and settlement by ETC holders at the LAP or generation hub even when the ETC includes those rights. San Francisco reiterates the remedy it proposed in its protest: removal of MRTU Tariff section 30.5.3.2(a) and clarifying that Scheduling Coordinators may submit demand and supply bids at the LAP and the CAISO shall settle such bids at the LAP for such ETC or TOR self-schedules that are consistent with submitted TRTC instructions.

⁴⁰⁸ Id.

⁴⁰⁹ We note that Scheduling Coordinators for Converted Rights holders must indicate what balanced supply and demand schedules pertain to converted rights. *Cf.* CAISO 2004 ETC Proposal at 28 n.29 (explaining that Scheduling Coordinators may submit a schedule that includes additional demand and/or supply that may not be balanced, provided demand and supply elements for any given ETC within the Scheduling Coordinator's schedule are labeled as such with their unique ETC identifier and are balanced).

Commission Determination

444. We deny San Francisco's request that we direct the CAISO to allow submission of supply and demand bids at the LAP. Under MRTU, the CAISO will settle ETCs on a nodal basis that corresponds to the points of receipt and delivery in the particular ETC.⁴¹⁰ Therefore, settling these contracts on a nodal basis is consistent with contract provisions. When parties raised this issue several years ago, the CAISO explained that modeling both the injection and withdrawal schedules of ETCs at the locations that correspond to their contractual rights is necessary to reflect correctly the impact of their scheduling priority on the market.⁴¹¹ We agree. Also, accurately representing ETC usage on the grid is essential for facilitating the congestion management process.⁴¹² Furthermore, under the "perfect hedge" settlement mechanism, there will be no difference in congestion charges due to settling ETC load at the LAP versus the actual nodal locations because these charges are fully reversed in settlement.⁴¹³ Consequently, San Francisco should not be disadvantaged.

445. In addition, notwithstanding San Francisco's argument to the contrary, this appears to be consistent with San Francisco's ETC as well. San Francisco asserts that its ETC, an Interconnection Agreement with PG&E (PG&E Interconnection Agreement), currently allows for delivery or receipt of energy at the zone or hub level (NP15) and that, under MRTU, it should be allowed to settle at the LAP.⁴¹⁴ However, we note that the PG&E Interconnection Agreement that San Francisco refers to, PG&E Rate Schedule FERC No. 114, provides San Francisco with point-to-point transmission service.⁴¹⁵ By definition, point-to-point service has a point of receipt and a point of delivery, so although under the current market San Francisco may schedule and be settled at a zone, its PG&E Interconnection Agreement only specifies point-to-point service and has no contractual right to receive more under this ETC.

⁴¹⁰ See MRTU Tariff sections 11.5.7 and 16.5.1.

⁴¹¹ See CAISO 2004 ETC Proposal at 29 n.31.

⁴¹² *Id.* at 29.

⁴¹³ *Id.* at 29 n.31.

⁴¹⁴ See San Francisco Oct. 23, 2006 Rehearing Request, Docket No. ER06-615-001, at 2, 12; San Francisco Apr. 10, 2006 Motion to Intervene and Protest, Docket No. ER06-615-000, at 10-11.

⁴¹⁵ The Commission accepted this agreement in a delegated letter dated March 31, 1988, in Docket No. ER88-217-000. San Francisco has explained that this ETC entitles it to firm and non-firm rights on PG&E's system. See San Francisco July 23, 2004 Motion to Intervene and Filing of ETC Contract Information, ER04-928-000, at 3.

446. Finally, while the energy and marginal loss components of LMP are not given price protection under the perfect hedge, we conclude this does not make a rate that reflects the perfect hedge unjust and unreasonable. With respect to the energy component of LMP, for transactions eligible to receive the perfect hedge, the price exposure for the ETC holder is the contract price agreed to in the ETC, not the LMP energy price. A hedge against the energy component of LMP is therefore inappropriate. A hedge against the contract price is also inappropriate because the contract price is the very price the parties agreed to; the contract price itself is the hedge. As for hedging marginal losses, it is much more difficult to design a marginal loss hedge than a congestion hedge, in part due to the variables that influence marginal losses, such as ever-shifting line loading. While theoretically possible, to date, as noted in the marginal loss section above, no one has been able to design a workable hedge,⁴¹⁶ and no ISO offers a marginal loss hedge.⁴¹⁷ Indeed, none of the parties in this case have offered such a hedge. While we are sympathetic with the desire to hedge these losses, and have directed the CAISO to continue to work towards developing a marginal loss hedge,⁴¹⁸ we do not find the lack of a marginal loss hedge to be unjust or unreasonable.

6. Other Issues Raised

447. San Francisco argues that the detrimental impact of settling ETCs at the nodal price is compounded by the MRTU Tariff treatment of marginal losses for ETCs. San Francisco states that Scheduling Coordinators for ETCs are assessed nodal marginal losses, while every other load within the CAISO's transmission grid, except participating load, is assessed marginal losses based on the default average included in the LAP. San Francisco argues that this result is discriminatory, unjust and unreasonable. San Francisco further asserts that it is discriminatory for the refund allocation for the marginal loss over-collection credit to ETCs to be an average refund, even though ETCs are assessed potentially higher marginal losses because they are settled nodally.

448. Imperial seeks clarification, or in the alternative rehearing, that it will continue to be able to settle transmission losses through its ETC. Imperial seeks clarification that the September 2006 Order requires the CAISO to honor ETC contracts with respect to losses, which either allow the parties to pay for average losses or to self-supply losses. To the extent that ETC contracts will not be honored, Imperial requests rehearing as this is contrary to the Commission's precedent in the September 2006 Order.

⁴¹⁶ See Rahimi Testimony at 104.

⁴¹⁷ See Long-Term Firm Transmission Rights Rehearing Order, 117 FERC ¶ 61,201 at P 105.

⁴¹⁸ See *id.*

449. SMUD asserts that the Commission acted arbitrarily when it approved allocation of both the cost of congestion and losses to Scheduling Coordinators related to ETCs, but then exempted them only from congestion charges, not losses. SMUD argues that the Commission's conclusion that, where ETC customers have *Mobile-Sierra*⁴¹⁹ contract protection, the Scheduling Coordinator can collect unrecovered losses through the Transmission Revenue Balancing Account (TRBA),⁴²⁰ does not address SMUD's assertion that the incorporation of marginal losses on all transmission transactions into the calculation of LMP effectively forces ETC customers to pay twice for losses – once through the LMP price, and again in honoring its ETC contract.

450. Arizona/Southwest Coops state that the September 2006 Order's discussion of *Mobile-Sierra* clauses and the just and reasonable standard confirms that the ETCs are being modified, despite prior assurances to the contrary. Moreover, Arizona/Southwest Coops assert that the imposition of marginal transmission losses is the latest in a series of additional costs that have been imposed upon ETC customers as a consequence of the restructuring of California's power markets. Arizona/Southwest Coops argue that this outcome is unjust, unreasonable, discriminatory and contrary to the public interest

451. According to TANC, the Commission erred in failing to prohibit the CAISO from recovering losses associated with load that is already paying contract losses. TANC contends that the CAISO's marginal loss methodology creates the potential for certain customers to be exposed to double losses. TANC asserts that these customers are charged both the CAISO's marginal losses and contract losses for the same transaction. Specifically, TANC argues that an ETC holder that schedules its ETC use within the CAISO Control Area and pays contract-based losses should not be exposed to a CAISO assessment of marginal losses. Likewise, where an ETC holder schedules its load and the counter-party to the ETC (for example an original PTO) schedules the supply associated with the ETC, the load should not be subject to marginal losses. TANC recommends that the Commission eliminate the risk of a double assessment of losses and find that an ETC schedule should not be assessed marginal losses if it is assessed contractual losses. However, if the Commission fails to offer this relief, it should order the CAISO to revise its method of disbursing excess marginal losses to eliminate the potential for double losses.

452. Imperial argues that, on rehearing, the Commission should reject the CAISO's application of marginal losses, especially as applied to TORs. Imperial asserts that even

⁴¹⁹ SMUD Request for Rehearing at 10 & n.6 (citing *United Gas Pipeline Co. v. Mobile Gas Service Corp.*, 350 U.S. 332 (1956); *FPC v. Sierra Pacific Power Co.*, 350 U.S. 348 (1956)).

⁴²⁰ September 2006 Order, 116 FERC ¶ 61,274 at P 960.

if it could be said that the application of marginal losses to CAISO transmission customers is just and reasonable, that finding cannot lawfully be applied to TOR holders because they are not using the CAISO's transmission system to deliver energy purchased from the CAISO. According to Imperial, the rationales adopted by the Commission do not fit TORs because TORs are using their own transmission capacity. Therefore, the theoretical purpose behind imposing marginal losses, which is to signal that as a transmission line gets full it should cost more to use it, is irrelevant to TOR holders. TOR holders own the transmission capacity that they are using. Imperial argues that loss provisions, including the self-supply of losses, should be matters negotiated between the CAISO and a TOR holder.

Commission Determination

453. We deny requests for rehearing regarding the assessment of marginal losses to Scheduling Coordinators of ETC contracts. Under the MRTU Tariff, the CAISO will incorporate marginal losses into LMP, and Scheduling Coordinators will be assessed marginal losses for all transactions, including those associated with ETC contracts. We continue to find this marginal loss assessment reasonable because it treats CAISO-controlled grid users consistently and reflects cost causation principles. As we stated previously, incorporating marginal losses into LMP is important for assuring least cost dispatch and establishing nodal prices that accurately reflect the cost of supplying load at each node.⁴²¹ This is because marginal loss dispatch recognizes the differing physical losses from individual generators to the CAISO load centers through a set of LMP adjustments at each generator and load bus.⁴²² In contrast, average loss dispatch fails to take into account the fact that dispatching generating units located further away from load centers on the grid causes the CAISO's system to incur more electric losses than dispatching generators located closer to the load center.⁴²³ Therefore, assessing marginal losses to ETCs is consistent with cost causation principles because it reflects the losses to the CAISO system caused by the movement of power from the ETC's generation source to its load sink. Assessing ETCs marginal losses will thus support least cost dispatch and the accuracy of nodal price signals.

⁴²¹ *Id.* P 90-92. By incorporating marginal losses in the LMPs, the LMPs at each node will reflect the marginal increase in the cost of transmission losses caused by delivering one additional MWh of energy to that node in the least cost manner. By paying supply resources their nodal LMPs, which include marginal losses, the CAISO sends them price signals that correspond to operating levels consistent with optimal dispatch of resources to meet demand. *See* Kristov Testimony at 25.

⁴²² *Id.* P 91 (citing *Atlantic City*, 115 FERC ¶ 61,132, at P 4 (2006)).

⁴²³ *See Atlantic City*, 115 FERC 61,132 at P 4.

454. Which entity will actually pay the marginal losses is a separate issue. As we explained in the September 2006 Order, the express terms of the particular ETC govern who pays for marginal losses. If the ETC contract cannot be modified unilaterally because it contains a Mobile-Sierra clause, then the ETC holder will continue to pay losses according to the terms of its ETC. Marginal losses will be assessed to the Scheduling Coordinator for this ETC, and the Scheduling Coordinator or applicable PTO will likely recover any cost differential through its TRBA, after taking into account refunded marginal loss over-collection amounts. If, on the other hand, the ETC permits unilateral changes, *i.e.*, the contract includes a Memphis clause, then the PTO could submit a filing pursuant to section 205 of the FPA to modify the contract to pass through any costs to the ETC holder.⁴²⁴

455. We disagree with San Francisco's assertion that it is discriminatory to assess ETC Scheduling Coordinators *nodal* marginal losses while other load, except for participating load, is assessed marginal losses based on the default average included in the LAP. Instead, we find this treatment reasonable because, as discussed above, settling ETCs on a nodal rather than LAP basis is consistent with these contracts, which specify the settlement nodes.⁴²⁵ In contrast, except for participating load that elects nodal settlement, all other load pays LAP marginal energy prices, so assessing such load default average LAP marginal pricing is consistent with such load's pricing paradigm.⁴²⁶ It is not unduly discriminatory to assess marginal losses to ETCs/TORs on a more granular basis than other load, since they are not similarly situated. ETCs constitute contractually-created encumbrances on the CAISO grid of pre-CAISO origin; TORs are interconnected with but do not belong to the CAISO-controlled grid. Therefore, while under MRTU the CAISO must honor these contractual rights and take ETCs/TORs into account in its grid management, the CAISO is not required to treat them identically with other customers.

⁴²⁴ September 2006 Order 116 FERC ¶ 61,274 at P 959-60.

⁴²⁵ We note that, under MRTU, San Francisco will continue to pay for its transmission losses in accordance with the provisions of its ETC. The PTO, as the Scheduling Coordinator for the ETC, will be assessed marginal losses for the ETC transaction, and will also receive the corresponding refund for any overcollection of marginal losses. The PTO may seek recovery of any unreimbursed marginal losses as discussed above. *See id.* P 960.

⁴²⁶ We highlight the fact that, as discussed in the marginal loss section above, since all suppliers receive nodal prices under MRTU, the difference in marginal loss charges among various sources will be the same whether load pays a nodal or zonal price. Thus, the CAISO (or load) is able to select the lower-cost source whether load pays a zonal or marginal price. Therefore, the marginal loss signal is not distorted if ETC holders pay a nodal price, while other load pays a zonal price.

456. In addition, we disagree with San Francisco's assertion that the refund allocation for the marginal loss overcollection credit is discriminatory because ETCs, like other load, receive an average refund, even though ETCs' marginal losses are settled nodally. As we explained in the marginal loss discussion above, refunding to all customers on an average basis is equitable because the surplus created by the marginal loss mechanism results from the total service provided to all customers in the aggregate.⁴²⁷ It is not possible to determine the rebate a customer deserves based on its individual contribution to loss payments.⁴²⁸ Further, this average loss allocation method is not discriminatory, as all Scheduling Coordinators, including Scheduling Coordinators for participating load that elects to settle on a nodal basis, receive an average refund. Furthermore, if the CAISO were to carve out an exception for ETCs and directly refund their marginal losses, doing so would undermine the marginal loss price signal that would otherwise encourage more efficient siting of generation closer to loads. As we stated in September 2006 Order:

...since the price customers are paying (based on marginal losses) is the correct marginal cost for the energy they are purchasing, customers are not entitled to receive any particular amounts through disbursement of the overcollections.... [T]he method for disbursing the amounts of any overcollections should not directly reimburse customers for their marginal loss payments, as such a reimbursement would interfere with the goal of basing prices on marginal losses and would undermine price signals to investors and load.⁴²⁹

457. Imperial seems to be confusing congestion with marginal losses in asserting that "the theoretical purpose behind imposing marginal losses is to signal that as a transmission line gets full it should cost more to use it."⁴³⁰ While the congestion component of LMPs signals that a transmission line is becoming full, the marginal loss component in LMPs is designed to provide price signals that ensure that overall losses in

⁴²⁷ The marginal loss surplus equals total net marginal loss revenue minus the cost of average losses (priced at the system marginal energy cost). *See* Rahimi Testimony at 52.

⁴²⁸ *See id.* at 50-55. Dr. Rahimi's unrefuted testimony explains how marginal loss overcharges to individual Scheduling Coordinators depend on variables such as the choice of reference bus and/or congestion and/or which schedule is deemed to have gone first on a line.

⁴²⁹ *Id.* P 94 (citing *Northeast Util. Serv. Co. v. ISO New England Inc.*, 105 FERC ¶ 61,122 at P 20).

⁴³⁰ *See* Imperial Request for Rehearing at 49.

the system are minimized. As stated above, it also enables least cost dispatch, to the benefit of all grid users.⁴³¹

458. Regarding Imperial's argument that TOR holders are using their own grid and consequently should not be subject to marginal losses, we disagree. Even though the TOR holder might be using its own facilities and the TOR facilities are not a part of the CAISO, they are integrally connected to the CAISO grid, and any TOR transactions that are subject to marginal losses involve injections and withdrawals from the CAISO grid. Because marginal losses apply at the interface to the CAISO grid just as they would for any other import or export on the CAISO grid, the fact that the TOR is not a part of the CAISO grid is irrelevant. In this sense, the application of marginal losses to TORs is no different from the application of marginal losses to other import and export schedules. Consequently, we deny Imperial's request for any special treatment for TORs,⁴³² and affirm our prior determination that assessment of marginal losses to TORs, except where the loss percentage is stipulated in a bilateral agreement that the CAISO must honor,⁴³³ is a reasonable accommodation between honoring TOR holders' rights over non-CAISO-controlled facilities and sending accurate price signals.

7. System Emergency Exceptions – Section 16.5.1

459. Turlock argues that the Commission erred in rejecting its assertion that MRTU Tariff section 16.5.1⁴³⁴ represents an abrogation of existing contracts on the grounds that

⁴³¹ See September 2006 Order, 116 FERC ¶ 61,274 at P 90.

⁴³² Consistent with the rationale for this determination, no marginal losses should apply to transactions where the TOR holder has no point of interface with the CAISO.

⁴³³ For example, SDG&E, Imperial and Arizona Public Service are joint owners of the SWPL 500 kV transmission line. Although SDG&E's shares of the SWPL have been turned over to the CAISO's operational control, shares owned by APS and Imperial are not considered part of the CAISO-controlled grid. We note that the CAISO states that it does not intend for its proposed treatment of TORs under MRTU to supersede the SWPL Operations Agreement between the CAISO and SDG&E, or the settlement agreement that addresses transactions over the SWPL. See Kristov Testimony at 108 (referencing Docket Nos. ER04-115-002 *et al.*, and ER05-1013-000).

⁴³⁴ MRTU Tariff section 16.5.1 states that the CAISO will honor the terms of the ETCs provided that in a System Emergency and circumstances in which the CAISO considers a System Emergency is imminent or threatened holders of existing rights must follow CAISO operating rules even if those operating orders directly conflict with the terms existing contracts. For this purpose CAISO operating orders to shed load shall not be considered as an impairment to public health or safety.

the Commission accepted the language at issue in a previous order on the existing tariff and no party had alleged improper use of CAISO authority. Turlock states that this determination is in error because this authority could lead to the unjust and unreasonable shedding of load and undue discrimination, and that the ruling fails to consider the impact of section 16.5.1 when it is coupled with the new reliability requirements arising from the Energy Policy Act of 2005,⁴³⁵ and the changed circumstances of many ETC holders that now have loads outside the CAISO Control Area.

460. Turlock argues that transmission providers in neighboring control areas who will rely on ETCs to meet their reliability requirements could be prevented from meeting these requirements if the CAISO is able to order them to shed firm load, irrespective of the actual terms of the ETCs. According to Turlock, it is likely that ETC holders will rely on load shedding, potentially including load served under their ETCs, to meet at least some portion of the ultimate reliability requirements imposed by the Electric Reliability Organization (ERO) or the regional entity. However, Turlock claims, if the CAISO is authorized to order the same load to be shed it could cause these transmission providers to violate EAct 2005's Reliability Standards, potentially resulting in monetary penalties and jeopardized regional reliability.

461. In addition, Turlock asserts that the CAISO fails to demonstrate that this provision is just and reasonable because the language is so broad that it allows actions that are inconsistent with Western Electricity Coordinating Council (WECC) criteria. Turlock states that MRTU Tariff Section 16.5.1 grants the CAISO the authority to direct ETC holders to shed load in actual or anticipated system emergencies, which includes generation insufficiency.

462. Turlock requests that the Commission grant rehearing of the September 2006 Order and direct the CAISO to modify MRTU Tariff section 16.5.1 to limit the CAISO's authority in system emergencies to system emergencies caused by events other than generation insufficiency, and to limit the CAISO's authority to curtail transmission service provided under the ETC.

Commission Determination

463. While we deny Turlock's requests for rehearing, as discussed below, we nevertheless direct the CAISO to clarify MRTU Tariff section 16.5.1, in conjunction with the compliance filings it will make on or before August 3, 2007, by incorporating

⁴³⁵ Turlock Oct. 23, 2006 Request for Rehearing, Docket No. ER06-615-001, at 19 & n.20, (citing Energy Policy Act of 2005 § 1289, Pub. L. No. 109-58, 119 Stat. 594, 982-93 (2005)) (Turlock Request for Rehearing).

provisions of MRTU Tariff section 4.2.1 that govern actions by all market participants during a system emergency.

464. As a preliminary matter, we note that section 16.5.1 of the MRTU Tariff includes provisions that have been moved from section 4.2.1 of the existing CAISO tariff, and without certain accompanying terms from MRTU Tariff section 4.2.1, section 16.5.1 is potentially confusing. MRTU Tariff section 16.5.1 states that the CAISO will honor the terms of ETCs, provided that, in a system emergency, and in circumstances where a system emergency is imminent or threatened, holders of ETC rights must follow operating orders, even if those operating orders directly conflict with the terms of the ETC. That section further states that, “[f]or this purpose CAISO operating orders to shed Load shall not be considered as an impairment to public health or safety....” This reference to impairment of public health or safety appears out of place without accompanying language in existing CAISO tariff section 4.2.1, which governs market participants’ obligation to comply with the CAISO’s operating orders.⁴³⁶ The existing CAISO tariff section 4.2.1 requires all market participants, including Scheduling Coordinators and control area operators, to fully and promptly comply with dispatch instructions and operating orders, unless such compliance would impair public health and safety.⁴³⁷ We direct the CAISO to clarify the MRTU Tariff by reuniting these provisions in MRTU Tariff section 16.5.1. The CAISO needs to clarify section 16.5.1 so that it is unambiguous that control area operators must comply with the CAISO’s dispatch instructions and operating orders during system emergencies unless the CAISO’s orders conflict with the expressed terms of their agreement with the CAISO or would impair public health or safety. Specifically, the CAISO needs to state in section 16.5.1 that, in the event of a conflict between the MRTU Tariff and a control area operating agreement, the agreement prevails.

⁴³⁶ Section 4.2.1 of the current CAISO tariff states, “... all Market Participants, including Scheduling Coordinators, Utility Distribution Companies, PTOs, Participating Generators, Control Area Operators (to the extent the agreement between the Control Area operator and the ISO so provides), and MSS Operators within the ISO Control Area and all System Resources shall comply fully and promptly with the Dispatch Instructions and operating orders, unless such operation would impair public health or safety. A Market Participant is not required to comply with an ISO operating order if it is physically impossible for the Market Participant to perform in compliance with that operating order. Shedding Load for a System Emergency does not constitute impairment to public health or safety. The Market Participant shall immediately notify the ISO of its inability to perform with the operating order. The CAISO will honor the terms of Existing Contracts....”

⁴³⁷ As noted above, under section 4.2.1, shedding load for a system emergency does not constitute impairment to public health or safety.

465. Effective December 2005, Turlock became a separate control area from the CAISO.⁴³⁸ An Interconnected Control Area Operating Agreement (ICAOA) governs the CAISO's and Turlock's respective rights and obligations regarding operation, maintenance and the control of the transmission facilities that interconnect the two control areas. In accordance with MRTU Tariff section 4.2.1, the ICAOA is, in fact, the controlling agreement between the parties during system emergencies, and the ICAOA sufficiently addresses concerns raised by Turlock regarding the CAISO treatment of Turlock's ETCs across the interface between control areas. The ICAOA governs, among other things, the scheduling and settlement of pre-existing contracts across the interface with the CAISO by an ISO-certified Scheduling Coordinator, using the CAISO's scheduling systems within the scheduling timelines described in the CAISO tariff.⁴³⁹ It also addresses the parties' respective responsibilities for grid operation, stipulates actions when operating limits are exceeded,⁴⁴⁰ and addresses emergency actions by the parties in response to unforeseen system occurrences.⁴⁴¹ In addition, the agreement makes clear that parties agree to abide by NERC and WECC criteria,⁴⁴² allaying concerns raised by Turlock that the CAISO could require Turlock to take action contrary to reliability

⁴³⁸ See *Cal. Indep. Sys. Operator Corp.*, 114 FERC ¶ 61,077, at P 2 & n.2 (2006) (accepting Interconnection Control Area Operating Agreement).

⁴³⁹ See ICAOA section 3.1.2. Upon implementation of MRTU, these transactions will be scheduled using the applicable scheduling systems and within the MRTU established timelines.

⁴⁴⁰ See ICAOA section 3.2.3.2. Under this section, the CAISO and Turlock must communicate and coordinate actions to return the Interconnection and the affected Control Area(s) to Real Time operating limits in compliance with the WECC Minimum Operating Reliability Criteria (MORC).

⁴⁴¹ See ICAOA sections 7.3 and 7.4.

⁴⁴² Throughout the ICAOA, parties agree to abide by NERC and WECC criteria. See, e.g., Schedule 17, section 1.2 ("Nothing in this Schedule 17 is intended to change, supercede, or alter either Party's obligations to abide by NERC standards and policies and WECC criteria").

standards.⁴⁴³ Therefore, since the ICAOA governs actions by the CAISO and Turlock, we deny Turlock's request for rehearing on this issue.

466. Finally, we deny Turlock's request to limit system emergencies to those caused by events other than generation insufficiency, and to limit the CAISO's authority to curtail transmission service provided under the ETC. First, it is conceivable that generation insufficiency could give rise to a system emergency, for instance, if a number of generators unexpectedly suffered forced outages, and we do not want to jeopardize reliability in California by narrowly prescribing the definition of system emergency. Second, as discussed above, we clarify that section 16.5.1 of the MRTU Tariff allows the CAISO to curtail transmission service provided under the ETC unless doing so conflicts with a control area agreement.

8. ETCs and Ancillary Services

467. Metropolitan asserts that the Commission erred in limiting imports of ancillary services to those ETC holders that can identify express contract terms permitting ancillary service imports. Metropolitan states that under the CAISO's existing market design, holders of ETC and TORS are able to import ancillary services. As part of the CAISO's market redesign, the CAISO will carve out ETC capacity across interties before performing its market optimization of bid-in energy for the remaining capacity. Metropolitan argues that, therefore, there is no need to limit self provision of imported ancillary services to those ETCs that expressly permit such self-provision.

468. Metropolitan accordingly requests that the Commission clarify the September 2006 Order to state that ETC and TOR holders should be allowed to self-provide ancillary services across the interties, unless the ETC expressly does not permit it to do so. Metropolitan fears that, unless the Commission clarifies this provision, few if any

⁴⁴³ We note that EPAct 2005 required the Commission's final rule implementing FPA section 215 "to include fair processes for the identification and timely resolution of any conflict between a reliability standard and any function, rule, order, tariff, rate schedule, or agreement accepted, approved, or ordered by the Commission applicable to a transmission organization." EPAct 2005, Pub. L. No. 109-58, Title XII, Subtitle A, § 1211(a), 119 Stat. 594, 941 (2005) (to be codified at 16 U.S.C. § 824o). Accordingly, the Commission adopted such procedures, 18 C.F.R. § 39.6 (2006), in its final rule. *See Rules Concerning Certification of the Electric Reliability Organization; and Procedures for the Establishment, Approval, and Enforcement of Electric Reliability Standards*, Order No. 672, FERC Stats. & Regs. ¶ 31,204, at P 7, 444-49, *order on reh'g*, Order No. 672-A, FERC Stats. & Regs. 31,212 (2006). Consequently, if Turlock remains concerned that the MRTU Tariff and/or the ICAOA will cause it to violate a reliability standard, it should avail itself of the procedures in 18 C.F.R. § 39.6.

ETC holders will be able to utilize their ETCs to import ancillary services. If the Commission rejects this request for clarification, Metropolitan requests rehearing of the issue.

Commission Determination

469. We deny Metropolitan's request for clarification or rehearing on this issue. While preservation of ETCs is a basic tenet under MRTU, the MRTU Tariff governs market participants and their transactions, unless a contract provision explicitly provides otherwise. Therefore, as the Commission explained in the September 2006 Order, under MRTU, an ETC rights holder may self-provide ancillary services across interties to the extent expressly permitted under its ETC, and consistent with MRTU Tariff provisions concerning ancillary services.⁴⁴⁴ Consequently, if the ETC does not specifically allow the rights holder to self-provide ancillary services, then the limitation on self-provision of ancillary services from outside the CAISO Control Area will apply to an ETC rights holder, just as it would to a non-ETC rights holder. This treatment ensures that ETC rights holders and other market participants have equal access to capacity over the interties, which is limited. Regardless of rights to self-provide ancillary services across interties that may be available under the current market structure, allowing ETC rights holders to self-provide ancillary services over the interties where their contracts do not expressly provide such rights would be creating new ETC rights that do not currently exist and thereby accord the ETC rights holder a greater benefit than it bargained for in its contract.⁴⁴⁵

470. Contrary to Modesto's assertion, the fact that the CAISO carves out ETC capacity across interties for ETCs does not change this determination. Instead, it simply begs the question of how much capacity the CAISO should carve out in the first instance – in other words, should the capacity the CAISO carves out for a particular ETC include capacity for self-provision of ancillary services over interties. We affirm that the extent of carve out should depend on the express provisions of the particular ETC.

9. Treatment of Small Loads

471. Arizona/Southwest Coops argue that the Commission erred in rejecting Arizona/Southwest Coops' assertion that small loads should have flexibility to opt-into a

⁴⁴⁴ September 2006 Order, 116 FERC ¶ 61,274 at P 955.

⁴⁴⁵ Moreover, it is inconsistent with our regulatory system to allow entities to behave however they wish unless their contract expressly prohibits a certain action. Indeed, this would flout the requirement in FPA section 205 that public utilities file rates, terms and conditions with the Commission to put customers on notice of them.

LAP zone so the ETC rights holder can use the perfect hedge settlement mechanism to exempt it from congestion charges.⁴⁴⁶ Arizona/Southwest Coops assert that its member rural electric distribution cooperative that is a non-Commission jurisdictional LSE in Anza, California (Anza)⁴⁴⁷ is not adequately protected from congestion charges by its ETC, and that because elements of the perfect hedge are not in place, as shown by the Commission's requirement that the CAISO make a compliance filing, it is premature for the Commission to conclude that its customers are protected. Arizona/Southwest Coops also assert that the ETC will not be adequate to govern Anza's load as that load grows, and the ETC is unlikely to continue indefinitely. Finally, Arizona/Southwest Coops argue that CRRs are also of limited, even negative, value because they are formed as "obligation CRRs" and will thus impose costs and burdens on the Anza load, especially since the CRRs for Anza will, at least initially, be needed for only a few hours each year. Arizona/Southwest Coops assert that the imposition of additional burdens and costs on the Anza load is unjust, unreasonable, discriminatory (for example, as compared to the treatment of the MSSs), and also contrary to the Regulatory Flexibility Act/Small Business Regulatory Enforcement Act.

Commission Determination

472. We deny Arizona/Southwest Coops' rehearing request and deny its request to opt into a LAP zone of its choosing. Currently, Anza is served under an ETC with SoCal Edison.⁴⁴⁸ Under MRTU, congestion-related costs for transmission service provided for each MW under the ETC will be reversed under the perfect hedge settlement mechanism.⁴⁴⁹ Therefore, there is no need to opt into a LAP zone. To the extent that Anza's load exceeds its contract amount specified in its ETC, the CAISO under section 16.6.2 will assess any charges, and make any payments consistent with its treatment of ordinary self-schedules. Since Anza's load is internal to the CAISO Control Area, the schedule will be settled at the LAP, reflecting the average of the LMPs for the LAP zone in which its point of delivery is located. This is a fair result because the perfect hedge should only apply up to the maximum MW amount in the ETC.⁴⁵⁰ The perfect hedge is a means of accommodating agreements that pre-date the CAISO's existence. Once circumstances have changed and no longer reflect the circumstances in existence at the time the ETC became effective, which would include increase in Anza's load, for load in excess of that covered by its ETC, Anza should procure additional services and pay for them just like any other market participant. Anza may obtain CRRs to cover its exposure, and if, as Anza claims, its potential congestion costs may be less than the cost

⁴⁴⁶ September 2006 Order, 116 FERC ¶ 61,274 at P 617.

⁴⁴⁷ Anza is a full requirements customer of Arizona Electric Power Cooperative, Inc. Its transmission is provided under an ETC with SoCal Edison that is limited to 10 MW and, according to the rehearing request, Anza's load exceeds 10 MW on occasion.

of the CRR, then the congestion exposure is not that severe. Furthermore, we do not agree with Anza's assertion that it is premature for the Commission to conclude that ETC rights holders are protected by the perfect hedge simply because we have requested the CAISO to submit a compliance filing. We have simply directed the CAISO to further refine certain details, but that does not detract from the Commission's acceptance of the perfect hedge, or the fact that the perfect hedge will insulate Anza from congestion costs consistent with its ETC.

473. In addition, we note that MRTU Tariff treatment of small LSEs such as Anza, particularly with respect to CRR allocation, is not inconsistent with the Regulatory Flexibility Act, as amended by Small Business Regulatory Enforcement Fairness Act (Small Business Act). The Small Business Act requires agencies to assess the impact of proposed rules of general applicability – rules for which the agency issues notice and comment – on small entities.⁴⁵¹ Rules of “particular applicability relating to rates” are specifically exempt from the Small Business Act.⁴⁵² Since the MRTU Tariff proceeding is not a rulemaking of general applicability, but is instead a rule of particular applicability relating to rates, the Small Business Act does not apply.

⁴⁴⁸ See Arizona/Southwest Coops Oct. 23, 2006 Request for Rehearing, Docket No. ER06-615-001, at p 2.

⁴⁴⁹ See MRTU Tariff sections 11.2, 11.2.1.5, 11.5 and 11.5.7, which provide for congestion charges associated with a valid day-ahead ETC schedule and certain changes thereto to be reversed in settlement. See also September 2006 Order, 116 ¶ 61,274 at P 942.

⁴⁵⁰ We note that, while Arizona/Southwest Coops assert that the MRTU Tariff is unjust and unreasonable in its treatment of ETCs, as compared with MSS, they ignore that ETCs receive the perfect hedge. So, in this respect, they receive greater insulation from congestion costs than MSSs receive. As for Arizona/Southwest Coops argument that it lacks sufficient protection against congestion charges because its ETC will not continue indefinitely, we note that ETCs are holdover contracts from prior transmission models. While Arizona/Southwest Coops may want their ETCs to continue indefinitely, this right was not reflected in their ETC. When their rights under their ETC expire, they can continue to procure transmission services, if desired, under the same terms and conditions as are available for other users.

⁴⁵¹ 5 U.S.C. § 601(2) and 603(a) (2000).

⁴⁵² 5 U.S.C. § 601(2).

10. Impact of TOR Provisions on New Transmission Investment

474. Imperial asserts that the Commission erred in accepting the TOR provisions in the MRTU Tariff and, unless clarified or corrected on rehearing, the provisions will deter new transmission investment in the CAISO Control Area by limiting the ability of New PTOs⁴⁵³ to hedge transmission congestion costs when they construct capacity additions, and by subjecting TOR holders, who develop joint transmission projects with a PTO, to marginal loss charges. Specifically, Imperial argues that if New PTOs are not granted the perfect hedge for transmission capacity additions, the Commission will create a disincentive for the construction of new transmission facilities and discourage other transmission owners who have not yet joined the CAISO from becoming New PTOs. Imperial requests that the Commission clarify that the CAISO is permitted to negotiate more certain prices and loss provisions, including the self-provision of losses with TOR holders that are planning to develop new transmission lines, so that they can determine their future cost exposure more accurately and evaluate risks to determine whether to proceed with new investment in transmission lines. Imperial argues that TOR holders should be able to self-supply losses, as the Commission's *pro forma* OATT allows, when they are using their own transmission capacity rights.⁴⁵⁴

Commission Determination

475. We disagree with Imperial's claims that treatment of TORs under MRTU will create a disincentive for new transmission investment or discourage New PTOs from joining the CAISO. For new TOR transmission capacity additions, the CAISO intends for MRTU Tariff section 17 to apply.⁴⁵⁵ This means that the perfect hedge mechanism for reversing congestion charges associated with new transmission and marginal losses will apply, along with the corresponding tariff provisions concerning refund for the marginal loss overcollection, as discussed above. In addition, the TOR holder may be

⁴⁵³ Those entities (including the cities of Anaheim, Azusa, Banning, Pasadena, Riverside and Vernon, California) that signed the Transmission Control Agreement and turned over operational control of their transmission facilities and entitlements to the CAISO after the initial start-up of the CAISO operations are referred to as New PTOs.

⁴⁵⁴ Imperial notes that it is planning the construction of a new 500 kV transmission line, known as the Green Path line, with Citizens Energy, and pursuant to negotiated agreements, Imperial would hold TORs within the CAISO balancing authority area.

⁴⁵⁵ The CAISO represented that as those bilateral agreements governing TORs expire or terminate, the CAISO would apply the relevant MRTU Tariff provision. *See* Kristov Testimony at 107-08.

eligible for special transmission pricing incentives.⁴⁵⁶ Consequently, we believe that overall, the treatment of TORs under MRTU should not deter investment in new transmission infrastructure. Any additional TOR capacity that comes on line in the future will be hedged against congestion costs, and the assessment of marginal losses will provide a more accurate cost allocation mechanism than the application of average losses, and can help entities better predict cost exposure when planning transmission expansion. We conclude that, as much as possible, losses should be treated on a consistent basis throughout the system, both to avoid discrimination among transmission customers, and to prevent distortion or bias in decision-making. Also, Imperial has not explained sufficiently why allowing individual TOR holders to negotiate different loss provisions for new transmission capacity would not be unduly discriminatory with respect to other TOR holders and transmission customers in general. Nevertheless, we highlight the fact that parties can estimate the amount of losses and self supply accordingly. Since under the MRTU Tariff, market participants, including TORs, are afforded the flexibility to self-supply losses, the MRTU Tariff is consistent with Order No. 888.⁴⁵⁷ Therefore, we deny Imperial's requested clarification or rehearing.

476. We also disagree with Imperial's assertion that the provisions of MRTU will deter transmission investment by New PTOs in the CAISO Control Area by limiting the ability of New PTOs to hedge transmission congestion costs. Rather than perpetuating separate treatment under MRTU between ETCs/TORs and non-ETCs/TORs, new capacity additions by New PTOs will receive CRRs as their congestion hedging mechanism, consistent with other market participants.⁴⁵⁸

11. Capacity Set-Aside for TORs

477. Imperial seeks clarification that all TOR capacity will be set-aside from the total ATC on each line, and held available for the TOR holder.

Commission Determination

478. We deny Imperial's request for clarification or rehearing that all TOR capacity be set aside on each line. Under MRTU, the CAISO will treat TOR capacity similarly to

⁴⁵⁶ Order No. 679, FERC Stats. & Regs. ¶ 31,222 (2006), *order on reh'g*, Order No. 679-A, FERC Stats. & Regs. ¶ 31,236.

⁴⁵⁷ Order No. 888, FERC Stats. & Regs. ¶ 31,036.

⁴⁵⁸ Under MRTU Tariff section 24.7.3, parties may negotiate the compensation package to provide certainty for the project sponsors, and PTOs will be eligible to obtain CRRs to the extent the upgrade enhances the transfer capacity of the system.

ETC capacity, as discussed above. For TOR capacity on CAISO Control Area boundary interties that are modeled radially in the full network model, the CAISO will reduce the available transmission capacity of the scheduling point by the amount of the TOR.⁴⁵⁹ Therefore, if Imperial's TOR capacity is over such an intertie, the CAISO will determine the ATC rating of the given transmission path in MW after subtracting the TOR capacity from the path's operating transfer capabilities.⁴⁶⁰ However, if Imperial's TOR capacity is internal to the CAISO Control Area, and modeled as part of the looped network, the CAISO will not set aside the capacity, but will instead provide the second highest source-to-sink scheduling priority scheduling rights to the TOR holder.⁴⁶¹ Source and sink points for such scheduling rights will be consistent with the TOR holder's rights, and allow full utilization of such rights. Although the treatment is different for TOR capacity within the CAISO and outside the CAISO Control Area, the result is the same for the TOR holder. TOR holders, such as Imperial, will be able to utilize their TOR capacity and their congestion charges will be reversed through the perfect hedge mechanism. Moreover, treating TORs with internal scheduling points like ETCs with internal settling points, *i.e.*, by not setting aside internal capacity for TORs, the CAISO alleviates under MRTU the phantom congestion problem discussed above in connection with ETCs.

12. Use of Unscheduled TOR Capacity

479. In the September 2006 Order, in response to assertions raised by parties and the CAISO's explanation concerning unused or unscheduled TOR capacity, the Commission stated that it does not appear that the CAISO intends to use or sell unscheduled TOR capacity and will honor all schedule changes by providing and using its Exceptional Dispatch authority under MRTU Tariff section 39.4.2. However, the Commission further determined that, if the CAISO does intend to make use of such unscheduled capacity, it must negotiate with the TOR holder for appropriate compensation and the details for such use.⁴⁶²

480. Imperial argues on rehearing that, if the CAISO intends to use a TOR holder's unused TOR capacity, the TOR holder should be informed regarding such use prior to

⁴⁵⁹ See MRTU Tariff section 17(1).

⁴⁶⁰ See CAISO Reply Comments at 242; *see also* MRTU Tariff section 36.4.

⁴⁶¹ See MRTU Tariff section 17(2). *See also* MRTU Tariff section 31.4, which addresses uneconomic adjustments in the day-ahead market and provides that TORs are the among the last to be adjusted, and MRTU Tariff section 33.3, which states that the HASP optimization clears bids, including self-schedules, while preserving all priorities in this process, consistent with MRTU Tariff section 31.4.

⁴⁶² September 2006 Order, 116 FERC ¶ 61,274 at P 994.

real-time. Metropolitan argues that the Commission should modify the September 2006 Order to make clear that any use of TOR capacity by anyone other than the TOR holder must be expressly approved by the TOR holder. Metropolitan also urges the Commission to direct the CAISO to assume a TOR holder's maximum use of its capacity when conducting CRR and other transmission modeling studies.

Commission Determination

481. We deny Imperial's request for rehearing on this issue. In the September 2006 Order, the Commission stated that it did not appear that the CAISO intends to use or sell unscheduled TOR capacity, but, out of an abundance of caution, nevertheless directed the CAISO to provide further explanation in a compliance filing.⁴⁶³ Therefore, the Commission is appropriately considering this issue as part of the pending compliance filing in Docket No. ER06-615-003.

13. Legality of TOR Provisions

482. Imperial asserts that the MRTU Tariff's TOR provisions diminish existing contract rights and abrogate contracts, contrary to the Commission's policy of honoring the sanctity of contracts. Imperial asserts that by approving the TOR provisions, the Commission has unlawfully authorized the CAISO to unilaterally dictate an assortment of charges that TOR holders must pay related to the TOR holders' use of their own transmission. Imperial argues that this is unjust and unreasonable, contrary to fundamental principles of contract law and an unconstitutional taking of the rights of the TOR holder.⁴⁶⁴ According to Imperial, the Commission lacks jurisdiction to approve a tariff filing under section 205 of the FPA, that dictate rates, terms or conditions of service applicable to a governmental utility's use of its own transmission facilities. The Commission also lacks jurisdiction, under the FPA, to force a governmental utility to transfer any control over its transmission facilities to the CAISO.

483. Imperial states that not only will marginal losses increase costs, but also that differences in ETC and TOR treatment would result in increased CAISO charges, and therefore lead to increased, but unknown, costs. Imperial claims that the burden is on the CAISO to prove that costs will not increase, just as it is on the CAISO to indicate that costs will remain just and reasonable even after the MRTU Tariff is implemented.

⁴⁶³ See *id.*

⁴⁶⁴ Imperial Request for Rehearing at 32 & n. 88 (citing U.S. Const. amend V; *E. Enterprises v. Apfel*, 524 U.S. 498 (1998); *Guaranty National Insurance Co. v. Gates*, 916 F.2d 508 (9th Cir. 1990).

Imperial requests rehearing of the Commission's acceptance of the MRTU Tariff as just and reasonable.

Commission Determination

484. We disagree with Imperial's complaints. First, the CAISO has endeavored under MRTU to effectuate TOR rights and honor its agreements with TORs. TORs have top scheduling priority, second only to RMR schedules necessary to ensure local grid reliability.⁴⁶⁵ Also, in stark contrast to ETCs, TORs are not subject to unaccounted for energy, imbalance and uninstructed energy offset charges.⁴⁶⁶ TORs also do not pay TACs.⁴⁶⁷ As discussed above, any adjustment the CAISO asks TOR holders to make to ensure reliability must be consistent with their respective TOR agreement. As for marginal losses, under MRTU, the CAISO will honor specified loss percentages in TOR agreements, and only assess marginal losses to Scheduling Coordinators for TORs in the absence of such explicit loss percentages.⁴⁶⁸ Assessing marginal losses to Scheduling Coordinators for TOR holders whose agreements lack specific loss percentages is just and reasonable and consistent with cost causation. While TOR facilities are not part of the CAISO-controlled grid, they are interconnected with the CAISO grid and, therefore, influence power flows on the grid. Treating marginal losses on a comparable basis for all grid users, including TORs, sends more accurate price signals, and promotes efficient dispatch. As for Imperial's claim that the burden is on the CAISO to prove that costs will not increase, the CAISO's burden under section 205 of the FPA is to demonstrate that costs are just and reasonable, and cost increases are not *per se* unjust and unreasonable.⁴⁶⁹ Because the qualitative benefits of marginal losses are certain, and we have accepted marginal loss proposals before, we determine the CAISO has met this standard.⁴⁷⁰

⁴⁶⁵ See MRTU Tariff section 34.10.2.

⁴⁶⁶ Kristov Testimony at 107.

⁴⁶⁷ See CAISO Feb. 9, 2007 Transmittal Letter at 77.

⁴⁶⁸ September 2006 Order, 116 FERC ¶ 61,274 at P 1003.

⁴⁶⁹ 16 U.S.C. § 824d (2000).

⁴⁷⁰ See, e.g., *Northeast Util. Serv. Co.*, 105 FERC ¶ 61,122 at P 18-20. As for Imperial's criticism that the marginal loss approach will result in "unknown" cost increases, we have never required perfect prediction of future costs as a condition to finding a proposed rate methodology just and reasonable. In addition, we note that, if marginal losses are assessed to the TOR holder's Scheduling Coordinator because the TOR agreement lacks specific loss percentages, the CAISO will also provide the Scheduling Coordinator the direct credit back of the loss revenue surplus.

Furthermore, the CAISO may not “freeload” off of the TOR holder’s line, and the Commission has required the CAISO to submit further clarification to ensure this does not take place.⁴⁷¹ In sum, the MRTU Tariff does not abrogate TOR contracts; Imperial’s and other TOR agreements with the CAISO remain in place.

485. As for Imperial’s assertion that the Commission lacks jurisdiction to approve a tariff filing under FPA section 205 that dictates rates, terms or conditions of service applicable to a government utility’s use of its own transmission facilities, we are not authorizing the CAISO to charge Imperial for the use of its own facilities. Rather, we are allowing the CAISO to charge Imperial for services the CAISO is providing under the MRTU Tariff, and for use of CAISO-controlled facilities.⁴⁷² All that the CAISO is charging Imperial under the MRTU Tariff is what the CAISO charges all other customers. While we agree with Imperial that we lack jurisdiction to force a governmental utility to transfer any control over its transmission facilities to the CAISO, we are not requiring Imperial or any other non-jurisdictional entity to transfer its facilities to the CAISO. Consequently, there is no constitutional taking of TOR property under the MRTU Tariff.

VI. Market Power Mitigation and Resource Adequacy

A. Market Power Mitigation

486. In the September 2006 Order, the Commission approved, subject to certain modifications, the CAISO’s market power mitigation proposal under the MRTU Tariff. The CAISO’s market power mitigation tools include bid caps, local market power mitigation measures and a limited scarcity pricing mechanism.⁴⁷³ Specifically, the Commission approved a \$500/MWh energy bid cap on day one of MRTU implementation, with a two-year transition plan for raising the cap to \$1000/MWh.⁴⁷⁴

⁴⁷¹ September 2006 Order, 116 FERC ¶ 61,274 at P 994. The CAISO subsequently stated that it does not intend to use or sell unscheduled TOR capacity. *See* CAISO Nov. 7, 2007 Compliance Filing, Docket No. ER06-615-003, at 25.

⁴⁷² *See e.g., Mich. Elec. Trans. Co.*, 113 FERC ¶ 61,054, at P 14-15 (2005) (allowing pass through of tariff charges to non-jurisdictional entities that were taking transmission service over jurisdictional transmission system).

⁴⁷³ September 2006 Order, 116 FERC ¶ 61,274 at P 1004.

⁴⁷⁴ Under the MRTU Tariff, the bid cap will automatically increase to a “hard” cap of \$750/MWh, 12 months after MRTU implementation, and again automatically increase 12 months thereafter to \$1,000/MWh. The automatic increase each 12 months is triggered unless the CAISO makes a filing with the Commission showing that its markets

The energy bid cap contains a negative \$30/MWh energy bid floor, and the Commission directed the CAISO to revise the MRTU Tariff to reflect the requirement that bids below negative \$30/MWh would be subject to cost verification.⁴⁷⁵ The MRTU Tariff also has a \$250/MWh “soft” bid cap on ancillary services bids and RUC availability bids. In addition, the Commission accepted, with modifications, the CAISO’s proposed local market power mitigation measures; in particular, the Commission approved the CAISO’s proposal to identify generator bids that have potential market power and mitigate those bids to pre-established default energy bids.⁴⁷⁶ The Commission also directed certain changes to the CAISO’s default energy bid options. Finally, the Commission conditionally accepted the CAISO’s limited scarcity pricing proposal for the initial release of MRTU, but directed the CAISO to further refine this proposal within 12 months of MRTU Release 1.⁴⁷⁷

487. Williams requests that the Commission grant rehearing and change the nature of the energy caps under MRTU from “hard” to “soft” caps.⁴⁷⁸ Williams contends that even with the higher caps directed under the MRTU Order (*e.g.*, \$500/MWh upon Release 1 implementation), there may still be circumstances where generation costs exceed the cap, and therefore the bid cap should remain a “soft” cap. Williams asserts that changing the energy bid cap to a “soft” cap would be consistent with the nature of the minimum bid cap of negative \$30/MWh, where offers below the cap must be cost-justified.

Commission Determination

488. Williams’ request to change the nature of energy caps from “hard” to “soft” is based on the possibility that there may be occasions where the generation costs of producing the energy bid into the market exceed the cap. We acknowledge there is a possibility that this could occur, depending on circumstances, but remain unpersuaded

are non-competitive and the Commission agrees with this assessment. *See* July 2005 Order, 112 FERC ¶ 61,013 at P 104; *see also* September 2006 Order, 116 FERC ¶ 61,274 at P 1010-20.

⁴⁷⁵ *See* September 2006 Order, 116 FERC ¶ 61,274 at P 1021.

⁴⁷⁶ Under the proposal, a generator may choose between four options to calculate a default energy bid. The four options are further discussed below.

⁴⁷⁷ *See* September 2006 Order, 116 FERC ¶ 61,274 at P 1076-79.

⁴⁷⁸ A “hard” cap is one where market participants’ bids are not permitted to exceed the cap, regardless of the seller’s costs; a “soft” cap is one where market participants may submit bids above the bid cap with adequate justification, but the bids will not set the market clearing price.

that changing the nature of the caps is the best solution to this problem. A significant downside to “soft” caps is their lack of transparency and the uplift costs they create. For these reasons, if generation costs were to appear sufficiently likely to exceed the prevailing cap, our preferred approach would be to adjust the level of the energy cap, as has been done in the past.⁴⁷⁹ This way, instead of suppressing the market clearing price by regulatory fiat, all competitive bids would be allowed to clear supply and demand and send transparent price signals to encourage demand response, market entry and forward contracting.

1. Local Market Power Mitigation

489. Williams also argues that the Commission erred in approving a local market power mitigation proposal that: (1) allows the CAISO to mitigate a supplier’s bids if the supplier merely has the potential to exercise market power, instead of using a tool (such as a conduct and impact test) that only mitigates prices when market power is actually exercised; (2) does not examine whether prices are responding to scarcity or whether prices are the result of the exercise of market power; and (3) over-mitigates suppliers, thus dampening incentives to invest in California and, in the long-term, threatening system reliability. According to Williams, recent case law appears to require a nexus between the exercise of market power and the application of market power mitigation,⁴⁸⁰ and Williams argues that the MRTU local market power mitigation scheme is essentially “the same type of automatic mitigation – which does not examine whether prices are responding to scarcity or whether such prices are the result of the exercise of market power – that has already been invalidated” by the court.⁴⁸¹

Commission Determination

490. We deny Williams’ request to revise local market power mitigation procedures. Williams essentially argues that no mitigation should occur unless market power is

⁴⁷⁹ For example, the Commission recently approved the CAISO’s request to increase its current \$250/MWh bid cap in its real-time market to \$400/MWh. The Commission explained that the rise and volatility of natural gas prices led to concerns that generators may not have the opportunity to adequately recover their costs. *See Cal. Indep. Sys. Operator Corp.*, 114 FERC ¶ 61,026, at P 25-26 (2006).

⁴⁸⁰ Williams Oct. 23, 2006 Request for Rehearing, Docket No. ER06-615-001, at 28 & n. 73 (citing *Edison Mission Energy, Inc. v. FERC*, 394 F.3d 964 (D.C. Cir. 2005); *N. Y. Indep. Sys. Operator, Inc.*, 111 FERC ¶ 61,399 (2005)) (Williams Request for Rehearing).

⁴⁸¹ *Id.* at 29.

actually exercised. In fact, however, it is the possession of market power (and, therefore, the potential to exercise it), not the actual exercise of market power, that triggers the need for mitigation.⁴⁸² The Commission's granting of market based rate authority is premised on the market participant's demonstration that it lacks the ability to exercise market power or, alternatively, that there are adequate safeguards in place to address any potential exercise of market power.⁴⁸³ Market power mitigation exists to guard against the potential exercise of market power, and is required whenever a market participant is found to have market power.⁴⁸⁴ Therefore, once it is determined that an entity has market power, adequate mitigation of the potential to exercise market power becomes essential.

491. Second, with respect to Williams' challenge that the CAISO's local market power mitigation does not examine whether prices are responding to scarcity rather than market power, we disagree. The application of MRTU's local market power mitigation is based on the pre-designation of transmission paths as "competitive" or "non-competitive."⁴⁸⁵ The CAISO will make these designations based on the results of its competitive constraint assessments, which it will make at least annually, and more frequently, depending on changes in transmission infrastructure, generation resources or load.⁴⁸⁶

⁴⁸² See, e.g., *AEP Power Marketing, Inc.*, 108 FERC ¶ 61,026, at P 130 (2004) ("[W]here a market-based rate applicant is found to have market power, it is incumbent upon the Commission to either reject such rates or to ensure that adequate mitigation measures are in place to ensure that the rates are just and reasonable") (citing *Heartland Energy Serv., Inc.*, 68 FERC ¶ 61,223, at 62,060 (1994); *Louisville Gas & Elec. Co.*, 62 FERC ¶ 61,016, at 61,143-44 (1993)).

⁴⁸³ See, e.g., *Consumers Energy Co. v. FERC*, 367 F.3d 915, 923 (D.C. Cir. 2004) ("The Commission approves applications to sell electric energy at market-based rates only if the seller and its affiliates do not have, or adequately have mitigated, market power in the generation and transmission of such energy, and cannot erect other barriers to entry by potential competitors") (citing *La. Energy & Power Auth. v. FERC*, 141 F.3d 364, 365 (D.C. Cir. 1998); see also *Market Based Rates for Wholesale Sales of Electric Energy, Capacity and Ancillary Services by Public Utilities Notice of Proposed Rulemaking*, 71 Fed. Reg. 33,102 (June 7, 2006), FERC Stats. & Regs. ¶ 32,602, at P 5 (2006).

⁴⁸⁴ *AEP Power Marketing, Inc.*, 107 FERC ¶ 61,018, at 61,055 (2004) (stating that the Commission does not believe it has the legal basis to approve market-based rates if the applicant has not mitigated its ability to exercise market power).

⁴⁸⁵ CAISO Feb. 9, 2006 Transmittal Letter, Attachment K, Keith Casey Testimony, Docket No. ER06-615-000, at 52.

⁴⁸⁶ *Id.*

Therefore, at the outset, and on an on-going basis, market power mitigation will only apply to suppliers in load pockets on paths that have been found to be non-competitive, and, therefore, where the likelihood is much greater that high prices may result from lack of competition, rather than scarcity of supply. Moreover, in the September 2006 Order, the Commission directed the CAISO to continue to refine its scarcity pricing proposal.⁴⁸⁷ We anticipate that this modified scarcity pricing proposal, in conjunction with MRTU's resource adequacy requirements -- which are designed to ensure sufficient electricity supply -- will further help eliminate any potential for inappropriate mitigation.

492. In addition, the case law Williams refers to is distinguishable from the MRTU context because, unlike MRTU, that case involved application of market power mitigation procedures to situations outside of load pockets.⁴⁸⁸ In contrast, local market power mitigation under MRTU will apply to suppliers in load pockets where the CAISO determines that these suppliers have the ability to exercise market power. Such a determination involves establishing generators as out-of-merit -- *i.e.*, chosen to run when cheaper generators outside the load pocket are not chosen -- with respect to transmission paths that have been designated as "non-competitive." By definition, load pockets lack sufficient competition, which is a prerequisite for applying the pivotal supplier test used by the CAISO to assess whether a supplier is likely to possess market power. Consequently, under MRTU, there is a nexus between the potential to exercise market power and local market power mitigation.

493. Further, and significantly, local market power mitigation under the MRTU Tariff provides the generator with options for calculating a default energy bid, with additional protections for frequently mitigated units (FMUs).⁴⁸⁹ These options are designed to provide the generator with the opportunity to at least recover its costs. Consequently, it is unclear how a market participant that possesses market power but does not exercise it will be harmed by the proposed market power mitigation. Local market power mitigation

⁴⁸⁷ September 2006 Order, 116 FERC ¶ 61,174 at P 1078.

⁴⁸⁸ See *Edison Mission Energy, Inc.*, 394 F.3d at 969 (finding that the Commission failed to reconcile its embrace of the Automatic Mitigation Procedures (AMP) throughout New York Independent System Operator (NYISO) with its apparent acceptance of the workably competitive character of New York power markets outside of New York City), *on remand*, *N. Y. Indep. Sys. Operator, Inc.*, 111 FERC ¶ 61,399, at P 1 (2005) (directing NYSIO to file tariff sheets removing language permitting application of AMP outside of New York City load pocket).

⁴⁸⁹ Under section 39.8.2, FMUs receive a bid adder that is: (1) a unit specific value determined in consultation with the CAISO or an independent entity selected by the CAISO; or (2) a default bid adder of \$24/MWh.

will only be applied to suppliers in identified load pockets, with at least annual reassessments of constrained paths. The default bid options, in conjunction with the forward contracting imposed under the CPUC's resource adequacy program,⁴⁹⁰ will provide generators with a reasonable opportunity to become revenue sufficient.⁴⁹¹ Therefore, the likelihood of over-mitigation is low and, contrary to Williams' assessment, local market power mitigation should not deter future investment in California.

2. Competitive Path Assessment: Use of Bid-in Demand in Pre-IFM Runs

494. The CAISO, in assessing potential market power, will perform two pre-IFM runs of the optimization software to identify generating units with out-of-merit dispatch subject to market power mitigation. As noted in the September 2006 Order, the Commission originally directed the CAISO to base the day-ahead local market power mitigation procedures on bid-in demand,⁴⁹² rather than the CAISO forecast demand, but later recognized in the September 2006 Order that the CAISO could not institute the previous change directed by the Commission in Release 1 of MRTU without substantial delay.⁴⁹³ Accordingly, the Commission conditionally accepted the CAISO's proposal to use CAISO forecast demand as the basis for applying market power mitigation, subject to the CAISO instituting bid-in demand in the pre-IFM runs no later than MRTU Release 2 to reduce the likelihood of over-mitigation of suppliers.⁴⁹⁴

495. Constellation/Mirant state that, in the September 2006 Order, the Commission agreed with commenters "that in the future the CAISO should use bid-in demand as the basis for market power mitigation in the day-ahead market" and directed the CAISO to base the imposition of energy bid mitigation on bid-in load rather than CAISO load forecast no later than MRTU Release 2.⁴⁹⁵ Constellation/Mirant argue that, since the

⁴⁹⁰ The CPUC's resource adequacy program requires LSEs to procure 15 to 17 percent more resources than their anticipated peak load. CPUC Reply Comments at 17.

⁴⁹¹ In addition, those generators located in load pockets and designated by the CAISO as RMR units will also receive capacity payments under RMR contracts.

⁴⁹² See September 2006 Order, 116 FERC ¶ 61,274 at P 1086 & n. 477 (quoting *Cal. Indep. Sys. Operator*, 112 FERC ¶ 61,310, at P 69 (2005) (September 2005 Order)).

⁴⁹³ *Id.* P 1089.

⁴⁹⁴ *Id.*

⁴⁹⁵ Constellation/Mirant Oct. 23, 2006 Rehearing Request, Docket No. ER06-615-001, at 5 (citing September 2006 Order, 116 FERC ¶ 61,274 at P 1089).

Commission has previously directed the CAISO to make this modification, the CAISO should be directed to implement the use of bid-in demand no later than 12 months after MRTU Release 1, rather than as part of MRTU Release 2.

Commission Determination

496. As our past orders demonstrate, we share the concerns Constellation/Mirant raise about potential over-mitigation of suppliers if the CAISO's load forecast rather than bid-in demand is used as the basis for market power mitigation in the day-ahead market.⁴⁹⁶ However, as explained in our September 2006 Order, we also recognize the CAISO's inability to implement this directive without substantial delay of MRTU and its associated benefits.⁴⁹⁷ We continue to find that the benefits of MRTU implementation, as a whole, outweigh the detrimental delay that would ensue from requiring implementation of these bid-based demand criteria by MRTU day 1. Thus, we will not require the CAISO to use bid-based demand until it implements Release 2. However, because the CAISO, upon implementation of MRTU, will use its forecast demand as the basis for market power mitigation, we direct the CAISO's market monitoring unit (MMU) to monitor and report on the effects of market power mitigation in the day ahead using the CAISO's load forecasts instead of bid-in demand, including a comparison with an estimate of what the amount of mitigation would have been with bid-in demand, in the CAISO quarterly status reports filed in ER06-615.

3. Default Energy Bid Options

497. In the September 2006 Order, the Commission approved what the CAISO described as a "PJM-style" local market power mitigation package that identifies suppliers with potential local market power and mitigates those suppliers' bids to established default energy bids.⁴⁹⁸ Under the MRTU Tariff, the CAISO offers four options for calculating a resource's default energy bids including: (i) the variable cost option; (ii) the LMP option; (iii) the negotiated option; and (iv) the FMU option. We discuss issues with respect to the default bids raised on rehearing below.

⁴⁹⁶ See September 2006 Order, 116 FERC ¶ 61,274 at P 1089; *see also* September 2005 Order, 112 FERC ¶ 61,310 at P 69.

⁴⁹⁷ September 2006 Order, 116 FERC ¶ 61,274 at P 1089 (requiring the CAISO to institute bid-in demand as the basis for applying market power mitigation in the pre-IFM runs no later than MRTU Release 2).

⁴⁹⁸ *Id.* P 1005.

i. Variable Cost Option

498. The September 2006 Order concluded that the option to set a resource's default energy bid at variable cost plus 10 percent is reasonable.⁴⁹⁹ Variable costs are comprised of two components: fuel cost and variable Operation and Maintenance (O&M) cost.

499. Williams notes that the September 2006 Order finds, with regard to bids that have been mitigated, that “[t]hese default energy bids are tailored to contribute to the recovery of the generator's fixed costs, so the generator can afford to continue producing energy.”⁵⁰⁰ Williams argues that this rationale is inconsistent with the Commission's policy that sellers are guaranteed an *opportunity* to make a profit.⁵⁰¹ It contends that by its design, the “PJM-style” variable cost option approved by the Commission may provide an opportunity for a seller to recover a unit's variable operating costs, but argues that the variable cost option does not send the price signals necessary to attract investment. Williams argues that the proper price signal is the cost of new entry.⁵⁰²

500. William argues that, while the CAISO specifies which indices will be used to calculate the variable cost option of the default energy bid, it is unclear whether the gas price indices used to determine the default energy bid will be two or 20 days old. Williams asserts that without this information in either the MRTU Tariff or the relevant Business Practice Manual, the Commission must conclude that the reasonableness of the variable cost option cannot be determined, and, thus, cannot be approved at this time. Accordingly, Williams requests that the Commission grant rehearing.

Commission Determination

501. Contrary to Williams' assertion, our finding that default energy bids are tailored to contribute to the recovery of the generator's fixed costs, so the generator can afford to

⁴⁹⁹ *Id.* P 1045.

⁵⁰⁰ Williams Request for Rehearing at 28 (citing September 2006 Order, 116 FERC ¶ 61,274 at P 10).

⁵⁰¹ *Id.* at 31 (citing Order on Cost Filings, *San Diego Gas & Elec. Co. v. Sellers of Energy and Ancillary Servs.*, 114 FERC ¶ 61,070, at P 4 (2006)).

⁵⁰² Williams asserts that Commission has approved a more reasonable level of offer capping for units that have the potential to exercise local market power. Williams cites to the example of a case in which the Commission recently found that an offer cap for the mitigation of local market power in the SPP imbalance energy market should be based on the cost of new entry. *Id.* at 32 & n.84 (citing *Southwest Power Pool, Inc.*, 114 FERC ¶ 61,289, at P 171 (2006)).

continue producing energy, is consistent with Commission policy that sellers are guaranteed only an *opportunity* to make a profit.⁵⁰³ The local market power mitigation identifies those out-of-merit dispatches for generating units in load pockets and replaces the market bids associated with the out-of-merit dispatch with a default energy bid. The default energy bids are designed to enable the mitigated generator to recover its costs, or a proxy for its costs, so the generator does not lose money on its mitigated transactions. Moreover, the ten percent adder in the default energy bid can provide an opportunity to make a profit. To the extent this is insufficient there are three other options for establishing default energy bids. Because only the out-of-merit dispatch is replaced with a default energy bid, the generator is provided an opportunity to make a profit in the CAISO markets for the portion of its energy sales that are not mitigated. Therefore, the generator will not incur any losses related to the default energy bid and, thus, will still have an opportunity to make a profit to the extent it is not mitigated.

502. Regarding Williams' complaint that gas price indices used in the calculation of default energy bids may be more than two days old, we note that the CAISO has explained that this two-day lag flows from the timing of gas indices' publication, but in any event the lag is no more than four days, e.g., Thanksgiving.⁵⁰⁴ The CAISO further explained that, as discussed at stakeholder meetings, a true-up of actual gas costs would be unworkable. Consequently, in the September 2006 Order, the Commission accepted the CAISO's proposal to use the average of four identified gas price indices.⁵⁰⁵ These four published indices are widely used by industry participants to measure change in regional gas prices, and the averaging of these four indices allows market participants to reduce their exposure to fluctuating gas prices, while improving their risk management strategy in the energy market. Although the CAISO has explained the timing of the gas indices reporting, we agree with Williams that the CAISO should specify in its MRTU Tariff the price indices it will rely on, as well as the time lag in reported information that will be utilized in calculating the default energy bids, e.g., "average of price indices no more than four days old."⁵⁰⁶ Therefore, we direct the CAISO to submit a compliance

⁵⁰³ See *San Diego Gas & Elec. Co. v. Sellers of Energy and Ancillary Servs.*, 97 FERC ¶ 61,275, at 62,193-94, 62,254 (2001).

⁵⁰⁴ See September 2006 Order, 116 FERC ¶ 61,274 at P 1043 & n.457.

⁵⁰⁵ *Id.* P 1047.

⁵⁰⁶ See *Keyspan-Ravenswood, LLC v. FERC*, No. 05-1332, slip op. at 11 (D.C. Cir. Jan. 12, 2007) (stating that utilities are required to file "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 render recitation superfluous") (quoting *City of Cleveland v. FERC*, 773 F.2d 1368, 1375 (D.C. Cir. 1985)).

filing, in conjunction with the compliance filings it will make on or before August 3, 2007, that incorporates both the names of the specific price indices and the acceptable lag time for gas price indices for use in determining the default energy bids into the MRTU Tariff.

ii. LMP Option

503. The CAISO proposed, under the LMP Option, to calculate a resource's default energy bid as a weighted average of the lowest quartile of LMPs when the generating unit was online during the preceding 90 days, and to qualify, at least 50 percent of the resource's energy dispatched over the prior 90 day time frame must have been unmitigated. In the September 2006 Order, the Commission determined that the 50 percent limitation was unnecessary and directed the CAISO to remove this limitation.⁵⁰⁷

504. In its rehearing request, the CAISO explains that the 50 percent screen was designed to address the fact that unit owners who are frequently subject to local market power mitigation under an LMP-based default energy bid have a strong incentive to find ways to increase the LMP at their location – so as to increase their default energy bid – and therefore should not be eligible for this option. The CAISO further contends that, in addition to the strong incentive and potential for raising LMPs during unmitigated hours, there are two other important aspects of this issue that warrant reconsideration. First, the CAISO argues that the Commission did not consider the subtle but significant ability that a unit owner with several units in a load pocket could have in manipulating LMP-based default energy bids;⁵⁰⁸ and second, the CAISO states that once a high default energy bid is established under the LMP-based option, suppliers with local market power will be

⁵⁰⁷ *Id.* P 1051-52.

⁵⁰⁸ The CAISO states that, for example, assume a unit owner has two generating units in a load pocket: a high cost unit and a low cost unit. Under MRTU local market power mitigation, the supplier could economically withhold a portion of the low cost unit's output by submitting bids for the upper output range of this unit at a higher price than the bids submitted for the high cost unit. Under the MRTU local market power mitigation procedures, this practice would result in having the higher cost unit: 1) dispatched up in the All Constraints Run (ACR) of the local market power mitigation process, 2) mitigated to its default energy bid, and 3) set the LMPs in the load pocket. In this scenario, the lower cost unit would have the high LMP counted towards its LMP-based default energy bid for that portion of the unit's output that cleared the day-ahead market (i.e., the lower output range that was bidding at a relatively low price or self-scheduled). Because default energy bids must be continually increasing, the high LMP-based default energy bid established over the lower output range of the unit would be extended over its entire output range.

mitigated to these levels, which in turn will set the LMP (assuming the unit is marginal) and perpetuate the high LMP-based default energy bid indefinitely. According to the CAISO, the self-perpetuating nature of a high LMP-based default energy bid creates an even stronger incentive for suppliers to attempt to influence LMPs, even if it involves a one-time financial loss of withholding some economic generation from the market, because the high potential pay-off -- in terms of higher LMP-based default energy bids -- could last in perpetuity.

505. The CAISO agrees with the Commission's reasoning that, to the extent there is "effective competition" in hours where a resource is not subject to local market power mitigation, its ability to influence prices through bidding high will be very limited.⁵⁰⁹ The CAISO argues, however, that whether the market would be sufficiently competitive in such situations is uncertain and the 50 percent competitiveness screen was intended to guard against this uncertainty.

Commission Determination

506. In the September 2006 Order, the Commission determined that generators must be afforded the LMP-based cost recovery mechanism regardless of the extent to which they are mitigated.⁵¹⁰ The CAISO cites an example where a supplier's low cost unit in a load pocket economically withholds a part of its output, thereby causing a more expensive unit belonging to the same supplier to be selected, and thereby setting a higher LMP after being mitigated. The CAISO then assumes that the low cost unit would elect the LMP-based default price option and that by virtue of requiring continuously increasing bids, the LMP-based default price for the portion of the low cost unit that cleared the day-ahead market would be extended to the entire output, including the portion that was economically withheld. The CAISO's example appears to be premised on the assumption that the low cost unit is successfully able to exercise economic withholding for a part of its output and consequently raise the LMP that will subsequently be used as its default price. We are unconvinced that the potential for such a scenario should require incorporating a 50 percent mitigation screen. We believe that the scenario outlined in the example is unlikely. For example, at the outset of the market, if the low cost unit in the example is mitigated to a default price for its entire output, it could preclude the higher cost unit from setting the LMPs in the first place. We expect that the LMPs during the previous 90-day reference period would reflect competitive bids, regardless of the extent to which the resource was mitigated. Even when a resource has the potential to exercise market power (and thus is subject to market power mitigation for most of its operating hours), the mitigation of the resource's bids would ensure that the resource does not

⁵⁰⁹ CAISO Request for Clarification and Rehearing at 10.

⁵¹⁰ September 2006 Order, 116 FERC ¶ 61,274 at 1052.

exercise market power in its bidding. We do not agree with the CAISO's rationale for the screen, *i.e.*, that a unit in a load pocket might bid high in hours when it does not have local market power in order to increase the LMP. That is because, in hours when a unit lacks market power, it will not be able to significantly increase the LMP through its bidding; market power involves the ability to influence market prices, and sellers without market power lack the ability to influence prices.⁵¹¹ Accordingly, we find that generators must be afforded this cost recovery mechanism regardless of the extent to which they are mitigated. Therefore, we deny the CAISO's request for rehearing on this issue. If, notwithstanding our analysis, the CAISO remains concerned that generating units will economically withhold their output as envisioned in their example, we expect the CAISO's market monitoring unit to monitor for such instances of economic withholding and bring them (as well as other anomalies) to the attention of the Commission's Office of Enforcement.

iii. Negotiated Option

507. In the September 2006 Order, the Commission concluded that the negotiated option, whereby market participants could negotiate with the CAISO to develop a specific bid price, was a flexible means for mitigated market participants to recover their fixed costs during market power mitigation. To facilitate the Commission's responsibility to ensure that rates are just and reasonable, the Commission further directed the CAISO to modify the MRTU Tariff to indicate that, at the time the CAISO and market participants negotiate a bid price, the CAISO must file the negotiated default energy bid with the Commission.⁵¹²

508. The CAISO requests that the Commission clarify that the September 2006 Order's directive to file the negotiated default energy bids is satisfied with a regular *ex post* informational filing of these bids, on a regular time interval (30 days), and that Commission review and approval is not necessary prior to the CAISO implementing the negotiated default energy bids. The CAISO states that requiring the CAISO to file negotiated default energy bids for Commission approval prior to implementation is

⁵¹¹ We define "market power" as a seller's ability to "significantly influence price in the market by withholding service and excluding competitors for a significant period of time." *Citizens Power & Light Corp.*, 48 FERC ¶ 61,210, at 61,777 (1989).

⁵¹² September 2006 Order, 116 FERC ¶ 61,274 at 1057. The Commission further directed the CAISO to make a compliance filing clarifying the procedures a market participant must follow to exercise this option, the type of information a market participant must provide under this process and language clarifying that if parties cannot reach agreement after 60 days, then they may bring the dispute to the Commission. *Id.* P 1059.

inconsistent with Commission precedent,⁵¹³ would limit the flexibility of generators and the CAISO to make timely modifications to default energy bids in response to changing conditions, and notes that other ISOs are not required to file the negotiated bid levels used for market power mitigation.⁵¹⁴ The CAISO states that pragmatic reasons exist as well. The CAISO states that (1) there may be a variety of circumstances that require quick changes to the bid curves in negotiated default energy bids such as a sudden and dramatic increase in the spot market availability or cost of gas that is not sufficiently reflected in other options; (2) a resource may face energy limitations that make the opportunity cost of generating significantly higher than the default energy bid;⁵¹⁵ and (3) it may be necessary to establish a default energy bid on an expedited basis simply because no other basis for establishing a default energy bid may exist, due to insufficient data or the ineligibility of a unit for other options.

509. The CAISO states that its plans to develop factors it will consider in establishing negotiated default energy bids and plans to model the current CAISO tariff provision that provides the CAISO with authority to establish reference bid levels.⁵¹⁶ The CAISO states that these factors are reflected in its 60 day compliance filing.⁵¹⁷

⁵¹³ According to the CAISO, section 6.4.2 of the PJM Operating Agreement sets forth options for offer price caps under the PJM local market power mitigation procedures and although these provisions include the option to submit disputes concerning negotiated offer price caps, they do not require PJM to submit all negotiated offer price caps to the Commission. CAISO Request for Clarification and Rehearing at 15 & n.24 (citing PJM Operating Agreement, section 6.4.2(a)(iv)).

⁵¹⁴ The CAISO states also, for example that the NYISO market power mitigation measures permits the NYISO to establish reference levels for generator bids based on negotiations with the bidding party and without any requirement to first submit such negotiated reference levels to the Commission. CAISO Request for Clarification and Rehearing at 15 & n.24 (citing NYISO Market Services Tariff, Attachment H, section 3.1.4(d)(2)).

⁵¹⁵ According to the CAISO, these resources include hydro resources, resources subject to environmental restrictions, and any resource facing a disruption to or limitation on its fuel supply.

⁵¹⁶ CAISO tariff, Appendix P, Attachment A, section 3.1.1.1.

⁵¹⁷ CAISO Nov. 20, 2006 Compliance Filing at 5. The compliance filing will be addressed separately.

Commission Determination

510. We clarify that our September 2006 Order's directive to file the negotiated default energy bids is satisfied with a regular *ex post* informational filing of these bids, provided parties have notice that the rate is tentative and may later be adjusted with retroactive effect.⁵¹⁸ The Commission need not review negotiated default energy bids prior to the bids becoming effective. We further clarify that every 30 days constitutes a sufficiently regular time interval basis for making such filings. There are a myriad of pragmatic reasons for not requiring prior Commission approval of these negotiated default energy bids, including the undesirability of limiting the CAISO's and generators' flexibility to make timely modifications to these bids in response to changing conditions. We note that the September 2006 Order required the CAISO to clarify the procedures market participants must follow to exercise this option and the type of information a market participant must provide under this process.⁵¹⁹ We are currently examining the CAISO's compliance filing concerning this directive, including whether criteria used by the CAISO to assess default energy bid levels should be included in the MRTU Tariff as opposed to the Business Practice Manuals, and will issue an order addressing that compliance filing prior to the commencement of MRTU. As long as the Commission has approved a tariff within the scope of its FPA authority, as we have, subject to modification, for the MRTU Tariff, it has broad discretion to establish effective reporting requirements for administration of the tariff.⁵²⁰ We find that, under the circumstances, our responsibility under the FPA to ensure that wholesale electricity rates are on file and just and reasonable⁵²¹ is satisfied by regular *ex post* informational filing of these bids.

⁵¹⁸ See *NSTAR Elec. & Gas Corp. v. FERC*, No. 05-1362, slip op. at 12 (D.C. Cir. 2007) (citing *Consol. Edison of N.Y. v. FERC*, 347 F.3d 964, 969 (D.C. Cir. 2003)).

⁵¹⁹ September 2006 Order, 116 FERC ¶ 61,274 at P 1059. On December 20, 2006, the CAISO submitted a compliance filing that attempts to respond to this directive. See CAISO Dec. 20, 2006 Transmittal Letter at 5-7 and Attachment A, (revised) MRTU Tariff 39.7.1.3.

⁵²⁰ *Cal. ex rel. Lockyer v. FERC*, 383 F.3d 1006, 1012-13 (9th Cir. 2005) (pointing out that Congress specified that filings be "within such time and within such form" and under "such rules and regulations as the Commission may prescribe," 16 U.S.C. § 824d(c), and approving after-the fact quarterly reporting for market-based rates), *pet. for cert. filed*, 75 U.S.L.W. 3355 (Dec. 28, 2006) (No. 06-888).

⁵²¹ 16 U.S.C. § 824d(c) (requiring all rates for transmission and sales of wholesale energy be filed for public review); 16 U.S.C. § 824d(a) (obligation to ensure wholesale power rates are just and reasonable).

4. Scarcity Pricing

511. In the September 2006 Order, the Commission directed the CAISO to broaden its scarcity pricing proposal to enable prices to rise during all instances where reserves or energy are short, irrespective of whether a contingency has occurred or whether the shortage arises in the day-ahead or real-time market.⁵²² In addition, the Commission directed the CAISO to develop a reserve shortage scarcity pricing mechanism that applies administratively-determined graduated prices to various levels of reserve shortage.⁵²³ The Commission reasoned that such a pricing structure is considered advantageous because it does not create incentives for generators to change their bidding behavior based on speculation of when a shortage may occur. Moreover, because California has adopted resource adequacy requirements, LSEs are expected to procure enough capacity to meet peak load plus a reserve margin, and therefore periods of scarcity should be infrequent. In the event that a shortage occurs, prices should reflect the economic value of the reserves necessary to resolve the shortage. Thus, the prices for both reserves and energy in California should increase automatically as the severity of the shortage increases. In the September 2006 Order, the Commission directed the CAISO to modify its limited scarcity-pricing proposal as discussed above, and to accelerate implementation of this market design element to within 12 months after Release 1.⁵²⁴

512. In its rehearing request, the CPUC argues that the Commission's decision to direct implementation of scarcity pricing within 12 months of MRTU start-up does not address the potential detriment to ratepayers and does not consider evidence of market conditions under MRTU and, therefore, is arbitrary and capricious and lacks reasoned explanation.

513. Although the CPUC agrees that the CAISO should develop a reserve shortage scarcity pricing mechanism that applies administratively-determined graduated prices to various levels of reserve shortage,⁵²⁵ the CPUC states that any modification to the scarcity pricing proposal should be developed via an extensive stakeholder process. The CPUC argues that implementing a broader version of scarcity pricing within 12 months does not allow for this process.

514. The CPUC also states that under the MRTU Tariff, scarcity pricing is triggered when there is a shortage of energy bids in real time that is not caused by a contingency

⁵²² September 2006 Order, 116 FERC ¶ 61,274 at P 1077.

⁵²³ *Id.* P 1078-79.

⁵²⁴ *Id.* P 1077-79.

⁵²⁵ *Id.* P 1078.

arising from the unavailability of a transmission line or generating unit. The CPUC states that such reserves or energy bid shortage can be caused by higher load demand or extreme weather conditions. The CPUC states that under a broader scarcity pricing design, scarcity pricing will be triggered whenever there is a reserve shortage, irrespective of a contingency. The CPUC seeks clarification on why scarcity prices under broader conditions are necessary in California, since generators' compensation includes resource adequacy, long-term contracting, RUC, FMU bid-adders, as well as RMR compensation. The CPUC also notes that California is moving toward a capacity market construct to complement LSEs' long-term procurement plans, which the CPUC argues will provide incentives for investment in future generation units. The CPUC states that it is premature to conclude that these mechanisms will not satisfy the concerns underlying the Commission's directive to expand the scarcity pricing program. The CPUC requests that the Commission order the CAISO to evaluate the new market 12 months after MRTU implementation to determine whether the limited scarcity pricing approved by the Commission on an interim basis will be sufficient to meet the needs of the new market before ordering expansion of the scarcity pricing proposal.

515. SoCal Edison states that the Commission should not order the implementation of scarcity pricing within 12 months of MRTU start up and the Commission should not specify the framework for how such administrative pricing will work. Rather, SoCal Edison asks the Commission to order a process to explore scarcity pricing, the proper policy objectives⁵²⁶ of this pricing and its integration into a centralized capacity market or other resource adequacy structure. SoCal Edison supports a process for implementation in Release 2.

516. SoCal Edison believes that the CAISO should move quickly towards a centralized capacity market, and scarcity pricing should be considered as a potential form of real-time performance incentive in such a centralized capacity market structure. Although discussions are at an early stage, SoCal Edison states that it strongly supports a forward-run, CAISO-centralized capacity market in which all parties in the CAISO grid would have comparable obligations to either self-provide or pay for capacity.

517. PG&E states that, in the September 2006 Order, the Commission ordered the CAISO to further refine its scarcity pricing proposal, and accelerate its proposal to take place within 12 months after Release 1 of MRTU, so that "prices ... rise in all instances where reserves or energy are short, irrespective of whether the shortage arises in the day-

⁵²⁶ According to SoCal Edison, the CAISO must consider, among other things: definition of "insufficient reserves," the unspecified number of "ancillary service regions," definition of "shortage," the markets/areas where these administratively-set high prices apply, and which parties and under what conditions the parties would receive these administratively-set prices.

head or real-time market.”⁵²⁷ PG&E argues that instead of filing another proposal, the CAISO should be directed to work with its stakeholders in California because (1) most customers do not currently have the ability to respond to existing prices in California, and (2) in the absence of flexible demand, scarcity pricing does nothing more than the CPUC’s existing resource adequacy requirements to stimulate the development of new long-term supplies or demand response programs. PG&E state that it is committed to increasing customer demand response programs, acquiring adequate long-term resources, and protecting its customers from rates that are unjust and unreasonable. According to PG&E, the Commission should not mandate scarcity pricing by a date certain when most customers in California do not have the ability to respond to higher prices. There is no firm evidence that scarcity pricing controls actually increase supply or diminish demand to a greater extent than existing resource adequacy requirements. PG&E states that reasoning by analogy does not substitute for testimony and findings where a novel scheme of pricing may impose unjust and unreasonable costs on consumers.

Commission Determination

518. We appreciate the concerns raised by parties on the need to be cautious in implementing any new market design feature, but, consistent with the Commission’s prior orders, we continue to find scarcity pricing to be an essential component of the CAISO’s market power mitigation package.⁵²⁸ The concept of scarcity pricing involves a systematic procedure to ensure that prices can rise during periods of genuine scarcity.⁵²⁹ Energy prices that accurately reflect or respond to demand and supply conditions are useful not only for attracting supply, but also in facilitating demand response and stimulating interest in developing demand-response capability. Furthermore, as we noted in the September 2006 Order, each of the existing RTOs/ISOs already has a mechanism in place akin to scarcity pricing that allows prices to rise during reserve shortages. These enable seldom-run generators to recover their fixed costs and encourage LSEs to enter

⁵²⁷ See September 2006 Order, 116 FERC ¶ 61,274 at P 1077.

⁵²⁸ See, e.g., September 2006 Order, 116 FERC ¶ 61,274 at P 1076-79; September 2005 Order, 112 FERC ¶ 61,310 at P 74; July 2005 Order, 112 FERC ¶ 61,013 at P 152-53.

⁵²⁹ See CAISO Feb. 9, 2006 Transmittal Letter, Attachment M, Brian Rahman Testimony, at 5 & n.2 (explaining economic rationale behind scarcity pricing and acknowledging that some aspects of the CAISO’s scarcity proposal, as originally filed, “may not be ideal”).

long-term contracts for their energy needs.⁵³⁰ In addition, as the Commission explained in the September 2006 Order, an administrative scarcity pricing structure is considered advantageous because it does not create incentives for generators to change their bidding behavior based on speculation as to when a shortage may occur. Under such an approach, prices during periods of scarcity are set according to a pre-determined administratively set demand curve and not on the basis of submitted bids. This is in contrast to approaches where mitigation is relaxed during periods of scarcity and prices are set using unmitigated bids. Such approaches might encourage generators to inflate their bids in anticipation of periods of scarcity. Moreover, since LSEs are expected to procure enough capacity to meet peak load plus a reserve margin under California's resource adequacy requirements, we expect periods of scarcity to be infrequent. Even when periods of scarcity pricing do occur, we expect that the existence of long-term contracts – which parties have been motivated to enter into in part due to MRTU Tariff scarcity pricing provisions – will protect the vast majority of customers from exposure to price volatility.

519. Several parties, including the CPUC, SoCal Edison and PG&E make reference to resource adequacy and capacity markets, with the implication that the presence of a capacity market may reduce or eliminate the need for scarcity pricing in energy markets. While we recognize that the details of caps and price levels in these markets need to be coordinated, we are not convinced that the presence of a capacity market can eliminate the need for proper price signals in energy markets. Nor is there a capacity market proposal before us at this time. Demand and supply conditions change continuously, and these changes are reflected correspondingly in energy prices that are calculated by the CAISO for each dispatch interval for use in hourly settlements. In contrast, capacity prices do not vary on an hourly basis and are not able to provide price signals that can as effectively track the changes in demand and supply conditions.

520. With respect to PG&E's concerns that customers are unable to respond to high energy prices, we observe that there are already several demand response programs in operation in California. Whether scarcity pricing should be put off until these programs are expanded further or whether scarcity pricing should be implemented to facilitate the further expansion of these programs is akin to a chicken and egg problem. We believe that the existence of long-term contracts, resource adequacy requirements and opportunities for demand response programs are all necessary elements for a well-functioning market design. We believe scarcity pricing is another necessary element that complements these other elements and should be implemented without further delay.

⁵³⁰ September 2006 Order, 116 FERC ¶ 61,274 at P 1078 & n.472 (citing *N.Y. Indep. Sys. Operator, Inc.*, 103 FERC ¶ 61,339 (2003); *ISO New England, Inc.*, 104 FERC ¶ 61,130 (2003); *PJM Interconnection, LLC*, 113 FERC ¶ 63,038 (2005)); see TEMT II Order,

Additionally, we expect that the price levels implemented as part of any scarcity pricing proposal would be subject to stakeholder debate and review and take into account the concerns that have been raised by stakeholders in the process. We also believe that there is more than adequate timing provided for a significant stakeholder process as well as for consideration of market conditions under MRTU. Therefore, we deny the requests for rehearing of this issue.

B. Resource Adequacy

1. Authority to Approve

521. Municipals⁵³¹ request rehearing, stating that the Commission attempted to defer to state and Local Regulatory Authorities on certain RA requirements, but asserted authority over all LSEs, including non-CPUC jurisdictional entities, for certain important aspects of resource adequacy. They acknowledge that the Commission defers to Local Regulatory Authorities' *system* RA requirements, and on reserve requirements, with the CAISO's tariff applying only if state and Local Regulatory Authorities have failed to adopt standards. They state that, in the domain of setting *local* RA requirements, however, the Commission completely subjects all LSEs to determinations by the CAISO, and mere lip service is given to local deference. They state that the September 2006 Order explains that the CAISO will defer to the Local Regulatory Authority when setting local requirements "to the extent consistent with meeting applicable reliability criteria." Municipals contend that, in other words, the CAISO will defer to the Local Regulatory Authorities if the Local Regulatory Authorities happen to adopt the same criteria as the CAISO. According to Municipals, if LSEs do not comply with the CAISO's determinations, they will be subjected to backstop procurement costs, regardless of any existing charges they face under existing CAISO agreements. Municipals state that they are not seeking to avoid being resource adequate, and indeed they share the Commission's view that the Commission, state and local entities all seek to avoid continued inadequate energy supplies in the California markets. However, they object to the infringement upon their authority to set and maintain their own resource requirements, and object to the Commission's unlawful extension of Commission jurisdiction to impose such requirements on non-CPUC jurisdictional LSEs.

522. Municipals and Modesto state that the Commission asserts jurisdiction over governmental entities' resources on three grounds: (1) the interconnected grid makes everyone's resources interdependent; (2) RA programs are necessary to encourage construction of generation; and (3) the Commission declares jurisdiction over non-CPUC

⁵³¹ We note that Cities/M-S-R, Lassen and Bay Area Municipals made certain arguments jointly. In those instances, we refer to these three entities together as Municipals.

jurisdictional resources for RA purposes as a condition of participation in the CAISO's markets. They contend that each of these grounds for assertion of jurisdiction is flawed.

523. First, Municipals and Modesto note that the Commission's exercise of jurisdiction over resources on the basis that one party's resource decisions can cause adverse impacts on other participants is an exercise of subject-matter jurisdiction. They state that the potential reach of this expansive view of jurisdiction is limitless. According to Municipals and Modesto, any action by a non-CPUC jurisdictional entity could arguably have some impact on CPUC-jurisdictional entities, and therefore, the Commission's rationale would eliminate the statutory limits of its jurisdiction. They contend that the Commission's assertion of jurisdiction over non-CPUC jurisdictional resources is inconsistent with the FPA, and contrary to established precedent. Municipals and Modesto state that the case the Commission cites to support its conditioning authority, *Bonneville*, demonstrates that the Commission's assertion of jurisdiction goes beyond its statutory limits.⁵³² Municipals and Modesto state that, in *Bonneville*, the Ninth Circuit Court of Appeals soundly rejected the Commission's assertion of subject-matter jurisdiction. In the underlying proceeding, the Commission asserted jurisdiction to order refunds over non-jurisdictional entity sales in the CAISO's markets, stating:

jurisdiction attaches to the subject matter of the affected transactions: wholesale sales of electric energy in interstate commerce through a Commission-regulated centralized clearinghouse that set a market clearing price for all wholesale seller participants, including non-public utilities.⁵³³

524. Municipals and Modesto assert that the Ninth Circuit Court of Appeals rejected the Commission's assertion of subject-matter jurisdiction over sales by governmental entities into the CAISO/PX markets, stating:

FERC cannot expand its statutory authority to reach governmental entities/non-public utilities through § 206(b) simply because such entities voluntarily participated in markets approved by FERC that involved FERC jurisdictional wholesale sales of electric energy in interstate commerce.⁵³⁴

Municipals and Modesto state that the limits of the Commission's jurisdiction set forth in *Bonneville* apply with equal force here, and prevent the Commission from subjecting non-jurisdictional entities to CAISO's proposed RA provisions.

⁵³² *Bonneville Power Admin. v. FERC*, 422 F.3d 908 (9th Cir. 2005) (*Bonneville*).

⁵³³ *San Diego Gas & Elec. v. Sellers*, 96 FERC ¶ 61,120, at 61,512 (2001).

⁵³⁴ *Bonneville*, 422 F.3d 908 at 92.

525. Second, Municipals and Modesto assert that the rationale that the MRTU RA proposal is necessary to encourage new generation does not explain why the Commission can assert jurisdiction over non-jurisdictional entities' resources. They state that it simply explains why the Commission thinks that the MRTU's RA proposal is helpful. They contend that the Commission's rationale fails to recognize that non-jurisdictional entities are capable of planning their own resources, and have constructed generation while many jurisdictional entities have not. Cities/M-S-R and Bay Area Municipals state that the Commission fails to recognize the incentives and penalties included in load-following MSS agreements, which contain sufficient incentives to construct generation.

526. Lastly, Municipals and Modesto state that the Commission's exercise of conditioning authority is equally flawed. They state that, as the D.C. Circuit reminded the Commission in *Richmond*, the Commission is limited by its congressional mandate, and "[w]hat the Commission is prohibited from doing directly it may not achieve by indirection."⁵³⁵ They note that, in *Richmond*, the Commission attempted to require public utilities to provide wheeling by placing conditions on the approval of rates. The court acknowledged that "the Commission does have authority to impose requirements and conditions 'necessary or appropriate to promote the policies' of the Act."⁵³⁶ Municipals and Modesto note that the court continued, however, by stating that "such conditions may not contravene the Act."⁵³⁷

527. Municipals and Modesto contend that, in the case of the MRTU Tariff, the Commission is attempting to overstep its authority by conditioning participation in the CAISO markets on the non-jurisdictional entity's resources being governed by the MRTU RA requirement. They state that indirect regulation of non-jurisdictional entities is prohibited under *Richmond* and not in line with Commission precedent. They note that the Commission cites *Bonneville* for the proposition that a party participating in the CAISO's markets is contractually bound by the terms of the CAISO tariff. They contend that this proposition is a clear exercise of bootstrapping. Municipals and Modesto assert that the issue being addressed is whether or not the Commission can approve a tariff that exerts jurisdiction over non-jurisdictional resources. They state that the Commission's rationale erroneously presumes the offensive provision is applicable to non-jurisdictional entities in order to support its exercise of jurisdiction over non-jurisdictional entities. Furthermore, they state that the *Bonneville* decision clearly found that the Commission

⁵³⁵ *Richmond Power & Light Co. v. FERC*, 574 F.2d 610, 620 (D.C. Cir. 1978) (*Richmond*).

⁵³⁶ *Id.* (quoting FPA section 206, 16 U.S.C. § 824e).

⁵³⁷ *Id.*

cannot create jurisdiction based on a non-jurisdictional entity's participation in Commission-regulated markets.

528. In addition, Municipals and Modesto note that the Commission's citation to *Bonneville* demonstrates the voluntary choice that must be available for conditioning authority. That is, the Commission asserts that "in agreeing to participate" in CAISO markets, LSEs agree to the market's terms. They note that, in prior cases, the Commission has exercised its "conditioning authority" when participation by a non-jurisdictional entity is wholly voluntary. They cite, for example, *Texas E. Transmission Corp.* where the Commission conditioned a non-jurisdictional entity's participation in a voluntary program on its filing of rates, although such filings would be unnecessary for a non-jurisdictional entity.⁵³⁸ Municipals and Modesto state that, in the context of implementing Order No. 888, the Commission faced a similar argument with respect to open access transmission requirements for reciprocity. They contend that, in the face of arguments that the Commission was forcing open access transmission on non-jurisdictional entities, the Commission stated that non-jurisdictional entities did have an option: "non-public utilities are free to seek from a public utility a waiver of the open-access tariff reciprocity condition."⁵³⁹

529. Municipals and Modesto assert that the essence of conditioning authority is choice; if parties choose to utilize a service they can, in some circumstances, be bound by the terms of the service. They contend that there is no choice under CAISO's MRTU regime. They state that, under MRTU, entities within the CAISO Control Area must participate in the CAISO's regime if they want to serve their load. Municipals and Modesto note that, under MRTU, the only choice that may be available is whether or not to remain within the CAISO Control Area.

530. San Francisco states that it recognizes both the importance of each LSE having a resource adequacy plan and the CAISO's obligations to maintain reliable operation of the transmission system. San Francisco states that the September 2006 Order properly characterizes the CAISO's role with respect to setting RA requirements, local and

⁵³⁸ *Texas E. Transmission Corp.*, 51 FERC ¶ 61,170, at 61,453 (1990) ("Participation in the program by assignors is strictly voluntary. To the extent that they are unable to recover costs associated with contract preparation and negotiation, computerized systems for monitoring transactions and maintaining queues, reporting requirements, and litigation, they can avoid such costs by simply not participating in the program").

⁵³⁹ Order No. 888-A, FERC Stat. & Regs. ¶ 31,048 at 30,285.

system-wide, as similar to the role it plays today in assessing RMR requirements.⁵⁴⁰ San Francisco notes that the Commission is more general in its description of the CAISO's relationship with the Local Regulatory Authority's in fulfilling its reliability obligations, stating "...[t]he CAISO will then work with Local Regulatory Authorities to set local capacity area requirements." San Francisco states that the CAISO must work within the confines of its authority.

531. San Francisco states that there is nothing in Assembly Bill (AB) 1890,⁵⁴¹ AB380⁵⁴² or the FPA that provides the Commission with the authority to condition access to the CAISO-controlled grid to a particular standard or practice of resource procurement. San Francisco states that the problem arises here because the September 2006 Order conflates compliance with minimum reliability criteria and procurement policies of non-jurisdictional entities, including resource adequacy plans.

532. San Francisco submits there is a crucial distinction for purposes of the reach of the Commission's authority between the conditioning of participation in the CAISO's markets on agreement to the terms of the CAISO tariff and conditioning access to the CAISO-controlled grid on agreement to the terms of the CAISO tariff. It notes that non-jurisdictional entities may voluntarily seek participation in the CAISO's markets. However, San Francisco states that it is pure alchemy to attempt to turn the self-scheduling practices of load-following non-jurisdictional entities into "participation in the CAISO's markets." Currently, San Francisco's load must schedule its resources through the CAISO's system. San Francisco states that, by itself, this practice cannot be equated with "participation in the CAISO's markets" in any sense under the MRTU Tariff nor in any other relevant authority. San Francisco notes that the Commission has recognized the need for this distinction elsewhere in the September 2006 Order.⁵⁴³ It contends that the Commission made clear that self-schedules are not bids, in that they are clearly not offers to buy or sell energy to be priced and settled in the CAISO markets, but rather are distinct transactions outside the CAISO's market pricing and settlement. San Francisco states that the same distinction appropriately applies here as well.

533. San Francisco asserts that the Commission cannot expand its jurisdiction beyond statutory limitations nor can non-jurisdictional entities voluntarily confer that authority by agreement or waiver. It contends that the Commission simply cannot condition non-

⁵⁴⁰ San Francisco cites to the September 2006 Order, 116 FERC ¶ 61,274 at P 1119.

⁵⁴¹ 1996 Cal. Stat. Chapter 854 (AB 1890).

⁵⁴² Cal. Pub. Util. Code § 380 (2006) (AB 380).

⁵⁴³ September 2006 Order, 116 FERC ¶ 61,274 at P 971.

jurisdictional entities' access to the CAISO-controlled grid upon meeting a RA standard that applies only to participants in the CAISO's markets.

534. The CPUC argues that the Commission's description of its jurisdiction over resource adequacy appears to overstate its statutory and historic jurisdiction over areas of state control. It argues that, to the extent the September 2006 Order altered previous Commission and judicial decisions on the boundaries of state and federal jurisdiction over wholesale versus retail energy sales and short-term versus long-term grid reliability, the September 2006 Order fails to justify such departure from precedent and is therefore arbitrary, capricious and lacks reasoned explanation.⁵⁴⁴ According to the CPUC, jurisdiction over integrated resource planning and energy portfolio standards is reserved to the states.⁵⁴⁵

535. The CPUC argues that while the September 2006 Order recognizes states' role in ensuring resource adequacy, it leaves unclear the limits of the Commission's jurisdiction to grant the CAISO the power to engage in procurement in order to meet its own interpretations of NERC and WECC reliability standards, nor does the MRTU Tariff reveal what methods the CAISO will use to set its reliability standards. The CPUC is concerned that the September 2006 Order may be interpreted to permit the CAISO and the Commission to implement reliability requirements that, through a lack of definition, conflict with state jurisdictional power to select a level of reliability and the price to be paid for that. For this reason, the CPUC asks that the Commission clarify that the Commission's conditional approval of the MRTU Tariff is not intended to impinge upon California's authority to determine, for purposes of long-term reliability planning, what level of reliability appropriately balances reliability and costs.

536. The CPUC states that the Commission may not impose RA requirements on non-jurisdictional entities. It asserts that the Commission's effort in paragraphs 1112 to 1120 of the September 2006 Order to justify the Commission's imposition of RA requirements on non-jurisdictional entities exceeds its authority under the FPA. The CPUC states that the FPA, especially as amended by the Energy Policy Act of 2005 (EPAAct 2005), simply does not give the Commission such jurisdiction over non-jurisdictional entities. It argues that such requirements may, or may not, be good policy, but it is the function of Congress, not the Commission, to define the limits of the Commission's authority, and Congress has not given the Commission the authority it seeks to exercise.

⁵⁴⁴ The CPUC cites *Allegheny Power Sys. Operating Cos.*, 111 FERC at ¶ 61, p. 308 (2005) (sic), as an example.

⁵⁴⁵ The CPUC cites to *New York*, 535 U.S. 1 at 24, to support its assertion.

537. Arizona/Southwest Coops⁵⁴⁶ ask that the Commission grant rehearing as to the finding in paragraphs 1112 to 1120 of the September 2006 Order that the Commission has the authority to impose resource adequacy requirements on non-jurisdictional entities. Arizona/Southwest Coops assert that the Commission has no authority under the FPA to impose such requirements on entities that are outside of Commission jurisdiction. Arizona/Southwest Coops assert that “it is improper, unjust, unreasonable, and contrary to the public interest for the Commission to allow the ISO to impose contracts of adherence to find that non-jurisdictional LSEs have agreed to be subject to such terms of the CAISO tariff.”⁵⁴⁷

538. Arizona/Southwest Coops state that the Commission’s other purported justifications are unavailing. They assert that the Commission’s references to the need to ensure rates for jurisdictional services are just and reasonable “do not entitle the Commission to impose any sort of requirements for services that are non-jurisdictional, especially when the LSEs are not originating what becomes a jurisdictional service when resold.” Arizona/Southwest Coops contend that the references to reliability are inappropriate as the Commission has not yet approved any reliability standards. They assert that the requirements cannot be justified as contractual obligations since the contractual obligations would not be enforceable before the Commission and would amount to contracts of adherence in any event. Arizona/Southwest Coops state that the Commission’s explanations are simply an attempt to do indirectly what it is precluded from doing directly and are thus impermissible.⁵⁴⁸

539. Six Cities state that, although they are questioning the scope of the Commission’s conditioning authority over resource adequacy determinations, they do not request rehearing as to the Commission’s general analysis. However, they state that the Commission’s purported deference to state and Local Regulatory Authorities is contradicted by its uncritical acceptance of the CAISO’s RA proposals. Six Cities note

⁵⁴⁶ In their request for rehearing, Arizona/Southwest Coops state that they are both Arizona-based non-FERC-jurisdictional rural electric generation and transmission cooperatives. They state that their request for rehearing and/or clarification is submitted with respect to Anza Electric Cooperative, Inc. (Anza), their member rural electric distribution cooperative that is a LSE located in Anza, California and that is also not subject to the Commission’s jurisdiction. Arizona/Southwest Coops Oct. 20, 2006 Request for Rehearing, Docket No. ER06-615-001, at 1.

⁵⁴⁷ *Id.* at 3.

⁵⁴⁸ Arizona/Southwest Coops gives *Richmond*, 574 F.2d 610 at 619-20, and *Fla. Power & Light Co. v. FERC*, 660 F.2d 668 (5th Cir. 1981), *cert. denied sub nom. Fort Pierce Util. Auth. v. FERC*, 459 U.S. 1156 (1983), as examples to support its proposition.

that, given the tension among federal, state and local jurisdiction in the area of resource adequacy that the Commission recognizes, the Commission has an obligation to actively evaluate CAISO proposals and monitor the CAISO's implementation of resource adequacy obligations. They assert that the Commission is obligated to ensure that the CAISO does not unnecessarily override determinations by Local Regulatory Authorities with respect to the use of their resources and the implementation of their resource adequacy plans. Six Cities contend that, for the jurisdictional balance among the federal, state and local governments to be maintained, the Commission must critically evaluate CAISO determinations as to resource adequacy and ensure that the CAISO's requirements are not unreasonably intrusive.⁵⁴⁹

Commission Determination

540. Numerous entities requested clarification and/or rehearing regarding the issue of Commission jurisdiction over resource adequacy. Parties state that the issue of resource adequacy is a state rather than a federal concern. As the Commission stated in the September 2006 Order, the question of jurisdiction over resource adequacy is a complex matter that represents "the confluence of state-federal jurisdiction."⁵⁵⁰ While we are cognizant of the traditional role of state and local entities in regulating resource adequacy, we are also aware of our responsibility under the FPA to ensure the reliability of the system and that wholesale rates are just and reasonable. We will defer to state and local entities' decisions when possible on resource adequacy matters, but in doing so we will not shirk our congressionally-mandated responsibilities. We find that the adequacy of resources can have a significant effect on wholesale rates and services and therefore is subject to Commission jurisdiction.

541. We begin our analysis of the Commission's resource adequacy jurisdiction with the FPA. FPA section 201(b)(1) confers jurisdiction on the Commission over the transmission of electric energy in interstate commerce, and sales of electric energy at wholesale in interstate commerce.⁵⁵¹ Further, FPA section 205(a) states that:

⁵⁴⁹ Six Cities cite *Columbia Gas Transmission Corp. v. FERC*, 448 F.3d 382, 387 (D.C. Cir. 2006), *PPL Wallingford Energy LLC v. FERC*, 419 F.3d 1194, 1198 (D.C. Cir. 2005), to support the proposition that, as a matter of general administrative law, the Commission must articulate a rational connection between the facts found and the choices made.

⁵⁵⁰ September 2006 Order, 116 FERC ¶ 16,274 at P 1112.

⁵⁵¹ 16 U.S.C. § 824(b)(1).

All rates and charges made, demanded, or received by any public utility for or in connection with the transmission or sale of electric energy subject to the jurisdiction of the Commission, and all rules and regulations affecting or pertaining to such rates or charges shall be just and reasonable, and any such rate or charge that is not just and reasonable is hereby declared to be unlawful.^[552]

Thus, the FPA confers upon the Commission the responsibility for ensuring that wholesale rates and charges, including any rule, regulation, practice or contract affecting them, are just and reasonable and not unduly discriminatory. As the Commission found in the September 2006 Order, the MRTU resource adequacy requirements significantly affect wholesale rates and therefore are subject to Commission jurisdiction.⁵⁵³

542. In *Mississippi Industries v. FERC*,⁵⁵⁴ the court recognized the connection between the allocation of capacity and wholesale rates. In *Mississippi Industries*, the Commission altered the allocation of capacity and costs of a nuclear generation plant among operating companies of an integrated utility system. Petitioners asserted that, in allocating the cost and capacity of the nuclear plant, the Commission had asserted jurisdiction over generating facilities in direct violation of the FPA section 201(b) prohibition against Commission regulation of generation facilities. Petitioners asserted that “reallocating generation costs falls outside of FERC’s rate making jurisdiction and instead falls solely within state authority over generation.”⁵⁵⁵ The court rejected the claim that this action was beyond the Commission’s FPA jurisdiction. Instead, it found that the Commission has authority over the allocation of capacity among market participants because this allocation affects wholesale rates. The court stated, “[c]apacity costs are a large component of wholesale rates” and therefore the capacity costs of the system carried by each affiliate will significantly affect the wholesale price it pays for energy.⁵⁵⁶ The allocation of capacity did not set sales prices, but directly affects costs and

⁵⁵² 16 U.S.C. § 824d. FPA section 206 gives the Commission the ability to review “any rate, charges, or classification” charged by a public utility for any transmission or sale subject to the jurisdiction of the Commission, as well as “any rule, regulation, practice, or contract affecting such rate, charge, or classification” 16 U.S.C. § 824e.

⁵⁵³ September 2006 Order, 116 FERC ¶ 61,274 at P 1113-14.

⁵⁵⁴ *Miss. Indus. v. FERC*, 808 F.2d 1525 (D.C. Cir.), vacated in part on other grounds, 822 F.2d 1103 (1987) (*Mississippi Industries*).

⁵⁵⁵ *Id.* at 1543.

⁵⁵⁶ *Id.* at 1541.

“consequently, wholesale rates”⁵⁵⁷ and therefore “FERC’s jurisdiction under such circumstances is unquestionable.”⁵⁵⁸ The court further noted that:

Petitioners ignore the critical point here that, while these provisions [allocating capacity] do not fix wholesale rates, their terms do directly and significantly *affect* the wholesale rates at which the operating companies exchange energy, due to the highly integrated nature of the . . . system.^[559]

543. Similarly, in *Municipalities of Groton v. FERC*, the court upheld the Commission’s authority to review section 9.4(d) of the New England Power Pool Agreement which included a deficiency charge for each participant in the agreement whose prescribed level of generating capacity, known as “capability responsibility,” fell by more than one percent below the set level.⁵⁶⁰ The court found that these charges are within Commission jurisdiction because they are under “the Commission’s inclusive jurisdictional mandate – which reaches discriminatory practices ‘with respect to’ jurisdictional transmissions, or ‘affecting’ such transmissions or services. . . .”⁵⁶¹ The court further stated:

[i]t is sufficient for jurisdictional purposes that the deficiency charge affects the fee that a participant pays for power and reserve service, irrespective of the objective underlying that charge. This is well within the Commission’s authority as delineated in other court opinions.^[562]

544. In the September 2006 Order, the Commission explained how the minimum resource adequacy requirements set forth in the MRTU Tariff have a significant effect on jurisdictional rates and services. The Commission explained that:

where an interconnected transmission system is operated on [a] regional basis as part of an organized market for electricity, as in California, all users of the system are interdependent, particularly with respect to

⁵⁵⁷ *Id.*

⁵⁵⁸ *Id.* (citing *Nantahala Power & Light Co.*, 426 U.S. 953 (1986)).

⁵⁵⁹ *Id.* at 1542.

⁵⁶⁰ *Municipalities of Groton v. FERC*, 587 F.2d 1296, 1300 (D.C. Cir. 1978) (*Groton*).

⁵⁶¹ *Id.* at 1302.

⁵⁶² *Id.* at 1302 (citing, e.g., *FPC v. Conway Corp.*, 426 U.S. 271 (1976)).

reliability, *i.e.*, one participant's reliability decisions can impact the reliability of service available to other participants and the related costs the other participants must bear. . . . We find that, in situations where one party's resource adequacy decisions can cause adverse reliability and costs impacts on other participants in a regionally operated system, it is appropriate for us to consider resource adequacy in determining whether rates remain just and reasonable and not unduly discriminatory.^[563]

545. The Commission also found that minimum resource adequacy requirements have a direct nexus to the bid caps in the energy market:

These bid caps are premised on the notion that bids above these levels may not reflect true scarcity pricing, but rather the exercise of market power or abuse that results in rates that are not just and reasonable. This premise is only valid, however, if there is some mechanism – other than energy price increases – to encourage the construction of new generation where and when needed. Consequently, in the absence of a workable resource adequacy program, it would be difficult for us to approve such bid caps. Without a workable program, the bid caps would simply inhibit new supply, and thereby harm customers, rather than protecting customers from the exercise of market power or abuse.^[564]

546. Finally, the Commission held that it would be unduly discriminatory to allow certain LSEs to avail themselves of the CAISO's reliability functions and market rules without providing adequate resources to support those functions:

LSEs within the CAISO control area benefit from the reliable supply of energy at just and reasonable prices. As such, it is not unreasonable to require that all LSEs located on the CAISO-controlled grid accept, as a condition of participation in the CAISO markets, those minimum obligations that are necessary to maintain a reliable supply of energy at just and reasonable rates, and to ensure that one LSE cannot "lean on" the others to the detriment of their customers and grid reliability as a whole. Thus, we are requiring, as a condition of participation in the CAISO, that each LSE within the CAISO-controlled grid maintain adequate resources. In order for the CAISO-controlled grid to function fairly and effectively,

⁵⁶³ September 2006 Order, 116 FERC ¶ 61,274 at P 1113 (footnote omitted).

⁵⁶⁴ *Id.* P 1114.

resource adequacy requirements must be borne by all LSEs, not just a few.^{565]}

547. The parties seeking rehearings of these findings raise essentially three points. First, they argue that the FPA does not provide a specific grant of jurisdiction over resource adequacy and therefore the Commission cannot exercise "subject-matter jurisdiction" over resource adequacy. Second, they argue that the Commission does not have jurisdiction over resource adequacy because it "affects" jurisdictional rates and services, contending that such a finding would be "limitless" in scope because many activities affect jurisdictional rates.⁵⁶⁶ Third, the CPUC seeks clarification that the Commission's jurisdictional findings will not interfere with state requirements for resource procurement and demand response. We address each in turn.

548. We respond first to the argument that the FPA does not include a specific grant of jurisdiction over resource adequacy. The parties making this argument rely on *Bonneville* and *Richmond* for the proposition that the Commission cannot assert jurisdiction over resource adequacy because that jurisdiction is not set forth in the FPA. We disagree. In *Bonneville*, the court considered the Commission's attempt to exercise subject matter jurisdiction over power sales by certain governmental entities and, specifically, to order refunds with respect to such sales. The court reversed that decision, finding the FPA "clear and unambiguous" in exempting from Commission jurisdiction wholesale sales by non-public utilities, including refunds with respect to such sales.⁵⁶⁷ In this case, by contrast, the Commission is not exercising jurisdiction over power sales by governmental entities or taking any other action that is "clearly and unambiguously" precluded by the FPA. Rather, we are requiring LSEs to maintain adequate resources due to the significant and direct effect of resource adequacy requirements on jurisdictional rates and services.

549. This act is fully consistent with *Mississippi Industries* and *Groton*. In *Mississippi Industries*, the Commission exercised jurisdiction over the allocation of the shares of a nuclear generating plant, despite the fact that the FPA does not give the Commission jurisdiction over generating facilities (and indeed reserves that jurisdiction to the states).⁵⁶⁸ The court affirmed Commission jurisdiction because of the nexus between the

⁵⁶⁵ *Id.* P 1116 (footnote omitted).

⁵⁶⁶ See e.g., Bay Area Municipals Oct. 23, 2006 Request for Rehearing and Clarification, Docket No. ER06-615-001, at 46 (Bay Area Municipals Request for Rehearing).

⁵⁶⁷ *Bonneville*, 422 F.3d at 911.

⁵⁶⁸ *Mississippi Industries*, 808 F.2d at 1543-44.

plant allocation and the justness and reasonableness of jurisdictional rates under the Entergy System Agreement. The court in *Groton* undertook a similar analysis in upholding our jurisdiction in that case. In *Groton*, the Commission had asserted jurisdiction over a charge related to resource adequacy requirements in New England. The court upheld the Commission's order, finding that the charge affected jurisdictional rates and that jurisdiction remained "irrespective of the objective underlying that charge."⁵⁶⁹

550. Further, it is important to note that, although the Municipals rely on *Bonneville* for the proposition that the Commission cannot impose resource adequacy requirements on "nonjurisdictionals," their argument is far broader than that. The *Bonneville* case concerned a situation in which the FPA granted the Commission specific authority to order refunds for wholesale sales by a public utility, but declined to give the Commission that jurisdiction over non-public utilities. In this case, however, there is no specific statutory text granting, on the one hand, jurisdiction over resource adequacy for public utilities, but removing that jurisdiction with respect to non-public utilities. The Municipals' real argument therefore is that the Commission has no jurisdiction to adopt resource adequacy requirements for *any* entity, whether a public utility or a nonjurisdictional, because there is no specific grant of jurisdiction in the FPA. We cannot accept this argument for all the reasons stated herein and in the September 2006 Order. Consistent with *Mississippi Industries* and *Groton*, we have jurisdiction over the resource adequacy provisions of the MRTU Tariff because they have a significant effect on jurisdictional rates and services. To satisfy our obligation to prevent undue discrimination, these requirements must apply to all LSEs, not simply those that are public utilities.

551. The parties also argue that we are seeking to regulate resource adequacy "indirectly" because we cannot regulate it "directly," contrary to *Richmond*. We disagree. As *Mississippi Industries* and *Groton* held, the Commission may exercise jurisdiction over a practice if there is a significant effect on jurisdictional rates and services. The effect is indisputably significant in this case. The minimum resource adequacy requirements are central to the reliable operation of the grid, critical to the proper functioning of centralized energy markets in California and necessary to ensure that jurisdictional rates and services are just, reasonable and not unduly discriminatory.

552. The Municipals do not dispute the nexus between resource adequacy requirements and these important functions, but rather argue that a practice cannot become jurisdictional simply because it "affects" jurisdictional rates and services because, otherwise, the Commission would have "limitless" jurisdiction. We disagree. The Commission's jurisdiction is not limitless and this case does not concern a practice that is

⁵⁶⁹ *Groton*, 587 F.2d 1296 at 1302.

only tangentially related to jurisdictional rates. The nexus between resource adequacy and the reliability and market functions of the CAISO could not be clearer or more significant. As the Commission stated in the September 2006 Order, "one party's resource adequacy decisions can cause adverse reliability and costs impacts on other participants in a regionally operated system."⁵⁷⁰ Further, resource adequacy is necessary to ensure that energy market bid caps effectively restrict the ability of sellers to exercise market power but do not result in insufficient generating capacity being added to meet the longer term capacity needs of customers. Moreover, resource adequacy requirements "ensure that one LSE cannot 'lean on' the others to the detriment of their customers and grid reliability as a whole," thereby preventing undue discrimination.

553. On this last point, the Municipals fail to explain how their position can be squared with our responsibility to prevent undue discrimination. The September 2006 Order seeks to treat all LSEs comparably – both in the benefits received from CAISO grid and market functions and the LSEs' responsibility to support those functions with adequate resources. Under the MRTU Tariff, all LSEs receive nondiscriminatory access to transmission capacity, all LSEs are subject to nondiscriminatory curtailments of loads and resources in times of emergency,⁵⁷¹ and all LSEs enjoy non-discriminatory energy market protections (e.g., bid caps and mitigation) to ensure wholesale rates remain just and reasonable. It would be unduly discriminatory to permit all LSEs to receive such services and benefits, yet require only some to support those functions with adequate resources. We simply cannot accept the proposition that an individual LSE can receive all the same benefits of the CAISO's reliability and market functions, yet decline to shoulder its share of adequate resources that support such functions. To do so would constitute undue discrimination.⁵⁷²

554. The Municipals also argue that the Commission cannot use its conditioning authority because "the essence of conditioning authority is choice" and "there is no choice under CAISO's MRTU regime."⁵⁷³ We disagree. First, our assertion of jurisdiction is not predicated solely on our conditioning authority; rather, as explained

⁵⁷⁰ September 2006 Order, 116 FERC ¶ 61,274 at P 1113.

⁵⁷¹ See MRTU Tariff section 7.7.11.4.

⁵⁷² San Francisco argues that it is not really a participant in CAISO markets because it relies principally on self-scheduling of resources. We disagree with San Francisco's argument that it is not a market participant. San Francisco is an LSE with load in the CAISO Control Area and uses the CAISO-controlled transmission grid to serve its load. San Francisco therefore benefits from nondiscriminatory access to the grid and the CAISO's reliability and market functions.

⁵⁷³ See *e.g.*, Bay Area Municipals Request for Rehearing at 50.

above, we have jurisdiction because of the direct and significant effect of resource adequacy requirements on jurisdictional services and rates. Second, the Municipals have, in fact, chosen to participate in the CAISO market and, consequently, they receive the reliability and market benefits of the MRTU Tariff. It would be unduly discriminatory to allow them to benefit from those functions, yet lean on all other LSEs for the resources that support those functions.

555. Further, as explained below, there are many different options by which LSEs can satisfy the MRTU requirements respecting resource adequacy. For example, we are not setting overall system reserve requirements, which are established in the first instance by local authorities. Each LSE determines the least cost means of meeting such reserve requirements (e.g., its own resource procurement decisions). Indeed, in the September 2006 Order, the Commission ordered the CAISO to amend its RA provisions to expressly recognize the right of Local Regulatory Authorities to set their own planning reserve margins to ensure that they are resource adequate. As such, the MRTU Tariff gives Local Regulatory Authorities the authority to do their own system RA planning in the first instance. The CAISO's 15 percent default planning reserve margin only applies if the Local Regulatory Authority fails to set its own reserve margin. Further, as noted below, any entity that disagrees with the CAISO's application of local capacity area resource requirements can file a complaint if it believes that the CAISO has been unjust or unreasonable in its application of local RA requirements.

556. Finally, even if the *Bonneville* decision is applicable here, the court also found that obligations on non-public utilities may also arise from contracts such as service agreements and we find that the RA requirements of MRTU would apply to non-jurisdictional entities based on their agreements to participate in the CAISO.⁵⁷⁴ The *Bonneville* court noted that this is not novel,⁵⁷⁵ and pointed to *Mid-Continent Area Power Pool*⁵⁷⁶ where the Commission found that it could not order refunds against non-public utilities/governmental entities in MAPP, but suggested that a contract remedy might be available for public utility members of MAPP against Nebraska Public Power District (Nebraska District), a non-public utility.⁵⁷⁷ The *Bonneville* court quoted the Commission as stating, “[h]owever, we need not and do not address whether nonpublic utility members of MAPP are nevertheless bound to take or refrain from taking any actions, including providing refunds, under the terms of any agreements.”⁵⁷⁸ In *Alliant Energy*,

⁵⁷⁴ *Bonneville*, 422 F.3d at 925.

⁵⁷⁵ *Id.*

⁵⁷⁶ *Mid-Continent Area Power Pool*, 89 FERC ¶ 61,135 (1999) (*MAPP*).

⁵⁷⁷ *Bonneville*, 422 F.3d 908 at 925.

⁵⁷⁸ *Id.* at 925 (quoting *MAPP*, 89 FERC at 61,387-88).

Inc. v. Nebraska Public Power District, the district court later held that Nebraska District was contractually liable for refunds that resulted from Commission orders modifying MAPP's Commission-jurisdictional tariff and the MAPP agreement.⁵⁷⁹ Specifically, the *Alliant* court found that the MAPP agreement is a

[c]ontract to which [Nebraska District] is a signatory. [Nebraska District] is bound by the contract regardless of whether FERC has regulatory authority over [Nebraska District] itself. FERC concluded that certain tariff provisions of schedule F did not comply with Order 888 and that MAPP must revise the Restated Agreement. Accordingly, [Nebraska District] is contractually obligated to refund the amounts it overcollected under the nullified Schedule F tariff provisions, even if the contract amendments resulted from a FERC order.^[580]

The 8th Circuit affirmed the district court finding that, “[w]hen a contract provides that its terms are subject to a regulatory body, all parties to that contract are bound by the actions of the regulatory body.”⁵⁸¹ The 8th Circuit stated that it was not enforcing a Commission order, but was instead “enforcing an agreement, which [Nebraska District] freely entered.”⁵⁸² Here, LSEs that agree to participate directly or indirectly in the CAISO's markets or to make use of its grid, also agree to be subject as a contractual matter to the terms and conditions of the CAISO tariff, including those related to resource adequacy.

557. We now turn to the clarifications sought by the CPUC. The CPUC recognizes that “the respective jurisdictions of states and the FERC over resource adequacy may converge and in some ways overlap.”⁵⁸³ The CPUC expresses concern, however, that “[w]hile the [September 2006] Order recognizes states' role in ensuring resource adequacy, it leaves unclear the limits of FERC jurisdiction to authorize CAISO's power to engage in procurement in order to meet its own interpretations of NERC/WECC

⁵⁷⁹ See *Alliant Energy, Inc. v. Nebraska Public Power District*, 2001 U.S. Dist. Lexis 17,802 (2001) (*Alliant*).

⁵⁸⁰ *Id.* at 14 (citation omitted).

⁵⁸¹ *Alliant Energy v. Nebraska Public Power District*, 347 F.3d 1046, 1050 (2003) (citing *Inter-City Gas Corp. v. Boise Cascade Corp.*, 845 F.2d 184, 187 (8th Cir. 1988); *Holbein v. Austral Oil Co.*, 609 F.2d 206, 208 & n.3 (5th Cir. 1980)).

⁵⁸² *Id.*

⁵⁸³ CPUC Request for Rehearing at 4.

reliability standards."⁵⁸⁴ The CPUC therefore seeks several clarifications regarding the September 2006 Order.

558. The CPUC first "asks that FERC clarify that its conditional approval of the MRTU tariff is not intended to impinge upon California's authority to determine, for purposes of long-term planning, what level of reliability appropriately balances reliability and costs."⁵⁸⁵ We agree that, as a general matter, California or the region may determine in the first instance the appropriate level of planning reserves by balancing reliability and cost considerations. As the Commission made clear in the September 2006 Order:

As a general matter, it is our responsibility to ensure that a workable resource adequacy requirement exists in a market such as that operated by the CAISO. This does not mean that we must determine all the elements of such a program in the first instance. Rather, we can, in appropriate circumstances, defer to state and Local Regulatory Authorities to set those requirements. . . .^[586]

. . . . While we find that resource adequacy is necessary for the reliable operation of the grid, and to ensure that wholesale rates are just, reasonable and not unduly discriminatory, we are not establishing planning reserve requirements, but instead are adopting those set by state and Local Regulatory Authorities in the first instance. . . . [W]e commend the CPUC for taking responsible action to ensure that all LSEs subject to its jurisdiction have adequate resources. Our action today does not disturb or impede the CPUC's progressive efforts in this area.^[587]

559. The CPUC also seeks clarification regarding the effect of the September 2006 Order on its jurisdiction over demand response. The CPUC "is concerned that effects of the FERC's overly broad description of CAISO's power to pursue grid reliability may impact the viability of demand response programs being developed in California."⁵⁸⁸ The CPUC explains that it has adopted a "loading order" of resources to meet long-term reliability needs and that the highest priority of resources are energy efficiency and demand-side resources. The CPUC expresses concern that the September 2006 Order

⁵⁸⁴ *Id.* at 8.

⁵⁸⁵ *Id.*

⁵⁸⁶ September 2006 Order, 116 FERC ¶ 61,274 at P 1117.

⁵⁸⁷ *Id.* P 1118.

⁵⁸⁸ CPUC Request for Rehearing at 8-9.

could be interpreted to allow the "CAISO to pick and choose which state-approved DR programs to include within its calculation of resources available to support load."⁵⁸⁹ The CPUC wants the CAISO to respect the CPUC's decisions regarding the priority of resources to support grid reliability.⁵⁹⁰

560. We grant the CPUC's request for clarification in part. We believe that the CAISO must be allowed to make technical determinations as to whether a particular resource (whether a generator or demand response) can support grid reliability. However, we agree that the CAISO should respect California's determination that energy efficiency and demand-side resources receive the highest priority in meeting future reliability needs. We therefore direct the CAISO to coordinate with the CPUC to minimize the potential for disagreements as to whether particular demand-side resources qualify on a technical basis in meeting resource adequacy requirements.

561. We now turn to the remaining objections of certain parties. Arizona/Southwest Coops also assert that the RA requirements cannot be justified as contractual obligations since the contractual obligations would not be enforceable before the Commission and would amount to contracts of adhesion in any event. We decline to interpret California contract law in order to make a determination of whether Arizona/Southwest Coops' contract with the CAISO is a contract of adhesion because we have no specific facts nor any complaint before us to inform such a decision, nor has Arizona/Southwest Coops provided any explanation as to why the contract would not be enforceable before the Commission.

562. Parties also argue that, under the local RA requirements, the Commission subjects all LSEs to determinations by the CAISO, and gives mere lip service to local deference. In the September 2006 Order, the Commission required the CAISO to evaluate local capacity requirements in the context of substantive stakeholder input.⁵⁹¹ Within this stakeholder process, each Local Regulatory Authority retains its ability to specify the desired quality of service for its customers, to the extent that this determination meets minimum reliability standards and does not affect the customers of other Local Regulatory Authorities. Based on such input, the CAISO will perform a technical study to determine local capacity requirements.⁵⁹² As noted in the September 2006 Order, the

⁵⁸⁹ *Id.* at 12.

⁵⁹⁰ *Id.* at 13.

⁵⁹¹ September 2006 Order, 116 FERC ¶ 61,274 at P 1166.

⁵⁹² We note that the CAISO indicated that it is "engaged in a process with representative stakeholders to reassess the reliability criteria and assumptions that will drive Local Capacity Area requirements." CAISO Jan. 11, 2007 Motion for Extension of

CAISO already performs a similar function in assessing annual RMR requirements. Furthermore, as noted above, participants will have the opportunity to raise specific concerns they have with the process to the Commission when the CAISO submits its August 3, 2007 compliance filing. We therefore find that parties' concerns are unwarranted at this time and deny rehearing of this issue.

563. Parties further assert that, in the September 2006 Order, the Commission failed to recognize that load-following MSS agreements contain sufficient incentives to construct generation. On the issue of load-following MSS agreements creating the incentives for the construction of generation, we note that the CAISO has recognized the unique qualities of load-following MSSs and therefore these entities are not subject to system RA requirements. However, as discussed below, we note that local capacity area resources are needed within load pockets in order to meet reliability of the CAISO-controlled grid. Grid reliability benefits all participants and therefore responsibility to procure these local capacity area resources should not be allocated to the exclusion of any LSE (including those that are a part of a load-following MSS).

564. Finally, we disagree with Six Cities' characterization that the Commission, in the September 2006 Order, engaged in an uncritical acceptance of the CAISO's RA proposal. The Commission conducted a careful and critical evaluation of the CAISO's RA proposal and made numerous changes to ensure that the CAISO's RA proposal is just and reasonable. For example, the Commission directed the CAISO to modify the planning reserve margin requirement to set a default of 15 percent and directed staff to convene a technical conference to review the CAISO's RA import capacity allocation methodology.

2. Applicability

565. Arizona/Southwest Coops assert that the Local Regulatory Authority for Anza should be clarified. They submit that there are obvious benefits for a non-CPUC LSE such as Anza to have a Local Regulatory Authority that can specify a more appropriate RA requirement, especially considering that all or most of Anza's resources are provided through imports. Arizona/Southwest Coops contend that it is not clear who is Anza's Local Regulatory Authority, especially since Anza (the cooperative) is not regulated by Anza (the municipality or the surrounding area that the Anza cooperative also serves). Because Anza is a consumer-owned entity, Arizona/Southwest Coops argue that Anza should be allowed to serve as its own Local Regulatory Authority. Alternatively, they contend that Arizona Electric Power Cooperative, Inc. and/or Southwest Transmission Cooperative, Inc. should be viewed as the Local Regulatory Authorities since they are responsible for providing power and transmission to Anza and are members of WECC.

Arizona/Southwest Coops suggest the Rural Utilities Services of the United States Department of Agriculture as another possibility,⁵⁹³ which provides financing to Anza and oversees Anza's operations pursuant to federal statute and regulations.

566. GSW states that, because it did not request exemption from the RA provisions of the MRTU Tariff, the September 2006 Order's rejection of that request should be corrected. GSW states that its actual request was that the CAISO be directed to amend the MRTU Tariff, if necessary, to reflect the final outcome of the pending CPUC rulemaking proceedings on RA requirements for other LSEs under CPUC jurisdiction. GSW asserts that the Commission's approval of the resource adequacy provisions in the MRTU Tariff should require the CAISO to amend the tariff as necessary following the CPUC's completion of its pending rulemaking provisions on this subject. GSW requests that the Commission correct the record in this proceeding by noting GSW's actual argument and deleting its rejection of an exemption request that GSW never made.

567. GSW contends that a requirement that the MRTU Tariff reflect the CPUC's RA requirements for CPUC-jurisdictional LSEs would be in keeping with the intentions of the CAISO and the Commission itself. GSW notes that the CAISO's supporting testimony "emphasize[s] that the MRTU Tariff provisions concerning Resource Adequacy are only intended to support and not to supplant a Resource Adequacy program ordered by the CPUC for CPUC jurisdictional entities"⁵⁹⁴ GSW states, thus, "LSEs that are subject to the CPUC's jurisdiction will be subject to the Resource Adequacy procurement requirements established by the CPUC."⁵⁹⁵ GSW also asserts that the Commission's September 2006 Order has the same effect.⁵⁹⁶

568. GSW states that the Commission should require the CAISO to monitor the CPUC proceedings on RA requirements and, after consultations with affected parties, propose such future tariff amendments that it believes appropriate to implement the CPUC's RA requirements under the MRTU Tariff. It notes that the CAISO has stated that no amendments of the proposed MRTU Tariff are necessary "[a]t this time." It asserts that neither the CAISO nor the Commission can rule out the need for tariff amendments after

⁵⁹³ Arizona/Southwest Coops further note that the Rural Utilities Services has oversight over Anza, Arizona Electric Power Cooperative, Inc., and Southwest Transmission Cooperative, Inc. through financing arrangements and federal regulations.

⁵⁹⁴ GSW cites CAISO Feb. 9, 2006 Transmittal Letter, Attachment J, Rothleder Testimony, at 29.

⁵⁹⁵ *Id.* at 32.

⁵⁹⁶ GSW cites the September 2006 Order, 116 FERC ¶ 61,274 at P 1117, 1118.

the CPUC has adopted RA requirements for GSW and other CPUC-jurisdictional LSEs not covered by the CPUC's existing RA requirements.

569. GSW asserts that the September 2006 Order's failure to so condition its approval of the MRTU Tariff is unduly discriminatory and preferential,⁵⁹⁷ arbitrary and capricious.⁵⁹⁸ It contends that, without that condition, the September 2006 Order allows the MRTU Tariff to ignore or even to contravene the RA requirements the CPUC may adopt for GSW and other CPUC-jurisdictional LSEs and contradicts the September 2006 Order's deference to the CPUC's jurisdiction over RA requirements.

Commission Determination

570. We recognize the need for a non-CPUC LSE such as Anza to have a clearly defined Local Regulatory Authority. Within the RA program under MRTU, the Local Regulatory Authority must work with the CAISO to establish, among other requirements, a planning reserve margin, local capacity area resource requirements and rules specifying qualifying capacity eligibility for RA resources. Therefore, we direct the CAISO to work with Arizona/Southwest Coops and Anza to determine who should serve as Anza's Local Regulatory Authority. If appropriate, we direct the CAISO to consider an amended definition of Local Regulatory Authority to allow an entity such as Anza to act as its own Local Regulatory Authority. If modifications to the definition of Local Regulatory Authority are needed, we further direct the CAISO to file the proposed revisions to its MRTU Tariff with the Commission in conjunction with the compliance filings it will make on or before August 3, 2007.

571. We agree with GSW that the September 2006 Order mischaracterized its protest and therefore we grant GWS's request for clarification. Instead of requesting an exemption from the MRTU RA requirements, GSW stated, in its April 10, 2006 motion to intervene and protest, that "[b]ecause the MRTU Tariff should not impose resource adequacy requirements on CPUC-regulated utilities beyond those adopted by the CPUC itself, the Commission should provide GSW and the CAISO with the flexibility to address GSW's circumstances once the CPUC has acted."⁵⁹⁹ Accordingly, we grant GSW's request for clarification on this issue.

⁵⁹⁷ GSW cites 16 U.S.C. § 824d(b).

⁵⁹⁸ It further cites 5 U.S.C. § 706(2)(A) (2000); *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43-43 (1983); *Edison Mission Energy, Inc. v. FERC*, 394 F.3d 964, 969 (D.C. Cir. 2005).

⁵⁹⁹ GSW Apr. 10, 2006 Motion to Intervene and Protest, Docket No. ER06-615-000, at 10.

572. With respect to GSW's request that the Commission require the CAISO to amend the MRTU Tariff if necessary to reflect the final outcome of the pending CPUC rulemaking proceedings on RA requirements for other LSEs under CPUC jurisdiction, we deny GSW's request for rehearing. We believe that the Commission already addressed concerns regarding future modifications to the MRTU Tariff when the September 2006 Order directed the CAISO to amend section 40.2 to defer to reserve margins set by the CPUC or other Local Regulatory Authorities.⁶⁰⁰ As noted above, the Commission seeks to defer to local and state entities in setting resource adequacy requirements to the greatest extent possible. Therefore, if the CPUC sets a different reserve margin, then the MRTU Tariff already defers to any planning reserve margin set by CPUC or another Local Regulatory Authority. We further clarify that, until such time that the CPUC sets a planning reserve margin for GSW or other similarly situated LSE, the 15 percent default planning reserve margin applies to GSW.⁶⁰¹

3. Criteria Used to Determine Local Capacity Area Resource Requirements

573. The September 2006 Order found that the CAISO is not using overly conservative reliability criteria to determine local capacity area resource requirements, but directed the CAISO to clarify which set of reliability criteria it will use in a compliance filing.⁶⁰²

574. Bay Area Municipals and Modesto argue that the Commission's decision to accept the CAISO's criteria is unsupported and deficient. They assert that the record does not reflect any contractual obligations to apply N-1-1 or N-2 criteria,⁶⁰³ nor are such obligations apparent from any of the CAISO's agreements. Bay Area Municipals and

⁶⁰⁰ September 2006 Order, 116 FERC ¶ 61,274 at P 1153.

⁶⁰¹ *Id.* P 1154 (finding that "the application of a 15 percent reserve margin, as a default for LSEs whose Local Regulatory Authority has not implemented a reserve margin, is appropriate unless or until WECC sets a different standard, as required by state law").

⁶⁰² *Id.* P 1169. The CAISO will identify through an annual study the minimum quantity of local capacity area resources required in transmission-constrained areas (local capacity areas) to meet reliability criteria. Local capacity area resource requirements are separate from a LSE's system RA requirements that each Local Regulatory Authority establishes through a planning reserve margin.

⁶⁰³ N-1 reliability criteria require adequate local generation to survive a single contingency, and N-1-1 reliability criteria require adequate resource adjustments to prepare for the next contingency after the occurrence of the first contingency. Similarly, N-2 reliability criteria require adequate local generation to survive a double contingency.

Modesto add that the CAISO's criteria are incommensurate with the WECC and NERC processes which the Commission is implementing through rulemakings and that such criteria are more appropriately identified by the applicable reliability organizations.

575. Six Cities maintain that the CAISO has not demonstrated that the N-1-1 methodology is the relevant standard for determining local capacity area resource requirements. Six Cities contend that NERC standards should instead serve as the criteria, because NERC has established N-1 as the operating standard for reliability criteria in the United States. Six Cities assert that N-1-1 is an overly-stringent standard that will increase the costs of compliance and increase the costs paid by ratepayers in the CAISO Control Area. NCPA argues that because the September 2006 Order asserts jurisdiction to impose local capacity area standards, the Commission is obligated to assume the role of reviewing and approving the CAISO's proposed local capacity area resource requirements, including the criteria and assumptions used. NCPA emphasizes that this is especially true if the standards differ from WECC requirements.

Commission Determination

576. On rehearing we agree with parties that the record before us is insufficient to address the reliability criteria that the CAISO will use to determine local capacity area resource requirements. In the September 2006 Order, the Commission directed the CAISO to clarify in a compliance filing the set of reliability criteria used to determine local capacity area resource requirements and to incorporate these criteria into the MRTU Tariff.⁶⁰⁴ Therefore, we deny requests for rehearing of this issue, without prejudice to parties raising their concerns in the CAISO's compliance filing when a more complete record can be presented.⁶⁰⁵

4. Local Capacity Area Resource Requirements for MSSs

577. The September 2006 Order found that MSSs must comply with local capacity area resource requirements, because it would be unfair to allow MSSs to rely on remote resources while other LSEs must procure local capacity to meet reliability requirements.⁶⁰⁶

⁶⁰⁴ *Id.* P 1167.

⁶⁰⁵ As explained below, we note that the CAISO intends to submit this compliance filing by August 3, 2007.

⁶⁰⁶ September 2006 Order, 116 FERC ¶ 61,274 at P 1168.

578. On rehearing, Santa Clara argues that the Commission's reasoning is flawed, fails to reflect existing resource adequacy requirements and fails to address the double-charge imposed on MSS entities. Santa Clara states that it explained in its protest that load-following MSS entities either match load and resources or pay severe penalties. If Santa Clara over-supplies outside of the MSS agreement's three percent deviation band, Santa Clara is penalized by an amount of 100 percent of the amount of imbalance energy that is outside of the band. If Santa Clara under-supplies in an amount outside of the three percent band, Santa Clara pays a 200 percent penalty for the amount of imbalance energy that is outside of the band, in addition to the cost of the imbalance energy itself.

579. Santa Clara asserts that if a load-following MSS makes a local regulatory decision to choose non-local resources to meet its load, it assumes the risk that the non-local resource will be deliverable to its load. If it is not deliverable, a severe penalty is imposed by the terms of the load-following MSS agreement. Santa Clara argues that the Commission's assumption that the non-local resources are "cheaper" fails to recognize the potential costs associated with the non-local resources, and the corresponding existing incentive for load-following entities to procure local resources under the existing MSS construct. It adds that the Commission's decision is inconsistent with its policy of preventing double charges.⁶⁰⁷

Commission Determination

580. We deny Santa Clara's request for rehearing on this issue. Local capacity area resources are needed within load pockets in order to ensure reliability of the CAISO-controlled grid, because transmission capability available to import energy to meet load in the load pocket is limited. A local capacity area resource requirement is calculated as the amount of capacity that cannot be met with capacity outside the load pocket due to transmission limitations. Grid reliability benefits all participants and no LSE should be excluded from the responsibility to procure these local capacity area resources. Accordingly, all LSEs will be responsible for their allocated amount of local capacity area resource requirements in order to maintain the reliability of the CAISO-controlled grid.

581. We find that Santa Clara's general obligation to serve its own load does not result in a reduction in local capacity requirements to meet grid reliability. The development of local capacity area resource requirements is part of the resource adequacy planning process that is separate and distinct from real-time energy balancing issues or penalties.

⁶⁰⁷ Santa Clara cites *Utah Associated Mun. Power Sys. v. PacifiCorp*, 81 FERC ¶ 61,337, at 62,367 (1998), *reh'g denied*, 87 FERC ¶ 61,044 (1999) (holding that it is improper to charge a transmission customer an additional charge for services already paid for under a contract).

Therefore, local capacity area resource requirements for Santa Clara or any other MSS do not result in a double charge. In addition, we note that MSS penalties for operating outside the three percent deviation band are similar to the penalties that modified reserve sharing LSEs face for failing to meet their scheduling obligation. Both load-following MSSs and modified reserve sharing LSEs face these operating penalties in addition to sharing a burden of the grid's local capacity area resource requirements.

5. Cost Allocation of Local Capacity Backstop Procurement

582. In the September 2006 Order, the Commission rejected arguments that backstop procurement of local capacity area resources by the CAISO should be allocated in the same manner as RMR costs and also rejected arguments that these costs should not be allocated to exports and wheel-throughs.⁶⁰⁸

583. Bay Area Municipals and Santa Clara assert that the Commission's rationale for rejecting the allocation of backstop procurement in the same method as RMR costs cannot be reconciled with: (1) the Commission's determination in the September 2006 Order that LAP pricing, rather than full nodal pricing, should be used to avoid increased pricing for load in certain areas; and (2) the Commission's general policy on cost causation.⁶⁰⁹

584. Bay Area Municipals and Santa Clara assert that in approving the CAISO's proposed LAP pricing, the Commission acknowledged the CAISO's rationale for LAP:

[C]onsumers in congested, high-priced areas should not be punished based on infrastructure investment decisions made under the prior regulatory regime. While it is appropriate for suppliers to be paid prices that reflect the cost of providing energy at each point on the grid, the CAISO argues that consumers in congested, high price areas should receive some protection by paying an aggregated or average price for energy regardless of their location on the grid.⁶¹⁰

585. Bay Area Municipals and Santa Clara assert that the Commission should have used this same rationale in determining the appropriateness of allocating the CAISO's backstop procurement costs in the same manner as RMR costs. They maintain that, as is the case with LAP, RMR allocation recognizes that costs should be allocated to the PTOs

⁶⁰⁸ September 2006 Order, 116 FERC ¶ 61,274 at P 1193, 1197.

⁶⁰⁹ *Citing United Gas Pipe Line Co.*, 42 FERC ¶ 61,197, at 61,681 (1988).

⁶¹⁰ September 2006 Order, 116 FERC ¶ 61,274 at P 595.

which control grid expansion, and whose historical decisions resulted in existing grid deficiencies.

586. With regard to cost causation, Bay Area Municipals and Santa Clara argue that RMR contracts and the CAISO's backstop procurement of local capacity area resources are intended to correct a transmission deficiency and that incentives for the PTOs to correct that transmission deficiency are needed in both cases. Thus, they state that the cost of backstop procurement of local capacity area resources are properly allocated in the same manner as RMR costs: to the PTOs who are responsible for grid expansion and the current grid deficiencies.⁶¹¹

587. According to Bay Area Municipals, the CAISO appears to be phasing out RMR contracts in favor of local resource adequacy contracts, which will shift the cost and responsibility from the PTOs to LSEs. Bay Area Municipals assert that the CAISO reduced the level of RMR contracts in northern California from 6,767 MW to 2,034 MW for 2007⁶¹² by replacing RMR contracts with local resource adequacy contracts, not by remedying transmission constraints.

588. Bay Area Municipals further urge the Commission to reevaluate the CAISO's proposal to dictate local area needs for resource adequacy purposes for the following reasons: (1) the Local Area Reliability Service (LARS) process⁶¹³ and RMR contracts provide an established mechanism for meeting the local reliability needs of the grid with the appropriate allocation of costs to the PTOs; (2) there are, already in place, resource adequacy requirements for LSEs to meet their load and planning reserves; and (3) LSEs and their Local Regulatory Authorities should continue to have the authority to manage their own supply portfolios according to their own risk management policies. Bay Area Municipals conclude that grid reliability cannot fairly, effectively or efficiently be made the responsibility of every individual LSE.

⁶¹¹ *Citing* CAISO Reply Comments at 221-22 ("RMR costs to meet [Local Area Reliability Services] needs are appropriately allocated to the PTOs, as these costs are caused by transmission constraints that the PTO can remedy").

⁶¹² *Citing* CAISO Oct. 12, 2006 Staff Memorandum to CAISO Board of Governors on RMR Designations for 2007, and CAISO Oct. 18, 2006 Presentation to the Board of Governors.

⁶¹³ The LARS process identifies, on an annual basis, geographical areas with local reliability issues in the CAISO Control Area along with measures to remediate those issues. RMR contracts are then a means of ensuring power availability within these identified areas.

589. With regard to exports and wheel-throughs, Modesto asserts that the Commission's finding that all transmission customers benefit from the reliable operation of the grid and thus should be allocated a share of the costs of backstop procurement stretches too far from the principle that cost causation principles must be followed.⁶¹⁴ Modesto submits that it could be argued that every single aspect of the CAISO-controlled grid benefits everyone as far and wide as the Western Interconnection. Modesto adds that the Commission did not address its original protest that the CAISO is responsible under WECC standards to ensure reliability in its own control area and that entities outside of the CAISO Control Area do not have this obligation. Modesto claims that LSEs located outside of the CAISO Control Area pay costs for grid reliability twice: once to their own control area operator and once to the CAISO.

Commission Determination

590. In its motion for extension of time, the CAISO indicates that it is currently engaged in stakeholder discussions to develop "a more comprehensive approach to local reliability and backstop procurement provisions," which the CAISO states, "will lead to changes to the CAISO's overall backstop procurement and cost allocation approach currently included in the MRTU Tariff."⁶¹⁵ In response, the Commission granted the CAISO's request to submit a compliance filing with a revised proposal by August 3, 2007.⁶¹⁶ We believe that the comprehensive approach envisioned by the CAISO may have merit. Accordingly, we deny rehearing on this issue, without prejudice to parties raising it in the future when the CAISO makes its compliance filing.

6. Determination of Net Qualifying Capacity

591. In the September 2006 Order, the Commission found that the CAISO is best positioned to make uniform and non-discriminatory determinations of net qualifying capacity.⁶¹⁷

592. San Francisco argues that no statutory provision exists that authorizes the CAISO to, in effect, derate a resource included by a Local Regulatory Authority in a resource plan approved for a non-jurisdictional entity. San Francisco submits that contractual agreements are the appropriate method through which the CAISO may seek

⁶¹⁴ Citing, *e.g.*, *Ala. Elec. Coop., Inc. v. FERC*, 684 F.2d 20, 27 (D.C. Cir. 1982).

⁶¹⁵ CAISO Jan. 11, 2007 Motion for Extension of Time at 9-10.

⁶¹⁶ Notice of Extension of Time, Docket No. ER06-615-000 (Jan. 19, 2007).

⁶¹⁷ September 2006 Order, 116 FERC ¶ 61,274 at P 1213.

modifications or alterations of an adopted resource plan adopted by a Local Regulatory Authority.

Commission Determination

593. We find that the CAISO's role in determining net qualifying capacity is consistent with our balanced jurisdictional approach to resource adequacy under MRTU. While deferring to the appropriate Local Regulatory Authority with respect to designating eligible resources and determining qualifying capacity, the CAISO must have the ability to make adjustments to qualifying capacity based on testing, performance and deliverability. Without these adjustments, the CAISO will not be able to accurately assess whether the resources identified under LSEs' RA programs are sufficient to maintain grid reliability. We reiterate that disputes with regard to net qualifying capacity can be resolved through the CAISO's stakeholder and alternative dispute resolution processes.⁶¹⁸ Accordingly, we deny San Francisco's request for rehearing.

7. Allocation of Import Capacity

594. In the September 2006 Order, the Commission granted the CAISO's request to hold a technical conference to discuss an equitable methodology for allocating resource adequacy import capacity. The Commission, however, did find that the allocation of import capacity for resource adequacy purposes does not degrade the benefits of existing FTRs that are held by the new PTOs.⁶¹⁹

595. Several parties⁶²⁰ request clarification that any allocation of import capacity resulting from the technical conference must fully protect existing contract rights, and cannot be used to avoid the CAISO's commitment to honor those rights.⁶²¹

⁶¹⁸ Further, we note that, under MRTU Tariff Section 13.4, parties may appeal to the Commission an arbitration decision.

⁶¹⁹ September 2006 Order, 116 FERC ¶ 61,274 at P 1226-27.

⁶²⁰ Bay Area Municipals, Lassen, Cities/MSR, Modesto and Vernon.

⁶²¹ *Citing Cal. Indep. Sys. Operator Corp.*, 111 FERC ¶ 61,337, at P 31 (2005) and *Cal. Indep. Sys. Operator Corp.*, 110 FERC ¶ 61,113, at P 34 (2005).

596. Six Cities⁶²² claim that the Commission did not address concerns from their original protest⁶²³ and instead relied upon findings in the Interim Reliability Requirements Program (IRRP) Order,⁶²⁴ in which the Commission assured participants that its determinations made in the context of that proceeding would not be considered binding precedent for purposes of the MRTU Tariff proceeding.⁶²⁵ Six Cities submit that summarily rejecting concerns related to the impairment of FTRs inappropriately prejudices the outcome of any discussions during the technical conference on RA import capacity allocation. They claim that the Commission expressly approved the allocation of FTRs to new PTOs until the end of 2010⁶²⁶ and that the Commission may not authorize the expropriation of the capacity value of the new PTOs' FTR rights, absent a rational explanation that justifies the Commission's departure from its prior findings regarding FTRs.⁶²⁷

597. Six Cities also assert that there is no merit to the Commission's rationale that allocating RA import capacity based on FTRs would reduce the availability of imports to the CAISO Control Area by others with existing resource commitments. Six Cities argue that RA import capacity allocated based on FTR rights should have a corresponding resource commitment and that any import capacity covered by the FTRs for which the FTR rights holder does not make a corresponding resource commitment should be subject to allocation to all LSEs.

⁶²² Vernon states that it also requests rehearing on this issue for the same reasons set forth by Six Cities.

⁶²³ In their original protest, Six Cities argued that new PTOs do not have ETCs, as a result of the conversion of their ETCs to FTRs when they transferred operational control of their transmission facilities to the CAISO. They argued that if new PTOs cannot use FTR rights to procure capacity resources that will count toward their RA requirements, the capacity value of their FTR rights clearly has been eliminated.

⁶²⁴ *Cal. Indep. Sys. Operator Corp.*, 115 FERC ¶ 61,172, at P 146 (2006) (IRRP Order)

⁶²⁵ *Citing* IRRP Order, 115 FERC ¶ 61,172 at P 146.

⁶²⁶ *Citing Cal. Indep. Sys. Operator Corp.*, 91 FERC ¶ 61,205, at 61,726 (2000), *order on reh'g*, 104 FERC ¶ 61,062, at P 29 (2003); *see also Cal. Indep. Sys. Operator Corp.*, 102 FERC ¶ 61,058 (2003), *order on reh'g*, 107 FERC ¶ 61,150 (2004).

⁶²⁷ *Citing Mich. Pub. Power Agency v. FERC*, 405 F.3d 8, 12 (D.C. Cir. 2005) (citing *Greater Boston Television Corp. v. FCC*, 444 F.2d 841, 852 (D.C. Cir. 1970); *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 41-42 (1983)); *Williams Gas Processing v. FERC*, 373 F.3d 1335, 1341 (D.C. Cir. 2004)).

Commission Determination

598. We deny all requests for rehearing or clarification regarding the CAISO's allocation of import capacity, without prejudice to parties raising this issue at a later time. We note that Commission staff convened a technical conference on February 1, 2007 to assist parties and the CAISO to explore and discuss the CAISO's proposed methodology for allocating transmission import capacity in conjunction with resource adequacy requirements in the MRTU Tariff. Subsequently the CAISO announced in a February 7, 2007 market notice,⁶²⁸ its intent to prepare a FPA section 205⁶²⁹ tariff filing setting forth a revised methodology. The CAISO filed its revised proposal on March 22, 2007, in Docket No. ER07-648-000. The Commission intends to address these issues in that docket.

8. Local Capacity Credit for ETCs

599. In the September 2006 Order, the Commission disagreed with San Francisco that ETC holders should be given full local capacity credit for their ETCs. The Commission found that it would be unfair to allow ETC holders to rely on remote resources while other LSEs must procure local capacity to meet reliability requirements.⁶³⁰

600. San Francisco, the State Water Project and Arizona/Southwest Coops argue on rehearing that the Commission erred in failing to recognize firm ETC rights to meet local capacity area resource requirements. Arizona/Southwest Coops ask that the Commission clarify that the full 10 MW of an ETC may be utilized to satisfy any RA requirements that may be imposed on member LSE, Anza. San Francisco contends that there is no provision of the FPA that confers statutory authority upon the Commission to reduce pre-existing contract rights based on the availability of comparably-priced local capacity resources to other LSEs. San Francisco submits that the September 2006 Order finding would unjustly and unreasonably deny San Francisco the benefit of its ETC, including the FTRs supporting deliverability of San Francisco's own resources, and the scheduling and delivery priority required for ETCs under MRTU in all other circumstances. San Francisco also argues that this error would also thwart the intentions of Congress that San Francisco develop and maintain stewardship of its hydroelectric generation resources for

⁶²⁸ *California ISO Market Notice: Resource Adequacy Import Allocation Revision Process* (Feb. 7, 2007), <http://www.caiso.com/1b7e/1b7ebe5238962.html>.

⁶²⁹ 16 U.S.C. § 824d.

⁶³⁰ September 2006 Order, 116 FERC ¶ 61,274 at P 1168.

benefit of the public in San Francisco and require San Francisco to procure duplicative resources in excess of those needed to meet reasonable reliability standards.⁶³¹

Commission Determination

601. We deny rehearing on this issue. As discussed earlier in this order, local capacity area resources are needed within load pockets to maintain grid reliability because transmission capability available to import energy to meet load in the load pocket is limited. As noted in the September 2006 Order, the CAISO, in its annual technical study, will take into account a system's capability to reliably import power to serve local demand from remote generation in determining local capacity area resource requirements. Each LSE, through its respective Local Regulatory Authority, will have the opportunity to provide input in establishing the parameters, assumptions and other criteria to be used in the technical study.⁶³² Accordingly, we find that it is not reasonable to allow an LSE to use the transmission capacity underlying its ETC rights to meet any of its local requirements with generation capacity imported from outside the load pocket.

602. Further, we do not find merit in San Francisco's claim that preventing the use of ETCs to credit local capacity requirements somehow reduces its contract rights. RA determinations by the CAISO are accounting exercises that do not alter any existing contract rights or obligations. The determinations establish capacity requirements for the LSE or the ISO to acquire. We note that San Francisco retains the full rights of its ETC to transmit power from outside resources to meet its resource plans and use economic resources to optimize its portfolio. San Francisco also fails to explain how the Commission's determination hinders San Francisco's responsibility to develop and maintain stewardship of its hydroelectric generation resources. Accordingly, we deny San Francisco's rehearing request.

⁶³¹ San Francisco explains that it owns and operates non-jurisdictional hydroelectric and related transmission facilities pursuant to the Raker Act, 38 Stat. 242 (1913), and is a transmission customer of PG&E pursuant to an ETC on file with the Commission. The ETC provides for delivery of 200 MW of energy from the hydroelectric generation resources to load in San Francisco through FTRs and includes additional capacity and reserve obligations.

⁶³² The technical study will include some or all of the following analysis: transmission import capability, thermal limits, voltage limits, transient/dynamic limits, loss of load probability, remote generation frequency response, new transmission upgrades, interruptible load contracts, and demand side management initiatives.

9. Availability Requirements for Local Capacity Area Resources

603. Six Cities claim that the September 2006 Order failed to address their concerns that the local capacity area resources of a modified reserve sharing LSE are subject to a mandatory must-offer requirement that unreasonably eliminates the LSEs' ability to manage resources internally and could exacerbate resource deficiencies. Six Cities assert that MRTU Tariff section 40.5.2 imposes day-ahead scheduling and bidding requirements on all local capacity area resources capable of operating and makes any resources not fully self-scheduled subject to the CAISO's optimization processes for the remainder of their capacity.

604. Six Cities contend that if a modified reserve sharing LSE's local capacity area resources are actually needed by the CAISO to satisfy local requirements, then there should be a mechanism for the CAISO to identify those needs so that modified reserve sharing LSEs can include the necessary resources in self-schedules. Six Cities submit that the CAISO already has similar processes such as Operating Procedure M-438 and provisions of MSS agreements that set forth circumstances under which resources will be provided to the CAISO in specific operating conditions. They argue that a narrowly-tailored availability procedure can provide the CAISO with the reliability support that it needs when it is actually needed, while at the same time minimizing unnecessary intrusion in LSEs' resource management practices.

605. In addition, Six Cities argue that an inflexible, mandatory must-offer requirement for local capacity area resources will exacerbate resource deficiencies in the CAISO Control Area. They claim that generators may sell all their energy out-of-state, even if the energy is designated as a RA resource for capacity purposes. If sold early in the season, these resources will not be available for purchase or self-scheduling by LSEs located within the CAISO Control Area during the summer peaks. Six Cities submits that it is critical that LSEs have the ability to manage their resources in such a way as to ensure that energy is available to meet the peak requirements of LSEs within California.

Commission Determination

606. In summary, we find that Six Cities has not justified an exception to the availability requirements for local capacity area resources.

607. As an initial matter, we believe that the new market structure under MRTU, with the termination of the balanced schedule requirement and the use of bid-based optimization, will allow Six Cities to serve load at least cost.⁶³³ Furthermore, we are not

⁶³³ As noted by the CAISO, if LSEs bid generation sufficient to meet their demand, they will be protected from the imbalance penalties that would be assessed for under-scheduling. If, however, an LSE's demand can be served at lower cost to the LSE

convinced that Six Cities cannot manage their resources internally, given the existing flexibility that modified reserve sharing LSEs have in managing their resources. To the extent a local capacity area resource is a use-limited resource, the use-limited constraints on availability will apply. Six Cities can also choose which resource to designate to meet its local capacity requirements and can manage to some degree how the local resources are dispatched through scheduling or bidding. If their local capacity area resources do not clear in the day-ahead market or are not committed in RUC, Six Cities have no further offer requirements for these resources. Finally, Six Cities are not required to replace any local capacity area resources that are unavailable in the day-ahead market due to outages or reductions in capacity.

608. We are also unconvinced by Six Cities' argument that availability requirements for local capacity area resources could exacerbate resource deficiencies in the CAISO Control Area. When scheduled as exports, local capacity area resources provide counter flows that satisfy a local capacity area's needs. These exports will also allow for additional transmission capacity over the interties so that additional imports can be scheduled.

609. We further find that the examples that Six Cities provide do not appear to support their argument. The CAISO implemented Operating Procedure M-438 to assist CPUC jurisdictional LSEs in meeting the objectives of a 2004 CPUC decision on electric system reliability. Importantly, the CPUC noted that its decision would serve as a "bridge" until the implementation of market design changes and resource adequacy.⁶³⁴ Thus, upon MRTU implementation, there should be no need for Operating Procedure M-438. Furthermore, Six Cities is not similarly situated to a MSS, which has agreed to a series of rights and obligations with the CAISO that allows the MSS to follow its own load. The MSS agreement therefore establishes strict conditions that allow for a different set of availability requirements than for a modified reserve sharing LSE.

610. While we deny Six Cities' request for rehearing, we believe that this issue can be reexamined once the CAISO has gained additional experience with MRTU and local capacity area resources. Responsibility for procurement of local capacity area resources is allocated on a load ratio basis, so any operational solution for resource management flexibility should be developed with all LSEs in mind. We therefore urge the CAISO to work with LSEs to propose possible modifications to the availability requirements for

from other generation, it is benefited by the CAISO's optimization. *See* CAISO June 2, 2006 Answer to Reply Comments, Docket No. ER06-615-000, at 32.

⁶³⁴ *See Interim Opinion Regarding Elec. Reliability Issues*, CPUC D. 04-07-028, at 6 (July 8, 2004).

local capacity area resources once the CAISO has gained experience with MRTU and local capacity area resources.

10. Availability Requirements for Exports

611. In the September 2006 Order, the Commission rejected concerns regarding MRTU Tariff section 40.6.11, which provides the CAISO with sole discretion to curtail RA resources that serve exports to prevent or alleviate a system emergency.⁶³⁵

612. Turlock/Burbank argue that section 40.6.11 allows the CAISO to curtail exports even if the export is served by unencumbered capacity that is incremental to the capacity dedicated to RA service. Turlock/Burbank provide an example in which a generator located within the CAISO Control Area has two entities purchasing its output. Purchaser A, located inside the CAISO Control Area, designates its entitlement to meet RA requirements while Purchaser B is located outside the CAISO Control Area and simply schedules its entitlement as an export to serve native load. Turlock/Burbank submit that under section 40.6.11 the CAISO is authorized to curtail Purchaser B in order to serve internal CAISO demand because the generator has been designated as a RA resource.

613. Turlock/Burbank argue that, contrary to the September 2006 Order's findings, this result does not occur today. They also argue that the Commission is incorrect that capacity payments to RA resources justify the CAISO's curtailment authority. They state that, in the example above, Purchaser A's schedule receives priority over Purchaser B's export schedule solely because Purchaser A keeps the capacity within the CAISO Control Area, despite the cost each purchaser paid. Burbank/Turlock suggest that the unduly discriminatory nature of section 40.6.11 can be remedied by substituting the term "Resource Adequacy Capacity" for the term "Resource Adequacy Resource."

614. Imperial requests clarification, or in the alternative rehearing, that if it co-owns a RA resource or enters into a firm contract with a RA resource generator, generation designated to serve Imperial will not be cut under the CAISO's RA program as capacity in the situation that Imperial describes will be excluded from the CAISO's definition of RA capacity. In addition to Burbank/Turlock's requested substitution in section 40.6.11, Imperial therefore requests that sections 40.6.6⁶³⁶ and 40.6.11 be amended to specify that

⁶³⁵ September 2006 Order, 116 FERC ¶ 61,274 at P 1285.

⁶³⁶ Section 40.6.6 addresses partial RA resources and states that "only that output of the resource that is designated by a Scheduling Coordinator as Resource Adequacy Capacity...shall have an availability obligation to the CAISO."

the RA requirement does not apply to generation designated to serve bilateral contracts⁶³⁷ or “committed for minimum operating reserves.”⁶³⁸

615. Imperial claims that section 40.6.11 should be amended to make clear that firm exports will continue to preserve their scheduling priority above interruptible, non-firm transmission, consistent with NERC and WECC guidelines. Imperial also seeks clarification that the CAISO will act consistently with NERC and WECC procedures in terms of the percentage levels required for operating reserves to declare an emergency and cut load. Imperial argues that without such clarification, the MRTU Tariff has the effect of diminishing the rights of external LSEs and the Commission will have failed to ensure that the CAISO's new terms and conditions are just, reasonable and not unduly discriminatory or preferential.

616. Finally, Imperial argues that it is not clear in several areas of the MRTU Tariff how generation capacity will be designated if there is a de-rate in a generator that has only part of its capacity contracted as RA capacity. Imperial therefore seeks clarification, or in the alternative rehearing, that, “given the equality of load serving entities,”⁶³⁹ RA capacity and non-RA capacity from a partial RA resource should be reduced pro rata.

Commission Determination

617. We grant in part rehearing on this issue. We agree with Burbank/Turlock and Imperial that the CAISO should not have curtailment authority over the entire capacity of an RA resource that offers capacity not under contract for resource adequacy. The capacity payment that an RA resource receives, and which justifies the authority to curtail exports from the RA resource, applies only to the capacity under contract and not to the RA resource as a whole. Accordingly, we direct the CAISO to file amended tariff sheets, in conjunction with the compliance filings it will make on or before August 3, 2007, to strike the word, “resource,” from section 40.6.11 so that the section instead provides that the CAISO may curtail exports from RA *capacity* to prevent or alleviate a system emergency.

⁶³⁷ *Citing San Diego Gas & Electric Co.*, 95 FERC ¶ 61,115, at 61,355 (2001), *order on reh'g*, 95 FERC ¶ 61,418 (2001), *order on reh'g*, 97 ¶ FERC 61,275 (2001), *order on reh'g*, 99 FERC ¶ 61,160 (2002), *petition pending sub nom. Pub. Util. Comm'n of the State of Cal. v. FERC*, 9th Cir. Nos. 01-71051, *et al.*

⁶³⁸ *Citing San Diego Gas & Elec. Co.*, 95 FERC ¶ 61,418 at 62,549.

⁶³⁹ Imperial Request for Rehearing at 17-18.

618. We agree with Imperial that generation capacity under bilateral contract or committed for minimum operating reserves should not be offered as RA capacity, because this capacity cannot meet the availability requirements under resource adequacy. However, we find that this issue is more appropriately addressed through verification of supply plans that Scheduling Coordinators representing RA resources are required to submit under section 40.4.7. Accordingly, we direct the CAISO to file amended tariff sheets, in conjunction with the compliance filings it will make on or before August 3, 2007, providing that Scheduling Coordinators representing RA capacity must show that their generation capacity is not already under bilateral contract or committed for minimum operating reserves.

619. With respect to Imperial's request that firm exports preserve their scheduling priority over interruptible, non-firm transmission in section 40.6.11, we find that no clarification is necessary. To the extent that Imperial argues that exports of energy provided by RA capacity are firm, we disagree. Such exports are non-firm opportunity sales that should be subject to curtailment to prevent or alleviate a system emergency, as is consistent with NERC and WECC guidelines. Curtailment in this situation is appropriate because the resource providing exports has already received a capacity payment in return for making itself available when needed by the CAISO. Alternatively, if Imperial argues that exports of energy from non-RA capacity should preserve their scheduling priority over non-firm transmission, we find that our direction above to modify section 40.6.11 is consistent with this position, and no further action is necessary.

620. We also deny Imperial's request that the CAISO clarify when it would curtail during a system emergency. We see no reason for Imperial's suggested modification, given that the definition of system emergency has not been modified in the MRTU Tariff and that section 7.2.2.3 provides that the CAISO shall exercise operational control over the CAISO controlled grid in compliance with all applicable reliability criteria, including the standards established by NERC and WECC.

621. Finally, regarding a generator de-rate, we find that Imperial's suggestion to implement a pro rata reduction in capacity is fair and appropriate. We therefore direct the CAISO to work with Imperial to incorporate necessary changes to the MRTU Tariff and submit these changes no later than 180 days prior to the effective date of MRTU Release 1.

11. Availability Requirements for Use-Limited Resources

622. PG&E argues that the Commission should clarify or, in the alternative, eliminate the availability requirements for hydroelectric resources. PG&E asserts that hydroelectric resources have complex and highly dynamic water management, safety, environmental, recreational and consumptive requirements, as the Commission understood when it declined to submit hydroelectric resources to must-offer requirements

at the height of California's energy crisis.⁶⁴⁰ According to PG&E, the MRTU Tariff requires Scheduling Coordinators to submit annual and monthly use plans which may, or may not, allow the CAISO to accommodate the inherent characteristics of hydroelectric resources, because these resources are subject to evolving hydrological and meteorological conditions after the plans are filed. PG&E argues that the CAISO should clarify how it will evaluate and enforce compliance with these tariff provisions, and explain to what extent the CAISO will allow subsequent updates to the use plans after the monthly updates.

623. Six Cities request rehearing of the Commission's rejection of the reimbursement of opportunity costs for Scheduling Coordinators that adjust their use plans to accommodate reliability needs. Six Cities assert that shifts in energy production are not "elected" by Scheduling Coordinators if the Scheduling Coordinators are undertaking those shifts in response to CAISO requirements. Six Cities conclude that Scheduling Coordinators should be compensated for reasonable opportunity costs associated with making adjustments to plans to accommodate the CAISO's reliability needs.

624. Six Cities also claim that the September 2006 Order did not address their concerns that the availability requirement for use-limited resources will diminish the ability of LSEs to optimize the use of these resources and could result in the unavailability of these resources during system peaks. Six Cities request that the Commission require modification of the must-offer requirement to avert the possibility that the must-offer requirement could result in reduced resources for the CAISO Control Area during summer periods.

625. San Francisco argues that the Commission's acknowledgment that the CAISO's role in determining RA requirements is similar to its current role in assessing RMR requirements⁶⁴¹ is equally applicable to qualification and availability requirements for use-limited resources of non-jurisdictional entities. San Francisco concludes that if the CAISO needs non-jurisdictional, use-limited resources to dispatch in real-time, it should, as is the case with RMR, craft agreements that appropriately balance the CAISO's reliability needs with the non-jurisdictional resource's operational and statutory restrictions, and appropriately compensate the entity providing dispatch to the CAISO.

Commission Determination

626. We continue to believe that use-limited resources that are designated as RA resources must be subject to a set of availability requirements; otherwise, the goal of

⁶⁴⁰ *Citing San Diego Gas & Elec. Co.*, 95 FERC ¶ 62,551, at 62,551 (2001).

⁶⁴¹ *Citing September 2006 Order*, 116 FERC ¶ 61,274 at P 1119.

maintaining grid reliability through resource adequacy could be compromised. Given the evolving conditions and competing demands that these resources face, we understand PG&E's concerns that modifying the expected availability of use-limited resources through submission of monthly plans may not allow PG&E sufficient flexibility to manage its hydroelectric resources. However, we note that PG&E's concerns are hypothetical at this point. To the extent that these concerns are realized, we expect the CAISO to work with parties to develop a process by which PG&E or any other Scheduling Coordinator using hydroelectric resources may modify its monthly use plan without having a significant impact on grid reliability.

627. We reiterate that no opportunity costs are warranted for Scheduling Coordinators who adjust their use plans voluntarily to accommodate system reliability needs. We note that the CAISO has the ability under section 40.6.4.2 to suggest revisions to a proposed use plan, but it has not sought authority to require such revisions. The CAISO has explained that such a suggestion would shift utilization to the period of greatest need, which should typically have a higher cost.⁶⁴² We therefore deny Six Cities' request for rehearing on this issue.

628. We reject Six Cities' argument that the availability requirement for use-limited resources will diminish the ability of LSEs to optimize the use of these resources. Instead, the Scheduling Coordinator retains control of the dispatch of the resource. Under section 40.6.4.2, the Scheduling Coordinator submits a use plan specifying how the use-limited resource may be dispatched by the CAISO, subject only to the minimum criteria set forth by the Local Regulatory Authority. We are also unconvinced by Six Cities' argument that availability requirements for use-limited resource could result in the unavailability of these resources during system peaks. In practice, Six Cities has the flexibility to submit a use plan that coordinates their resources' availability with peak periods. Accordingly, we deny Six Cities' rehearing request on this issue.

629. In response to San Francisco's operational and statutory concerns regarding its use-limited resources, we repeat that the Scheduling Coordinator is provided sufficient flexibility to submit a use plan specifying how the use-limited resource may be dispatched by the CAISO. We also find that no compensation is necessary to the extent that use-limited resources are utilized to meet San Francisco's reserve margin, as established by its Local Regulatory Authority, because maintaining an adequate reserve margin is required under MRTU. Further, compensation is not needed for use-limited resources designated to meet local RA requirements. These resources are used to support

⁶⁴² CAISO Reply Comments at 213.

grid reliability, which benefits all participants including San Francisco, and it is thus San Francisco's responsibility to procure its share of local capacity area resources.⁶⁴³

12. Availability Requirements for System Resources

630. In the September 2006 Order, the Commission stated:

RA system resources should only have a real-time obligation to the extent that a RA system resource is committed in the day-ahead market or selected in RUC; otherwise the RA system resource is released.⁶⁴⁴

[O]nly RA system resources have offer obligations after the day-ahead market, and only to the extent they are non-resource specific, or for resource-specific units, to the extent that the same type of unit located within the CAISO control area would have an offer obligation.⁶⁴⁵

631. Six Cities submit that these two determinations appear inconsistent. Six Cities request that the Commission clarify the scope of the offer obligation applicable to RA system resources to provide that RA system resources will not have real-time availability obligations unless they are committed in the day-ahead market or selected in RUC.

Commission Determination

632. We grant clarification on this issue. The first determination above was in response to comments on the availability requirements for RA system resources with multi-hour block constraints.⁶⁴⁶ We clarify that a RA system resource with multi-hour block constraints that is selected in RUC for any hour will have a real-time availability requirement for the hour.⁶⁴⁷ We note that this finding is consistent with our determination earlier in this order on RUC.

⁶⁴³ We also note that any local capacity area resources go towards meeting system RA requirements.

⁶⁴⁴ September 2006 Order, 116 FERC ¶ 61,274 at P 1282.

⁶⁴⁵ *Id.*

⁶⁴⁶ See CAISO Reply Comments at 214-15.

⁶⁴⁷ See MRTU Tariff section 40.6.5.

633. The second determination above from the September 2006 Order responded more broadly to comments⁶⁴⁸ regarding the availability requirements for RA system resources. Upon further consideration, we find that the MRTU Tariff in section 40.6 is unclear as to these requirements. As a general matter, we agree with the CAISO that the availability requirements for a RA system resource should mirror the requirements that a similar RA resource located inside the CAISO Control Area faces.⁶⁴⁹ Accordingly, we direct the CAISO to file amended tariff sheets, in conjunction with the compliance filings it will make on or before August 3, 2007, modifying section 40.6 to specify the real-time availability requirements for system resources.

13. Information Requirements for Coincident Peak Demand

634. In the September 2006 Order, the Commission directed the CAISO to modify section 40.2.1(3) such that all non-CPUC LSEs have the ability to use coincident peak demand for their monthly and annual demand forecasts.⁶⁵⁰

635. The CAISO requests that the Commission clarify, or in the alternative grant rehearing, that the MRTU Tariff already permits non-CPUC LSEs to use coincident peak demand forecasts in developing their RA plans by using data prepared by the California Energy Commission. The CAISO contends that the California Energy Commission possesses authority to obtain demand forecast data for all LSEs in California⁶⁵¹ and has commenced a proceeding to revise its data collection regulations to clarify the scope of demand-related information that must be submitted by entities such as Vernon.

636. Further, the CAISO argues that LSEs should utilize coincident peak demand determinations provided by the California Energy Commission in order to ensure that one consistent coincident peak demand forecast is used for all entities, whether CPUC or non-CPUC LSEs. It asserts that absent a single party producing the peak demand forecast, LSEs would be able to base their RA requirements on periods other than their own non-coincident peaks, which would lead to inequities among LSEs.

637. The CAISO submits that any disputes regarding the California Energy Commission determination can be addressed by the CPUC for entities under its

⁶⁴⁸ See CAISO Reply Comments, Appendix A, at 15.

⁶⁴⁹ See, e.g., CAISO Reply Comments, Appendix A, at 15 and Rothleder Testimony at 49-50.

⁶⁵⁰ September 2006 Order, 116 FERC ¶ 61,274 at P 1325.

⁶⁵¹ Citing California Pub. Util. Code § 9620(c) (2006), California Pub. Res. Code § 25320 (2006).

jurisdiction or under the dispute resolution provisions of the MRTU Tariff for non-CPUC LSEs. The CAISO adds that if the California Energy Commission refuses to generate a coincident peak demand forecast for non-CPUC LSEs, the CAISO proposes to serve as the entity that generates the comprehensive coincident peak demand forecast.

Commission Determination

638. We grant rehearing on this issue. We agree with the CAISO that coincident peak demand determinations should be made by one entity and that the California Energy Commission is best situated to provide this service, both for CPUC and non-CPUC jurisdictional LSEs. Accordingly, all non-CPUC LSE peak demand forecast data should come from the California Energy Commission. Alternatively, if the California Energy Commission is somehow not able to provide this service, we direct the CAISO to serve and to file amended tariff sheets, in conjunction with the compliance filings it will make on or before August 3, 2007, to implement such change as the provider of demand forecast information for such non-CPUC LSEs.

VII. Other Tariff Issues

A. Miscellaneous Protests Regarding Tariff Language

1. Scheduling of Transmission Outages

639. In its MRTU filing, the CAISO proposed to change its deadline for scheduling transmission outages from 72 hours to 45 days in advance of the outage.⁶⁵² In response to commenters' concerns, the CAISO agreed to make a compliance filing to revise MRTU Tariff section 9.3.6.3.2 to: (1) specify that advance scheduling is only required for those transmission outages that have a "significant" impact on CRR revenue adequacy and (2) modify the advance notice requirement from 45 days to 30 days in advance of the first day of the month when the outage is scheduled.⁶⁵³ The CAISO stated that, for transmission outages that would not have a significant impact on CRR revenue adequacy, the current 72-hour advance notice would be maintained.⁶⁵⁴ The Commission directed the CAISO to make the proposed revision and to revise MRTU Tariff section 9.3.6 in accord with that proposal.⁶⁵⁵

⁶⁵² September 2006 Order, 116 FERC ¶ 61,274 at P 1332.

⁶⁵³ *Id.* P 1333.

⁶⁵⁴ *Id.*

⁶⁵⁵ *Id.* P 1335-36.

640. On rehearing, Western contends that the CAISO's proposal to reduce the advance notice requirement for scheduled transmission outages from 45 days to 30 days is ambiguous and misleading. Western states that, although the CAISO attempts to shorten the advance notice requirement from 45 to 30 days, the statement "in advance of the first day of the month when the outage is scheduled" could lead to a notice requirement of as long as 59 days.⁶⁵⁶ Therefore, Western requests that the Commission direct the CAISO to amend MRTU Tariff section 9.3.6.3.2 to read "An Operator may, upon thirty (30) days advance notice . . ." and delete any reference to the phrase "in advance of the first day of the month."

641. SoCal Edison claims that the CAISO's approach to scheduling short-term transmission maintenance outages is unacceptable because its sole purpose is to protect market function, without due regard for preserving the reliability of California's bulk transmission grid. SoCal Edison contends that the CAISO's proposed compromise is flawed and has been misunderstood by the Commission. SoCal Edison asserts that neither the Commission nor the CAISO has demonstrated that the intended CRR benefit of notifying outages 30-60 days in advance outweighs the operational burdens placed on the PTOs and the potential threats to grid reliability.

642. SoCal Edison contends that it is uncertain how the CAISO intends to assign the "significant" label. It claims that conceivably it could be applied to every transmission line under the CAISO's operational control, thereby forcing PTOs to arrange short-term maintenance outages up to 60 days in advance. SoCal Edison asserts that adhering to a 30-60 day advance notice protocol for scheduling short-term transmission maintenance will defer or delay critical maintenance activities for indeterminate periods of time (or until a transmission line or substation fails) and will prolong the restoration efforts and increase overall maintenance costs.

643. SoCal Edison requests that, if the Commission determines that a revision to the 72 hour advance notice protocols is warranted, the Commission find that: (1) the existing 72 hour advance notice protocols should be continued on an interim basis until the parameters for "transmission outages that have a significant impact on CRR revenue adequacy" are established; (2) any future stakeholder processes seeking to establish the parameters for "transmission outages that have a significant impact on CRR revenue adequacy" include the CAISO's Transmission Maintenance Coordinating Committee (TMCC) to develop a workable implementation program (*i.e.* define significant outages); (3) the time frames of future short-term transmission outages (scheduled in accordance with a new advance-notice protocol) should be measured from the actual day of the

⁶⁵⁶ Western claims that, if a PTO gave the CAISO notice on November 2nd, one alternative reading of the phrase would indicate that transmission maintenance could not commence until January 1st (*i.e.*, 59 days later).

outage; and (4) that future short-term transmission outages not included in the new advance notice protocol should be allowed to follow the existing 72 hour advance notice protocols.

Commission Determination

644. We disagree with Western's contention that the phrase "in advance of the first day of the month" is ambiguous or misleading. In September 2006 Order, the Commission accepted the CAISO proposed revisions in response to commenters' concerns that clarify this phrase by defining a range of 30 to 60 days notice for "significant" transmission outages, and we directed the CAISO to submit a compliance filing with these revisions.⁶⁵⁷ We also note that the Commission has accepted similar advance scheduling of transmission outages procedures for other electricity markets.⁶⁵⁸ We have not been persuaded that the tariff language is unjust and unreasonable, and therefore we deny Western's request for rehearing.

645. Similarly, with regard to SoCal Edison's concerns, we disagree that a 30-60 day advance notice requirement will threaten grid reliability. In fact, we find that an advance notice requirement will allow for more accurate allocation of congestion rights and precise outage information across the West, leading to more informed planning decisions. We note that the advance notice requirement would be required only for "significant" transmission outages, as defined in the Business Practice Manuals. As a result, SoCal Edison's concern that the "significant" label could be placed on every transmission line under the CAISO's operational control is incorrect, and, therefore, we deny rehearing on this issue.

646. We note that SoCal Edison's recommendation that the existing 72 hour advance notice requirement be continued on an interim basis until the term "significant transmission outage" is established is premature. We anticipate that the CAISO will include the criteria in the Business Practice Manuals, which will be available prior to MRTU implementation. Therefore, we deny SoCal Edison's request. We agree that interaction with the TMCC would be beneficial in any future stakeholder processes seeking to establish the parameters for "significant transmission outage" and urge the CAISO to do so. We find that the CAISO's proposed timeframes for "significant" transmission outages will provide both the CAISO and interested market participants with the information needed to prepare models for the monthly CRR allocation and

⁶⁵⁷ September 2006 Order, 116 FERC ¶ 61,274 at P 1335.

⁶⁵⁸ See section 1.9.2 of the PJM Operating Agreement and section 4.8 of Consolidated TO Agreement; Appendix G to New England ISO Market Rule 1; NYISO Outage Scheduling Manual.

auction; therefore, we deny SoCal Edison's request that the time frames of "significant" transmission outages be measured from the actual date of the outage.

2. Maintenance Outage Compensation

647. In its initial comments to the MRTU filing, Western complained that, unlike the current CAISO tariff, the MRTU Tariff failed to provide compensation to entities for mobilization costs incurred prior to the CAISO's cancellation of scheduled maintenance outages. On rehearing, Western asserts that the Commission did not address this concern. Western requests that the Commission direct the CAISO to add language to the MRTU Tariff to compensate transmission owners for such cancellations. Specifically, Western requests that the Commission direct the CAISO to add the cost-reimbursement language set forth in section 9.3.7.3 of the current CAISO tariff.

Commission Determination

648. We disagree with Western's claim that the MRTU Tariff does not include language providing compensation for the costs incurred as a result of the CAISO's cancellation of an approved maintenance outage. MRTU Tariff section 9.3.7.3 already contains the language requested by Western. Therefore, we deny Western's request for rehearing.

3. Other Issues

649. On rehearing, the CAISO requests that the Commission clarify that the CAISO should include, in its 60-day compliance filing, modifications to the MRTU Tariff that it committed to make in its reply comments but were not expressly ruled on by the Commission in the September 2006 Order:

- The CAISO agreed with SoCal Edison that only the RMR quantities that actually clear the IFM and receive a day-ahead schedule should be settled, in the financial sense, and agreed to make SoCal Edison's suggested change to MRTU Tariff section 41.5.1 in order to clarify this point.
- The CAISO noted that there is an error in MRTU Tariff section 8.3.2. The CAISO stated that the second sentence of that section states that "each System Resource used to bid or self-provide Regulation must comply with the Dynamic Scheduling Protocol in Appendix X." The CAISO stated that Scheduling Coordinators are permitted to bid, but not self-provide regulation. Therefore, the CAISO proposed to delete the term "self-provide" in MRTU Tariff section 8.3.2.
- The CAISO agreed with PG&E that MRTU Tariff section 12.3 erroneously references "RMR costs" as part of its list of charges included in the credit posting requirements, and therefore committed to delete this reference.

- The CAISO agreed with SoCal Edison's concern that posting "Total Real-Time Dispatched Energy and Demand" every five minutes might signal to market participants market conditions in which the exercise of market power might prove favorable. The CAISO therefore committed to modify MRTU Tariff section 6.5.5.2.4 to provide that this information will be released on a 24-hour delay.
- The CAISO agreed that MRTU Tariff section 39.3.1(4)⁶⁵⁹ should be clarified to more clearly define the conduct that may warrant mitigation. The CAISO therefore agreed to replace the text of this provision with the following language: "Bidding practices that distort prices or uplift charges away from those expected in a competitive market."

650. Additionally, the CAISO set forth several modifications that the CAISO agreed to in its reply briefs that were noted in the September 2006 Order but not ruled upon by the Commission. The CAISO requests that the Commission clarify that the CAISO should make the following such modifications in its 60-day compliance filing:

- The CAISO agreed to include a statement in MRTU Tariff section 8.2.3.2 stating that additional Operating Reserves can be Spinning Reserves.
- The CAISO concurred with SoCal Edison 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, and the CAISO agreed to make changes to implement this in its compliance filing.
- In response to concerns expressed by CERS and Sempra, the CAISO agreed to modify the definition of Trading Hub and to modify section 28.1.6.4 (Inter-SC Trades of Energy at Aggregated Pricing Nodes) 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 states that the Commission noted that the CAISO had agreed to both of these modifications but only ruled on and accepted the proposal to modify the definition of Trading Hub.

Commission Determination

651. We find that these proposed revisions are just and reasonable and, therefore, grant the CAISO's request for clarification. To the extent that these modifications have not yet been submitted by the CAISO to the Commission in its compliance filings, we direct it to do so in a compliance filing in conjunction with the compliance filings it will make on or before August 3, 2007.

⁶⁵⁹ In its request for rehearing, the CAISO incorrectly refers to MRTU Tariff section 39.2.1(f), which does not exist. We assume that the CAISO meant to refer to MRTU Tariff section 39.3.1(4).

B. Business Practice Manuals

652. The CAISO requests clarification that its proposed timeline for Business Practice Manual development and filing of additional tariff language is acceptable. Specifically, the CAISO proposes to file proposed Business Practice Manual-related additions to the MRTU Tariff on or about May 2, 2007, after which a technical conference could be convened. Finally, the CAISO proposes to file any necessary tariff language resulting from this process at least 180 days prior to MRTU implementation, in compliance with the Commission's directives.⁶⁶⁰

653. Bay Area Municipals, Cities/MSR, Lassen, Modesto and TANC assert that the Commission should have conditioned implementation of the MRTU Tariff on the acceptance of Business Practice Manuals and, therefore, request rehearing of this issue. These parties state that without additional information, market participants and the Commission cannot adequately assess the effects of the rates under MRTU. They identify ancillary service requirements and CRR details as portions of the MRTU Tariff that require further detail. Finally, these parties note that the Commission, in ruling on Business Practice Manuals used in PJM, ordered PJM to revise its tariff to incorporate language that would significantly affect rates, terms and conditions. Finally, these parties claim that, without requiring greater specificity within the MRTU Tariff prior to its conditional acceptance, the Commission has signaled that the details contained within the Business Practice Manuals are unimportant to the overall product. TANC asserts that the September 2006 Order impermissibly allows the MRTU Tariff to be implemented without ensuring that it is complete. Bay Area Municipals, Cities/MSR, Lassen and Modesto state that they do not object to the use of Business Practice Manuals, but to their lack of specificity.

654. State Water Project asserts that the September 2006 Order failed to provide sufficient time to ensure that any problems associated with the Business Practice Manuals can be identified and rectified prior to MRTU implementation. State Water Project also expresses concern that the September 2006 Order did not establish a clear deadline for completion of the Business Practice Manuals. State Water Project states that it would be more appropriate – and still feasible for meeting the target MRTU start-up date – to require completion of the Business Practice Manuals no later than 280 days prior to the effective date of MRTU Release 1. Further, State Water Project asserts, the Commission should require that any Business Practice Manual whose implementation may pre-date

⁶⁶⁰ September 2006 Order, 116 FERC at P 1370.

MRTU start-up must be completed, with the requisite FERC filing regarding tariff additions, no later than 90 days prior to implementation.⁶⁶¹

Commission Determination

655. We grant the CAISO's request for clarification that its proposed timeline is appropriate for Business Practice Manual development and the subsequent filing of additional tariff language with the Commission. We note that the CAISO's plan leaves sufficient time to complete the process of incorporating additional language into the MRTU Tariff at least 180 days in advance of MRTU implementation.

656. We deny the rehearing sought by Bay Area Municipals, Cities/MSR, Lassen, Modesto and TANC. Their assertion that the Commission should have conditioned implementation of the MRTU Tariff on the acceptance of Business Practice Manuals is simply another request to have the entire text of the Business Practice Manuals on file with the Commission. We have consistently rejected arguments that every manual or operating procedure should be on file with the Commission.⁶⁶² Requiring such documents to be on file would thwart our "rule of reason," and undermine the practical purpose of having a tariff on file with the Commission, supported by detail included in Business Practice Manuals not on file. As we explained in our September 2006 Order, the issue of whether provisions intended for inclusion in the Business Practice Manuals must be filed under section 205 of the FPA is determined through the "rule of reason." Our policy is that all practices that significantly affect rates, terms and conditions fall within the purview of section 205(c) of the FPA, and, therefore, must be included in a tariff filed with the Commission.⁶⁶³ Further, we have found that our "rule of reason" test requires a case-by-case analysis, comparing what is included in the MRTU Tariff against what is contained in the Business Practice Manuals. Therefore, we deny rehearing of this

⁶⁶¹ State Water Project cites the CRR Business Practice Manual as one that will need to be completed well in advance of MRTU start-up, because the CRR allocation for year one will need to occur in early 2007.

⁶⁶² See TEMT II Order, 108 FERC ¶ 61,163 at P 650; *Pa.- N.J.-Md. Interconnection*, 81 FERC ¶ 61,257, at 62,241 (1997); *New England Power Pool*, 95 FERC ¶ 61,253, at 61,877 (2001); *New England Power Pool*, 110 FERC ¶ 61,396, at P 27-29 (2005); *Southwest Power Pool*, 114 FERC ¶ 61,289, at P 76 (2006).

⁶⁶³ See *ANP Funding I, LLC v. ISO-NE*, 110 FERC ¶ 61,040, at P 22 (2005); see generally *Prior Notice and Filing Requirements under Part II of the FPA*, 64 FERC ¶ 61,986, at 61,986-89 (1993) (explaining Commission jurisdiction with respect to all rates and charges that are "for or connected with" and all agreements that "affect or relate to," jurisdictional activities), *order on reh'g*, 65 FERC ¶ 61,081 (1993).

issue, without prejudice to the parties identifying specific provisions of the Business Practice Manuals that they believe should be incorporated into the CAISO Tariff.

657. TANC's assertion that the September 2006 Order allows the MRTU Tariff to be implemented without ensuring that it is complete is unfounded. In that order we put forth a procedural schedule for market participants and the Commission to assess what additional provisions may be necessary for inclusion in the MRTU Tariff.⁶⁶⁴ This process will culminate in the CAISO submitting a compliance filing for approval by the Commission.

658. Parties identify ancillary service requirements and CRR details as portions of the MRTU Tariff that require further detail. Given that the CAISO is still developing the Business Practice Manuals, we find issuing any directives to incorporate specific provisions into the MRTU Tariff to be premature at this time. We encourage these parties to raise their concerns both in the CAISO stakeholder process and in the Commission's upcoming technical conference.

659. We deny State Water Project's request to require completion of the Business Practice Manuals no later than 280 days prior to MRTU implementation. We find that the process laid out in the September 2006 Order provides sufficient time for stakeholders and the Commission to assess what provisions may need to be included in the tariff. However, we are not averse to the CAISO completing its task ahead of schedule. We recognize State Water Project's concern that software changes may need to be made as a result of completing the Business Practice Manuals. We are confident that, should such an outcome transpire, it will be addressed in the readiness certification process.

660. State Water Project also asks that the Commission require any Business Practice Manual whose implementation may pre-date MRTU start-up to be completed no later than 90 days prior to the use of that Business Practice Manual. Specifically, State Water Project notes that the CRR Business Practice Manual will, of necessity, be put into effect before MRTU implementation, to perform the first CRR allocation. While we decline to issue such a directive at this time, we direct the CAISO to submit, within 30 days of this order, information identifying which Business Practice Manuals will be put into effect prior to MRTU implementation, and the timeline to ensure completion of those Business Practice Manuals in advance of their effective date.

⁶⁶⁴ September 2006 Order, 116 FERC ¶ 61,274 at P 1370-71.

VIII. MRTU Implementation Schedule, Readiness and Post-Implementation Review

661. Due to the large-scale nature of the market redesign, the CAISO proposed three releases of MRTU software.⁶⁶⁵ Release 1 will include all market design features and elements that are necessary to: (1) ensure reliable operation of the grid; (2) ensure that the market design works properly; or (3) satisfy a regulatory requirement.⁶⁶⁶ In the September 2006 Order, the Commission addressed the MRTU Tariff that implements Release 1. As a result of the modifications the Commission directed in the September 2006 Order and changes in scope generated by stakeholders and the CAISO, the CAISO has moved the projected implementation of Release 1 from November 1, 2007 to January 31, 2008.⁶⁶⁷

662. As explained in the September 2006 Order, MRTU Release 1A, which will include convergence bidding, will be implemented within 12 months of Release 1. Release 2 will include features that the CAISO has determined are desirable but not essential for the initial MRTU implementation.⁶⁶⁸ The CAISO expects to implement

⁶⁶⁵ September 2006 Order, 116 FERC ¶ 61,274 at P 1372.

⁶⁶⁶ *Id.*

⁶⁶⁷ *See* CAISO Jan. 2007 Status Report at 2.

⁶⁶⁸ September 2006 Order, 116 FERC ¶ 61,274 at P 1373 & n.570 (noting that the CAISO stated in its transmittal letter that the following will be considered as part of MRTU Release 2: (1) use of bid-in demand rather than demand forecast in pre-IFM passes in the day-ahead market; (2) unrestricting the pool of resources in the IFM pass for the day-ahead market; (3) eliminating use of extreme decremental bids on the Pass 1 schedule in the day-ahead market; (4) simultaneous RUC and IFM; (5) use of import capacity in the RUC process; (6) participating load demand response in day-ahead market; (7) the California Energy Commission's proposal on rebate of loss over-collection for renewable resources; (8) system-level scarcity pricing; (9) consideration of a full hour-ahead settlement market; (10) dynamic pivotal supplier test for market power mitigation; (11) multi-settlement system for ancillary services; (12) consideration of import energy in the RUC process; (13) multi-day unit commitment in the IFM; (14) decremental bids on final day-ahead resource schedules; (15) ramping limits for the real-time pricing run with constrained output generation; (16) ramp rates -- operational ramp rate function, operating reserve ramp rate and regulation ramp rate; (17) ancillary service self-provision at the interties; (18) reservation of transmission capacity for ancillary service exports; (19) hourly designation of ancillary service contingency only flag; and (20) combined-cycle modeling).

Release 2 within three years of the Release 1 implementation date.⁶⁶⁹ The CAISO states that this deliberate staging of the MRTU process is necessary due to the many challenges associated with developing and implementing a new market design.⁶⁷⁰

1. Implementation Schedule

663. Some commenters to the CAISO's MRTU filing argued that MRTU, in particular its LMP element, should be tested and phased in gradually to facilitate a reliable and smooth transition.⁶⁷¹ They disputed the need for a deadline driven design and the CAISO's ability to meet its November 2007 implementation date.⁶⁷²

664. In the September 2006 Order, the Commission declined to adopt the commenters' proposal to segment MRTU and to stage its implementation.⁶⁷³ The Commission explained that

[t]he CAISO market redesign effort commenced over five years ago when the Commission determined, even before the California energy crisis, that the CAISO market design was flawed. The Commission has supported a comprehensive redesign, including the use of LMP and CRRs, and we have not been convinced by commenters' arguments for a staged implementation.⁵⁷⁸ LMP is central to the market redesign, and it would be a tremendously inefficient use of resources to attempt to implement a subset of the market redesign without it.^[674]

⁵⁷⁸ We note that this comprehensive market redesign is already being implemented in stages; Phase 1A (market power mitigation measures) went into effect in 2002, and Phase 1B (real-time economic dispatch) went into effect in 2004.

665. With respect to the MRTU implementation schedule, the Commission stated that the CAISO and market participants should proceed diligently to meet the November 2007

⁶⁶⁹ *Id.* P 1373.

⁶⁷⁰ *Id.*

⁶⁷¹ *Id.* P 1374.

⁶⁷² *Id.*

⁶⁷³ *Id.* P 1381.

⁶⁷⁴ *Id.*

implementation date.⁶⁷⁵ The Commission explained that “[t]he stressed system conditions in the CAISO over the past two summers have highlighted the need to remedy the CAISO market flaws and allow the benefits of MRTU to materialize as soon as possible.”⁶⁷⁶ The Commission added that “[w]ith the readiness safeguards we are putting in place in this order, we expect that MRTU will be implemented successfully and at this point we are not prepared to delay the MRTU target implementation date.”⁶⁷⁷

666. On rehearing, the MRTU Staging Coalition⁶⁷⁸ and the Control Area Coalition⁶⁷⁹ argue that the Commission erred in rejecting the proposal for a staged implementation of MRTU.⁶⁸⁰ The MRTU Staging Coalition argues that the Commission summarily rejected its proposal without explaining why the Commission was not convinced by commenters’ arguments for a staged implementation. The Control Area Coalition states that the Commission based its conclusion on two mistaken beliefs: (1) that infeasible schedules are currently contributing to congestion/reliability charges of \$1 billion annually; and (2) that only LMP would provide a solution to the urgent problem of eliminating infeasible schedules. The Control Area Coalition and the MRTU Staging Coalition contend that the billion dollar intra-zonal congestion problem has already been mitigated without LMP.⁶⁸¹ The Control Area Coalition claims that the Commission has ignored substantial evidence that the needed market reforms, including the market’s biggest flaws -- infeasible schedules, excessive congestion and reliability costs and resource adequacy -- can be

⁶⁷⁵ *Id.* P 1382.

⁶⁷⁶ *Id.*

⁶⁷⁷ *Id.*

⁶⁷⁸ The MRTU Staging Coalition included, for the purpose of its Request for Rehearing, Strategic Energy L.L.C., the Sacramento Municipal Utility District, APS Energy Services, the California Manufacturers and Technology Association, and the California Large Energy Consumers Association.

⁶⁷⁹ The Control Area Coalition included, for the purpose of its rehearing, Imperial Irrigation District, Los Angeles Department of Water and Power, the Sacramento Municipal Utility District, Salt River Project, and Turlock Irrigation District.

⁶⁸⁰ *Citing* September 2006 Order, 116 FERC ¶ 61,274 at P 1381.

⁶⁸¹ Control Area Coalition Request for Rehearing at 20-21 (citing Control Area Coalition Apr. 7, 2006 Comments, Docket No. ER06-615-000, at 12-14); MRTU Staging Coalition Oct. 23, 2006 Request for Rehearing, Docket No. ER06-615-001, at 7 (citing Control Area Coalition Apr. 7, 2006 Comments at 12-14) (MRTU Staging Coalition Request for Rehearing).

addressed without LMP.⁶⁸² The Control Area Coalition and the MRTU Staging Coalition contend that SMUD and the MRTU Staging Coalition have submitted testimony that indicates that the CAISO could remedy the problem of infeasible schedules by implementing the full network model without LMP.⁶⁸³ The MRTU Staging Coalition adds that its proposal is based upon Phase 2 of a since-discarded CAISO market redesign phase-in plan, one that was intended to eliminate infeasible schedules and manage congestion, without LMP.⁶⁸⁴

667. The Control Area Coalition states that the changes required by the Commission in the September 2006 Order further support the need for a phased-in approach. The MRTU Staging Coalition contends that, because the Commission has concluded that MRTU should not be implemented until after full testing, it does not make sense to delay the fully tested non-LMP elements of MRTU outlined in its staging proposal by delaying the entire redesign until the LMP elements have been completed and fully tested.

668. SMUD argues that the Commission acted arbitrarily in failing to acknowledge that a November 2007 implementation date was infeasible, or at least, a disputed material issue of fact that could not be resolved without an evidentiary hearing. SMUD claims that the November 2007 implementation date is infeasible because the CAISO has not yet provided final design documents or final Business Practice Manuals. SMUD argues that a 12 month market simulation is necessary and that December 2008 is a more realistic implementation date, provided there are no changes to MRTU Release 1 design. SMUD requests that the Commission adopt the staging proposal recommended in its original protest to the MRTU filing.⁶⁸⁵

Commission Determination

669. We deny the rehearing requests of the MRTU Staging Coalition and the Control Area Coalition on this issue. While intra-zonal congestion may have declined from 2004

⁶⁸² Control Area Coalition Request for Rehearing at 21 (citing Control Area Coalition Apr. 7, 2006 Comments at 12-14; Exh. SMD-1 at 45-70).

⁶⁸³ *Id.* (citing Exh. SMD-1 at 53, 59); MRTU Staging Coalition Oct. 23, 2006 Rehearing Request, Docket No. ER06-615-001, at 5 (citing MRTU Staging Coalition Apr. 10, 2006 Protest at 11; Alaywan Testimony at 3-6, 10-11).

⁶⁸⁴ MRTU Staging Coalition Request for Rehearing at 5 (citing MRTU Staging Coalition Apr. 10, 2006 Protest, Docket No. ER06-615-000, at 11; Alaywan Testimony at 3-6, 10-11).

⁶⁸⁵ SMUD Request for Rehearing at 57 (citing Exh. SMD-1 at Attachment A; Exh. SMD-1 at 45-70).

to 2005 due to infrastructure additions, as noted by the Control Area Coalition and MRTU Staging Coalition, intra-zonal congestion has not been eliminated and could subsequently increase as demand continues to increase in the CAISO footprint. LMP creates financial incentives for suppliers to follow the CAISO's dispatch instructions and produce an amount of energy that will reliably manage congestion and meet load. The Control Area Coalition and MRTU Staging Coalition's recommendation to implement the Full Network Model initially without LMP, using zonal "clearing" prices rather than LMPs, would interfere with the CAISO's ability in real time to manage congestion and meet load reliably because no single price would clear the market within the zone where intra-zonal congestion exists. Where congestion occurs, generation on one side (the export side) of the transmission constraint is less costly to produce than generation on the other side (the import side). Moreover, while low-cost generators on the export side of the constraint would like to export their energy to loads on the high-cost import side of the constraint, transmission constraints prevent all of the surplus low-cost generation on the export side of the constraint from being delivered to the loads on the import side of the constraint. As a result, the export side of the constraint would need lower prices to clear the market and prevent too much production from excess low-cost supply, while, on the import side of the constraint, higher prices would be needed to elicit sufficient production where there is a shortage of low-cost supply. Any single price applied to the entire zone – as recommended by commenters – would encourage too much production on the export side of the constraint and/or encourage too little production to manage intra-zonal congestion and meet load on the import side of the constraint. A single price works when there is no congestion in the zone. To the extent that congestion remains, or reappears, within the zone, the same problems seen in the CAISO's current market design would resurface. Such a zonal price imposed over an area that contains constraints (congestion), would mask the signals not only for real-time dispatch, but also for long-term investment. The Control Area Coalition and the MRTU Staging Coalition assert that congestion has diminished, but they do not address how the problems inherent in applying a single price to a congested zone would be addressed by their proposed approach. For these reasons, we deny the MRTU Staging Coalition and the Control Area Coalition's request to implement MRTU without the inclusion of LMP.

670. We also deny SMUD's request to adopt its proposed implementation schedule. As stated in the September 2006 Order, we believe it is essential that the MRTU market design be implemented only when the CAISO's and the market participants' systems, software and tools have been fully tested and the CAISO and its stakeholders are confident that MRTU will function properly.⁶⁸⁶ While some of the CAISO market design features are new to the CAISO-controlled grid, they are not new to the electric industry (*e.g.*, Midwest ISO, PJM and NE ISO). They are necessary to better manage grid operations and ensure service reliability. The CAISO has already shown a willingness to

⁶⁸⁶ September 2006 Order, 116 FERC ¶ 61,274 at P 1414.

postpone the implementation date in order to make sure the system can and will operate as designed.⁶⁸⁷ The Commission will not interfere with the CAISO's ability to determine when the CAISO believes MRTU modifications are ready to be implemented. The Commission is committed to a timely, sound and orderly MRTU implementation plan, but will not allow market operations and service reliability to be sacrificed for the sake of expedience.⁶⁸⁸ For that reason, in the September 2006 Order, the Commission required the CAISO to file a readiness certificate and monthly status reports with the Commission prior to MRTU implementation.⁶⁸⁹ For these reasons, we deny SMUD's rehearing request.

2. Disbursement of Technical Information and Development of Market Participant Software

671. In the September 2006 Order, the Commission agreed that it is important for market participants to have timely access to the technical information and data needed to develop market participants' internal systems.⁶⁹⁰ The Commission noted that the CAISO had been providing this technical information, though not on a timeline that was satisfactory to some market participants.⁶⁹¹ While the Commission believed that the information provided gave market participants sufficient technical information to develop their systems, the Commission directed the CAISO to develop a process for responding quickly and efficiently to market participants' questions about critical MRTU information and directed the CAISO to file a report with the Commission within 60 days of the date of the September 2006 Order detailing how it is making this information available.⁶⁹²

672. On rehearing, NCPA argues that the CAISO has not made technical information and data needed to develop market participant's internal systems available in a manner that is conducive to a November 1, 2007 implementation date. NCPA claims that critical components of the Business Practice Manuals are not sufficiently detailed or accurate in their current form to use for software development. NCPA states that, without accurate and complete data, market participants will be unable to effectively participate in the

⁶⁸⁷ See CAISO Jan. 2007 Status Report at 2 (moving the projected implementation of Release 1 from November 1, 2007 to January 31, 2008).

⁶⁸⁸ September 2006 Order, 116 FERC ¶ 61,274 at P 1380.

⁶⁸⁹ *Id.* P 1414-15. See also TEMT II Order, 108 FERC ¶ 61,163 at P 55

⁶⁹⁰ *Id.* P 1390.

⁶⁹¹ *Id.*

⁶⁹² *Id.*

February 2007 market simulation. NCPA adds that the turnaround time for questions pertaining to implementation must be answered in a matter of days, not months. NCPA also states that it is not prudent or cost-effective for market participants to spend time or resources designing their own internal systems until the CAISO's design criteria are final.

Commission Determination

673. We find that NCPA's request has been overtaken by events. Now that the MRTU implementation date has been extended to January 31, 2008, the CAISO will have time to make further technical information and data available to market participants to complete the design of their internal systems. We agree that the CAISO must provide this information to market participants on a timely basis. For that reason, the Commission directed the CAISO to develop a process for responding quickly and efficiently to market participants' questions about critical MRTU information.⁶⁹³ The CAISO included this information in its November 20, 2006 compliance filing,⁶⁹⁴ which is currently pending Commission review. For these reasons, we deny NCPA's rehearing request.

3. Additional Section 205 Filings and Release 2

674. In the MRTU filing, the CAISO noted that it anticipated, among other things, implementing a number of market design features in Release 1A, within 12 months of Release 1, and in Release 2, within three years of Release 1.⁶⁹⁵ Several commenters took issue with the future FPA section 205 filings and releases.⁶⁹⁶

675. In the September 2006 Order, the Commission found that, although additional features could enhance MRTU, these potential enhancements did not outweigh the need to implement without further delay the numerous benefits that the MRTU Tariff provides the California markets and the entire West.⁶⁹⁷

676. On rehearing, Williams argues that the Commission's goal of implementing a comprehensive redesign at the earliest possible date should not override the larger objective of replacing the current design with a well-functioning design that promotes competition, encourages investment and the retention of existing investment and ensures

⁶⁹³ *Id.*

⁶⁹⁴ CAISO Nov. 20, 2006 Compliance Filing at 36-39.

⁶⁹⁵ September 2006 Order, 116 FERC ¶ 61,274 at P 1394.

⁶⁹⁶ *Id.* P 1395-98.

⁶⁹⁷ *Id.* P 1402.

reliability. Williams contends that certain of the Commission's substantive rulings do not correspond with the Commission's intention that the market redesign "be done right."⁶⁹⁸ In particular, Williams takes issue with the Commission's agreement to defer the following design elements to a later release date: (1) a full hour-ahead market;⁶⁹⁹ (2) buy back of ancillary services;⁷⁰⁰ (3) convergence bidding;⁷⁰¹ (4) scarcity pricing;⁷⁰² and (5) the use of bid-in load as the basis for market power mitigation in the day-ahead market.⁷⁰³

677. Williams claims that, without these features, Release 1 is unjust and unreasonable because it is tilted against suppliers, lacks necessary checks on demand-side market power and fails to provide appropriate incentives for participants to either invest in California or maintain a presence in California. Williams requests that the Commission direct the CAISO to incorporate those elements and design features that the Commission has either (1) mandated in prior orders but the CAISO refused to incorporate (e.g., convergence bidding and the use of bid-in load as the basis for local market power mitigation), or (2) found will materially benefit the comprehensive redesign or whose absence will hinder the creation of a proper market design (e.g., a full hour-ahead market and scarcity pricing). At a minimum, Williams requests that the Commission convene an on-the-record technical conference to allow Commission staff and market participants to test the CAISO's claims of infeasibility.

Commission Determination

678. A technical conference to discuss why certain market features are being postponed until later releases of MRTU is unnecessary at this time. This proceeding already contains an extensive record on the issues raised by Williams, and the Commission has ruled on them. We deny William's rehearing request as discussed below. We share Williams' concerns that these elements need to be added to MRTU; however, as was

⁶⁹⁸ Williams Request for Rehearing at 11 (quoting September 2006 Order, 116 FERC ¶ 61,274 at P 11; *also citing Cal. Indep. Sys. Operator Corp.*, 90 FERC ¶ 61,006, at 61,014 n.16 (2000) ("a piecemeal repair to a faulty system is not an adequate response"); *accord, Cal. Indep. Sys. Operator Corp.*, 103 FERC ¶ 61,265, at P 39 (2003)).

⁶⁹⁹ September 2006 Order, 116 FERC ¶ 61,274 at P 204.

⁷⁰⁰ *Id.* P 303.

⁷⁰¹ *Id.* P 451.

⁷⁰² *Id.* P 1078.

⁷⁰³ *Id.* P 1089.

explained by the Commission in the September 2006 Order, we believe that the substantial benefits of early MRTU implementation outweigh the potential benefits that would be gained by implementing these features in Release 1. We disagree with William's argument that Release 1 is unjust and unreasonable because it is tilted against suppliers and lacks checks on buyers' ability to exert market power. Williams has not explained how the exclusion of the above referenced elements will result in rates which are unjust and unreasonable. Furthermore, we continue to believe that the implementation timeline for Release 1 will provide market participants with rates that are superior to those provided under the existing market design and will provide ample incentives to market participants through the use of pricing mechanisms, i.e. LMP, which more accurately reflect the price of energy. We also decline to convene a technical conference on this issue because we do not believe it would result in the development of a worthwhile consensus regarding the implementation of market elements slated to be included in MRTU Release 1.

679. With respect to a full hour-ahead market, in the September 2006 Order, the Commission found that the benefits of implementing the CAISO's new market design, complete with LMP and a security-constrained financially-binding day-ahead market, outweighed the concerns commenters raised with regard to implementing HASP in Release 1.⁷⁰⁴ Therefore, while agreeing that a full hour-head market was desirable and believing that the CAISO should continue moving in that direction, the Commission accepted the HASP proposal for Release 1.⁷⁰⁵ With respect to the ability to buy back ancillary services during the HASP, the Commission reiterated that the advantages of implementing the HASP in Release 1 appeared to outweigh any potential disadvantages of the financially non-binding nature of HASP.⁷⁰⁶

680. With respect to convergence bidding, after weighing the considerable benefits of convergence bidding with the importance of MRTU itself, the Commission concluded that the substantial benefits of MRTU at an earlier time outweighed the potential benefits that would be gained by holding off on MRTU implementation so that the CAISO can include convergence bidding in Release 1.⁷⁰⁷ However, the Commission directed the CAISO to file tariff language for Commission review that would implement convergence bidding within 12 months after the effective date of MRTU Release 1.⁷⁰⁸ As for scarcity

⁷⁰⁴ *Id.* P 204.

⁷⁰⁵ *Id.*

⁷⁰⁶ *Id.* P 303.

⁷⁰⁷ *Id.* P 451.

⁷⁰⁸ *Id.* P 452.

pricing, the Commission found unacceptable the CAISO proposal to consider changes implementing system level scarcity pricing with Release 2 (three years from MRTU implementation).⁷⁰⁹ The Commission conditionally accepted the CAISO's limited scarcity pricing proposal for the initial release of MRTU but directed the CAISO to file tariff language for Commission review that would implement a system level scarcity pricing methodology within 12 months of the effective date of MRTU Release 1.⁷¹⁰

681. Finally, with respect to bid-in demand for market power mitigation in the day-ahead market, the Commission agreed that the CAISO should use bid-in demand but acknowledged the CAISO's inability to institute this change in Release 1 without substantial delay of MRTU and its associated benefits.⁷¹¹ Therefore, the Commission conditionally accepted the CAISO's proposal, subject to the CAISO instituting bid-in demand as the basis for applying market power mitigation in the pre-IFM runs no later than MRTU Release 2 to reduce the likelihood of over-mitigation of suppliers.⁷¹²

4. Readiness and Post-Implementation Review

682. In the September 2006 Order, the Commission directed the CAISO to file, at least 60 days prior to the effective date of MRTU Release 1, a statement certifying market readiness.⁷¹³ The Commission also accepted the CAISO proposal for developing measurable readiness criteria through a collaborative process, identifying mitigation actions for non-performance or failure to meet readiness criteria, establishing a methodology to determine if the CAISO, Scheduling Coordinators and market participants are prepared for MRTU implementation and developing an MRTU readiness tracking system tied to specific milestones within the MRTU program timeline.⁷¹⁴

683. On rehearing, State Water Project requests that the CAISO readiness certificate include a statement that all issues pertaining to Business Practice Manuals have been resolved. State Water Project also states that the statement should include (1) an identification of the issues presented; (2) specify the resolution of those issues; and (3) explain the reason why a particular outcome was decided upon.

⁷⁰⁹ *Id.* P 1078.

⁷¹⁰ *Id.*

⁷¹¹ *Id.* P 1089.

⁷¹² *Id.*

⁷¹³ *Id.* P 1414.

⁷¹⁴ *Id.* P 1415.

Commission Determination

684. We find that State Water Project's request is misplaced. The appropriate forum in which to raise these concerns is the collaborative stakeholder process that is developing the MRTU readiness criteria. Accordingly, we deny State Water Project's rehearing request.

The Commission orders:

(A) The Commission hereby grants in part and denies in part requests for rehearing, as discussed in the body of this order.

(B) The Commission hereby grants in part and denies in part requests for clarification, as discussed in the body of this order.

By the Commission.

(S E A L)

Philis J. Posey,
Deputy Secretary.

Appendix A

Requests for Rehearing and Clarification

Arizona Electric Power Cooperative, Inc. and Southwest Transmission Cooperative, Inc.

Bay Area Municipal Transmission Group

City of Burbank, California and Turlock Irrigation District

California Independent System Operator Corporation

California Public Utilities Commission

Cities of Anaheim, Azusa, Banning, Colton, Pasadena, and Riverside, California

Cities of Redding and Santa Clara, California, and M-S-R Public Power Agency

City and County of San Francisco, California

City of Vernon, California

Coalition Contesting the Use of Marginal Losses in MRTU

Constellation Energy Commodities Group, Inc., Constellation NewEnergy, Inc., and Mirant Parties (Mirant Energy Trading, LLC, Mirant California, LLC, Mirant Delta, LLC, and Mirant Potrero, LLC)

Control Area Coalition

EPIC Merchant Energy LP and SESCO Enterprises LLC

Golden State Water Company

Imperial Irrigation District

Lassen Municipal Utility District

Metropolitan Water District of Southern California

Modesto Irrigation District

MRTU Staging Coalition

Northern California Power Agency

Pacific Gas and Electric Company

Powerex Corp.

Sacramento Municipal Utility District

Southern California Edison Company

State Water Project of the California Department of Water Resources

Transmission Agency of Northern California

Western Area Power Administration

Williams Power Company, Inc.

Appendix B

Entities Who Filed Seams

Post-Technical Conference Comments

Arizona Public Service Company
 Arizona Corporation Commission
 California Independent System Operator Corporation
 California Municipal Utilities Association
 Control Area Coalition (Imperial Irrigation District, Sacramento Municipal Utility District, Salt River Project and Turlock Irrigation District)⁷¹⁵
 California Public Utilities Commission
 Imperial Irrigation District
 Midwest Independent Transmission System Operator, Inc.
 Northern California Power Agency
 Public Power Council
 Southern California Edison Company
 Pacific Gas and Electric Company and San Diego Gas & Electric Company
 Nevada Power Company and Sierra Pacific Power Company
 Sacramento Municipal Utility District
 Salt River Project Agricultural Improvement and Power District
 Transmission Agency of Northern California
 Western Electricity Coordinating Council
 WestConnect Parties (Arizona Public Service Company, El Paso Electric Company, Imperial Irrigation District, Nevada Power Company/Sierra Pacific, Public Service Company of Colorado, Public Service Company of New Mexico, Sacramento Municipal Utility District, Salt River Project Agricultural Improvement and Power District, Southwest Transmission Cooperative, Inc., Tucson Electric Power Company, Western Area Power Administration)⁷¹⁶
 Western Area Power Administration
 Xcel Energy Services Inc.

⁷¹⁵ We note that, on rehearing, this group also included Los Angeles Department of Water and Power. We also note that, in its original comments to the MRTU filing, this group included Bonneville Power Administration, Los Angeles Department of Water and Power and Western Area Power Administration.

⁷¹⁶ We note that, in the original comments to the MRTU filing, this group included the Tri-State Generation and Transmission Association.

Appendix C

Abbreviations for Parties

Alliance for Retail Energy Markets	AREM
American Public Power Association	APPA
APS Energy Services, Inc.	APS Energy
Arizona Electric Power Cooperative, Inc. and Southwest Transmission Cooperative, Inc.	Arizona/Southwest Coops
Arizona Public Service Company	Arizona Public Service
Bay Area Municipal Transmission Group (the City of Santa Clara, the City of Alto, and the City of Alameda, California)	Bay Area Municipals
Bonneville Power Administration	BPA
United States Bureau of Reclamation	Bureau of Reclamation
California Independent System Operator Corporation	CAISO
California Energy Resources Scheduling Division	CERS
California Municipal Utilities Association	CMUA
California Public Utilities Commission	CPUC
Calpine Corporation	Calpine
California Energy Resources Scheduling Division of the California Department of Water Resources and Sempra Generation	CERS/Sempra
The California Department of Water Resources State Water Project	State Water Project
Cinergy Services, Inc.	Cinergy
Cities of Anaheim, Azusa, Banning, Colton,	Six Cities

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Pasadena, and Riverside, California

Cities of Redding and Santa Clara, California,
and M-S-R Public Power Agency

Cities/M-S-R

City and County of San Francisco, California

San Francisco

City of Santa Clara, California

Santa Clara

City of Burbank, California

Burbank

City of Roseville, California

Roseville

City of Vernon, California

Vernon

Cogeneration Association of California and
The Energy Producers and Users Coalition

Cogeneration Parties

Constellation Energy Commodities Group, Inc.,
Constellation New Energy, Inc., and Mirant Parties
(Mirant Energy Trading, LLC, Mirant California, LLC,
Mirant delta, LLC and Mirant Potrero, LLC)

Constellation/Mirant

Control Area Coalition
(Imperial Irrigation District, Los Angeles Department
of Water and Power, Sacramento Municipal Utility
District, and Salt River Project, Turlock Irrigation District)

Control Area Coalition

Electric Power Supply Association

EPSA

Epic Merchant Energy LP and SESCO Enterprises LLC

EPIC/SESCO

United States Department of Energy's
Berkley Site Office

DOE-Berkley

FPL Energy, LLC

FPL

Golden State Water Company

GSW

Imperial Irrigation District

Imperial

Lassen Municipal Utility District

Lassen

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Metropolitan Water District of Southern California	Metropolitan
Midwest Independent Transmission System Operator, Inc.	Midwest ISO
Modesto Irrigation District	Modesto
MRTU Staging Coalition (Strategic Energy L.L.C., Sacramento Municipal Utility District, APS Energy Services, Inc., the California Manufacturers and Technology Association, the California Large Energy Consumer Association)	MRTU Staging Coalition
Northern California Power Agency	NCPA
NRG Companies (NRG Power Marketing, Inc., West Coast Power, LLC, and NEO California Power, LLC)	NRG Companies
Pacific Gas and Electric Company	PG&E
Powerex Corp.	Powerex
San Diego Gas & Electric Company	SDG&E
Sacramento Municipal Utility District	SMUD
Southern California Edison Company	SoCal Edison
Strategic Energy, LLC	Strategic
Transmission Agency of Northern California	TANC
Trinity Public Utilities District	Trinity PUD
Turlock Irrigation District	Turlock
Western Area Power Administration	Western
Western Power Trading Forum and Independent Energy Producers Association	WPTF/IEP
Williams Power Company, Inc.	Williams

Appendix D

Acronyms

AB	Assembly Bill
AMP	Automatic Mitigation Procedures
ATC	Available Transfer Capacity
CAISO	California Independent System Operator Corporation
CRRs	Congestion Revenue Rights
ESPs	Electric Service Providers
ETC	Existing Transmission Contract
EZ	Existing Zone
FMUs	Frequently Mitigated Units
FPA	Federal Power Act
FTRs	Firm Transmission Rights
HASP	Hour-Ahead Scheduling Process
IFM	Integrated Forward Market
IOUs	Investor Owned Utilities
IRRP	Interim Reliability Requirements Program
ISO	Independent System Operator
LAP	Load Aggregation Point
LECG	LECG, Inc. (Consulting Firm for the CAISO)
LMP	Locational Marginal Pricing
LSEs	IOUs, ESPs and CCAs, collectively
MORC	Minimum Operating Reliability Criteria
MRTU	Market Redesign and Technology Upgrade
MSS	Metered Subsystem
MW	Megawatt
MWh	Megawatt hour
OASIS	Open Access Same-Time Information System
OATT	Open Access Transmission Tariff
O&M	Operation and Maintenance
PTOs	Participating Transmission Owners
RA or resource adequacy	Resource Adequacy
RMR	Reliability Must Run
RTO	Regional Transmission Organization
RUC	Residual Unit Commitment Process
TAC	Transmission Access Charge
TORs	Transmission Ownership Rights
TRBA	Transmission Revenue Balancing Account
TRTC Instructions	Transmission Right and Transmission Curtailment Instructions