

**Summary of Prior CAISO Filings and Commission Orders
Concerning CAISO Market Redesign Efforts**

1. Commission Directives to Submit a Market Redesign Plan

The direct origin of the requirement that the CAISO submit a market redesign plan was an order issued in Docket Nos. EL00-95, *et al.* that addressed the mitigation of prices of power sold through the spot markets of the CAISO and the California Power Exchange. In that order, the Commission directed the CAISO “to propose a plan for the creation of a day-ahead energy market; this submission must be filed by May 1, 2002, and should be integrated with the revised congestion management plan that is also to be filed on that date, as discussed elsewhere in this order.”¹ The market redesign efforts initiated by the CAISO in response to the December 19, 2001 Order built on and superseded the CAISO’s efforts to redesign its congestion management system in response to the Commission’s January 7, 2000 order in Docket No. ER00-555.²

2. The May 1, 2002 Filing and the July 17, 2002 Order Concerning MD02 Proposals

On May 1, 2002, as supplemented by proposed tariff language submitted on June 17 and June 28, 2002, the CAISO filed its Comprehensive Market Redesign 2002 (“MD02”) proposal in Docket No. ER02-1656.³ At that time, the CAISO proposed to implement the MD02 design in three phases. Phase I included market power mitigation measures designed to prevent physical and economic withholding, and provided for real-time economic dispatch and the use of a single Energy bid curve. Phase II had as its centerpiece an integrated forward market (“IFM”), proposed the implementation of simultaneous Congestion Management, a day-ahead Energy market, and Ancillary Services (“AS”) procurement utilizing a security constrained unit commitment process on a zonal basis, and proposed the elimination of the market separation rule and balanced schedule requirement. Phase III provided for the implementation of a Full Network Model (“FNM”), redesigned Firm Transmission Rights (“FTRs”), a resource adequacy requirement for Load Serving Entities (“LSEs”) and an integrated Congestion Management, Energy, and AS market based on Locational Marginal Pricing (“LMP”).

On July 17, 2002, the Commission issued an order in which it accepted in part, rejected in part, and modified in part the May 1, 2002 MD02 proposal.⁴ The Commission

¹ *San Diego Gas & Electric Co., et al.*, 97 FERC ¶ 61,275, at 62,245 (2001) (“December 19, 2001 Order”).

² *California Independent System Operator Corp.*, 90 FERC ¶ 61,006, at 61,013-14 (“January 7, 2000 Order”), *reh’g denied*, 91 FERC 61,026 (2000).

³ Except where otherwise noted, every filing described subsequently in this Attachment was submitted in Docket No. ER02-1656 (and sometimes other dockets as appropriate), and every order described subsequently in this Attachment was issued in Docket No. ER02-1656 (and sometimes other dockets as appropriate).

⁴ *California Independent System Operator Corp.*, 100 FERC ¶ 61,060 (“July 17, 2002 Order”), *order on reh’g and compliance filing*, 101 FERC ¶ 61,061 (2002).

ruled on the merits of the Phase I elements.⁵ Although the Commission did not rule on the merits of the Phase II and Phase III elements, the Commission directed the CAISO to expedite implementation of the Phase II reforms. Further, the Commission authorized the CAISO to expend funds for the development of LMP and the FNM, but determined that the specifics of implementation of those elements should be addressed in technical conferences established by the July 17, 2002 Order.

3. The July 22, 2003 Filing and the October 28, 2003 Order Concerning MRTU Proposals

After conducting an extensive stakeholder process to discuss the proposed market redesign and related efforts to upgrade the software and technology used by the CAISO,⁶ the CAISO filed, on July 22, 2003, an amended, conceptual proposal for the redesign of the CAISO's markets ("July 22, 2003 Filing"). From 2003 and thereafter, the CAISO's market redesign efforts have been referred to as the Market Redesign & Technology Upgrade or "MRTU." While the July 22, 2003 Filing built upon the May 1, 2002 filing, the CAISO requested that the Commission: (1) allow it to withdraw the proposed MD02 tariff language it had submitted on June 17 and June 28, 2002, and (2) endorse the CAISO's proposed process for finalizing the detailed tariff language implementing the MRTU proposal. The July 22, 2003 filing was the first of several MRTU filings that led to several "guidance" orders (described below) issued over the last two and a half years in which the Commission acted on CAISO filings requesting conceptual approval of various design elements before the CAISO developed the more detailed and comprehensive tariff provisions set forth in the instant filing.

The July 22, 2003 Filing built upon the same fundamental market design elements that constituted Phases II and III of the May 1, 2002 MD02 proposal and incorporated modifications to certain of the design elements made as a result of stakeholder and internal CAISO discussions. The primary design elements of the July 22, 2003 filing included the following: (1) Day-Ahead and Real-Time must-offer obligations, (2) an IFM based on LMP, (3) Congestion Revenue Rights ("CRRs"), (4) a Residual Unit Commitment ("RUC") process, (5) Day-Ahead, Hour-Ahead, and Real-Time energy markets, (6) scheduling and settlement of loads on an aggregated basis, (7) bid mitigation for local market power, (8) measures to honor Existing Transmission Contracts ("ETCs"), and (9) Metered Subsystems.

⁵ Subsequently, the Phase I elements of MD02 were split into Phase 1A and Phase 1B elements. The Phase 1A elements were implemented on October 30, 2002 and included Automatic Mitigation Procedures ("AMP"), a new Damage Control Bid Cap, a negative \$30/MWh cap on decremental energy bids, and local market power mitigation procedures. The Phase 1B elements, which included provisions concerning real-time economic dispatch and the inclusion of multiple ramp rates and other operational constraints into dispatch decisions, were filed on July 8, 2003 as Amendment No. 54 to the CAISO Tariff (Docket No. ER03-1054), were approved by the Commission in that proceeding (*see California Independent System Operator Corp.*, 105 FERC ¶ 61,091 (2003), *order on reh'g*, 108 FERC ¶ 61,142 (2004)), and went into effect on October 1, 2004. The CAISO issued market notices that announced the implementation of Phase 1A and Phase 1B.

⁶ A more detailed discussion of the CAISO market redesign stakeholder process is provided in Attachment [] .

On October 28, 2003, the Commission issued an order in which it approved in principle many of the elements of the July 22, 2003 Filing.⁷ The Commission accepted the CAISO's proposal to implement LMP and the IFM, the CAISO's RUC proposal (subject to modification), and the CAISO's proposed bidding and scheduling concepts (subject to further review of tariff language). The Commission also required revisions to the CAISO's must-offer proposal, directed the CAISO to complete and publish results of a study of the proposed CRR allocation process, required the CAISO to file detailed information on the proposed first-year allocation when it filed its proposed tariff language instituting the CRR allocation method, and required the CAISO to make an initial filing of that allocation information as soon as practicable but at least three months prior to its tariff filing. Further, the Commission directed the CAISO to conduct additional analysis of its ETC proposal before the Commission could provide a definitive ruling. Moreover, the Commission directed the CAISO to submit a filing that outlined any necessary changes to the MRTU proposal resulting from the California Public Utilities Commission's ("CPUC") Resource Adequacy proceeding. In addition, the Commission set the CAISO's proposed market power mitigation measures and certain other issues for technical conferences.

4. 2004 Technical Conferences, the June 17, 2004 Order, and the September 20, 2004 Order Concerning MRTU Proposals

During the first three months of 2004, the Commission Staff convened a series of technical conferences pursuant to the October 28, 2003 Order. The technical conferences were convened to discuss certain market design issues including, among other things: (1) the revised must-offer obligation proposal, (2) the RUC process, (3) the CAISO's proposal for a simplified Hour-Ahead market (this simplified design is now referred to as the Hour-Ahead Scheduling Process ("HASP")), (4) pricing for Constrained Output Generation, (5) marginal losses, and (6) AS procurement. Subsequent to the technical conferences, the CAISO and other parties filed comments with the Commission setting forth their positions and proposals on the aforementioned issues. In particular, on May 11, 2004 the CAISO filed comments that proposed modifications to certain of the market design elements contained in the July 22, 2003 Filing.

On June 17, 2004, the Commission issued an order that provided guidance on the six issues discussed in the technical conferences.⁸ The Commission (1) deferred judgment on the revised must-offer obligation proposal pending resolution of the CPUC Resource Adequacy proceeding, (2) provided guidance concerning the RUC process, and conceptually approved (3) the CAISO's proposal for a simplified Hour-Ahead market, (4) the ability of Constrained Output Generation to set the Market Clearing Price, (5) the

⁷ *California Independent System Operator Corp.*, 105 FERC ¶ 61,140 ("October 28, 2003 Order"), *reh'g denied*, 105 FERC ¶ 61,278 (2003).

⁸ *California Independent System Operator Corp.*, 107 FERC ¶ 61,274 (2004) (June 17, 2004 Order").

CAISO's proposed treatment of marginal losses, and (6) and the CAISO's proposal concerning AS procurement (though the Commission directed the CAISO to provide more detail regarding the AS procurement proposal). The Commission also directed the CAISO to submit either tariff sheets to implement virtual bidding simultaneously with the implementation of the Day-Ahead Market and the date when it would be implemented, or a full explanation of why this should not be done. Further, the Commission instituted a Section 206 proceeding to address issues regarding the compatibility of "sellers' choice" contracts (*i.e.*, contracts that allow a seller of power to designate the point of delivery on the CAISO's system) with an LMP regime.

On September 20, 2004, the Commission issued an order on rehearing of the June 17, 2004 Order, in which it modified or clarified its guidance on the following issues: the application of the flexible offer obligation to extra-long start-up time units, start-up/minimum load payments, self-provision of RUC, the level of detail in the CAISO proposal on marginal losses, alternate proposals for intermittent resources, and virtual bidding.⁹ The Commission reserved decision and requested additional information and analysis on aspects of the following issues: mitigation measures for the California markets, the design of the simplified Hour-Ahead market, and AS procurement. The Commission affirmed its rulings on other issues, including the must-offer waiver process, netting of start-up and minimum load costs, mitigation of RUC bids, treatment of Constrained Output Generation, the appropriateness of marginal losses for the California market, and the distribution of surplus revenue from marginal losses.

5. The December 8, 2004 Filing, the February 10, 2005 Order, the March 14, 2005 Filing, and the July 1, 2005 Order Concerning the Honoring of ETCs Under MRTU

On December 8, 2004, the CAISO submitted a revised proposal for honoring ETCs under MRTU ("December 28, 2004 Filing"). On February 10, 2005, the Commission issued an order that approved in principle most of the elements of the December 8, 2004 filing and sought additional information regarding the CAISO's "perfect hedge" proposal for reversing congestion charges that would otherwise be incurred by ETC rights holders.¹⁰ On March 14, 2005, the CAISO submitted a filing in response to the February 10, 2005 Order that provided a more detailed explanation of the "perfect hedge" proposal. On July 1, 2005, the Commission issued a further order on the treatment of ETCs that identified the universe of ETCs that will be in place upon implementation of MRTU and addressed the applicable standard of review for each of the contracts in question.¹¹

⁹ *California Independent System Operator Corp.*, 108 FERC ¶ 61,254 (2004) ("September 20, 2004 Order"), *reh'g denied*, 110 FERC ¶ 61,041 (2005).

¹⁰ *California Independent System Operator Corp.*, 110 FERC ¶ 61,113 (2005) ("February 10, 2005 Order").

¹¹ *California Independent System Operator Corp.*, 112 FERC ¶ 61,007 (2005) ("July 1, 2005 ETC Order").

6. The March 15, 2005 Filing and the June 10, 2005 Order Concerning Inter-SC Trades and Sellers' Choice Contracts Under MRTU

On March 15, 2005, the CAISO filed a conceptual proposal to allow Inter-Scheduling Coordinator (“SC”) trades at individual generator nodes, Load Aggregation Points (“LAPs”), and Trading Hubs, in order to address issues surrounding the sellers’ choice contracts under the CAISO’s LMP-based market design (“March 15, 2005 Filing”). On June 10, 2005, the Commission issued an order that approved in principle the CAISO’s proposal and directed the CAISO to provide a full and complete explanation of the treatment of ETCs upon submission of the MRTU tariff sheets implementing the Inter-SC trading proposal.¹²

7. The Technical Conference and the January 18, 2005 Commission Staff Guidance Letter Concerning Market Power Mitigation Measures

On November 3, 2004, the Commission Staff convened a technical conference concerning the market power mitigation measures proposed by the CAISO as part of MRTU. On January 18, 2005, the Commission Staff issued a guidance letter in which it identified various issues for the CAISO to address in its development of revised market power mitigation measures (“January 18, 2005 Commission Staff Guidance Letter”). The issues identified in the January 18, 2005 Commission Staff Guidance Letter were the following: (1) the use of system-wide mitigation measures without scarcity pricing or identification of scarcity as opposed to market power, and also potential “seams” issues that might arise under system-wide AMP mitigation; (2) the concern that a low Damage Control Bid Cap could adversely impact the efficient use of energy limited resources and might not establish appropriate incentives for the development of needed demand response; (3) the concern that having a soft bid cap for energy and a hard bid cap for AS might create unintended consequences; (4) the Commission Staff’s statement that the CAISO should (i) explain market mechanisms it might implement for dealing with the problem that, due to stringent local market power mitigation measures, frequently mitigated units may not be adequately compensated and incentives for upgrades/investment may not be present, and (ii) the CAISO should explain the time-frame for the implementation of such market mechanisms as well as any unique circumstances that would require the use of Reliability Must-Run (“RMR”) contracts; (6) the concern that compliance and enforcement of a resource adequacy obligation, with regard to both LSEs and suppliers, may not be administered in a way that ensures reliability and revenue adequacy, and the concern that it is unclear how resource adequacy would be applied to non-CPUC jurisdictional LSEs; and (7) the Commission Staff’s suggestions that (i) the contracts relating to resource adequacy should address CAISO concerns about double-payment and market power in RUC and (ii) the CAISO should consider retaining the RUC Availability Payment for non-resource adequacy units.

¹² *California Independent System Operator Corp.*, 111 FERC ¶ 61,384 (2005) (June 10, 2005 Order”).

8. The May 13, 2005 Filing, the July 1, 2005 Order, the September 13 Technical Conference, the September 19, 2005 Order, and the November 14, 2005 Order Concerning Market Power Mitigation Measures, the Clearing of Demand Bids Using the LAP Price, and HASP Under MRTU

On May 13, 2005, after conducting a number of further stakeholder meetings with the benefit of the January 18, 2005 Commission Staff Guidance Letter, the CAISO submitted a revised conceptual proposal in which it sought Commission approval to include the following proposed market design elements in its final MRTU tariff filing: an overall market power mitigation strategy, a revised process for the HASP, and the clearing of demand bids using the LAP price rather than the nodal price (“May 13, 2005 Filing”).

On July 1, 2005, the Commission issued an order in which it approved in part (in principle) and rejected in part the proposed market power mitigation strategy.¹³ In particular, the Commission, among other things, (1) agreed with the CAISO and intervenors that the bid cap should ultimately be increased to \$1,000/MWh, but disagreed with the CAISO’s proposal that a soft cap of \$250/MWh be put in place as of the first day that MRTU was implemented; (2) stated that the CAISO had not provided justification for decreasing the level of the AS and RUC availability bid caps; (3) accepted the CAISO’s proposal to eliminate the usage of system-wide AMP; (4) approved the CAISO’s concepts for local market power mitigation measures, but rejected the CAISO’s proposal to apply local market power mitigation to RUC availability bids; (5) denied the CPUC’s request to reject the bid adder in favor of a backstop local capacity contract, and directed the CAISO to continue its efforts with Market Participants to determine the appropriate bid adder level for Frequently Mitigated Units (“FMUs”); (6) accepted the CAISO’s initial scarcity pricing proposal, required the CAISO to continue development toward a more extensive reserve shortage scarcity pricing approach with a later release of MRTU, and stated that the CAISO’s scarcity pricing mechanisms already incorporated into MRTU, along with the expedited implementation of higher bid cap levels, will provide appropriate price signals during periods of scarcity and provide the necessary incentives for contracting and investment; (7) stated its support for the CAISO’s proposal to modify its optimization process; (8) stated its support for an intervenor’s assertion that a unit having market power in the pre-IFM should not be allowed to “re-bid” its energy price at a level above its mitigated price; (9) stated its expectation that the CAISO will include the RUC self-provision feature in its filing containing MRTU tariff language; and (10) directed the CAISO to provide a date when it would be feasible to implement convergence bidding and directed the CAISO to move rapidly toward incorporating convergence bidding into its MRTU platform. The Commission stated that its determinations on the CAISO’s proposed market power mitigation strategy were premised upon the plan for resource adequacy that the CPUC was considering, and that to

¹³ *California Independent System Operator Corp.*, 112 FERC ¶ 61,013 (2005) (“July 1, 2005 Market Design Order”).

the extent the CPUC's final decision on resource adequacy was markedly different from the CAISO's proposal, the Commission might revisit its determinations.

In the July 1, 2005 Market Design Order, the Commission also found that there are disadvantages to the HASP and advantages to a full Hour-Ahead market, but nevertheless the Commission approved in principle the revised process for the HASP (subject to modifications), in order to prevent a delay of the anticipated implementation date for MRTU of February 2007. Further, in the July 1, 2005 Market Design Order the Commission approved in principle the CAISO's proposal concerning the clearing of demand bids using the LAP price rather than the nodal price (though the Commission encouraged the CAISO to consider an eventual move to nodal demand pricing), agreed with intervenors that the currently proposed LAP zones should be further disaggregated, and directed that the CAISO should ensure that its software will easily accommodate the use of trading hubs and varying levels of LAP granularity. In the July 1, 2005 Market Design Order, the Commission also directed the Commission Staff to hold a technical conference to explore issues related to demand response options in California, including the establishment of LAP zones for specific wholesale customers.

On September 19, 2005, the Commission issued an order on rehearing in which it granted in part and denied in part requests for rehearing of the July 1, 2005 Market Design Order, and provided clarification of certain rulings in that earlier order.¹⁴ With regard to market power mitigation, the Commission, among other things, (1) stated its belief that the mitigation package approved in principle for MRTU, in combination with strong market behavior rules and the must-offer obligation for resource adequacy resources, is sufficient to prevent the exercise of market power; (2) clarified that the July 1, 2005 Market Design Order did not preclude the CAISO from proposing tariff provisions concerning the eligibility of a must-offer resource to receive RUC availability payments, and stated that it expected that the CAISO will address reasons for the inclusion or exclusion of RUC self-provision in the transmittal letter for its filing containing MRTU tariff language; (3) stated that if the state's resource adequacy requirements fail to provide sufficient resources to maintain grid reliability, the Commission will readdress applicable MRTU issues as appropriate to ensure just and reasonable rates; (4) denied a rehearing request that mitigation apply to RUC availability bids at this time and clarified that the July 1, 2005 Market Design Order does not preclude the CAISO from proposing tariff language that will make state resource adequacy units ineligible to receive RUC availability payments; (5) stated that the Commission would evaluate the CAISO's filing of MRTU tariff language as a package, based on the concepts discussed in the July 1, 2005 Market Design Order; (6) directed that market power mitigation should only be applied based on bid-in load, not the CAISO's forecasted load; (7) clarified that the CAISO's real-time operational reserve procurement must designate and pay the applicable real-time AS price to all resources that the CAISO relies on in real time for AS, and directed the CAISO to continue development towards a more extensive reserve shortage scarcity pricing approach to be

¹⁴ *California Independent System Operator Corp.*, 112 FERC ¶ 61,310 (2005) ("September 19, 2005 Order").

incorporated into a later MRTU release; and (8) reiterated its encouragement of continued discussion on the issue of integration of Metered Subsystem agreements within the MRTU framework among the CAISO and stakeholders that are Metered Subsystems.

Further, in the September 19, 2005 Order, the Commission clarified that it had not foreclosed implementation of a full Hour-Ahead market, rather than the use of HASP, in the future, required the CAISO to ensure that its market design software sufficient flexibility to allow for future modifications, and noted that the CAISO should consider all options for a long-term solution to address intertie scheduling problems while ensuring that any long-term solution is compatible with the implementation of future releases of MRTU. In the September 19, 2005 Order, the Commission also stated that the CAISO should take into account the results of CRR Study 2 when re-examining its LAP zones, and that the CAISO's the stakeholder process concerning the LAP zones should proceed.

On September 13, 2005, the Commission Staff held the technical conference directed in the July 1, 2005 Order.¹⁵ On November 14, 2005, the Commission issued an order in which it decided that it would not require the CAISO to facilitate the establishment of LAP zones for specific wholesale customers or require the CAISO to include "Special Case Nodal Pricing" ("SCNP") in its tariff at this time.

9. The September 30, 2005 Filing Concerning CRR Allocation

On September 30, 2005, the CAISO submitted an initial filing containing information on CRR allocation ("September 30, 2005 Filing"); the CAISO submitted that filing at least three months prior to its tariff filing concerning CRR allocation, as required by the October 28, 2003 Order. The September 30, 2005 Filing included detailed information on the development of the CRR allocation rules to date, a discussion of the results of a CRR study that provide insights into the expected CRR allocation, and information concerning the CAISO's recent and upcoming CRR rules and software/system development, including the expected time-frame for the illustrative and actual CRR allocation. The Commission has not issued an order addressing the September 30, 2005 Filing.

¹⁵ *California Independent System Operator Corp.*, 113 FERC ¶ 61,151 (2005) ("November 14, 2005 Order").