

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

California Independent System Operator Corporation)	Docket No. ER02-1656-000
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Investigation of Wholesale Rates of Public Utility Sellers of Energy and Ancillary Services in the Western Systems Coordinating Council)	Docket No. EL01-68-017
)	
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SUPPLEMENTAL COMMENTS OF THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION REGARDING THE MARKET DESIGN 2002 PROPOSAL IMPLEMENTATION SCHEDULE

The California Independent System Operator Corporation (“CAISO”)¹ hereby submits Supplemental Comments regarding the Market Design 2002 (“MD02”) Technical Conference in the captioned proceeding and the issues surrounding the implementation dates for Phases II and III the CAISO’s MD02 proposal.

In support hereof, the CAISO respectfully states as follows:

I. BACKGROUND

Pursuant to the “Order on the California Comprehensive Market Redesign Proposal” issued by the Federal Energy Regulatory Commission (“Commission”) on July 17, 2002 in the captioned proceeding, the Commission Staff convened a technical conference in San Francisco on August 13-15, 2002. Issues discussed at the MD02 Technical Conference included, *inter alia*, the implementation

¹ Capitalized terms not otherwise defined herein are defined in the Master Definitions Supplement, ISO Tariff Appendix A, as filed on August 15, 1997, and subsequently revised.

schedule of the MD02 Phases II and III proposals. At the MDO2 Technical Conference, the CAISO described the different stages of its MD02 implementation plan and set forth a realistic timeline for implementing the integrated Day-Ahead market and other Phase II market reforms. The parties spent a significant amount of time discussing the appropriate timeline for implementing the Phases II and III proposals and the specific market design elements that might be implemented in each Phase. At the end of the MD02 conference, the Commission Staff directed (1) intervenors to file comments regarding the CAISO's implementation proposal and the technical conference process going forward by August 23, 2002 and (2) the CAISO to file reply comments by August 27, 2002. On August 23 and 27, 2002, Market Participants and the CAISO, respectively, submitted comments to the Commission.²

Based on the discussions at the MD02 Technical Conference and subsequent discussions with Market Participants, the CAISO's August 27th comments ("Reply Comments") outlined three "technically feasible" options for implementing Phase II of the MD02 proposal:

² The following parties' comments on the August 13-15, 2002 Technical Conference have been posted on the Commission's FERRIS web site or otherwise obtained by the ISO: California Department of Water Resources State Water Project ("SWP"); California Municipal Utilities Association ("CMUA"); City of Santa Clara ("Santa Clara"); Dynegy Power Marketing, Inc., El Segundo Power, LLC, Cabrillo Power I LLC and Cabrillo Power II LLC (collectively, "Dynegy"); Energy Users Forum ("EUF"); Independent Energy Producers ("IEP"); Mirant Americas Energy Marketing, LP, Mirant California, LLC, Mirant Delta, LLC, and Mirant Portrero, LLC (collectively, "Mirant"); the Northern California Power Agency ("NCPA"); Pacific Gas and Electric Company ("PG&E"); Sempra Energy; Southern California Edison ("SCE"); and Williams Energy Marketing and Trading Company ("Williams").

Option 1: Merge Phase II into Phase III and implement the new forward integrated market simultaneously with the implementation of nodal pricing and the full network model in the Fall of 2003;

Option 2: Implement, by late January 2003, a Phase II “Lite” proposal under which the CAISO would relax the market separation constraint and the balanced schedule requirement, thus establishing a forward energy market, but would not implement a forward integrated market wherein the CAISO would simultaneously optimize energy, ancillary services, and transmission. In addition, under this proposal, some form of new unit commitment procedure would be established.

Option 3: Implement Phase II as proposed by the CAISO in its MD02 filing. Under this option, the CAISO would establish a new forward integrated market by Spring 2003.

For purposes of evaluating these options, the CAISO identified (and discussed) the following three primary criteria: (1) whether the option mitigates market participant concerns regarding undertaking two major market design changes (*i.e.* Phase II and Phase III) in the same year; (2) whether the option satisfies the CAISO’s operating needs and requirements for the Summer of 2003; and (3) whether the option provides sufficient time for a meaningful discussion and resolution of certain unresolved market design issues.

Based on the aforementioned criteria, the CAISO rejected Option 1 because, although it satisfied the first and third criteria, the proposal failed to

address the CAISO's operational concerns. The CAISO also recommended rejection of Option 2 because such option not only failed to satisfy the first and third criteria, but also failed to fully address the ISO's operating requirements. The ISO did not perceive, based on comments filed by market participants with FERC on August 23, 2002, that there was substantial agreement among market participants supporting any one of these options as a preferred option. Thus, in its Reply Comments, the ISO recommended Option 3 as the option that best satisfied the identified criteria.

II. SUPPLEMENTAL COMMENTS

The Commission has pending before it a significant issue the resolution of which is likely to have a far-ranging impact on the success of the CAISO's proposed new market design. That issue is whether the CAISO should implement Phase II of its MD02 proposal (which provides for the establishment of an integrated forward market) on January 1, 2003, as directed by the Commission in its July 17, 2002, order regarding the MD02 proposal³, Spring 2003, as originally proposed by the CAISO in its MD02 Filing, or at some later date, as proposed by certain Market Participants. Because of the significance of this decision and the feedback the CAISO received from numerous stakeholders regarding (1) the position the CAISO took in its Reply Comments regarding the Phase II implementation date, and (2) the need for a meaningful and deliberate stakeholder process and adequate testing of new software and systems, the

³ As discussed in the CAISO's August 16th Rehearing Request of the July 17th Order, the CAISO does not believe a January 1, 2003, implementation date for the integrated forward market is technically feasible.

CAISO is submitting these additional comments in order to ensure that the Commission has before it the requisite information and input to render a meaningful decision. In addition, the CAISO is further clarifying its position regarding Phase II implementation in light of comments it received from certain stakeholders subsequent to filing its Reply Comments.

A. The CAISO Will Support A Deferral Of Full Phase II Implementation Until The Fall Of 2003 Under Certain Conditions

In recognition of its commitment to the Commission-established MD02 stakeholder process, the CAISO acknowledges that, based on its recommended Phase II implementation schedule, full implementation of Phase II in the Spring of 2003 will not allow for a sufficiently deliberative and meaningful stakeholder process whereby all Phase II design issues can be fully vetted and possibly resolved. As the CAISO indicated in its Request for Rehearing filed on August 16, 2002, the CAISO would need to finalize the Phase II design specifications by September 30, 2002 in order to complete the development work needed to meet a Spring 2003 implementation date. This would preclude further substantive stakeholder input on the Phase II market design issues after that date. This causes some concern to the CAISO because many of the features (and, thus, the design specifications) of the Phase II market will be carried over to Phase III. For example, the optimal power flow program that will be the basis of the Phase II integrated forward market will also be used for the Phase III Locational Marginal Pricing ("LMP") or LMP-based market. Absent sufficient time and opportunity to discuss thoroughly and, if possible, resolve many of the concerns raised by Market Participants regarding these details, the CAISO and the

Commission will be forced to move forward based solely on the CAISO's filed proposal as ultimately approved by the Commission. The CAISO notes that in their comments on the technical conference, certain parties expressed objections (e.g., IEP and Dynegy) to such an approach. While the CAISO continues to support its MD02 proposal as outlined in the May 1st and June 17th filings, the CAISO values the insight of its Market Participants and recognizes that better and more widely supported solutions might arise out of a more thorough and deliberate stakeholder process. Thus, recognizing the value of a full discussion of these issues with stakeholders, the CAISO can support a short deferral of full implementation of the Phase II market reforms, subject to the conditions outlined below.

B. The CAISO's Minimum Operating Requirements Must Be Satisfied In Order For The CAISO To Support A Deferral Of Phase II

As explained in its August 27, 2002 Reply Comments, the CAISO believes that certain elements of the new market design are necessary to support reliable operation of the grid during Summer 2003. Specifically, the CAISO stated that ensuring feasible inter-hour ramping schedules, accommodating resources' technical constraints (e.g., limited energy and minimum run times), and permitting the forward commitment of resources were features that the CAISO needed to be in place during the period between now and the implementation of the full market design. While the CAISO continues to believe that a Phase II market design as proposed by the CAISO would satisfy those requirements, the CAISO hereby clarifies that more limited changes to the market could mitigate certain of the operating concerns during the Summer 2003 timeframe.

First and foremost, a new, more transparent and rational unit commitment process – comparable to the unit commitment processes that the Commission has approved for other ISOs -- must be implemented as soon as possible, but certainly no later than May 1 , 2003. As the CAISO explained in its request for rehearing of the Commission’s July 17th Order, the Commission must reconsider its rejection of the CAISO’s “Interim Residual Unit Commitment” or “Interim RUC” proposal. Among other benefits, a mechanism similar to the CAISO’s Interim RUC proposal would enable the CAISO to commit resources both transparently and equitably a day ahead of operation based on submitted start-up and minimum load costs rather than through the existing first-come first-served Must-Offer waiver process which the CAISO has been forced to utilize as a result of prior Commission orders.⁴ Because the Commission has stated that the CAISO cannot consider economics in deciding which units it should grant waivers to, it has been impossible for the CAISO’s grid operators to make optimal decisions about which units to commit. In addition, a RUC-type of mechanism would enable critical resources from outside of California to commit capacity to California on a day-ahead basis, thereby mitigating the need to establish a formal forward energy market prior to Summer 2003. As the Commission is well aware, California relies on imported power in order to meet in-state demand and maintain reliability. The CAISO also believes that a residual unit commitment process that recognizes local area constraints will significantly improve the

⁴ See *San Diego Gas & Electric Company v. sellers of Energy and Ancillary Services Into Markets Operated By the California Independent System Operator and the California Power Exchange*, 99 FERC ¶ 61,158 (2002).

CAISO's ability to manage intrazonal congestion. Moreover, combined with the proposed RUC cost-allocation framework, such a mechanism could also mitigate certain of the scheduling-related problems that have plagued CAISO operations.⁵ Of course, Market Participants can voluntarily (*i.e.*, without CAISO intervention through the RUC process) address both the import and underscheduling issues by self-scheduling an amount of resources, including imports, sufficient to satisfy CAISO forecast load and locational requirements and thereby avoid being subject to RUC costs.

The CAISO recognizes, of course, that any unit commitment mechanism must include appropriate compensation for resources. The CAISO believes that such issues, as well as other details associated with any unit commitment mechanism, can appropriately be addressed in the "Interim Market" Working Group, as outlined in the CAISO's Reply Comments. The CAISO is committed to that process and will support that group's efforts to reach meaningful resolution of all issues by mid-November.

In addition to the RUC procedure described above, the CAISO would need a mechanism to address one further operational concern that is not addressed through RUC, namely, the persistent difficulty in managing the large changes in system load and generation that occur daily in the early morning and late evening. The CAISO has already begun to discuss possible mechanisms to address this problem with stakeholders in the Interim Market Working Group, and

⁵ As proposed by the CAISO, RUC-related costs would be allocated to those entities that fail to self-schedule sufficient resources to satisfy CAISO forecasted load (*i.e.*, under-schedulers). Therefore, such a cost-allocation approach should reduce under-scheduling.

believes it will be possible to arrive at an appropriate solution that can also be implemented prior to Summer 2003.

An implementation schedule that begins on May 1, 2003 with a residual unit commitment process, includes testing of the integrated market software with market participants in the Summer of 2003 and ends with the full implementation of the integrated forward market by October 1, 2003 will accommodate a more thorough and deliberate stakeholder process. In addition, such an implementation schedule will allow for full development of Requests for Proposals for the supporting software, as well as adequate testing and training time prior to rollout.

C. Market Participants' Responses To The Supplemental Comments

In light of the importance of the issues discussed above and the need for their resolution, the CAISO offered Market Participants an opportunity (with a 24-hour turnaround) to demonstrate their desire for a meaningful and deliberate MD02 stakeholder process by indicating to the CAISO whether or not they supported the instant Supplemental Comments. The CAISO has received permission from the following Market Participants to indicate their concurrence with these Supplemental Comments and support to (1) defer a full Phase II implementation until Fall 2003, and (2) engage in an aggressive stakeholder process that will seek to satisfy the CAISO's minimum operating requirements prior to Summer 2003, recognizing that the design of these interim solutions must be completed by November 2002 to allow sufficient time for Commission approval, development and testing prior to implementation by May 1, 2003: the

California Department of Water Resources; Silicon Valley Power; and Southern California Edison Company.

The following Market Participants noted that they did not support these Supplemental Comments: the Independent Energy Producers Association; Williams; Mirant⁶; and Sempra Energy. No other Market Participants provided written notice of either their support or opposition to these Supplemental Comments within the timeframe requested by the CAISO.

D. The CAISO Is Committed To Expedient Implementation Of A Forward Energy Market And The Long-Term Market Design

To demonstrate its commitment to expedient implementation of a forward energy market and the long-term market redesign, the CAISO hereby makes the following commitments:

- 1) The CAISO firmly is committed to implementing the integrated forward market by October 1, 2003. This should address any concerns of Market Participants, based on their perception of a fluid political and regulatory environment in California, that absent a firm commitment from the CAISO, implementation of a forward energy market could be deferred indefinitely;
- 2) The CAISO is committed to identifying clearly and reporting on the critical milestones for developing and implementing the integrated forward market, Locational Marginal Pricing (“LMP”) and the full network model. This will enable Market Participants to monitor and track progress towards implementation of the integrated forward market and the final market design; and
- 3) The CAISO will provide detail on the feasibility of developing both the integrated market and LMP concurrently while retaining the flexibility to implement the integrated market should LMP implementation be deferred.

The CAISO is firmly committed to implementation of both the forward energy market and the long-term LMP-based market design. As previously stated by the CAISO throughout the MD02 effort, the CAISO believes that the market design changes

⁶ More precisely, Mirant stated that it is neutral on the proposal and does not oppose it.

proposed in the CAISO's MD02 filing are necessary to stabilize the California electricity market, optimally perform the CAISO's core functions of reliable grid operation and non-discriminatory transmission access, and provide a stable platform for future critical investment in California's energy infrastructure. Therefore, in response to Market Participant requests, the CAISO offers the following:

1) Implementation Date of Integrated Forward Market

The CAISO is fully committed to using its resources and best efforts to implement an integrated forward market by October 1, 2003, subject to resolution of all regulatory and other constraints. In order to meet an October 1, 2003 implementation date for the integrated forward market, the CAISO believes (and recommends) that all open policy and design issues be must resolved by the middle of November 2002. This implementation schedule will (1) support active and meaningful stakeholder participation in the resolution of design issues; (2) permit adequate CAISO and Market Participant testing of the new market design elements; and (3) allow the CAISO to issue a Request For Bids (RFB) for this phase of the MD02 project. In particular, the proposed implementation schedule will support completion of the systems/software necessary to support the new market on a timetable that will allow – through the Summer 2003 – Market Participants to test and become familiar with the inputs to, and outcomes of, the new market design elements. As further detailed in item 2 below, this is a critical assumption – *the project schedule and major milestones identified below assume that the integrated forward market will be complete and available for market testing during Summer 2003*. Specifically, and as further outlined below, the CAISO can support a testing schedule in which market testing of the new

optimization program and related systems begins around August 1, 2003. Such an implementation schedule will provide sufficient time for the ISO to seek or solicit alternative proposals from a variety of vendors and will thus enable the ISO to make a reasoned business decision regarding implementation of the integrated forward market.

2) Implementation Milestones

Set forth below are the anticipated critical milestones in the development and implementation of the integrated forward market. The CAISO originally intended (and designed) the integrated forward market and LMP development and implementation efforts to be separate, and the CAISO continues to believe that such an approach is warranted. Thus, the milestones identified below with respect to implementation of the integrated forward market provide, by necessity, for testing of the integrated forward market that is separate and distinct from that for LMP. This is necessary to ensure that the CAISO and Market Participants can easily distinguish between the market test results that result from the proposed optimization program and those that are rendered from the LMP-based system. The CAISO can support a schedule in which testing for the integrated forward market would occur between August 1, 2003 and October 1, 2003, whereas the testing for the LMP-based market would occur between October 1, 2003, and January 1, 2004. As is evident from this schedule, the CAISO would support deferring implementation of the LMP-based market to on or around January 1, 2004.

Integrated Forward Market – Projected Milestones

Complete Stakeholder Process/Design –	November 15, 2002.
Elementary and Common Processes Complete –	November 21, 2002.
Create and Issue RFB –	December 10, 2002.
Receive RFB Responses –	December 31, 2002.
Evaluate RFB Responses and Select Vendor –	January 14, 2003.
Detailed Statements Of Work to Vendor –	January 27, 2003.
Contract Signed with Vendor–	February 14, 2003.
Code Delivered From Vendor –	April 27, 2003.
“End to End” Test Completed –	July 11, 2003.
Market Testing Initiated –	August 1, 2003.
Market Testing Completed –	September 8, 2003.
Implement Integrated Forward Market –	October 1, 2003.

In order to assure Market Participants that the CAISO is moving ahead with implementation of the integrated forward market as outlined above, the CAISO hereby commits to file with the Commission monthly status reports regarding its MD02 implementation efforts.

3) Separate Implementation of Phase II and Phase III

As noted above, a number of Market Participants have raised concerns regarding the CAISO’s commitment to implement (and the feasibility of implementing) the integrated forward market should implementation of LMP not move forward. As provided for in the CAISO’s MD02 filings, the CAISO has always envisioned (and planned) that the integrated forward market and LMP would be implemented separately. The CAISO does not believe that it is necessary or appropriate to merge or link the two projects. The primary element or feature of the integrated forward market is the Optimal Power Flow or “OPF” program that will determine an optimal dispatch of energy and ancillary services.

The OPF used for the integrated forward market would also be used for producing LMPs when the full network model is implemented. As proposed by the CAISO, the primary difference between Phase II and Phase III is the production of LMPs using the full network model. Thus, from a developmental/implementation perspective, the development of the network model is the key difference between Phase II and Phase III.

E. Voluntary Relaxation of the Market Separation Constraint and Balanced Schedule Requirement

A number of Market Participants advocate the voluntary relaxation of the market separation constraint and the balanced schedule requirement as an additional interim measure if full implementation of the integrated forward market is deferred until Fall of 2003. The hope and intent of these participants is to establish a viable and liquid forward energy market prior to the implementation of the integrated forward market. At this time, the CAISO believes that it would be imprudent to expend several million dollars (that will be borne by ratepayers) and commit significant staff resources for a design feature that will only operate for approximately six months and will provide limited benefits (and possibly significant complexities that would result from such change). In particular, undertaking this change would require the effort of many of the same CAISO staff who would need to be working on development of the integrated forward market and LMP, yet this change would not contribute to the fulfillment of these long-term design elements since it would be built on the CAISO's existing market systems.

In addition, the CAISO is concerned that the benefits of the proposed simplified forward energy market would be minimal unless there is significant participation by buyers in such a market. At this point in time, the extent to which the Investor Owned Utilities (IOUs) – the primary load-serving entities in the state – will be able to participate in such a market is unknown from a creditworthiness, California Public Utility Commission-specified rule, and an IOU business strategy perspective. Moreover, even in the absence of relaxing the balanced schedule and market separation constraint, market participants could still forward contract and might be able to participate in a third-party facilitated forward market (e.g., the forward energy market proposed by the Automated Power Exchange (“APX”) if such a market becomes available.

In summary, the CAISO is doubtful whether the potential for forward-market trading is worth the expense of implementing this feature for a short period of time, and thus cannot at this time commit to relaxing the existing market separation constraint and balanced schedule requirement independent of implementation of the remaining Phase II elements. However, the CAISO is willing to continue discussions on this issue in the context of the established MD02 working group process should a preferred and feasible option arise through these discussions.

F. CONCLUSION

Wherefore, in recognition of the need for (1) a meaningful stakeholder process to resolve outstanding MD02 design issues, (2) a measured implementation schedule that provides sufficient time for system integration and

market testing while minimizing the number of significant market changes Market Participants will have to endure in a short period of time, (3) satisfaction of the CAISO's operating requirements for Summer 2003; and (4) cost-effective and rational business decisions in procuring systems to implement the MD02 market design, the CAISO recommends a staged Phase II implementation schedule wherein an adequate unit commitment process is in place by May 1, 2003, testing of the Phase II OPF begins on August 1, 2003, and the complete Phase II Integrated Forward Market is implemented on October 1, 2003. By necessity, this proposal would also provide that the long-term LMP-based market become effective around January 1, 2004, in order to permit sufficient integration and market testing of the new market.

Respectfully submitted,

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Filed: September 20, 2002



September 20, 2002

The Honorable Magalie Roman Salas
Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, DC 20426

**Re: California Independent System Operator Corporation
Docket No. ER02-1656-000**

**Investigation of Wholesale Rates of Public Utility Sellers and Ancillary
Services in the Western Systems Coordinating Council
Docket No. EL01-68-017**

Dear Secretary Salas:

Enclosed for electronic filing please find Supplemental Comments of the California Independent System Operator Corporation in the above-referenced dockets.

Thank you for your assistance in this matter.

Respectfully submitted,

Anthony J. Ivancovich
Counsel for The California Independent
System Operator Corporation

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in the above-captioned docket.

Dated at Folsom, California, on this 20th day of September, 2002.

Anthony J. Ivancovich