ATTACHMENT C:

ISO Board of Governors Memorandum and Motion

Memorandum

To: ISO Board of Governors

From: MD02 Design and Implementation Teams

CC: ISO Officers; Board Assistant

Date: June 20, 2003

Re: Comprehensive Market Design Proposal

EXECUTIVE SUMMARY

ISO Management is seeking Board authorization to proceed with the Market Design 2002 ("MD02") Conceptual Design proposal. As proposed, the MD02 Conceptual Design is largely consistent with the design approved by the Board and filed at FERC in May of 2002. Moreover, the MD02 proposal is a Locational Marginal Pricing ("LMP") design that is fundamentally based on the precepts of reliable and economic system operation and is one that has been successfully deployed in many other electricity markets. The core elements of the proposed design were outlined to the Board at the June 6, 2003 Board meeting, are detailed in the Board memorandum dated May 30, 2003, and modified as noted below.

As noted at the June 6, 2003 Board meeting, the ISO Management and staff have been working with Market Participants and the State Agencies to refine certain aspects of the MD02 proposal. To a large extent, these features pertain to elements of the design individually tailored to fit within, or address the specific needs of, the California market. When developing these features, the ISO's objective has been to tailor the elements to address the unique aspects of the California market, yet not compromise any of the fundamental elements of the market design. For example, the ISO's objective has been to develop a Residual Unit Commitment process that achieves its primary objective – committing sufficient capacity in the forward market to serve forecast load – and also recognizes the exigent load-resource conditions in California – the fact that California has historically relied on energy imports to serve its load.

As discussed in detail below, the ISO has been able to either 1) address many of the unresolved issue with parties and has proposed certain modifications to the design that satisfy the above-identified objectives or 2) committed to resolving these issues in on-going processes as described below. While not always an optimal or complete remedy to the concerns raised by the parties, the ISO Management recommends that the Board adopt the proposed changes, recognizing that they represent a "best-fit" resolution to the issue, and direct ISO management to continue to work with parties to resolve these outstanding issues. Specifically, Management recommends that going-forward processes be established to:

1) Identify the market and scheduling rules that best accommodate *all* pre-MD02 power sale contracts as well as all future bilateral transactions;
2) Oversee and guide the ongoing Congestion Revenue Rights ("CRR") study and allocation process;
3) Consider modifications to the MD02 proposal that may be necessary or appropriate as a result of the California Public Utilities Commission's ("CPUC's") final rule in its ongoing procurement rulemaking, and

4) Develop appropriate cost-recovery mechanisms for costs associated with ETCs either not recovered, or recoverable, by Participating Transmission Owners and to develop appropriate responsibilities for scheduling and validating ETC rights, and

With respect to items (2) and (3), Management commits the ISO to coordinate closely with the CPUC.

Management recommends that the aforementioned processes be conducted in parallel to the implementation of the core features of the proposed design. While certain flexibility and functionality may have to be built into the design's supporting software in order to accommodate these possible future changes, such an approach should not delay or greatly increase the cost of the proposed implementation effort. As always, Management would continue to keep the Board apprised of any further developments.

Management recommends that the Board authorize Management to proceed with filing the conceptual design proposal at FERC so that the existing and fundamental flaws in the ISO's existing market structure can be remedied as expeditiously as possible to avoid further harm to California consumers. Management proposes the following motion:

MOVED,

that the Board of Governors, in recognition of the material that has been prepared for the Board meetings of June 6 and June 26, 2003, the presentations that have been given, and the concerns of the public that have been heard, authorizes the ISO management to prepare and file at the Federal Energy Regulatory Commission, in substantially the same content as the Revised Comprehensive Market Design Proposal attached to this memorandum of June 20, 2003. In addition, the ISO Governing Board directs Management to continue to work with interested parties to explore additional refinements, as outlined in this memorandum dated June 20, 2003 that 1) are consistent with the core design elements and overarching objectives of the proposed design and 2) further align the proposed design with the exigent circumstances in the evolving California energy market.

BACKGROUND

At the June 6th, 2003, Board meeting, Management provided an overview of the MD02 conceptual design proposal. **Attachment A** is the Board memorandum dated May 30th that detailed the salient elements of the conceptual design proposal. In the ISO presentation of June 6th (Attachment B), Management also attempted to identify what it thought were some of the key and/or contentious design issues and to specify what issues were likely to be subject to further discussion; discussions that would occur both before and after the conceptual design filing. Those issues included:

1) Treatment of the long-term California Department of Water Resources ("CDWR") contracts;
2) The ISO's new procedure for honoring Existing Transmission Contracts ("ETCs");
3) Features of the ISO's proposed Residual Unit Commitment ("RUC") process;
4) Congestion Revenue Rights (CRR) allocation procedures.

Subsequent to the June 6th, Board meeting, Management and staff held the following meetings with various participants to further discuss these issues:

June 10th – Meeting between the CPUC, California Energy Resource Scheduling ("CERS"), the California Electricity Oversight Board ("EOB"), Pacific Gas & Electric Company, Southern California

Edison Company; San Diego Gas & Electric Company and the ISO regarding market and scheduling rules for existing contracts.

June 12th – Meeting between the CPUC and the ISO regarding the proposed Must-Offer provision, resource adequacy; LMP pricing and various price and bid mitigation measures.

June 16th – Meeting between representatives of the Independent Energy Producer's Association, Calpine, Mirant, FPL Energy, Williams, Reliant, CSW, Dynegy and the ISO regarding, among other things, Must-Offer, RUC, and price/bid mitigation measures.

June 17th – Meeting between the CPUC, California Energy Resource Scheduling ("CERS"), the California Electricity Oversight Board ("EOB"), Pacific Gas & Electric Company, Southern California Edison Company; San Diego Gas & Electric Company and the ISO regarding market and scheduling rules for existing contracts.

June 19th – Conference call between Pacific Gas & Electric Company, Southern California Edison Company, San Diego Gas & Electric Company and the ISO regarding the ISO's new proposed procedure for honoring Existing Transmission Contracts.

June 20th – Meeting between Municipal utility representatives and the ISO regarding a range of issues including the ISO's new proposed procedure for honoring Existing Transmission Contracts.

DISCUSSION

The following discussion provides a brief update on two of the primary issues of concern regarding the ISO's MD02 proposal. In addition, we provide an update on discussions between the ISO and CPUC staffs regarding certain elements of the MD02 proposal. In addition to the issues discussed above, a number of additional less significant refinements and clarifications have been made in the Comprehensive Design Document, which are provided in the red-line version of the attached design document. ISO staff would be happy to answer any questions the Board may have on these additional modifications.

Treatment of Existing Bilateral Power Contracts

CERS has raised concerns that under a LMP-based congestion management system, the CDWR long-term contracts ("State Contracts") will be disadvantaged and subject to much higher congestion costs (costs that will not be hedged by CRRs) and therefore consumers in the State will incur much higher costs.

Specifically, CERS has raised two fundamental concerns:

1) LMP-based congestion costs will make the State Contracts less attractive to the IOUs who will then either fail to dispatch the contracts or will "book" contract costs in a manner that will defer CDWR revenue recovery; and

2) The State Contracts cannot be fully hedged from congestion costs under an LMP-based system and will therefore incur very high congestion costs.

The CPUC has raised a more narrow concern, specifically that it may be difficult to hedge those long-term DWR contracts that are classified as must-take (i.e. the utility must pay for these contracts regardless of whether the power is actual taken) and that have multiple delivery points (thus making them difficult to hedge.)

CERS proposes that either the ISO establish a "super" scheduling priority for the State Contracts that exempts them from congestion costs. Alternatively, CERS requests that the ISO offer a type of "network" CRRs that would enable them to fully hedge the cost of congestion.

With respect to item (1) above, this matter is largely an issue to be addressed through state public policy forums, but specifically the CPUC. In its orders authorizing recovery of the costs associated with the State Contracts, the CPUC directed the IOUs to "economically dispatch" their entire resource portfolio, including their allocation of State Contracts. Thus, the State Contracts should be treated no differently than any other resource in the IOUs' portfolio. Furthermore, the CPUC established a bifurcated rate structure wherein if the State Contracts were deemed to serve retail load, CDWR would receive one revenue stream – a higher revenue stream based on the established retail rate – whereas if the State Contracts were used for a sale in the market, CDWR would receive a pro rated, likely lower, revenue stream. In any given year, should CDWR under-recover costs associated with the State Contracts, any under-collection would be carried over to the next year. In the end, CDWR is not "at risk" of not recovering the costs of the State Contracts. The issue of concern to CERS is that cost recovery will continue to be deferred on an annual and going-forward basis, thus resulting in a huge balancing account in the out years of bond repayment period. As noted above, Management believes this to be largely an issue to be addressed between CERS, the CPUC, and other State pubic policymakers.

With respect to item (2), Management recommends that this problem be addressed going-forward in the context of the ISO's proposed CRR Study/Allocation process detailed below. While CERS has raised specific concerns with regard to the impact of LMP on the State Contracts, Management recommends that this issue be addressed more comprehensively so that MD02 can best accommodate both pre-existing bilateral contracts as well as new bilateral trades that occur outside of the ISO's markets. There are two elements of the design that must be considered when evaluating the impact of LMP on bilateral transactions scheduled in the ISO's markets. The first is the scheduling rules that will apply to bilateral trades scheduled through the ISO's system. The second is the availability of CRRs to hedge congestion costs under the ISO's LMP-based system. The form and function of both of these elements will determine the ultimate level of congestion costs assessed to bilateral trades scheduled through the ISO's markets and the manner by which the counterparties to those trades will divide the cost-responsibility for those costs.

Since 1999, the ISO has facilitated third-party trading by supporting, in its software, the ability to schedule "Inter-Scheduling Coordinator" or "Inter-SC" trades. This functionality was important to market participants because it provided them a means to both formally transfer obligations under their third-party contract as well as effect or satisfy "delivery" under their contract. While always a "voluntary" feature of the ISO's market – the ISO did not have to offer this feature – the ISO considers this to be an important functionality to support third-party trading and proposes to offer the feature under MD02. While certain aspects – including the basic functionality – needs to be included in the ISO's MD02 software, other details, such as many of the rules related to Inter-SC trading, can be developed in parallel with MD02 implementation. The Inter-SC trade feature and the rules surrounding it will define how bilateral transactions, including the State Contracts, are scheduled and run through the ISO's markets.

As to the issue regarding the availability of CRRs to hedge the congestion costs related to bilateral trades, this is an issue that must be resolved in the context of the CRR Study/Allocation process. At present, the ISO has not yet completed the studies necessary to determine the overall availability of CRRs, nor has it determined the amount of CRRs likely to be allocated to the IOUs to cover their load. However, as stated in the recent FERC Wholesale Market Platform White Paper, since the State is likely to be afforded great flexibility by FERC in determining the amount and nature of CRRs ultimately made available to load and the market as a whole, Management believes this issue can be satisfactorily addressed in the future. As noted below, the ISO is committed to working in coordination with the CPUC and other state agencies on this matter.

CRR Study and Allocation Process

The ISO currently has underway a technical study to determine the amount of CRRs that will be available for allocation to load (and auction to the market) under the LMP-based regime. This is important because it will ultimately bear on the ability and extent to which load is hedged from congestion costs. In order to complete such a study, the ISO has to model the transmission system to determine, based on the likely level and pattern of load and resources throughout the system. Over the last several months the ISO has been collecting data from the load-serving entities to determine likely future flows on the system. At present, the ISO does not anticipate receiving the preliminary results of that analysis until later this Summer (July-August). At that time, additional scenario analysis will be likely. Subsequent to developing the base-case analysis, the intent will then be to determine the amount of CRRs likely to be available to each load-serving entity.

In its April Wholesale Market Platform White Paper, FERC stated that it would largely defer to States/Regions regarding such matters as CRR allocation to load within the State/Region. Since the vast majority of load within State is IOU load, this fact has further emphasized the need for close coordination with the CPUC regarding the CRR study and allocation process.

Therefore, the ISO proposes to establish a process to formally coordinate with the CPUC regarding the CRR Study and Allocation process. Within the next several weeks Management will schedule a meeting with the CPUC to 1) develop a process to address this issue and 2) brief the Commission as to the status of the CRR Study effort. Subsequent to that, and based on the outcome of that initial meeting, the ISO envisions that bi-weekly meetings may be appropriate. Management recommends that the Board authorize Management to proceed accordingly.

New Procedure for Honoring Existing Transmission Contracts

As previously outlined to the Board, as part of the MD02 proposal, Management proposes to introduce a new procedure for honoring ETCs. The proposed procedure would enable the ISO to potentially offer, on a daily basis, more transmission capacity to the market and may substantially address the previously identified "phantom congestion" issue (i.e., the circumstance where transmission users are charged for congestion as a result of reserved, but ultimately unused, ETC-related transmission capacity).

At the time of the June 6, 2003 Board meeting, the ISO's new ETC proposal had only recently been rolled out to market participants and had engendered some specific concerns. The ETC-Rights holder community raised concerns that the proposal would in fact reduce or eliminate existing rights. The Participating Transmission Owners (PTOs) expressed concerns that the ISO's proposal would impose additional costs on the PTOs and therefore was inconsistent with cost-causation principles and unacceptable. Moreover, the PTOs raised concerns that existing FERC precedent indicates that should any costs be passed on to them as a result of the new ETC procedure, such costs may not be recoverable and would have to be borne by PTO shareholders. At the June 6th Board meeting the Board directed Management to discuss the new ETC proposal further with market participants. As noted above, the ISO has a conference call with the PTOs on June 19th and met with the Municipal entities on Friday, June 20th. In addition, the ISO will release shortly a white paper to further detail how the new ETC procedure will work.

Based on the meetings with the Municipals and the PTOs, Management continues to support the proposed new ETC procedure. The new procedure is workable and has the potential to substantially address existing deficiencies in the functioning of the ISO's markets. However, Management also recognizes the legitimacy of PTO concerns regarding the recovery of new costs incurred as a result of the ISO's new ETC procedure. Therefore, while Management recommends that the Board authorize Management to include the new ETC proposal in the MD02 conceptual design proposal to be filed at FERC, Management also recommends that the Board authorize Management to support, in the FERC filing, that the PTOs be entitled to the full recovery of costs incurred under the ISO's new procedure. Furthermore, Management recommends that the ISO continue to work with the PTOs, the CPUC, and other parties to develop a suitable and appropriate cost-recovery proposal. Since the new ETC proposal is not proposed to go into effect until the new market design is implemented and since any cost-recovery mechanism is not likely to utilize or impact the new software systems, deferring development of that feature should not impose any implementation delays.

Update on ISO-CPUC Discussions

Aside from numerous phone calls, the ISO Management and staff have met with CPUC representatives on approximately five occasions over the past few months in order to come to a common understanding and agreement on the various elements of the MD02 proposal. Those meetings have been extremely useful and productive and, from the ISO's perspective, have enabled the CPUC staff to largely agree on the core elements of the design proposal. Moreover, these discussions have provided a platform for resolving the outstanding issues that must be addressed prior to actual market implementation.

Subsequent to the June 6th Board meeting, the CPUC and ISO staffs met on June 12th to further discuss certain issues and to resolve, where possible, any outstanding issues of disagreement. A summary of that discussion, and the accommodations reached, follows.

1. ***Resource Adequacy and Must-Offer***: The CPUC raised concerns with respect to the ISO's characterization of resource adequacy and the proposed must-offer provision. CPUC staff provided textual edits to the ISO's May 27 revised conceptual design proposal to address these issues and the ISO has agreed to accept those changes. The ISO also agreed to coordinate with CPUC staff on that section of the FERC transmittal letter relating to resource adequacy prior to filing.

2. ***CRR Allocation Process***: The CPUC requested that the ISO acknowledge, in its conceptual design proposal, FERC's statements regarding the important role of the state/regions in the CRR allocation process. The ISO agreed to do so. Consistent with that commitment, as explained previously in this memo, the ISO is committing to a going-forward process to coordinate with the CPUC on the CRR study and allocation effort.

3. ***Residual Unit Commitment***: The CPUC agreed to support the ISO's proposed RUC proposal with the understanding that the ISO will commit to review the performance of RUC, and to assess whether features such as the 100% target and $100 availability payment cap are set properly or require modification, after implementation.

4. ***Single Energy Bid Curve***: In response to the ISO's articulated concerns regarding participation of imports under the new market structure, the CPUC agreed to withdraw its request that the ISO limit rebids after the Day Ahead to a PJM-like two-hour rebid window. The CPUC maintained its preference for elimination of the opportunity to rebid between the Hour Ahead and Real time, and would support moving the close of the hour-ahead market closer to real time in the event of such a change. However, in light of the history of the development of the ISO's proposal on this point, the CPUC will accept the ISO's proposal (permitting rebids after the day-ahead and again after the hour ahead at this time), subject to the ISO's commitment to monitor bidding behavior and the performance of these markets, and to consider implementation of modifications to the re-bid rules if and as circumstances warrant.

5. ***Negative Decremental Bids***: The CPUC raised concerns about the ISO's use of negative decremental bids. The CPUC staff pointed out that neither the PJM nor the New England ISO uses negative decremental bids.

The ISO explained that the great majority of the "dec" game problem will be addressed by implementation of the full network model, which will accept only feasible schedules. The ISO further explained that bidding activity rules will generally limit ability of suppliers with accepted bids from providing negative decremental bids. The CPUC staff suggested, and ISO staff agreed to explore, limiting availability of suppliers to provide negative decremental bids to defined periods of hydro overgeneration, and in a manner which does not overburden operators. At this time, the ISO is not proposing to limit decremental bids to only periods of overgeneration.

6. ***LMP Prices Over $250***: The CPUC raised concerns that, under the ISO's proposal, nodal prices can at times exceed the $250 bid cap. ISO staff explained how the looped transmission system may result in nodal prices over $250, even in the presence of $250 bid cap, and even where no supplier bid over $250. The CPUC requested that the ISO modify its proposal to cap nodal prices at $250. The ISO agreed to that proposal.
7. ***Local Market Power Mitigation***: The CPUC supports the ISO's LMPM proposal. The ISO agreed to utilize the Residual Supply Index (RSI) to periodically re-assess both whether paths currently deemed non-competitive under the LMPM proposal have become competitive, and whether paths initially deemed competitive remain competitive.

With this representation and understandings, the ISO now understands that the CPUC supports the ISO to file with FERC its MD02 conceptual design proposal, recognizing that the CPUC and ISO acknowledge that there will be much additional work that must be done, and issues to be resolved prior to implementation.

RECOMMENDTION

Management recommends that the Board authorize Management to file at FERC the MD02 conceptual design proposal as presented to the Board at the June 26th Board meeting. In addition, Management recommends that Board authorize management to proceed with the additional discussions and processes, as outlined in this memorandum. Management recommends the following motion:

> ***MOVED,***
>
> ***that the Board of Governors, in recognition of the material that has been prepared for the Board meetings of June 6 and June 26, 2003, the presentations that have been given, and the concerns of the public that have been heard, authorizes the ISO management to prepare and file at the Federal Energy Regulatory Commission, in substantially the same content as the Revised Comprehensive Market Design Proposal attached to this memorandum of June 20, 2003. In addition, the ISO Governing Board directs Management to continue to work with interested parties to explore additional refinements, as outlined in this memorandum dated June 20, 2003 that 1) are consistent with the core design elements and overarching objectives of the proposed design and 2) further align the proposed design with the exigent circumstances in the evolving California energy market.***

Board of Governors 6/26/2003 **Comprehensive Market Design Proposal**

MOVED, that the Board of Governors, after considering the material that has been prepared for the Board meetings of June 6 and June 26, 2003, the presentations that have been given, and the concerns of the public that have been heard, authorizes the ISO management to prepare and file at the Federal Energy Regulatory Commission a conceptual proposal, in substantially the same content as the Revised Comprehensive Market Design Proposal attached to this memorandum of June 20, 2003, contingent upon final Board approval for the implementation of LMP at least 60 days prior to such implementation. In addition, the ISO Governing Board directs Management to continue to work with interested parties to explore additional refinements, as outlined in this memorandum dated June 20, 2003 that 1) are consistent with the core design elements and overarching objectives of the proposed design and 2) further align the proposed design with the exigent circumstances in the evolving California energy market.

Moved: Gage Second: Florio

Board Action: **Passed** Vote Count: **4-0-0**	
Florio	Y
Gage	Y
Guardino	Y
Kahn	Y