UNITED STATES OF AMERICA
BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

San Diego Gas & Electric Company	)	
v.	)	Docket No. EL00-95-012
Sellers of Energy and Ancillary Services Into Markets Operated by the California Independent System Operator and the California Power Exchange	)	

Comments of the California Independent System Operator Corporation on Market Power Monitoring and Mitigation Measures

Introduction

At the technical conference hosted by Commission staff on January 23, 2001, the Department of Market Analysis (DMA) of the California Independent System Operator Corporation (CAISO or ISO) presented a "Draft Proposal – Market Power Mitigation Plan," and several other parties presented comments addressed to market monitoring and market power mitigation. At the close of the conference, Commission staff invited participants to submit additional comments by February 6, and any responses to the February 6 comments by February 13. The ISO is pleased to present these comments in response to staff's invitation. The ISO wishes to thank the Commission for creating a forum for addressing these issues and for providing the ISO and others an opportunity to submit comments.

There are three parts to the ISO's comments. First, we are presenting, as a separate document, Attachment A, an updated version of the "Draft Proposal – Market Power Mitigation Plan," which was presented at the January 23 conference. Second, we will summarize the ISO's proposal and explain the ISO's ongoing efforts to refine its market power mitigation proposals and submit a comprehensive set of proposals to the Commission. The ISO believes that such proposals will compliment the market monitoring and targeted mitigation proposal being developed by FERC staff. Finally, we will offer observations on certain aspects of the presentations by others at the January 23 conference.

<u>The CAISO's Development of a Market Power Mitigation Plan</u>

As the Commission is aware, the ISO has been at the forefront of efforts to identify and propose changes to the market necessary to ensure effective competition and just and reasonable market outcomes. Since the ISO began operations in 1998, the ISO has endeavored, in almost every circumstance, to take a market-based approach to resolving both operational problems and concerns regarding the functioning of the markets. Instead of advocating the use of explicit penalties, the ISO has historically endeavored to create incentives for Market Participants to act in a manner consistent with the ISO's operational requirements and efficient market outcomes. As a result of the events of this past year, the ISO no longer believes that this approach is sufficient, at least in the near-term, and that stronger measures to mitigate market power are necessary. Therefore, the ISO outlines below what it believes are the market monitoring and market power mitigation measures necessary to ensure that all customers pay rates which are not the product of an undue exercise of market power.

These measures are based on the long-term market structure envisioned by the Commission in its November 1 and December 15 Orders in this proceeding; a market based on adequate forward contracting and a small spot market that provides the price signals necessary to attract new supply and encourage demand reduction.

In its Report on the California Energy Market Issues and Performance: May-June, 2000[1], the ISO identified what it believed were the fundamental problems plaguing the California electric markets. The primary problems identified by the ISO were: 1) a lack of sufficient generation; 2) inadequate transmission infrastructure; 3) a lack of forward contracting by load serving entities (i.e., over-reliance on the spot market) and 4) no demand responsiveness. The ISO concluded that these conditions enabled the exercise of market power, both on a system-wide and local basis. The ability of suppliers to influence prices in hours where there was no system scarcity was clearly evidenced this past year.[2] Unfortunately, these systemic problems are likely to persist for the next few years until new generating capacity is built and demand responsiveness becomes integral to the California electric market and has increased to level where suppliers are no longer pivotal and can set prices. Therefore, until these core problems are addressed, the ISO believes that strong measures to mitigate the exercise of market power are necessary.

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1 This report was submitted to the California Electricity Oversight Board on August 10, 2000 and subsequently made part of the official record in the Commission's investigation into the functioning of the California electric markets.

2 DMA has noted the exercise of market power by individual suppliers and suppliers in aggregate. See, Report on the California Energy Market Issues and Performance: May-June, 2000, page 5 and 50. See also, Declaration of Eric Hildebrandt in support of Proposed Offer of Settlement filed on October 20. 2000 and Attachment A to the Comments of the CAISO on the Order Proposing Remedies For California Wholesale Electric Market. See, Comments of the California Independent System Operator Corporation, dated November 22, 2000 in *San Diego Gas & Electric Co.*, Docket No. EL00-95 *et al.*

The ISO believes that effective market power mitigation measures must be established as soon as possible. As the Commission is well aware, energy costs in California have soared to unprecedented levels in recent months. The average price of wholesale energy in California for the past two months (December 2000 and January 2001) was approximately $292/MWh, the highest price since the start of the restructured California market. December wholesale energy and ancillary service costs alone were approximately 6.2 billion dollars. This amount almost equals the total wholesale energy costs for the entire year of 1999 (7.4 billion dollars). The ISO is deeply concerned that, absent significant measures to mitigate market power, costs are likely to increase even further as the peak summer season approaches. Current snow pack levels in California and the Pacific Northwest are roughly 50% below normal and weather forecasts indicate continued below-normal precipitation. Clearly, the energy situation in the west, and in particular California, poses a tremendous challenge to reliability and is not likely to produce competitive outcomes in any market, be it long-term[3] or spot. The ISO recognizes that some of the measures proposed by the ISO may go beyond the market monitoring and targeted market power mitigation proposal currently being developed by FERC staff. However, in light of the insufferable and persistent conditions in which the ISO must operate and the gravity of the consequences of inaction, the ISO finds no other choice but to ensure that appropriate market power mitigation measures are in place and effective prior to this summer. Therefore, the ISO intends to develop and file with the Commission a comprehensive

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3 Power marketers and generator owners are well aware of the supply situation in 2001 and the potential opportunities for substantial profits in the spot-markets and therefore are likely to factor these opportunity costs into any long-term contract negotiations.

market power mitigation proposal that will ensure rates to consumers are just and reasonable.

In contrast to the Commission's "soft" cap design, the ISO advocates a two-tiered design. Tier 1 would include a base of long-term fixed price contracts. Generators that satisfy the forward-contracting requirement would be subject to less stringent mitigation measures. Tier 2 would establish resource specific bid caps that allow greater price fluctuation, thus sending strong price signals to both supply and demand. As outlined in greater detail in Attachment A, this two-tiered approach is embodied in the ISO's four-step plan that is designed to both eliminate, if possible, the conditions under which market power can be exercised and prevent physical and economic withholding from the market. As the Commission is sure to recognize, the proposal outlined in Attachment A is substantially similar to that proposed by the ISO in its October 20 Offer of Settlement; a proposal which the ISO originally filed in order to initiate a dialogue between load-serving entities and suppliers – a dialogue that the ISO had hoped would result in the development of long-term power supply arrangements between these parties.

The first facet of the ISO's comprehensive market power mitigation plan is to establish significant requirements for forward contracting by suppliers in California. The ISO believes that if there is sufficient forward contracting, at just and reasonable rates, the volume of energy traded in the spot markets will decrease, thus decreasing the ability of suppliers to demand high prices in the "last chance" day-ahead, day-of and real-time energy markets. The ISO proposes that suppliers be required to have 70% of their portfolio covered under forward contracts. The second facet of the ISO's plan is to ensure that load serving entities have an incentive to contract with suppliers at a level sufficient to satisfy their own load, plus reserves. The ISO proposes to establish an Available Capacity Reserve (ACR) requirement where load serving entities must make available to the ISO a specified amount of capacity, perhaps equal to 115% of their seasonal peak load. In order to ensure that suppliers make their capacity available to load serving entities to satisfy the ACR requirement and to further prevent physical withholding from the market, the third element of the ISO's proposal is to impose certain Availability Requirements on suppliers. These requirements would require suppliers to bid all of their available capacity into one of the energy or Ancillary Service markets, subject to certain penalties for non-compliance. The final elements of the ISO's proposal are to eliminate the exercise of market power on system-wide level through economic withholding (i.e., bidding significantly in excess of cost), as well as the exercise of local market power. The ISO proposes that until more permanent measures can be put in place, FERC mitigate the bids (i.e., limit them to variable cost or certain market indicia) of those entities possessing local market power.[4] Lastly, in order to prevent economic withholding, the ISO proposes that FERC establish bid price thresholds (e.g., variable cost or opportunity cost for energy limited resources plus a fixed margin). The bid price thresholds would be set at a level sufficient to send strong price signals to both demand and supply to provide incentives for development of price responsive demand and new investment in generation.

The ISO also intends to include certain other measures in its comprehensive market power mitigation proposal. The ISO intends to develop and file a Planned

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4 The ISO notes that the Commission has already approved similar measures for the PJM

Outage Coordination requirement. The ISO's proposal would require that all Generators participating in the ISO's markets (i.e, Participating Generators) submit to the ISO their scheduled outage plans. Under this proposal, the ISO would have the ability to require Generators to schedule their maintenance and repairs in a manner consistent with reliable operation of the system. That is, the ISO would coordinate all planned generator outages so as to minimize the number of days when a significant amount of generating capacity is unavailable; an event common in California over the past few months. While the ISO recognizes and appreciates the efforts of Generators to make their capacity available to the ISO this past year and further recognizes that some Generators have modified scheduled maintenance outages at the request of the ISO, the ISO believes that it is imperative that the ISO be permitted to more actively coordinate when planned outages occur.

Finally, the ISO believes that effective monitoring and enforcement are necessary elements of any market power mitigation plan. To date, while the ISO has established open and productive relationships with all applicable regulatory agencies, the ISO has not established formal arrangements with these agencies regarding the provision of market information and analyses. Therefore, over the next several months, the ISO will endeavor to develop and file with the Commission revised policies regarding the provision of market information to regulatory agencies. These policies will not only address what information is provided to such agencies, but also the circumstances and conditions under which such information will be provided. The ISO's revised information policies will pertain not only to the Commission, but also to the

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Interconnection and the New York ISO.

applicable state agencies which, as the Commission has recognized, have a legitimate role in monitoring market activity to ensure just and reasonable rates to end use customers.

The ISO has already begun to discuss these matters with Market Participants in California. In fact, based on a meeting held on January 25th, as well as on the comments received at the January 23 meeting at FERC, the ISO has already updated and revised its proposed Market Power Mitigation Plan based on concerns raised by stakeholders. Those revisions are reflected in the version of the proposal found at Attachment A. The proposal reflected in Attachment A remains a work-in-progress and may be further modified as the ISO develops the details of the proposal and receives further input from interested parties. The ISO intends to continue discussions with stakeholders over the next month, prior to finalizing and filing its proposed market power mitigation plan.

Response to Presentations at January 23 Conference

The other proposals presented at the January 23rd technical conference included proposals by Reliant Energy Company (Reliant), the Electric Power Supply Association (EPSA), and Southern California Edison Company (SCE). The ISO briefly responds below to the comments submitted by these parties. The ISO primarily focuses on two issues raised by these commenters, the basic methodological approach to market monitoring and the independence of the market monitor.

Market Monitoring Functions

Both Reliant and EPSA advocated a three-tiered approach to market monitoring. The first tier involves applying established anti-trust standards that focus on market concentration levels. EPSA also suggests that a first-level assessment take into account the effect specific market rules have on market outcomes and points out that by recommending changes to “anomalous” market rules early on, a market monitor may be able to avoid “troublesome outcomes”. The second tier involves identifying key factors impacting market performance. Several key factors identified by Reliant were flaws in both the market structure and rules, barriers to entry, and imbalances between supply and demand. Reliant recommends that market monitors identify and remedy factors that negatively affect market performance. Both Reliant and EPSA argue that differences between the estimated marginal costs of suppliers and market clearing prices do not represent evidence of market power. In support of that argument, they identify several factors other than the exercise of market power that could explain why market clearing prices are higher than suppliers’ marginal costs, including capacity value, opportunity costs, start-up and low load costs, scarcity value, and risk. The third tier of the market monitoring approach advocated by Reliant and EPSA involves investigating individual bidding behavior. EPSA states that this would include investigating outage rates, failure to bid uncommitted capacity into the real-time market, and variations in bidding patterns.

Both Reliant and EPSA state that standards necessary to identify and remedy anti-competitive behavior must be clearly identified and consistently applied and that California should not replicate the disruptive experiences, including market intervention, that have occurred in some of the eastern ISOs.

SCE believes California's markets are dysfunctional and are likely to remain so for the next several years. SCE advocates a return to cost-based rates. In the event cost-based rates are not implemented, SCE offers several monitoring and enforcement recommendations, including:

1. that market behavior be primarily monitored and enforced ex-ante, while recognizing that ex-post review may also be necessary;
2. that the market monitor have greater authority to mitigate bids before the market is run, to impose penalties for market abuse, to review all operational and bid data, to review bilateral contracts, and to change market rules, and when appropriate, authority to rerun markets or recalculate prices;
3. that various types of markets, transactions and bids should be monitored, including those associated with the natural gas market and NOx emission credits;

ISO Response

The ISO believes the general approach for mitigating market power proposed by Reliant and EPSA will not effectively mitigate market power nor ensure just and reasonable rates. The ISO long ago concluded that market concentration levels alone are not a very good indication of an entities' ability to exercise market power in the California electricity markets.[5] The ISO believes that while such indicia may be appropriate in one-time (i.e., static) determinations as to whether an entity can exercise

[5] See, for example Motion to Intervene of the California Independent System Operator Corporation dated May 21, 1998 in *AES Redondo Beach, LLC*, Docket No. ER98-2843-000 at page 7. See also Chapter 7 of the ISO DMA's Annual Report on Market Issues and Performance (June 1999).

market power (such as in a traditional horizontal merger analysis), market concentration analyses based on installed or contractually committed capacity are inappropriate for dynamic hourly markets, such as those in California. Moreover, if such hourly markets have very inelastic demand and tight supply margins, such as exists in California's wholesale electricity markets, even a supplier having only a small market share can exercise market power during certain conditions. To the extent, therefore, that Reliant and EPSA contend that their proposed first level analysis – the application of traditional antitrust analysis including market concentration analysis – should be used to *exclude* the possibility of the exercise of market power, the ISO strongly disagrees. The ISO does agree, however, that identifying and remedying flaws in market rules is an important part of market monitoring. The ISO, and in particular the ISO's DMA, as well as the Market Surveillance Committee ("MSC"), have historically been very proactive in identifying flaws in California's markets and proposing remedies.

Though Reliant and EPSA did not provide much detail on the standards and approaches to be used for identifying and remedying anti-competitive behavior, their proposals suggest they favor an ex-post approach. The ISO believes an ex-post approach, while valid at times and always available, is less effective at mitigating market power in the particular circumstances of the California energy markets and therefore favors primary reliance on an ex-ante approach. The ISO believes that the financial harm to California consumers caused by market power is extremely difficult to repair after the fact and that such ex-post mitigation is ineffective at preventing the future exercise of market power. The ISO favors an ex-ante approach for mitigating market power so that the price distortions and financial harm can be avoided. Moreover, the

ISO believes that most Market Participants would prefer an ex ante approach to market power mitigation, thus increasing transparency and reducing their risk of after-the-fact review. The ISO acknowledges that many of the cost components identified by EPSA and Reliant (capacity value, opportunity costs, start-up and low load costs, scarcity value, and risk) are legitimate bidding considerations. However, given the non-competitive market conditions (lack of supply and insufficient demand responsiveness) that exist in California and the likely continuation of such conditions for the next few years, reasonable bounds need to be placed on the use of such factors as an explanation for market clearing prices significantly above system marginal costs. Moreover, as recognized by the Commission in its December 15 Order regarding the California markets, legitimate opportunity costs are hard to identify and quantify. This is precisely why the ISO proposes to establish resource specific bid price thresholds that consist of both a variable cost component and a fixed margin. The margin is intended to be large enough to capture these types of costs.

The ISO disagrees with SCE's proposal for a return to cost-based rates. The ISO instead prefers to preserve market rates with appropriate mitigation measures to address the potential exercise of market power. The ISO shares the Commission's view that a return to traditional cost of service regulation is not the answer and will only serve to further dampen the price signals necessary to attract new investment. The ISO does agree with many of the monitoring activities proposed by SCE, as an alternative to cost of service regulation. However, consistent with the long-term market design envisioned in the Commission's December 15 Order, the cornerstone of the ISO's proposed Market Power Mitigation Plan is forward contracting. If California load serving entities are able to secure most of their energy demands through long-term contracts at just and reasonable rates, market power mitigation can be less heavy handed in the shorter-term spot markets.

Independence of the Market Monitor

Reliant, EPSA, and SCE all stress the importance of independence in market monitoring. Both SCE and EPSA recommend that the market monitor be independent from the ISO. SCE states that when the entity charged with monitoring is also charged with ensuring reliability, this dual role presents a conflict of interest. SCE states that "Grid Operators that require the cooperation/compliance of a generator may be reluctant to penalize or reprimand a generator." Reliant emphasizes the importance of due process for market participants and recommends that market participants have equal status with the market monitoring unit on matters before the ISO/RTO Board. Specifically, Reliant states that market participants should have an opportunity to review and critique the market monitoring unit's studies and recommendations and to present their own analysis and recommendations to the ISO/RTO Board.

ISO Response

The ISO agrees that a market monitor should be independent. However, the ISO does not believe that such an entity must be separate from the ISO/RTO; entities that are by definition independent. The ISO does not believe that the independence of the market monitoring unit is compromised if the unit is part of the ISO. The ISO believes that the past actions of both the ISO's DMA and the MSC attest to that independence. Since ISO operations began in 1998, the ISO's DMA and the MSC have submitted to both the ISO Governing Board, FERC and state agencies numerous reports and analyses detailing actual or potential instances of gaming and market power abuse. Moreover, many of these reports have also been critical of the ISO's own practices and market design.

The ISO also believes that it is important to recognize that market monitoring is more than just collecting and analyzing data. An effective market monitor needs to have close and cooperative interactions with operations staff and the legal and regulatory staff. Such close coordination is essential if the market monitor is to fully understand the operating practices and procedures of the ISO. This type of understanding would be extremely difficult to acquire if the market monitor were external to the ISO. Moreover, physical separation is unnecessary. The ISO Tariff ensures the independence of the market monitors within the ISO structure. *See, e.g.*, MMIP 3.3.1 (DMA is independent of ISO operations, reporting directly to the CEO through the General Counsel); MMIP 3.3.2 (MSC's independent authority to refer matters to the ISO Board). Finally, the ISO strongly disagrees with SCE's assertion that a grid operator may be reluctant to penalize or reprimand a generator. First, the ISO's approach is to first establish incentives for Market Participants to behave in a manner consistent with reliable system operations, rather than to penalize those who exhibit anomalous behavior. Second, it is the ISO's goal to establish, ex ante, clear guidelines and rules for what is acceptable market behavior. With those rules established, all Market Participants are forewarned that non-compliance may result in punitive action by the ISO. Thus, the ISO does not believe that the ISO will be reluctant to act against a generator if the rules so provide. More importantly, the ISO recognizes that enforcement action against non-compliant generators is imperative if the ISO is to maintain reliable operation of the system and sustainable energy markets. That is, the ISO recognizes that it cannot permit anomalous market or operating behavior to go unchallenged if it endeavors to sustain a market-based approach to system operation.

The ISO agrees with Reliant that all Market Participants are entitled to "due process" before they are assessed fines or penalties for market power or other types of market abuses. Section 13 of the ISO Tariff provides Dispute Resolution procedures if a party contests the action of the ISO. Moreover, any party has a right to appeal application of a penalty or sanction to the Commission. Finally, the Commission has made clear on a number of occasions the requirement that the ISO must first file to establish, under the ISO Tariff, any penalty or sanction. As with any FERC filing, Market Participants can raise concerns with the ISO's proposal at that time. In addition, the Commission has stated that the ISO must clearly outline in the ISO Tariff the circumstances under which a party would be subject to such penalty or sanction.

Conclusion

The ISO wishes to once again express its gratitude to the Commission for providing a forum for addressing this critical issue. As the Commission continues to examine and develop appropriate market power mitigation measures, we urge the Commission to remain flexible and open to both measures at use in other markets and to new measures appropriate to the circumstances in California. More importantly, we urge the Commission to take quick and decisive action to remedy the exercise of market power in the California energy markets. Should the Commission find itself reluctant to take decisive unilateral action, we implore the Commission to affirm the approach ultimately filed by the ISO.

Absent such action, the ISO fears that the California energy markets will continue to experience extraordinary high prices and face interminable calls for re-regulation and dissolution of the markets.