

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

San Diego Gas & Electric Company	)	
	)	
	)	Docket No. EL00-95-012
v.	)	
	)	
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 STAFF'S RECOMMENDATION ON PROSPECTIVE MARKET MONITORING  
AND MITIGATION FOR THE CALIFORNIA WHOLESALE  
ELECTRIC POWER MARKET**

Pursuant to Rule 213 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213 (2000), and the Commission's March 9, 2001 Notice of Opportunity for Comment, the California Independent System Operator Corporation ("ISO") hereby submits its comments on Staff's Recommendation on Prospective Market Monitoring and Mitigation for the California Wholesale Electric Power Market ("Staff Proposal" or "Proposal").

## I. COMMUNICATIONS

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## II. BACKGROUND

### A. Introduction and Summary

The ISO is most appreciative of the efforts of the Commission Staff in convening the technical conference on market power issues, soliciting comments from the ISO and other interested participants, and developing the Staff Proposal. The ISO has been working on these difficult issues since the first price spike in the spring of 1998. There are no easy answers. Indeed, the ISO's approach to market power mitigation has continued to evolve, as additional data concerning the performance of the California electricity markets in recent months become available. Presented with these comments are two recent studies prepared by members of the ISO's Department of Market Analysis ("DMA"). They demonstrate that, since May of 2000, the exercise of market power has been prevalent and has occurred during all system conditions.

While the ISO is encouraged by Staff's recognition in the Proposal that certain market power mitigation measures are necessary in California, the ISO believes that other stronger measures are appropriate. Although Staff's Proposal appropriately limits

prices in certain hours, implementation of the Proposal would permit the exercise of market power in other, more extensive periods. Moreover, the Staff Proposal fails to address a key problem faced by the California market, that of importers being able to establish excessive, unmitigated prices in that market. Recognizing the delicate nature of this issue and with great reluctance, the ISO believes that, to be effective, any market power mitigation proposal must address this issue. In the final analysis, we believe that the Staff Proposal is a good first step in the development of a plan that comprehensively and effectively addresses market power in California.

The ISO believes that one element of the Staff Proposal -- the call for unit-specific real-time price mitigation -- is an essential remedial measure that must be adopted as soon as possible. The ISO supports the use of these mitigated bids to produce a price that approximates the price at which the market would have cleared under competitive conditions, to constrain suppliers from exercising market power and to protect consumers from unjust and unreasonable rates.

The ISO's primary concern with the Staff Proposal is its unduly limited scope: In particular, Staff suggests that these mitigated bids be used only in conditions of extreme reserve deficiency, such as a Stage 3 emergency. The ISO believes that this recommendation is unnecessarily restrictive and based on two unrealistic assumptions: (1) that only five percent of the load will be exposed to the spot price and (2) that the exercise of significant market power is most likely limited to Stage 3 conditions. The ISO will explain below why these assumptions are not realistic and therefore cannot be the basis for designing an effective market power mitigation plan..

Despite the State's significant progress towards entering into long-term energy-supply contracts, significant portions of California load are likely to remain subject to prices in the spot market. Therefore, exposing such load to unjust and unreasonable prices in all but a limited number of hours will continue to magnify the financial harm wrought on consumers in California by unreasonable price levels. Moreover, there is clear evidence, reflected in the attached DMA studies as well as other analyses already in the record in this proceeding, that significant market power is being exercised under *all* conditions, not just Stage 3 emergencies. The Commission's well-supported finding that wholesale power rates in California are "unjust and unreasonable" is not limited to rates during Stage 3 emergencies.<sup>1</sup>

The ISO also has similar concerns with the alternative approach discussed in the Staff Proposal, which would not even mitigate real-time prices during a Stage 3 emergency. The ISO does not believe the conditions upon which this alternative proposal is premised – the covering of a significant percentage of load in California by forward contracts -- will be present in California in the foreseeable future.

In the last section of these comments, the ISO will outline its market stabilization plan that has recently been approved in concept by the ISO Governing Board and will be filed with the Commission shortly. While this plan is still being developed, an essential feature is the proposal to use cost-based mitigated bids *in all hours* to most

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<sup>1</sup> See, e.g., the Commission's December 15, 2000 order in this proceeding. *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, et al.*, 93 FERC ¶ 61,294 (2000). In that order, the Commission reaffirmed earlier findings "that unjust and unreasonable rates were charged and could continue to be charged" under a variety of conditions in the California wholesale electric markets. *Id.*, at 61,999.

closely approximate the price outcomes of a well functioning competitive market. The ISO believes this plan offers several advantages over the Staff Proposal.

Mitigating bids in all hours appropriately addresses the pervasive market power being exercised in the ISO markets during all system conditions and better protects consumers not protected under reasonable long term purchasing arrangements. In addition, the ability to mitigate bids in all hours addresses a problem not addressed in the Staff Proposal, namely, the need to mitigate locational market power. Locational market power exists when, because of system conditions such as generator or transmission outages, specific units must be dispatched if system reliability is to be maintained. More importantly, as explained further below, the ISO's plan to mitigate bids in all hours better approximates competitive market outcomes than does the Staff Proposal. Whereas the Staff Proposal attempts to simulate a competitive market outcome only in hours where the ISO has declared a Stage 3 emergency, the ISO's plan would approximate, for every hour, the competitive market outcome likely to occur under the same load and supply conditions. Thus, the ISO's plan will simulate a competitive market in all hours and thereby establish more appropriate and accurate price signals for investment. Under the Staff Proposal mitigation occurs only when shortages are most acute (and prices would be high even under fully competitive conditions). Therefore, Staff's Proposal would skew the relationship between off-peak and on-peak prices under competitive market conditions by mitigating prices during peak hours (when scarcity may justify high prices) and letting off-peak prices remain unmitigated and high. The ISO is concerned that Staff's Proposal would mute any price signal for investment in peaking resources. Modifying the Staff Proposal to mitigate

prices in all hours, as the ISO's plan will do, sends a better signal by attempting to create a competitive clearing price under all load conditions. Moreover, the ISO's plan will not deter the addition of needed new supply in California. As the attached DMA analysis makes clear, the prices generated under the ISO's mitigation proposal will be more than sufficient to attract new generation.<sup>2</sup>

The ISO's market stabilization plan also attempts to address the problem of "megawatt laundering" – the practice of some suppliers of scheduling exports of in-state power in the day-ahead time frame and then re-importing it for sale in the real-time market or through “out-of-market” transactions at a substantial mark-up. Staff recognizes the significance of this issue (Proposal at 24) but offers no remedy. The stabilization plan also proposes a day-ahead energy market to, in part, replace certain services formerly offered by the California Power Exchange and modifications in the ISO's dispatch approach, in particular the relaxation of the market separation constraint.

This is a critical period. The need for the Commission to impose effective and comprehensive remedies is compelling. The current level of unjust and unreasonable wholesale electric prices cannot be sustained without threatening even further the economy of California and, indeed, of the Nation.

## B. The Current Market Crisis

### 1. Current Prices Are Untenable

The California electricity market has gone from being "dysfunctional" to precipitating a crisis that threatens any semblance of just and reasonable consumer rates, the financial viability of California's investor-owned utilities ("IOUs"), the financial stability of California, of its neighboring states, and of the Nation. While the

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<sup>2</sup> See Attachment B to these Comments at p. 16.

Commission has recognized the gravity of the situation and the unreasonableness of the wholesale prices being charged, its proposed remedies have failed to resolve the problem. The ISO estimates that the energy and ancillary service costs for this past December and January reached \$6.15 and \$5.34 billion respectively, or over \$11 billion for two months.<sup>3</sup> This compares to estimated costs *for total ISO load* of \$7.43 billion *for the entire year* of calendar 1999. On a dollar per MWh basis, costs in 1999 ranged between monthly averages of about \$20 to \$50 with a yearly average of \$31. The comparable figures for December 2000 through February 2001 were \$294, \$265, and \$258 respectively -- nearly ten times the prices during the previous year!

High prices have continued unabated through early March. Given the financial distress of the state's IOUs, the California Department of Water Resources ("CDWR") has stepped in to cover most of the "net short" position -- the amount of power needed to cover the difference between what the IOUs can produce from their own facilities or by means of existing contracts and the remaining actual demands. CDWR is reported to be spending approximately \$45 million per day to meet these needs. Moreover, it appears that the Commission has underestimated the amount of net short power that is needed. In its December 15 Order, the Commission anticipated that the IOUs' own generation, including generation under IOU contractual control, amounted to approximately 25,000 MW. December 15 Order, 93 FERC at 61,993. In reality, actual output from the IOUs' own generation and contractual entitlements averaged

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<sup>3</sup> See Attachment A, Cost Summary Through January 29, 2001.

approximately 15,000 MW during the super peak periods of summer 2000 and never exceeded 19,000 MW.<sup>4</sup>

The IOUs have incurred staggering losses. For example, in eight months Southern California Edison Company ("SCE") has gone from an A+ rated enterprise with a market capitalization of \$6.5 billion to the brink of bankruptcy with its debt rated below investment grade. Pacific Gas and Electric Company, ("PG&E"), also has seen its debt downgraded to below investment grade since January of this year. SCE and PG&E currently are in default on hundreds of millions of dollars in outstanding obligations.

On March 15, 2001, Dr. Frank Wolak of the ISO's Market Surveillance Committee informed the ISO Governing Board that based on an extrapolation of prices in the first two months of 2001 and, absent the imposition of significant, effective mitigation measures, electricity costs in California could total \$70 billion for 2001, or more than an order of magnitude beyond the less than \$6 billion expended in 1998 and almost an order of magnitude more than the \$7.43 billion expended in 1999.

The Staff Proposal points to no evidence that extreme prices show signs of abatement. The ISO fully agrees with the statement in the Staff proposal that "some extraordinary measures must be considered." Proposal at 1.

## 2. The High Prices Reflect the Rampant Exercise of Market Power

In its November 1, 2000 order in this proceeding, the Commission found that the "electric market structure and market rules for wholesale sales of electric energy in California were seriously flawed and that these structures and rules, in conjunction with

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<sup>4</sup> The variance may be attributable to forced or planned outages or differences between rated capacities and actual outputs, particularly hydro-electric generation.



an imbalance of supply and demand in California, have caused, and continue to have the potential to cause unjust and unreasonable rates for short-term energy . . . under certain conditions.” *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, et al.*, 93 FERC ¶ 61,121, 61,346-50 (2000). Two recent studies by the ISO's DMA show that the exercise of market power is widespread both in terms of the number of suppliers exhibiting withholding and the time periods in which prices are being bid substantially above costs.

Provided as Attachment B to these comments is a study prepared by Dr. Eric Hildebrandt, entitled *Further Analyses of the Exercise and Cost Impacts of Market Power in California's Wholesale Energy Market*. The analysis reaches a number of distressing conclusions.

First, using a "system price cost markup" methodology which compares energy prices to the variable cost of the marginal unit in the market in each hour to meet demand,<sup>5</sup> Dr. Hildebrandt demonstrates that 30 percent of the wholesale energy prices over the last year can be attributed to the exercise of market power (*i.e.*, that wholesale energy costs were about 30 percent higher than they would have been in the absence of market power) . His analyses show, moreover, that prices exceed the competitive market benchmark in all hours, under a variety of system conditions. The results illustrate that market power abuse is not limited to hours when a deficiency in operating reserves requires the ISO to declare a System Emergency, much less hours in which a

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<sup>5</sup> As such, this methodology represents the price that would have occurred under workably competitive conditions. It attempts to account for variations in gas prices, costs of emission credits, and even appropriate scarcity rents.

Stage 3 emergency has been declared. The data demonstrate that over the most recent 12-month period (including the first two months of 2001) the gap between actual wholesale prices and the proper competitive level (which takes into account spikes in natural gas prices) *continues to grow*. This fact underscores the need for appropriate market power mitigation measures for all system conditions.

Second, Dr. Hildebrandt examines wholesale prices in relation to the cost of investment in new supply. The results indicate that on an annualized basis wholesale prices since January 2000 have exceeded the cost of new capacity by approximately 400 percent and would allow recovery of an investment in new supply in a period of less than two years. While the ISO recognizes and supports the Commission's goal of attracting new supply into California and the other Western states, current prices are well beyond the range of any reasonable incentive. Beyond a certain level, higher prices will not bring in more supply any sooner. The realities of power plant construction requires a minimum amount of time to add new plants or units. High prices needlessly hurt the consumers and the economy (with national impact) and ultimately damage the electricity industry. With the exception of a few existing large suppliers, no party benefits from excessive market power, not even those parties that would invest in new supply.

Provided as Attachment C to these comments is an analysis recently completed by Dr. Anjali Sheffrin, entitled *Empirical Evidence of Strategic Bidding in California ISO Real-time Market*, that examines the bidding behavior in the ISO's real-time market of five large in-state non-IOU suppliers and 16 importers. Dr. Sheffrin examined two types of bidding strategies exhibited by suppliers: (1) economic withholding -- bidding

substantially above their units marginal costs and (2) physical withholding -- not bidding or scheduling available resources in the market. The study found that withholding, especially economic withholding, plagued the market for most hours from May to November 2000.<sup>6</sup> The study provides direct evidence that many large suppliers actively have engaged in strategic bidding efforts that are consistent with oligopoly pricing behavior, with a direct and substantial impact on market prices.

The study also concludes that the ample evidence of the exercise of market power may be at odds with representations made by some suppliers when they sought market-based rate authority from the Commission. Market-based rates in a market rampant with market power violates the Federal Power Act and established FERC imperatives that just and reasonable rates be maintained. FERC granted market-based rate authority based on projections of workable competition, which have not been borne out by actual market data. Utilizing a safe-harbor, whether in the form of a market share limitation (20% rule) or an HHI index, has proven to be a poor measure of the ability of individual suppliers in the California markets to exercise market power.<sup>7</sup>

The study concludes that, from the period of May to November 2000, as a direct consequence of the exercise of market power, large suppliers earned excess profits of more than \$500 million over competitive price benchmarks in the ISO's real-time energy market. The overall impact of the exercise of market power on the ISO's real-time market during the same including smaller suppliers period is estimated at \$ 1.19 billion.

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<sup>6</sup> Of the 25,000 hourly bidding profiles studied, less than 2% displayed the absence of a clear pattern of withholding.

<sup>7</sup> In measuring market power in California, hourly markets must be reviewed. Aggregated analysis or broad market definition can mask significant market power.

The ISO believes that this study offers substantial evidence demonstrating that individual suppliers successfully inflated market prices in the California ISO real-time market. However, this represents only 10% of the total market costs incurred. To gain a more complete understanding of the prejudice that has been imposed on California ratepayers and on the California economy, it would be necessary to apply this methodology to transactions in the PX markets.

These two new DMA studies demonstrate the rampant exercise of market power by suppliers under all system conditions and to emphasize the need to take effective, comprehensive action to prevent continuing widespread abuse in the future. While the ISO recognizes that the market mitigation proposal put forth by the Commission Staff is intended to be forward-looking, the data presented here emphasize the need for a more comprehensive forward-looking proposal as well as immediate and substantial refund relief.<sup>8</sup>

### 3. The Current Imbalance Between Supply and Demand

An effective market power mitigation and stabilization plan is also necessary to address the current disparity between the electricity supply and projected demand in the State. Current indications are that California is facing an electricity shortage of unprecedented proportions. A report currently being prepared by the ISO will provide a detailed analysis of historical and forecasted near-term peak electricity supply and demand levels for the ISO Control Area. The initial analyses of the trends of historic data being conducted in the preparation of this report indicate the potential for significant supply shortages for summer 2001.

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<sup>8</sup> The ISO reserves the right to further address the need for refund relief for prior periods in a separate filing to the Commission.

The following table is based on the current draft of that report and summarizes forecasted supply and demand conditions for summer 2001.

INITIAL PROJECTIONS	SUMMER 2001			
	JUNE	JULY	AUGUST	SEPT.
<b>CONTROL AREA PEAK DEMAND [MW]</b>	50,303	50,303	50,303	50,303
<b>CONTROL AREA PEAK GENERATION RESOURCES [MW]</b>	40,860	43,063	43,259	43,841
<b>CONTROL AREA NET IMPORTS [MW]</b>	3,500	3,500	3,500	3,500
<b>DEFINITIVE MITIGATION MEASURES [MW]</b>	2996	2996	2996	

Peak demands in the ISO Control Area are projected to total over 50,000 MW. In contrast, even with new generation coming on line, Control Area resources are not projected to exceed 44,000 MW. The ISO will have to rely on imports and demand reduction efforts to make up the difference, which will be challenging, especially in light of declining imports over recent years. There is therefore a very real risk that Stage 3 emergency declarations and even rolling blackouts will occur this summer. This situation will only be exacerbated without the types of strong measures being developed in the ISO's market stabilization plan.

4. The Commission's Actions Will Have Significant Effects Not Only On the Immediate Situation In California But Also With Respect To the Manner In Which Other Jurisdictions Approach Deregulation

In recent testimony before the Senate Committee on Energy and Natural Resources, Chairman Hebert recognized the need to promote new supply and load reductions.<sup>9</sup> The ISO agrees that it is imperative that both new generating capacity and significant, effective demand-side opportunities be developed. The ISO, however, must disagree with the Chairman's statement that "[m]arket prices are sending the right

<sup>9</sup> Testimony of Curt L. Hebert, Jr. Before the Committee on Energy and Natural Resources United States Senate, March 15, 2001 at 2.

signals to both sellers and buyers.” *Id.* As noted in the prior section, prices are far in excess of the levels needed to provide the appropriate signals that would serve as an incentive for new generation. Market prices that are the result of the exercise of market power do *not* send the “right signals.” To conclude otherwise would sanction charges that are in clear violation of the Federal Power Act’s prohibition against unjust and unreasonable prices.

Consistent with its statutory responsibilities, the Commission must ensure that prices will be brought down to just and reasonable levels. The Commission has taken actions toward this end in its December 15 Order and in its more recent March 9, 2001 and March 16, 2001 decisions establishing proxy prices and ordering sellers to further support their actions or provide refunds. Unfortunately, these actions do not address the full extent of the abuses that have taken place.

Unless appropriate action is taken immediately to preclude the continued extraction of monopoly rents, particularly as the season of high demand approaches, the confidence of consumers and of state officials in a deregulated electricity market can only further be eroded. Absent assurance that unjust and unreasonable energy prices will not be tolerated, enthusiasm for deregulation and the competitive paradigm cannot be expected to be maintained. Already, numerous jurisdictions are delaying previously planned efforts at deregulation.

As the experience in San Diego last summer demonstrates, it is simplistic to assume that abuses would be abated mainly by lifting a retail rate freeze. Sanctioning the pass-through of prices inflated by the exercise of market power produced a public backlash never before seen with respect to the energy market. The Commission must

exercise great caution as it approaches this summer in California and the rest of the West. While the Federal Power Act accords the Commission discretion in setting rates, the Commission must exercise its oversight responsibility under sections 205 and 206 in recognition of the statutory aim “to protect consumers from exorbitant prices and unfair business practices.”<sup>10</sup>

### **III. Comments on the FERC Staff Proposal**

#### **A. Critical Assumptions Underlying Limitations in the Staff Proposal Are Unsupported**

There are two assumptions underlying the critical limitation in the Staff's market power mitigation proposal – establishing price mitigation only for hours when a Stage 3 emergency has been declared: First, the Staff Proposal assumes that the mitigation plan will need to protect only a small percentage of the overall California demand, as only approximately 5 percent will be exposed to the spot price. Second, the Staff Proposal assumes that market power is most likely to be exercised only in the most extreme periods of imbalance between supply and demand - Stage 3 emergencies. These assumptions are flatly contradicted by the available evidence.

##### **1. More than 5 Percent of California Load Is Exposed To Spot Prices**

In several places in its proposal, Staff notes that only 5 percent of load will remain in real-time. For example, Staff begins with the observation that “Should the Commission proceed with this recommended approach, it should be recognized that the mitigation is designed to apply to only approximately 5% of the market that remains in

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<sup>10</sup> *Public Sys. v. FERC*, 606 F.2d 973, 979 n.27 (D.C. Cir. 1979). See also *Atlantic Refining Co. v. Publ. Serv. Com'n*, 360 U.S. 378, 388 (1959) (the corresponding provisions of the Natural Gas Act “afford consumers a complete, permanent and effective bond of protection from excessive rates and charges”); *Pennsylvania Water & Power Co. v. FPC*, 343 U.S. 414, 418 (1952) (describing the Commission’s primary duty to “protect consumers against excessive prices”).

real-time and not the bilateral and forward markets.” Proposal at 1. Yet, the Proposal also recognizes that:

[t]he immediate consequence of cessation of trading operations by the CalPX is that most transactions in the California wholesale electric market are bilateral transactions. However, it appears that most bilateral contracts continue to be short term in nature and there has been only limited hedging of risks for consumers via longer term contracts.

Proposal at 6.

As a result of their distressed financial conditions, the California IOUs cannot engage in forward purchasing. Beginning in mid-January, the State of California, through the CDWR, has stepped in to attempt to secure supplies to cover the net short position of the IOUs, through both short-term and spot purchases.

The State and CDWR have also undertaken extraordinary efforts to negotiate long-term contracts to better ensure the availability of adequate supplies and to protect California consumers against the volatility of spot prices. Despite these unprecedented efforts by the State, it cannot be assumed that contracts covering 95 percent of load will be in place for the summer. Yet that is a key assumption of the Staff Proposal. In light of unabated high prices and notwithstanding a precipitous decline in natural gas costs, consumers will not be insulated from exorbitant unjust and unreasonable spot market prices over the coming months of high demand under the assumptions and limited applications of the Staff Proposal.

2. Studies Demonstrate That Market Power Is Not Limited To Stage 3 Emergencies

Prior studies of the ISO Markets, including the November 1, 2000 Commission Staff Study of the Western Markets and the Causes of the Summer 2000 Price Abnormalities, have recognized that market power was exercised in tight supply



conditions over the periods prior to December 2000.<sup>11</sup> These exercises of market power, however, did *not* occur only or even predominantly during Stage 3 conditions. Moreover, more recent data demonstrates that market power is currently being exercised at virtually all times and under all system conditions.

In its October 19, 1999 Report on the Redesign of the California Real-Time Energy and Ancillary Services Markets, the ISO's Market Surveillance Committee ("MSC") stated,

We find that significant market power remains in California's wholesale energy markets during periods of high total system load, which primarily occur during the summer months.

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During these periods, price movements across hours of the day are significantly in excess of the increased costs of supplying power during these hours.... This is a direct indication of market power.<sup>12</sup>

The MSC found that actual costs during the summer of 1998 were approximately 20 percent above those predicted by their benchmark market analysis. *Id.* at 8.

On September 6, 2000, the MSC issued its analysis of the June 2000 Price Spikes in the California ISO Energy and Ancillary Services Markets,<sup>13</sup> finding that,

During the months of May and June 2000, wholesale revenues from sales of total ISO load (less must-take energy) for all hours of the month in the California energy market were approximately 37% and 182%, respectively above monthly revenues under perfectly competitive pricing.

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<sup>11</sup> See November 1, 2000, Staff Report to the Federal Energy Regulatory Commission on Western Markets and the Causes of the Summer 2000 Price Abnormalities at 5-25.

<sup>12</sup> Report on the Redesign of the California Real-Time Energy and Ancillary Services Markets, filed in Docket Nos. ER98-2843-000, et al. (October 18, 1999) at 1 and 7-8.

<sup>13</sup> An Analysis of the June 2000 Price Spikes in the California ISO's Energy and Ancillary Services Markets. This report and other MSC reports cited in these comments can be found on the ISO Home Page at [www.caiso.com/surveillance/overview/Committee.html](http://www.caiso.com/surveillance/overview/Committee.html).

*Id.* at 2. The MSC concluded that the California electricity market,

Is composed of a relatively small number of firms, some of which own a sizable fraction of the total electricity generating capacity located in the ISO Control Area. The geographic distribution of generation unit ownership can allow some owners to exercise locational market power during certain system conditions. In addition, the amount of generating capacity owned by some market participants allows them to exercise market power during high load conditions, *when there is not a physical scarcity of available generating capacity to serve this load.*

*Id.* at 5 (emphasis added).

It is significant to note that these tight supply conditions, exercise of market power, and unjust and unreasonable prices *all* took place outside of Stage 3 conditions. There is no basis for the Commission to conclude that the experiences of the prior summers, in which market power was exercised outside of emergency conditions, will not be repeated. To the contrary, more recent analyses demonstrate that the problems of market power are more pervasive, occurring at all times and under all conditions. In an affidavit filed with the Commission in this proceeding on October 20, 2000, Dr. Hildebrandt presented results of a more systematic, quantitative analysis of market power and scarcity over the first two and one half years of ISO operations. Results of this analysis showed a significant degree of market power during the months of May to September 2000. DMA noted that:

While a significant portion of the increase in wholesale costs above this competitive baseline have been incurred during hours of potential absolute resource scarcity, the bulk of these additional costs are attributable [to] a lack of competition, rather than scarcity. In addition, prices continued to significantly exceed competitive levels even after the ISO's real-time price cap was lowered to \$250 in August.

Declaration of Eric Hildebrandt filed with Proposed Offer of Settlement in Docket Nos. EL00-95 *et al.* on October 20, 2000 at pp. 5-7. Furthermore, a DMA report submitted

with the ISO's comments on the Commission's November 1 order presented the results of a quantitative analysis by DMA staff of the impact of market power and other factors on market costs. As explained in this report:

[S]ince late May of this year [2000], the combination of very tight supply and demand conditions — in conjunction with very limited ability of consumers to reduce consumption in response to high prices — has created the opportunity for the persistent exercise of market power in California's wholesale energy markets. The exercise of this market power has inflated wholesale energy costs significantly above levels that would have resulted under competitive market conditions, even after taking into account fundamental market factors driving up costs and hours of potential scarcity of supply. While some degree of market power may be tolerable from the perspective of defining a workably competitive market, the exercise of market power since late May of this year has clearly exceeded the level that may be considered consistent with a workably competitive market. Since additions of new supply are likely to merely keep pace with or even fall short of demand growth over the next two years, the exercise of significant market power can be expected to continue — if not worsen — over the next two years absent action to more effectively mitigate system-wide market power.<sup>14</sup>

The studies by Dr. Hildebrandt and Dr. Sheffrin attached to these comments provide further evidence that market power is being widely exercised under all market conditions. Specifically, these studies demonstrate that market participants can affect market prices in California by altering output or bid prices during a wide range of system conditions, and not just those hours where a deficiency in Operating Reserves requires the ISO to declare a System Emergency. In addition, these studies show that the incidence of strategic bidding behavior has increased considerably over the periods studied. Thus, rather than being confined to Stage 3 emergencies, or even to Stage 2

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<sup>14</sup> Analysis of Market Power in California's Wholesale Energy Markets, Attachment A to the ISO's November 22 Comments on the November 1 Order in Docket Nos. EL00-95 *et al*, at 9.

or Stage 1 conditions, the problem of market power *under all system conditions* has continued to worsen.

B. While the Staff's Primary Proposal Contains Many Valuable Elements That Will Assist In Mitigating Market Power, It Does Not Go Far Enough To Remedy The Abuses That Have Been Experienced To-Date and Will Continue To Occur Absent More Comprehensive Measures

Staff's proposal consists of the following elements:

- An enhanced role for the ISO in outage coordination,
- Imposition of mandatory selling obligations on certain suppliers,
- Adoption of real-time price mitigation for each generating unit,
- Specification of the conditions for invoking mitigation, and
- Use of a single market clearing price

The ISO provides its comments on each of these elements in the following sections.

1. The ISO Agrees That Better Outage Coordination Is Required

The first element of the Staff Proposal is outage coordination. Staff states that the ISO lacks sufficient authority to approve planned outage schedules of units that have signed Participating Generator Agreements ("PGAs"). Proposal at 22. The Staff Proposal calls for strengthened ISO authority with regard to planned outages, and close monitoring of unplanned outages by the ISO. *Id.* As well, Staff envisions the ISO immediately reporting any questionable outages to the Commission. *Id.*

The ISO supports Staff's recommendation that all planned outages of units with PGAs be coordinated and approved by an entity within the State, and that questionable outages be reported and investigated. The ISO notes that it has been working with State officials and stakeholders on this issue. In particular, the State is considering legislation that would implement the coordination of outages of all generating units in

California, including those of non-FERC jurisdictional entities. Moreover, the State is considering adoption of generating unit maintenance standards that would ensure that units are maintained in a manner that increases their availability. Such broader coordination and standards would enhance Staff's recommendation by ensuring that, to the extent feasible, planned outages of all generating resources in California are coordinated and units are maintained in a reliable manner.

2. The ISO Supports Staff's Proposed Generator Must-Bid Obligation But Is Concerned that It May Be Bypassed

The second element of the Staff Proposal is the imposition of selling obligations on suppliers in the ISO's real-time market -- "all available unsold capacity would be required to be available to the ISO for dispatch in real-time." Proposal at 23. Staff notes that suppliers would still be free to engage in sales and bilateral arrangements prior to real-time, but any remaining capacity would be required to be available.

The ISO supports this "must bid" proposal. It would serve as a means of mitigating physical withholding. There exist, however, avenues for abuse by Market Participants. For example, a supplier could have its supply become "unavailable" by simply scheduling sales out of state to avoid being required to accept the mitigated price for its energy. A supplier could then import the same energy back into California and receive a non-mitigated price. Such "megawatt laundering" is a major concern with any "must bid" scheme that does not provide a mechanism for dealing with imports. The ISO believes that any market power mitigation proposal must take into account the ability of suppliers to engage in this practice. As discussed below, the market stabilization plan under development by the ISO includes elements to address this concern.

3. The Requirements on Load Serving Entities Must Be Coordinated with State Demand Reduction Efforts

As part of its proposed must-bid regimen, Staff would require load-serving entities to “identify the loads that would be curtailed, and bid the capacity of these loads into the market, along with the price at which the load would be willing to be curtailed.” Staff indicated that the ISO should implement this demand bid concept as part of its Ancillary Services market. Proposal at 23.

The ISO shares the Staff’s desire to see California develop as much voluntary price responsive demand as is possible for this summer. However, purely as a matter of practicability, it is realistic to expect that only a nominal amount of price responsive demand will be in place this summer and that most of that will come from emergency activated programs and general conservation programs.

The ISO has undertaken several demand side initiatives to encourage demand response. These fall into 3 areas: (1) Price-responsive demand, (2) conservation campaigns, and (3) demand curtailments under emergency conditions. Each of these will be outlined below together with some perspective on recent state and CPUC interim decisions.

There are three key activities that will either provide price-responsive demand or start migration toward a true price-responsive demand market. The ISO Participating Load Ancillary Services Program was developed to operate within the Ancillary Services and Imbalance Energy markets and was approved by the Commission last year.<sup>15</sup> It allows loads to bid into the Non-Spin and Replacement markets and also the Imbalance Energy markets. To date, participation has been generally limited to large water project

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<sup>15</sup> *California Independent System Operator Corporation*, 91 FERC ¶ 61,256 (2000).

pumps in California. During the summer of 2000, approximately 500-600 MW of load bid into these markets. Further participation in this program has been inhibited by dispatch requirements for real-time energy, low price caps that are uneconomical for load and the California Public Utilities Commission ("CPUC") prohibition on interruptibles being able to operate in this program. Recent filings by the ISO to separate the dispatch of energy from Operating Reserves from other sources of real-time real-time could assist additional load participation in this program.

Last summer, approximately 230 MW of load capacity signed Participating Load Agreements with the ISO to be eligible to participate in the ISO's ancillary service and Imbalance energy markets. However, most (95%) of this capacity was load that was already operating under existing interruptible tariff rates which, under the regulations of the CPUC, were precluded from participating in these markets. A recent CPUC draft decision of March 16, 2001 reaffirmed its position, precluding participants of utility programs from also participating in the ISO's Ancillary Service markets. The ISO continues to believe that these loads could provide a valuable addition to the Ancillary Services markets.

Recently the ISO waived the telemetry requirements for Supplemental Energy bids to further encourage participation in the ISO's Imbalance Energy market. The ISO will continue to search for additional enhancements to make the Participating Load Ancillary Services Program attractive to a greater diversity of loads.

The new ISO Discretionary Load Curtailment Program ("DLCP") provides another level of demand response, but with less price response. This program is intended to attract smaller loads and loads that demand total control over their curtailments. During

development of the DLCP, participants indicated that preset price levels offered a degree of simplicity important to initial implementation of new programs. The program will start with a preset price level in the \$250-500 range, and the ISO has the flexibility to revise the price based on system conditions, experience with the program, and actual price conditions in the rest of the markets.

At the state level, there are discussions underway to fund installation of interval meters, with an initial installation of 18,000 meters. This project is a major step toward implementation of real-time pricing and thus true demand responsiveness. The ISO has been asked to consider operation of these loads under the ISO Demand Relief Program to act as a catalyst to start this project until real-time pricing has stabilized. The ISO supports the development of such projects, but it should be noted that there is significant uncertainty as to whether this project can be implemented in time for this summer and as to the level of initial participation in such a program.

Conservation activities are a major tool in managing the current crisis. The ISO has promoted conservation through public announcements, its PowerWatch communications initiative, and a new grass-roots communication activity. Also several state initiatives are communicating the need for even more aggressive conservation activities. The Governor of California has been publicly encouraging Californians to reduce their energy consumption by 10%, which if achieved during the peak hours would translate to a 4,000-4,500 MW demand reduction. Again, it is too soon to say whether this unprecedented conservation reduction effort will be as effective as hoped.



Demand curtailment under emergency conditions is another vehicle to manage the grid to prevent Stage 3 rotating blackouts. Two key emergency curtailment programs are the ISO Demand Relief Program and the UDC interruptible load program.

The ISO piloted its Demand Relief Program in the summer of 2000 with a participation of 65-70 MW. As a result of the first round of bidding for the summer of 2001, the ISO approved 596 MW of load participation. To capture the strong interest from additional new loads, the ISO will issue in late March a second RFB to expand this program further.

The ISO has also urged that the UDC-interruptible programs be continued because of their importance in managing the grid under emergency conditions. It appears from the recent CPUC draft decision that the interruptible program will be continued at least through the end of 2002. As of January 1, 2001 there was approximately 2,290 MW of load under existing interruptible tariffs. However, due to the high frequency emergency conditions during the first two months of 2001, the load available under Pacific Gas and Electric's ("PG&E's") program has been fully exhausted and Southern California Edison's ("SCE's") program is almost 50% exhausted. The CPUC draft decision contains many parameters that could allow continued operation by loads in the program and also additional participation from interruptible loads, *i.e.*, PG&E, once they have fulfilled their yearly commitment under their program. The ISO applauds any move which will allow for increased participation of loads in the California electric markets this summer.

Overall, the ISO believes that the various state and ISO demand reduction initiatives will achieve many of the objectives contemplated by the Staff proposal. Any

market power mitigation plan, however must take into account not only the need for coordination among these various initiatives but also the reality that, despite substantial progress, the California electric markets are unlikely to include fully price responsive demand in the near future.

4. The ISO Strongly Supports Staff's Call For Unit Specific Mitigation Measures

The Staff Proposal also provides for real-time price mitigation for each Participating Generator. Proposal at 2. "Each generating unit is to have a standing, confidential price based on its marginal costs to be used by the ISO to establish the real-time market clearing price when mitigation is appropriate." *Id.*

The ISO strongly supports this aspect of the Staff Proposal and believes it should be implemented as soon as possible. However, the ISO urges the Commission to consider a regional gas price index that includes gas prices outside of California and a just and reasonable transportation charge for California. In addition, the ISO believes the Commission should exclude emission costs from the bid cap formula. Since emission costs apply to only a subset of units in California, and the State of California has implemented a number of emergency measures this year to waive and/or modify emission standards and policies for power generators, the ISO believes it would be more appropriate to require generation owners to verify, on a monthly basis, emission credit costs. Verifiable emission costs could then be paid as a monthly uplift.

5. Prices Must Be Mitigated At All Times - Not Just Under Emergency Conditions

An additional element of the Staff proposal is that price mitigation be limited to reserve deficiency conditions, specifically to Stage 3 emergencies. The ISO agrees that

reserve deficiency conditions heighten the potential for the exercise of market power but does not believe that mitigation should be restricted to “critical operating periods . . . when reserves are scarce and load must be reduced.” Proposal at 22. As described in Section III.A.2 above, DMA has provided the Commission with analyses indicating that significant market power was exercised between May 2000 and January 2001 *during non-emergency hours*. Both the DMA<sup>16</sup> and the California Power Exchange Compliance Unit<sup>17</sup> have previously provided analyses to the Commission indicating that market prices in California’s wholesale energy markets consistently rise *significantly* above estimates of the marginal cost of the last unit supplying energy when reserve margins drop below 10%. As discussed above, the two DMA studies attached to these comments confirm these findings. More generally, there is no rationale, economic or otherwise, for limiting market power mitigation to emergency conditions. As noted in the Staff’s proposal, “Market power is traditionally defined as the ability of one or more suppliers to raise the market price above a competitive level, with significant market power being the ability to sustain a substantial price increase for a significant period of time.” Proposal at 10. Tight supply and relatively inelastic demand are the primary conditions under which a participant is likely to have the ability to “sustain a substantial price increase for a significant period of time.” These basic conditions have existed in almost all peak hours and many non-peak hours since May 2000 and will most likely get significantly worse in the coming months.

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<sup>16</sup> Department of Market Analysis, California ISO. *Report on California Energy Market Issues and Performance: May – June, 2000*.

<sup>17</sup> Compliance Unit, California Power Exchange, *Price Movements in California Power Exchange Markets: Analysis of Price Activity: May-September 2000*.

The ISO is concerned that the Staff Proposal, by limiting mitigation to hours in which a Stage 3 emergency has been declared, will inappropriately skew price signals and will allow market power to be exercised in several periods that require mitigation. is contrary to Staff's stated objective of simulating competitive market outcomes. In contrast, the ISO's plan to mitigate bids in all hours where mitigation is needed will establish more appropriate price signals for investment better approximates competitive market outcomes. Whereas the Staff Proposal attempts to simulate a competitive market outcome only in hours where the ISO has declared a Stage 3 emergency, the ISO's plan would approximate, for every hour, the competitive market outcome likely to occur under the same load and supply conditions. Thus, the ISO's proposal will simulate a competitive market in all hours and thereby establish more appropriate and accurate price signals for investment. Under the Staff Proposal mitigation occurs only when shortages are most acute (and prices would be high even under fully competitive conditions). Therefore, Staff's Proposal would skew the relationship between off-peak and on-peak prices under competitive market conditions by mitigating prices during peak hours (when scarcity may justify high prices) and letting off-peak prices remain unmitigated and high. The ISO is concerned that Staff's Proposal would mute any price signal for new investment in cleaner more efficient generation and peaking resources.

Furthermore, the suggested limitation of market mitigation measures to Stage 3 emergencies is inconsistent with the ISO's Commission-approved contractual commitments and Tariff obligations, state law and good utility practice.

Like all utilities, the ISO implements graduated levels of system emergencies. A Stage 1 condition occurs when an Operating Reserve shortfall exists or is unavoidable

and available market and non-market resources will be insufficient to maintain Operating Reserves in compliance with the WSCC Minimum Operating Reliability Criteria. If Operating Reserves are currently or are forecast to be below 5 percent, a Stage 2 emergency is declared. The ISO enters Stage 3 when Operating Reserves are currently or forecast to be below 1.5 percent. By focusing only on Stage 3, the Staff Proposal improperly fails to recognize that the ISO must take affirmative action to maintain its full reserve obligation, attempting to *prevent* the occurrence of even Stage 1 events. *Accordingly, sellers often know even before a Stage 1 is announced that their resources will be required.*<sup>18</sup>

The ISO's obligations in this regard arise in part out of its adherence to the FERC-approved reliability criteria of the Western System Coordinating Council ("WSCC"). In its declaratory order concerning the WSCC's Reliability Management System ("RMS"), under which transmission operators would agree, through contracts, to comply with WSCC reliability criteria, the Commission "acknowledg[ed] the longstanding role of WSCC in formulating regional reliability standards" and gave "substantial deference to the WSCC in the development of reliability standards." *Western Systems Coordinating Council*, 87 FERC ¶ 61,060, 61,234 (1999). The ISO is committed to comply with the WSCC RMS by virtue of: (1) its contract with the WSCC,<sup>19</sup> (2)

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<sup>18</sup> In accordance with ISO Operating Procedure E-504, the ISO may issue Alert and Warning notices, even before issuing emergency notices.

<sup>19</sup> The ISO agreement is designated by the Commission as WSCC Rate Schedule No. 5.

provisions of the ISO Tariff,<sup>20</sup> and (3) California state law.<sup>21</sup>

The WSCC RMS requires that the ISO (and all other transmission providers in the WSCC) maintain Spinning Reserves and Non-Spinning Reserves equal to the greater of:

- (1) The loss of generating capacity due to forced outages of generation or transmission equipment that would result from the most severe single contingency, or
- (2) The sum of five percent of the load responsibility served by hydro generation and seven percent of the load responsibility served by thermal generation.<sup>22</sup>

In the case of the ISO it is the latter 5 percent and 7 percent reserve responsibility which is applicable.

The ISO must use all available sources of imbalance energy in order to maintain its reserve levels. If the ISO Controlled Grid is in a Stage 2 condition, then the ISO must use these resources to prevent entering a Stage 3. Similarly, it must use these resources in a Stage 1 to prevent a Stage 2 situation, or even to prevent the occurrence of a Stage 1. There is no basis for the Staff to conclude that generators have less

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<sup>20</sup> Section 2.3.1.1.6 of the ISO Tariff states that the ISO should be the WSCC security coordinator for the ISO Controlled Grid. Under Section 2.3.1.3.1, the ISO is to exercise Operational Control over the ISO Controlled Grid "to meet planning and Operating Reserve Criteria no less stringent than those established by WSSC and NERC as those standards may be modified from time to time..." See also, Section 2.1 of the Dispatch Protocol of the ISO Tariff which provides:

the ISO shall exercise Operational Control over the ISO Controlled Grid in compliance with all Applicable Reliability Criteria. Applicable Reliability Criteria are defined as the standards established by NERC, WSCC and Local Reliability Criteria and include the requirements of the Nuclear Regulatory Commission.

<sup>21</sup> Chapter 345 of Assembly Bill 1980 provides:

The Independent System Operator shall ensure efficient use and reliable operation of the transmission grid consistent with achievement of planning and operating reserve criteria no less stringent than those established by the Western Systems Coordinating Council and the North American Reliability Council.

<sup>22</sup> WSCC Rate Schedule No. 1 First Revised Sheet No. 27.

ability to exercise market power under Stage 1 conditions than Staff concedes they have under Stage 3 conditions. Thus, the opportunity to influence prices may be greater prior to the occurrence of a Stage 3.

Lastly, the ISO notes that the market power mitigation plans the Commission has authorized for the independent system operators in New York and New England are not limited to emergency conditions.<sup>23</sup> The ISO encourages the Commission to take a similar and consistent approach with respect to the California electric markets.

C. Staff's Proposal Fails To Mitigate the Exercise of Locational Market Power

The problems presented by the potential exercise of locational market power were described in a study by the Department of Energy:

Electricity markets are dynamic and can change dramatically over the course of just a few hours, creating opportunities to exercise market power even though the market may be very competitive under most circumstances. For example, the geographic scope of the electricity market is determined by the transmission system. Any change in available transmission capacity can quickly alter the geographic boundaries of the market. To cite another example, certain plants may be required to run at certain times in order to meet reliability needs, effectively giving them market power during those periods, because no other plants can act as substitutes.<sup>24</sup>

Within the ISO system, locational market power arises because of local transmission constraints, which generally occur along transmission paths entering areas of dense population and hence high load. These constraints require the services of specific generation resources to ensure the reliability of the grid in these areas, and in

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<sup>23</sup> See, e.g., the description of the market monitoring plans in these independent system operators provided in the Commission Staff's November 1, 2000 Investigation of Bulk Power Markets: Northeast Region.

<sup>24</sup> Horizontal Market Power in Restructured Electricity Markets, Office of Economic, Electricity and Natural Gas Analysis, U.S. Department of Energy, March 2000 at 2.

practically all such situations there is not a workably competitive market to provide such services. As a result, the resources that are needed to ensure local reliability are in a position to exercise locational market power -- mitigation is therefore essential.

Staff recognizes the locational market power issue, and states “it is important to note that the presence of transmission constraints can redefine the market so as to affect both concentration and market share.” Staff Proposal at 11. The proposal, however, fails to offer any remedy.

The ISO does have certain existing measures to mitigate the exercise of locational market power (*i.e.*, Reliability Must-Run Contracts), these measure do not provide complete protection from the exercise of locational market power. The ISO notes that the Commission has approved locational market power mitigation programs for the Eastern independent system operators that are more expansive than that available in California. For example, in PJM, generators dispatched out of merit order because of transmission constraints are subject to mitigation. *See, e.g., Atlantic City Electric Co. et al.*, 86 FERC ¶ 61,248 at 61,893, 61,898 (1999). Similarly, in ISO New England, out of merit dispatch is flagged and subject to several screens before payment.<sup>25</sup> The New York ISO Tariff also has provisions for addressing locational market power. *See* NYISO Services Tariff § 2.97 “Locational Based Marginal Pricing.” Failure to adopt a similar measure (*i.e.*, that incorporated in the ISO Plan) with respect to California is inappropriate.

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<sup>25</sup> See New England Power Pool’s (“NEPOOL’s”) April 5, 2000 submittal in Docket No. ER00-1874 of an amended Market Rule 17, “Market Monitoring and Market Power Mitigation”, at 9. NEPOOL’s submittal was accepted for filing by letter order issued May 31, 2000. 91 FERC ¶ 61,193.



## 6. Use of a Single Market Clearing Price

Under the Staff Proposal, a single market clearing price auction would replace the \$150 “soft cap” approach implemented pursuant to the Commission’s December 15, 2000 order. Proposal at 23. The ISO supports the use of a single market clearing price, but only if the use of resource specific bid caps are applied to all generating units in all hours, a modification required to ensure that bids would be reflective of a properly functioning competitive market. In contrast, a single price auction with no price mitigation during most system conditions will allow the continued exercise of pervasive market power resulting in further unjust and unreasonable prices for electricity. Moreover, continued application of an “as-bid” approach, as is currently in effect, will have a further deleterious effect on the performance of the markets and on consumers. As evidenced by the recent DMA analyses, the Commission’s breakpoint methodology, as outlined in the December 15 Order, has not had the desired effect on prices and has been subject to manipulation by sellers.

## 7. Damage Control Price Cap

The Staff Proposal also considers and rejects a high “damage control” price cap, such as the \$1,000/MWh caps that the Commission has authorized for Eastern independent system operators. Proposal at 26. This option is discarded out-of-hand based on the unsupported statement that “such hard caps are a blunt instrument and can have adverse effects even if confined to a small part of the market.” The Staff Proposal fails to explain why hard caps that have been utilized successfully and without any adverse effects in the East could not be implemented in California.

As the attached studies and other evidence in the record of this proceeding already demonstrate, prices in the California markets above a certain level can only be explained by the improper exercise of market power. Such prices cannot be justified and are properly subject to mitigation at all times. The ISO therefore believes that a damage control cap of \$1,000/MWh, coupled with resource specific bid mitigation, would be an appropriate part of any market power mitigation plan. . Moreover, application of resource specific bid caps in conjunction with a high damage control cap will allow prices to rise appropriately during peak periods, thereby retaining a necessary feature of a competitive market – price signals for new investment.

8. A One Year Sunset Date Is Arbitrary and Inappropriate

Staff also calls for a sunset date for any market mitigation of no more than one year after it is implemented. Proposal at 29. Staff states that the sunset date is important, “so that mitigation is not relied upon as a substitute for market improvements that should otherwise be implemented.” *Id.* at 28.

The ISO is concerned that the proposed sunset provision greatly understates the time that will be needed to bring price stability and a better equilibrium between supply and demand in California. The supply-demand imbalance was ten years in the making and cannot be solved in anything even approaching one year. Although Staff cites recent California Energy Commission figures suggesting that 5,000 MW of new capacity will come on line by this summer (Proposal at 29), this figure is by no means guaranteed. Power plant siting still remains subject to environmental regulations and design and construction lead times. Similar constraints will affect the speed with which transmission upgrades can be implemented. As detailed in Section II.B.3, the resource

outlook for summer 2001 is grim and the ISO does not anticipate that this picture will improve until significant new capacity comes on line in the longer-term.

Furthermore, the sunset provision is inconsistent with the Commission's statutory mandate. Mitigation can only be lifted if the market is sufficiently competitive to produce just and reasonable rates.<sup>26</sup> Deadlines, most notably the time limitations placed on price caps, have been tried in the past. Given the pervasiveness of current market power abuses in the region, the Commission cannot reasonably expect the problem to be resolved in one year. Rather than tying a sunset to an arbitrary time-line, it should be triggered by a subsequent Commission determination that the root causes of a dysfunctional market have been rectified and that a workably competitive market exists.

D. The ISO Does Not Believe the Conditions Will Be In Place To Support Staff's Secondary Proposal

As a possible variation, Staff suggests that the price mitigation component of its proposal take the form of a high payment level. Proposal at 26. Suppliers would assume the risk of unplanned outages. *Id.* Staff only recommends adoption of this alternative "if a sufficient percentage of load is covered by long term contracts." *Id.* at 27.

As noted previously, the ISO is concerned that the assumption that 95 percent of the load will be covered by long term forward contracts is too optimistic and that a significant amount of End Use customer load will remain exposed to spot prices. Accordingly, the ISO believes that the use of a high "damage control" price cap in the

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<sup>26</sup> The Commission may depart from cost-based pricing and permit market-based pricing only where it finds that the market will restrain prices to just and reasonable levels. *Farmers Union Cent. Exch., Inc., v. FERC*, 734 F.2d 1486, 1530 (D.C. Cir. 1984), *cert. denied sub non. Williams Pipe Line Co. v. Farmers Union Cent. Exch., Inc.*, 469 U.S. 1034 (1984).

absence of resource-specific bid caps will fail to curb the current market power abuses and will result in unjust and unreasonable prices.

#### **IV. The ISO's Market Stabilization Plan**

As noted above, the ISO is in the process of finalizing its own Market Stabilization Plan ("Plan"), which will be filed with the Commission shortly. The major elements of the Plan were approved by the ISO Board on March 15, 2001. The ISO has two main goals in developing and implementing the Plan:

- Control costs for California consumers. To achieve this, the market power of suppliers must be mitigated, and the ISO must have the authority to make the most efficient use of available resources.
- Provide greater stability for ISO operations. To achieve this, the volume of real-time transactions to meet system load and ensure reliability must be reduced, by providing the ISO with the ability to commit and dispatch resources on a day-ahead basis.

In order to achieve these goals, the ISO Plan contains three major elements: resource-specific cost-based bid caps ("RCBCs"), the creation of forward ISO markets for energy, and the control of exports on a day-ahead basis under emergency conditions.

##### **A. Resource-Specific Cost-Based Bid Caps**

The ISO's concept of RCBCs is similar to the Staff's proposal of a standing confidential price based on marginal costs for each Generating Unit that has executed a Participating Generator Agreement ("PGA") with the ISO. Proposal at 22. The ISO's Plan goes beyond the Staff Proposal, however, by incorporating additional cost-based payment components as described below. In addition, while the Staff Proposal would limit the use of the standing cost-based bids to the real-time market during periods of severe reserve deficiency, the ISO proposes to utilize RCBCs at all times while the Plan

is in effect. The RCBC concept calls for all PGA resources to be subject to bid caps based on each resource's incremental cost of production, based on a utilization of resource-specific incremental heat rate curves, and inputs such as fuel, emissions, and variable operating and maintenance costs. The cap would be effective in the ISO's markets for Energy, Ancillary Services, and Congestion Management. In addition, resources that are committed by the ISO in the forward market would be eligible for cost-based start-up and no-load payments. Finally, a third component of the RCBC payment package would be a fixed capacity payment to cover a share of the resource's going forward fixed costs. The ISO believes that such a payment structure will ensure that each resource is adequately compensated for the requirement under the Plan to make its full capacity available at mitigated prices as long as the Plan is in effect.

The ISO recognizes that its Plan goes beyond the Staff Proposal by applying the RCBC payment structure to all operating hours and all ISO markets. The ISO does not propose such a measure lightly; rather, the ISO recognizes it as a needed response to the extensive evidence that unreasonably high prices are due to the exercise of market power and are not limited to system emergency conditions. Such high prices can occur in virtually all operating hours. The ISO believes that in a more stable market environment, once additional generating capacity has been installed, critical transmission interfaces have been upgraded, and demand has developed greater price responsiveness, it would be desirable to limit price mitigation to very narrow circumstances, using some kind of market power trigger such as the Residual Supply Index ("RSI"). Under the conditions the ISO anticipates this summer, however, the ISO believes any kind of trigger for mitigation is likely to be tripped with very high frequency,

resulting in excessive uncertainty for market participants as to the pricing regime that will be in effect in each hour. After careful consideration, the ISO believes that the most prudent approach for the near term is to make the RCBC regime applicable to all ISO markets and operating hours, and to structure the RCBC payments to ensure adequate compensation to the resources subject to it.

B. Forward Energy Markets

The proposed day-ahead and hour-ahead energy markets to be operated by the ISO are contemplated to fill the vacuum left by the demise of the PX day-ahead and hour-ahead markets. The lack of such forward markets has put even more pressure on the ISO real-time market in recent weeks, resulting in increased costs and introducing added complexity to the maintenance of reliability. The ISO hopes to relieve some of this pressure by creating these new markets.

The ISO would operate the new forward markets for energy to cover the portion of the ISO's load forecast that is not covered by forward bilateral contract schedules. The forward markets would manage congestion in a manner consistent with the ISO's existing zonal structure, as well as procure energy and capacity to meet system imbalance requirements and to provide required reserves. The RCBCs of PGA resources would produce a cost-based market-clearing price in each of the ISO's forward markets, and resources outside of the Control Area that bid into these markets would receive the market clearing price ("MCP") without being able to raise the price through their bidding behavior. Outside resources would be able to bid a minimum price at which they are willing to be dispatched, and would be "price takers" whenever the cost-based MCP set by PGA resources is above their bid price. To provide additional

incentives for external resources to participate in the ISO's forward markets, the ISO would offer the same RCBC payment package (including the fixed capacity payment) for any available capacity the external resource is willing to commit to these markets. Furthermore, the ISO expects that the cost-based MCP set by PGA resources will be high enough during high load hours to be quite profitable to many outside suppliers. The ISO fully recognizes the perennial problems associated with mitigation of only the California markets when most suppliers operate within a broader regional market, as well as our need to rely on imported power to meet high levels of system load. As the Staff Proposal correctly notes, there is no fully effective solution to this problem as long as the various jurisdictions in the region operate under diverse and uncoordinated market structures and pricing regimes. The ISO believes, however, that its proposed Plan will be more effective than the Staff Proposal in bringing adequate supplies into California with some measure of cost control.

C. Day-Ahead Curtailment of Exports

The final element of the ISO's Plan is based on the ability of the ISO to curtail exports on a day-ahead basis under emergency conditions. As part of the Stabilization Plan, the ISO would affirm its authority under Section 5.6.1 of the ISO Tariff to enable it to require in-control-area resources to provide their full capacity in the day-ahead scheduling time frame, either scheduled against Control Area load or bid into the ISO markets.

Consistent with this element of the Plan, when the ISO estimates the expected system imbalance to be severe and declares a system emergency for the following day it would be able to require up to the full capacity of in-control-area generation resources

to be available to serve Control Area load in accordance with the RCBC payment structure. The ISO recognizes that this provision imposes risks on these resources, namely that legitimate sales to out-of-state loads may not be deliverable under emergency conditions. This risk is nothing new – the ISO’s authority to curtail exports under emergency conditions has existed since the beginning of ISO operations, and Market Participants should be taking it into account in negotiating export contracts. While the ISO has been loath to invoke such measures to date, continuing high prices and the exercise of market power require this extraordinary measure. The ISO reluctantly recognizes that, in light of the bleak resource picture for this summer, this provision of the Tariff may need to be invoked more frequently this summer than was anticipated when the Tariff was written. Unfortunately, the ISO sees no effective alternative for controlling the “megawatt laundering” problem described above, which the ISO expects will otherwise become more severe during peak load periods this summer and will threaten system reliability.<sup>27</sup> The ISO will, in its formal filing of the Market Stabilization Plan, propose transparent and objective procedures tied to reliability considerations<sup>28</sup> for when it will invoke its export curtailment authority on a day-ahead basis, to maximize the advance notice to Market Participants of its invocation.

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<sup>27</sup> The ISO notes that other control areas in the western region typically have and utilize the authority to curtail exports at times when system reliability is in jeopardy or to avoid curtailing firm load. The ISO does not believe that our commitment to open markets for electricity and our early leadership in electric restructuring are compromised by asserting our need to follow prudent, traditional control area practice given the extreme circumstances the ISO is facing.

<sup>28</sup> The ISO notes that, contrary to Staff’s concerns that the ISO may be motivated to declare a System Emergency based on economic, and not operational considerations (Proposal at 27), the ISO’s current procedures for declaring System Emergencies are based on objective criteria, as set forth in a number of procedures posted on the ISO Home Page: [www.caiso.com/thegrid/operations/opsdoc/emergency/](http://www.caiso.com/thegrid/operations/opsdoc/emergency/).



In recognition of the ISO's expectation that its export curtailment authority, which has never been invoked to date, will likely be invoked with some frequency this year, and therefore to compensate resources for the risk of curtailment and to ensure that resources will be reimbursed for their standing availability to serve Control Area load at cost-based prices, the ISO proposes the capacity payment component of the RCBC payment structure described above. The capacity payment would be similar to the existing fixed option payment made to Reliability Must-Run ("RMR") resources.<sup>29</sup>

The ISO includes this overview of its Market Stabilization Plan at this time as an effective and appropriate counter-proposal to the Proposal of the Commission Staff. The ISO believes that its Plan is better suited to mitigating the deleterious effects of the exercise of market power in California markets because, unlike Staff's Proposal, it does not assume that only 5 percent of system load will be subject to spot prices and that market power abuse will occur only when the ISO reaches extreme emergency conditions. The ISO will include greater detail and supporting materials when its Plan is filed with the Commission next month.

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<sup>29</sup> The fixed option payment, which provides for a fixed formula-based payment to a resource in exchange for the availability of that resource, was developed as part of the comprehensive RMR settlement agreement approved by the Commission on May 28, 1999. See *California Independent System Operator Corporation*, 87 FERC ¶ 61,250 (1999).

## V. CONCLUSION

It is clear that the current electricity market in California is broken, producing unjust and unreasonable rates due to the rampant exercise of market power. Action must be taken swiftly to prevent severe problems before, during, and after the summer peak season. For these reasons, the ISO requests that the Commission accept these comments on the Staff's Market Mitigation Proposal, in the hopes that the comments will help inform the Commission's decision on the market mitigation plan it ought to adopt for the period from May 1, 2001 forward.

Respectfully submitted,

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March 22, 2001

## **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 this proceeding.

Dated at Washington, DC, this 22<sup>nd</sup> day of March, 2001.

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Sean A. Atkins

March 22, 2001

The Honorable David P. Boergers  
Secretary  
Federal Energy Regulatory Commission  
888 First Street, N.E.  
Washington, DC 20426

**Re: *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*,  
Docket No. EL00-95-012**

Dear Secretary Boergers:

Enclosed please find an original and fourteen copies of the Comments of the California Independent System Operator Corporation to Staff's Recommendation on Prospective Market Monitoring and Mitigation for the California Wholesale Electric Power Market. Also enclosed are two extra copies of the filing to be time/date stamped and returned to us by the messenger. Thank you for your assistance.

Respectfully submitted,

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Enclosures

cc: Service List