September 15, 1999

To: Federal Energy Regulatory Commission

From: Anjali Sheffrin, Director of Market Analysis

Re: ISO Price Cap Policy

This memorandum discusses the reasons why, in the view of the California ISO's Department of Market Analysis (DMA), it is necessary and appropriate to extend the ISO's price cap authority to November 15, 2000, and why the price cap policy adopted by the ISO Governing Board at its August 1999 meeting is an appropriate policy for this stage of development of the California market.

First, significant components of the market redesign software developed over the past year were not ready until near the end of summer 1999 or even later. This has denied the ISO a needed assessment of the performance of these changes over a peak summer season. During the early part of the past summer, when weather conditions were moderate, prices in the ancillary service and real time energy markets reached the $250 caps in a number of hours[1]; the levels to which those prices would have risen if the caps were not in place cannot be determined. Recent months have also seen instances of gaming in both the inter-zonal and intra-zonal congestion markets, as well as significant frequency of non-performance by generating units in response to real-time dispatch instructions.[2] Moreover, some further market design improvements remain to be implemented during the coming year, including pre-dispatch and netting out of Reliability Must-Run (RMR) energy, and compliance measures for verifying the supply of committed ancillary service capacity and adherence to ISO dispatch instructions when bidders are selected in real time.

The DMA believes strongly that the redesign elements being implemented this year will substantially reduce the danger of non-economic price spikes due to remaining market design flaws and exercise of market power, particularly by rationalizing the ISO's procurement of ancillary services and imbalance energy. However, without a peak summer testing period during which market prices are not constrained by the current $250 caps, the ISO cannot be sure that these elements will all perform as intended under stress. Nor can the ISO ascertain whether there are "loopholes" in the market reforms that may enable bidders to find ways to defeat them when the stakes are high. The DMA believes that the Commission's May 26, 1999 Order terminating the ISO's price cap authority was premised on the expectation that the ISO would have had such a peak summer testing period by the time price caps were eliminated. Extending the ISO's price cap authority through the summer 2000 peak period, and for an additional period to permit analysis of market performance under peak conditions, is therefore consistent with the reasoning underlying the Commission's order.

Second, an important feature of the current state of the California market that drives the need for continued price cap protection is the extremely limited ability of the demand side of the market to respond to higher prices. A well-functioning market requires significant elasticity of demand – the ability of buyers to choose not to buy when prices go higher than they are willing to pay. At present in the California market demand elasticity is weak at best, for regulatory reasons beyond questions of

[1] See the August 17, 1999 *Market Analysis Report* attached to this memorandum for specifics on these occurrences and other aspects of market performance during July and early August.

[2] The latter problem is the target of another market redesign element to be implemented in October of this year, the automated system for communicating ISO real-time dispatch instructions and generating unit responses known as *Analope*.

ISO market design. One problematic result of this is that the ISO's real-time market has become the primary way for load to respond to the threat of high prices in the PX, adding to the volatility of the real-time market and requiring it to serve a purpose fundamentally different from its original design as a market only for imbalances.

Some areas – particularly where the ISO is the buyer – have already been improved through the market redesign program. But other areas are still quite under-developed. The DMA believes that overall market performance would increase dramatically with advances in the following areas:

- curtailable load programs and other demand management options based on price incentives
- provision of ancillary services through the Power Exchange
- forward hedging contracts for energy
- greater penetration of customer hourly interval metering
- load participation in the ISO ancillary service markets.

At various stakeholder meetings and Governing Board meetings this past summer, demand-side deficiencies were identified and discussed, and participants on both sides of the market expressed their intentions to pursue development of demand responsiveness measures aggressively over the coming year. The suppliers recognized that it was in their own best interest to contribute to this effort as the means to move more rapidly toward a market free of administrative price controls. Buyers and end-users recognized that price cap protection was going to be weakened substantially by the Board as of September 30, and would, following the confirmation of the effectiveness of the ISO's market reforms during peak season conditions, be either removed completely or retained only at a very high damage control level.

For several reasons, then, the policy adopted by the Governing Board in August represents a very prudent and practical transition to a market price regime:

- The policy expands by a factor of three the potential range of price movement (from $250 to $750), to provide stronger market price signals for new generation to enter the market and for the demand side to develop greater capability to respond to price movements.
- The policy takes advantage of an extended non-peak period (October 1999 to June 2000) in which to observe market performance and bidding behavior that are, for all practical purposes, unconstrained. That is, the $750 price caps should rarely if ever be binding during these months, hence the movement of prices should be virtually free.
- It maintains prudent price limits through the full summer 2000, to ensure that the market is protected from non-economic price spikes during this essential peak-season shake-out.
- It provides for an assessment by the Board, prior to June 1, 2000, of the efforts and the progress made by the market participants in developing greater demand responsiveness capability, and of the overall workability of competition in the California market.
- Through the "safety net" measure the policy preserves the ISO's ability to act quickly should evidence of the exercise of market power arise, whether due to unrecognized market design flaws or for any other reason.
- Finally, it sends a clear signal to the market by directing the ISO to develop a plan to eliminate price caps following a full assessment of summer 2000 performance.

For these reasons, the DMA believes that the extension of the ISO's price cap authority to November 15, 2000, in accordance with the price cap policy adopted by the Board is reasonable and appropriate in light of current conditions in the California market.

One further topic deserves comment in this memorandum. In its June 1999 direction to the ISO to develop a proposal for a Price Volatility Limit Mechanism (PVLM) as a replacement for fixed price caps (see Attachments E and F to the Amendment No. 21 Tariff filing for details), the Board directed the ISO to examine practices used in other markets, such as commodity and futures markets, to limit price movements. Staff of the DMA initiated research in this area, which was discussed in the summer stakeholder and MSC meetings and is summarized in the August Board memorandum (Attachment F). This research revealed the following salient message: All well-functioning exchanges utilize several types of mechanisms to ensure that the participants behave in ways that support the stability of the market and that the prices realized in the market reflect underlying supply and demand fundamentals, free of manipulation by parties with excessive power. In the formal exchanges, these mechanisms include price move limits that stop trading when prices move too much within a single trading session. In the less formal markets such as spot markets for agricultural commodities, mechanistic devices are replaced by informal, but universally adhered-to, trading conventions that govern the prices, terms, and conditions of delivery. In short, the notion of a completely unfettered free market, in which traders seize every opportunity to extract the greatest profit, does not apply to well-functioning mature markets. Rather, the participants in such markets recognize that their own interests are inextricably linked to the health and long-term sustainability of the market.