Supplementary Comments on the 2002 Market Design Proposal of the California ISO

by

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Introduction

On May 1, 2002, we filed a set of comments on elements of the California ISO's proposed changes to its market design. However, the proposals adopted by the Board of Governors of the ISO on April 25, 2002, differ significantly in two areas from the original ISO proposal--the Damage Control Bid Cap (DCBC) and the Available Capacity (ACAP) obligation. In these supplementary comments, we highlight these differences and their implications for market power mitigation. Our comments emphasize the following points.

1.) The proposed $108 MWh DCBC is described as a "hard" cap, but will likely prove to be a "perforated" cap in practice. This is because all indications are that the ISO will ensure reliability by acquiring power, if necessary, at prices above the price cap through out-of-market transactions. Unlike the current "soft" cap, out-of-market transactions above the "hard" cap will not require a demonstration that variable costs exceed the price cap.

2.) As currently proposed, a market with substantial out-of-market transactions will take the form of a non-transparent, pay-as-bid market. We believe that both features are unfavorable for consumers and for market efficiency.

3.) The alternatives to ACAP currently being considered, notably the Advisory Forward Energy Commitment (AFEC) proposal, contain many of the desirable elements of a capacity requirement that we identified in our earlier comments. However, the current AFEC proposal also appears to rely on out-of-market purchases as a mechanism for penalizing Load Serving Entities (LSEs) that fail to acquire adequate supply. When combined with a low DCBC, this mechanism provides a strong incentive for suppliers to withhold energy in the hopes of obtaining lucrative out-of-market transactions.

4.) To be internally consistent and effective, market power mitigation and capacity obligations must ultimately be linked to wholesale buyer's (and more importantly, end-user's) willingness to pay for electricity. Although higher price cap levels imply much less reliance on out-of-market transactions, the only way to enforce the credibility of a price cap is to refuse to purchase power above that price level.

The Damage Control Bid Cap

On April 25, 2002, the ISO Board passed a motion calling for a "hard" Damage Control Bid Cap (DCBC) of $108/MWh on bids into the ISO's real-time market. While this proposal would at first glance appear to be the more aggressive cap level in terms of lowering average purchase costs of end-use customers relative to the ISO management's $250/MWh DCBC, we doubt that this will in fact prove to be the case. This is because there is a strong likelihood that system conditions will arise when the ISO will be forced to perform out-of-market (OOM) purchases above the $108/MWh DCBC in order to procure adequate supplies for reliable operation of the grid. While this risk was present with a $250/MWh cap, or any other DCBC, the likelihood of heavy OOM purchases by the ISO with a $108/MWh cap is so great that it creates a substantial risk that the market will in effect have no bid cap at all.

In order for a DCBC on the ISO's real-time market to limit real-time energy prices without reducing grid reliability several tradeoffs must be recognized. To assist the California ISO and Federal Energy Regulatory Commission in devising an effective market power mitigation policy after September 30, 2002, we discuss these tradeoffs and our reasons for supporting a DCBC significantly higher than $108/MWh.

Setting a Low DCBC Creates Hidden Costs

Once suppliers realize that the ISO stands willing to make OOM purchases above DCBC, they will have a strong incentive to withhold energy from California either through large day-ahead export schedules or by not submitting day-ahead energy schedules. This will raise the likelihood of OOM purchases and increase the amount of energy that must be purchased at prices in excess of $108/MWh.

A market with this "perforated" DCBC could produce even higher average prices than would a real-time market with no formal bid cap. As the experience of the winter of 2001 demonstrates, a market that is heavily dependent upon OOM transactions will have little price transparency. Market forces are less effective at limiting prices, when suppliers are paid as-bid prices that are only revealed to market participants with a significant time lag and averaged across transactions. We do not believe that this obfuscation of transaction prices will improve market efficiency or benefit consumers. Even those end-users who would be in a position to benefit from reducing consumption during hours with very high average prices will not know the average price of their energy until long after the hour has passed. Suppliers will recognize that it will be more difficult for competition to limit prices, and will therefore increase their offer prices.

We think the DCBC passed by the ISO Board is a high-risk strategy that would at best achieve minimal cost savings relative to the ISO management's recommendation. Unless all buyers in the California market are willing to forgo consumption at prices above the $108/MWh, this price cap cannot be enforced. While this logic applies to any level of the price cap, we believe that prices in surrounding control areas in excess of

$108/MWh are virtually certain to occur during many hours of the year, thus making the likelihood of violating this price cap very high. If a price cap cannot be credibly upheld by the institution that is supposed to enforce it, the price cap can do more harm to consumers than no cap at all. Absent an aggressive strategy to curtail load in the event of a supply shortfall at capped prices, an attempt to establish a DCBC at levels where suppliers will be strongly tempted to withdraw their output is counter-productive.

A Low DCBC Can Be Maintained, But It May Be Very Expensive

There are two ways in which Load Serving Entities (LSEs) could ensure a $108/MWh DCBC on the ISO's real-time market would be maintained. Either LSEs must purchase above that price in forward markets or they must be willing to curtail final load if inadequate power is offered at the capped price. A strategy of making forward purchases at prices above the real-time cap in order to maintain the credibility of the real-time cap effectively renders the real-time cap irrelevant. In addition, because of errors in forecasting load on a day-ahead or even hour-ahead basis, LSEs will have to purchase more than their day-ahead forecast to make the likelihood of OOM transactions sufficiently small. Although this strategy would minimize OOM transactions and maintain the integrity of a $108/MWh DCBC in real-time, we believe it would ultimately be more costly than setting a higher DCBC.

This logic illustrates the tradeoff the ISO Board and FERC faces in setting the level of a DCBC. The lower the DCBC is set, the more energy the LSE must purchase in advance to prevent OOM purchases at prices above the DCBC. These purchases in the forward market could significantly increase the total costs of purchasing power, even though the ISO would rarely be forced to make OOM purchases above the DCBC.

Unless FERC orders generation unit owners, including those in neighboring control areas, to bid all of their capacity into the California market at prices at or below the DCBC, the ISO faces this tradeoff in setting the level of its DCBC. Even if FERC continues the must-offer requirement with a low DCBC, generation unit owners have an incentive to leave units without forward energy schedules and declare forced outages in order to increase the likelihood that the ISO makes OOM calls.

If LSEs do not purchase sufficient energy in the forward market, the only way to maintain the integrity of a DCBC on the ISO’s real-time market is to curtail load in the event of insufficient supply at or below the DCBC. In general, higher cap levels reduce pressure on the ISO to make OOM payments because it becomes more costly for suppliers to risk not selling into the organized markets. At lower cap levels the consequences of not offering power into the capped market (in an attempt to earn a lucrative OOM price) are minimal for higher cost units.

We believe that to credibly enforce a DCBC, the level must ultimately be linked to the price level at which load is willing to be curtailed. This means developing a means to allow end-users to adjust their consumption in response to prices. At a higher

price cap, LSEs can purchase less energy in the forward market and still be confident that the DCBC will not be violated in real-time through OOM purchases by the ISO. We sincerely hope that the stakeholders who have developed the $108/MWh price-cap will consider the very likely contingency of a supply shortfall at $108/MWh, and the consequences of a large increase in energy purchase costs associated with limiting the likelihood of this event.

Available Capacity Obligations

The ISO Board of Governors instructed management to explore the Advisory Forward Energy Commitment (AFEC) proposal as an alternative to the ACAP proposal. Like ACAP, an AFEC obligation is based on the principle that LSEs (and regulatory bodies with jurisdiction over them) bear the responsibility to ensure adequate supply. In our earlier comments we observed that the main differences among proposals relate to the nature and timing of penalties associated with a failure of an LSE to comply with its capacity obligations. We believe that responsibility for acquiring supply should be linked to an obligation to bear the consequences of a shortfall of supply, *i.e.* curtailment of load. The AFEC proposal, as we understand it, currently relies upon the ISO to obtain supply "at whatever prices necessary" in order to make up for shortfalls in advance purchases by the LSEs. While the cost consequences of such shortfalls would be borne by the responsible LSEs, in our view, this policy contradicts the goal of enforcing a relatively low DCBC.

For reasons stated above, we believe that a reliance upon ISO OOM purchases would lead to higher average prices and costs than would a more credible cap level coupled with a policy of curtailing the load of LSEs that did not acquire adequate supply in the event of a shortfall. In general, a higher price cap level will reduce the likelihood that suppliers would be willing to forgo intentionally market revenues for an uncertain prospect of an out-of-market transaction. To be absolutely credible, however, a price-cap must ultimately be linked to a refusal to purchase power (or reserves) above the capped price.