

LONG-TERM PRICE CAP POLICY

OPINION OF MARKET SURVEILLANCE COMMITTEE CALIFORNIA INDEPENDENT SYSTEM OPERATOR

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21 September 2000

The current authority of the California Independent System Operator (ISO) to impose limits on the maximum bid prices it will accept in the ancillary services and real-time energy markets it operates (commonly referred to as “price caps”) will expire as of November 15, 2000. ISO management has requested the opinion of the Market Surveillance Committee (MSC) on the continuing need for price caps after November 15.

This is not the first time the Market Surveillance Committee has addressed the need for price caps in California’s energy and ancillary-services markets. We refer readers to our earlier opinions on the need for price caps, specifically our March 2000 Report.¹ Many of the market design flaws identified in our March 2000 Report have still not been corrected. Our September 2000 Report,² which analyzed the causes of the price spikes observed during June 2000, found that there were a substantial number of hours in the California energy market during the months of May and June when virtually any price cap would have been hit.

We address here the need for the ISO to continue to be able to impose price caps or other constraints on purchase prices following November 15, 2000. We conclude that some method for preventing exorbitant prices is essential to protect California consumers from the exercise of significant market power by suppliers of energy and ancillary services. We are as keen as anyone to see competition, rather than regulation, set electricity prices in California. However, in a market without a significant price-responsive final demand, with limited opportunities for load-serving entities to engage in forward financial contracts, and with a retail pricing structure for utility distribution companies (UDCs) providing limited incentives to effectively manage wholesale market energy and ancillary price risk, there are significant opportunities for generation owners to exercise market power during high-load conditions.

¹ “The Competitiveness of the California Energy and Ancillary Services Markets,” March 9, 2000.
² An Analysis of the June 2000 Price Spikes in the California ISO’s Energy and Ancillary Services Markets,” September 6, 2000.

Recent experience illustrates painfully that California consumers cannot rely on a market with these design flaws to produce prices reflective of costs, rather than the result of market power, in the vast majority of hours during the summer and autumn months with tight supply and demand conditions in the Western Systems Coordinating Council (WSCC) region. None of the conditions necessary for “the market” to function — a price-responsive final demand, maximum flexibility and incentives for load-serving entities to engage in forward financial contracting, and well-designed market rules which provide strong incentives for generators to participate in forward energy and ancillary services markets — are yet in place.

As discussed in our September 2000 Report, California also lacks the necessary regulatory infrastructure for a robust competitive *retail* market for electricity. The default provider obligation has not been determined. A mechanism for setting the default provider rate has also not been determined. The assignment of revenue cycle services obligations and costs of providing these services to competitive energy service providers have yet to be determined.

Until these market design flaws identified in our March 2000 Report and September 2000 Report are addressed, we believe that there is a clear need to protect consumers from extremely high wholesale prices, especially because the current market rules severely handicap the ability of consumers to protect themselves from high prices.

We regretfully conclude that the ISO’s price cap authority must be extended, even though price caps are flawed as a long-run solution to limiting market power in California’s electricity markets. Until the market design flaws identified in our previous reports are corrected and markets are proven to be workably competitive, a price cap appears to be the best available choice consistent with protecting California consumers. We recognize that price caps treat the symptom (prices reflective of market power rather than costs) rather than the causes (described above) of California’s electricity woes. For this reason we also believe it is important not to set the price cap too low, as doing so could discourage both the emergence of price-responsive demand and the construction of new generation. And we stress above all the need for longer-term remedies — fixing flaws in the market design outlined in our previous reports — so that price caps can one day be relegated to a purely backstop role, or even eliminated entirely.

WORKABLE COMPETITION

In our October 1999³ and our March 2000 Reports, the Committee concluded that California electricity markets were not workably competitive during the summers of 1998 and 1999 because of market design flaws, lack of price-responsive demand, and limitations on the ability of the three investor-owned utilities (IOUs) to enter into forward

³ “Report on the Redesign of California Real-Time Energy and Ancillary Services Markets.” by Frank A. Wolak, Chairman, Market Surveillance Committee of the California Independent System Operator, October 18, 1999.

contracts. We stated in our March 2000 Report that “we are unable to conclude that California’s energy and ancillary services markets will be workably competitive during high demand periods this summer”.

In our September 2000 Report on the June 2000 price spikes in the ISO’s markets, we found that the California energy market was not workably competitive during three months of the Autumn of 1999 and especially during the months of May and June of 2000. Total monthly wholesale energy purchase costs during the months of May and June of 2000 were 37% and 182% higher than they would have been under competitive benchmark pricing during each of these months.

Our previous analysis also indicates that price caps are of limited effectiveness in constraining market power during high-demand periods. Our September 2000 Report showed that a price cap of \$250/MWh would have been of limited effectiveness in constraining market power, because a fully competitive market would have led to prices well below this level. In particular, during May and June 2000 we estimated that lowering the price cap from \$750 to \$250 would have, at most, reduced monthly wholesale energy purchase costs from 37% over the competitive benchmark to 28% in May of 2000, and from 182% to 104% in June of 2000.⁴ In other words, even with a \$250 price cap during May and June of 2000, we would have seen the exercise of significant market power in the energy market during many hours. As emphasized in our September 2000 Report, this exercise of market power in the PX and ISO spot markets was caused, in large part, by the market design flaws identified (but still not corrected) in previous MSC reports. Our October 1999 Report described many of these market design flaws in detail.

NEED FOR PRICE CAPS

We think it is very unlikely that the market outcomes will be close to our competitive market benchmark until the market design flaws and regulatory constraints we have previously identified are dealt with effectively. Even then, physical constraints on generation and transmission available to serve the California market may make competitive outcomes difficult to attain given the current concentration of ownership of generation capacity.

Sadly, we conclude from this summer’s experience that California’s market, as currently configured, appears incapable of attaining its intended results for California consumers. The ISO Board, the State of California, and FERC will need to consider whether the current price cap authority or an alternative mechanism should be kept in place after November 15, 2000, and until the underlying causes of California’s dysfunctional markets are corrected. We lay out below several options for doing this.

⁴ See discussion surrounding Table 1 from our September 2000 Report.

In principle, there is an “optimal” level of the price cap. (In practice, finding this optimum is far from easy.) Setting the price cap too high, or simply eliminating it, will create the opportunity for an extremely high spot price to be set during high-load conditions, which rewards those exercising market power to the detriment of consumers. Setting the price cap too low can have perverse effects on bidding during off-peak periods, discourages the emergence of price-responsive demand, and operates at cross-purposes with California’s urgent need to increase the available supply of electricity. As the ISO moves forward with the development of its price cap policy, the MSC plans to explore further the issue of the optimal level of the price cap. Nevertheless, we hope the ISO management and Board will recognize that if the goal is to protect consumers from high average wholesale prices, lower price caps are not always better.

While we see no practical alternative to the continued use of price caps in the short- and medium-run, we are opposed to the use of price-caps in the long run as anything more than a backstop regulatory element in California’s electricity markets. Rather than relying on the band-aid of price caps any longer than necessary, we strongly urge the ISO, FERC and the CPUC to remedy expeditiously market design flaws and regulatory constraints that render the current California market dysfunctional. We stand ready to assist all of these entities in this process.

PRICE CAP ALTERNATIVES AFTER NOVEMBER 15, 2000

We consider the following price-cap alternatives after November 15, 2000: (1) allowing price cap authority to expire; (2) extending the current authority; (3) seeking a ceiling price on sales to the ISO and PX; and (4) seeking a WSCC-wide ceiling on prices.

(1) Allow Price Caps to Expire

Allowing price caps to expire without putting in place any substitute price constraint mechanism under the current market design exposes the California wholesale electric power markets and (absent some form of continuing retail rate freeze) California consumers to the full price effects of the design flaws and regulatory constraints that we have identified above and described in detail in our September 2000 Report. Given the extraordinarily inelastic demand presented in real-time, and thus the possibility of truly exorbitant prices in California’s spot electricity markets, we consider such a course of action to be reckless.

We would like to emphasize that price caps in some form exist in all competitive electric power markets of which we are aware, both in the United States and around the world. The major reason for these price caps is that buyers are unwilling to subject themselves to uncapped prices; in addition, sellers have an interest in capping their contractual liabilities if they are unable to deliver. Indeed, we can think of no markets whatsoever (electricity or anything else) in which buyers present totally inelastic demand to the market, effectively writing a blank check, without specifying some maximum amount they are willing to pay.

Until all outstanding market design flaws and regulatory constraints are dealt with, we see little prospect that market outcomes will approximate those of a workably competitive market. We are certainly not confident that these market outcomes would be better for consumers than if cost-of-service regulation had continued. Consequently, the MSC would counsel strongly against the ISO allowing its price cap authority to lapse until the current market design flaws are corrected and considerable experience has been gained showing that huge price spikes, not reflective of genuine costs or true physical scarcity, will not occur.

(2) Extend Current Authority

Extending current price cap authority would permit the ISO to maintain price caps at the present level (or perhaps at higher or lower levels) until current market flaws are remedied and markets are demonstrated to be workably competitive. Thereafter, price cap authority could be maintained on a stand-by basis, available for use if very high prices occur that are not reflective of production costs or true scarcity. This option relies on a relatively well-tested, albeit not fully effective, mechanism to constrain prices. It is also one that the FERC may regard as less intrusive than some other price constraint options because it simply recognizes the ISO's right as a purchaser to decline to pay excessive prices. As the Commission explained in a recent order, "we did not allow the ISO to establish the prices that sellers may charge, only the price that the ISO is willing to pay."⁵

However, the current price-cap mechanism, as implemented by the ISO, suffers from a number of flaws that may argue against utilizing it as a longer-term approach. The first and most fundamental problem is that the market may not clear at the level at which the price cap is set. In particular, if prices outside of California exceed the cap (perhaps because of what is going on inside California), then the ISO must purchase real-time energy out-of-market at prices above the cap in order to balance supply and load. This situation has arisen on a number of occasions under the present caps. The prospect that the ISO will pay more than the cap to meet demand provides a perverse incentive for generators to withhold supply from the markets subject to caps in hopes of getting higher prices in out-of-market transactions. This is an example of the well-established economic principle that price controls in some markets tend to divert transactions out of those markets and into "extra-market" activity.

Second, the current price-cap regime provides incentives for California generators to sell to out-of-state marketers who may re-market the power in California at higher prices in out-of-market transactions. It is by no means clear how a purchase price cap (a cap on the price at which the ISO will buy as opposed to a cap on the price at which generators can sell) can be an effective long-term price constraint tool if in-state generators are free to market outside the state during periods when prices outside of California are higher than the price cap. We should also emphasize that prohibiting

⁵ Morgan Stanley Capital Group v. Cal. ISO, 92 FERC ¶ 61112 (2000), at p. 61431.

generators to sell power outside of California when prices there are more attractive than those in California is contrary to the goal of a competitive wholesale energy market. Moreover, price caps also mute price signals to new generators. Uncertainties as to future price caps and price-cap policy may discourage generators from siting new generation in California, or outside of California to serve California markets. Price caps also can prevent load-serving entities from attracting a sufficient number of customers to rates plans which compensate them for reducing their consumption during high-priced load periods. Because all customers in the SCE and PG&E service territories still have the opportunity to purchase at frozen retail rates, these consumers must be compensated if they are to have the incentive to reduce their demand during high load periods. At too low a price cap, the amount a UDC is able to pay for a customer to curtail its load may be less than the compensation necessary to get a significant number of final customers to participate in this program.

Thus, extension of the current price cap authority even if it may be necessary to deal with market power and market design flaws in the near-term, is not an attractive primary long-term solution. As we note above, the ISO, FERC and CPUC need to deal with the underlying causes of market dysfunction.

(3) Ceiling Price on Sales to ISO and PX

The discussion above has centered on purchase-price limits that the ISO imposes on bids it will accept in markets it operates. These limits do not operate (except indirectly) as a constraint on prices that generators or other sellers can charge in California or elsewhere.

On August 2, SDG&E filed a complaint at FERC requesting that FERC take an alternative approach and impose a \$250/MWH cap on prices generators selling into the ISO and PX markets can charge.⁶ The SDG&E proposal suffered from many of the same flaws as the current price-cap mechanism. If prices outside of California exceed the cap, the market may not clear. Moreover, under the SDG&E proposal, the ISO is disabled from paying more than \$250 out-of-market to obtain the real-time energy necessary to balance supply and demand. In addition, because the proposal allows California generators to make bilateral sales in California and export sales outside of California at prices in excess of \$250, it permits these other buyers to bid supply away from the PX and ISO markets. Finally, it mutes price signals to new generators who may seek to sell into the PX or ISO markets.

Thus, the SDG&E ceiling price proposal, as filed, does not provide any particular advantage over the current price caps and it leaves the ISO and PX at a competitive disadvantage with respect to other buyers in the WSCC market. Moreover, under section 206 of the Federal Power Act, the SDG&E proposal would appear to require a finding

⁶ On August 23, FERC denied the relief SDG&E sought but initiated a proceeding to investigate the rates of sellers into the ISO and PX markets. SDG&E, in testimony before FERC on September 12, presented an alternative proposal that the Committee has not had an opportunity to review.

that current FERC authorized market-based rates are not just and reasonable, and that the proposed ceiling price is just and reasonable.

(4) WSCC-Wide Ceiling Price

The ISO, if it chose to pursue an approach based on the imposition of ceiling prices on sellers, could formulate a more effective (albeit more controversial) arrangement that recognized the geographically integrated nature of the market for wholesale electric power in the WSCC region. Such a “WSCC-wide” approach would impose the same pricing rules on all sellers in the WSCC region that are subject to FERC jurisdiction. Under this approach, all sellers from existing generation subject to FERC jurisdiction in the WSCC would be subject to a uniform ceiling price, whether they sell to the PX, the ISO, or elsewhere in WSCC. New generation could be exempted from the ceiling price and, if so exempted, could sell at whatever price it could command in the market. From a procedural point-of-view, this approach would require FERC to find that current market-based rates are not just and reasonable, and to set a ceiling price which it determined was just and reasonable. Traditional FERC cost-of-service regulation would take into account variable and fixed costs (including prudently-incurred sunk costs).

The Committee does not recommend this course for a number of reasons. First, we question whether FERC would embark on such a venture. FERC’s predecessor, the Federal Power Commission, undertook a similar exercise in the 1960s and 70s when it attempted to establish area and national rates for natural gas producers under the Natural Gas Act.⁷ The producer rate regulation experiment was eventually abandoned, after it triggered serious interstate natural gas shortages in the 1970s. Congress repealed FERC’s authority to regulate natural gas producers in 1987. Second, FERC lacks jurisdiction over a significant portion of the generation capacity in WSCC. It cannot regulate wholesale sales by municipal and cooperative generators, Bonneville Power Administration, or the Western Area Power Administration. This is about 25% of WSCC capacity. Third, because its jurisdiction extends only to wholesale sales in interstate commerce, FERC cannot regulate generators’ direct sales to retail customers. For this reason, a generator could bypass a FERC ceiling price on wholesale sales by making direct sales to retail customers. Finally, it is not clear that an administrative proceeding of this kind would provide relief on a timely basis – experience with the area and national rate cases indicates that the minimum time necessary to complete a proceeding that could withstand judicial review is about 18 months, with another 12 to 18 months for rehearing and judicial review.

RECOMMENDATIONS

First, the Committee remains of the view that price caps should be phased out as soon as it is feasible to do so. However, in the light of the market’s performance this

⁷ See Permian Basin Rate Case 34 F.P.C. 159 (1965); 390 U.S. 747 (1968). For discussion of natural gas producer rate regulation, see Nordhaus, Robert, “Producer Regulation and the Natural Gas Policy Act of 1978,” 19 Nat’l Resources J. 830 (1979).

summer, we see little alternative to continuing price caps in some form until the underlying market design flaws causing this summer's unacceptably high wholesale prices are corrected and markets are demonstrated to be workably competitive.

Second, our review of the alternatives discussed above indicates that all of them are flawed or infeasible. The current price caps are not capable of fully protecting California wholesale and retail purchasers from price levels that reflect the exercise of market power. Their efficacy is likely to diminish over the longer term as sellers find more effective ways of evading them. A ceiling price on sales to the ISO and PX, such as proposed by SDG&E, is likely to be equally ineffective, and in addition places the ISO and PX at a competitive disadvantage with respect to other buyers. A WSCC-wide ceiling price could be more effective, but may not be attractive to policymakers, and in any case would require an extended administrative proceeding before it could be put into place. Accordingly, for now we recommend that the ISO seek to retain its current price cap authority, but with the recognition that these caps are only partially effective in the near term and are likely to be even less so in the longer term. More fundamental reforms are required, and soon.

Third, the need to attract new generation capacity into the California market makes it imperative that market design flaws are corrected without further delay. With a \$250/MWh price cap in place, the incentives for new generation capacity to enter the market are dulled. Setting the cap even lower would further dull these incentives at a time when California is desperate for new generation and transmission investment.

Fourth, the ISO and PX should recognize that any price cap mechanism that effectively constrains market clearing prices during periods of moderate-to-high demand may require a "relief valve" to permit the ISO to bid for resources during periods of extraordinarily high demand, particularly when spot prices outside of California exceed the cap. There are a variety of ways to provide this relief value; one approach is discussed in our September 2000 Report.

Fifth, the ISO may wish to investigate the feasibility of a mechanism for reserving in-state generation capacity for the California market during periods of high demand. Without such a mechanism, California generators may be able to evade a price cap by entering into bilateral transactions with affiliated or unaffiliated out-of-state marketers who can hold out for Out-of-Market call prices in excess of the cap during periods of high demand.

Finally, we reiterate that price caps are a stop-gap, not a long-term solution. The solution to California's market dysfunction lies in the more fundamental changes we have outlined above and spelled out in detail in our September 2000 Report: full authority for forward contracts, retail pricing mechanisms which encourage price-responsive final demand and forward contracting to mitigate spot-market price risk, reform of the ISO's replacement reserve procurement policy, and expedited siting and construction of new and expanded transmission and generation.