The right answer to the energy crunch

By Paul L. Joskow, 6/20/2001

In 1998, CALIFORNIA restructured its electric power industry, replacing state-regulated monopolies with a system that relies on competitive wholesale power markets. The primary goal of the program was to reduce electricity costs. However, wholesale power costs rose from $7.1 billion in 1999 to $27 billion in 2000.

Some experts project the price tag will be $50 billion this year if actions are not taken to fix what is now widely recognized to be a dysfunctional market. To put these numbers in perspective, during the first five months of 2001 wholesale prices in California were about 500 percent more than in New England's wholesale market. Californians have also endured several days of rolling blackouts and weeks of power emergencies.

Despite a recent wholesale price break, more blackouts and excessive prices are expected when hot whether returns to the West this summer if no further mitigation measures are adopted.

The Federal Energy Regulatory Commission has exclusive regulatory jurisdiction over wholesale power markets. The 65-year-old law under which the commission operates requires it to ensure that wholesale electricity prices are just and reasonable.

In the early 1990s, the commission began to depart from traditional regulated cost-based wholesale power prices by allowing power suppliers to sell at market-based prices. Suppliers had to demonstrate that they lacked market power and that the resulting market prices would reflect the interplay of supply and demand in well-functioning competitive markets.

This was the basis upon which it reviewed and approved all of California's wholesale market institutions. In November 2000, the commission concluded that California's wholesale market was fundamentally flawed and its prices unjust and unreasonable, but did little to remedy the problems.

The causes of California's electricity crisis are complex, reflecting a combination of bad market design, bad regulatory decisions, unanticipated changes in supply and demand conditions, and supplier behavior which has taken advantage of opportunities created by these conditions to further increase market prices above competitive levels.

Knowledgeable experts agree that California's markets are plagued by a variety of market failures and that market design and regulatory reforms are necessary. It will take some time to implement appropriate reforms and for market participants to adjust to them - 18 months to two years. The issue of immediate importance is what, if anything, the commission and state regulators should do in the interim to mitigate the impacts of wholesale market failures. It is around this issue that debate about wholesale electricity price caps has escalated.

One might think from all of the anti-price cap rhetoric that any commission regulatory response would be unprecedented and in conflict with its legal responsibilities. This is

wrong. There have been a variety of problems in the new electricity markets in New York, New England, and Pennsylvania as well. Price caps, bidding rules, cost-based contracts and a variety of other mitigation mechanisms have been used or are being used with the commission's approval in these markets. Indeed, it quietly put in place a limited new mitigation protocol for California last month. The question has been whether and how it can be improved.

Most economists who have urged the commission to do more have not suggested using rigid uniform price caps and have been mindful of their potential dangers. The short-run mitigation proposals that have been put forward focus on reducing the incentive and ability of suppliers to exploit market imperfections that reduce supplies and increase prices above competitive levels. The measures include forward contracts, stricter supplier obligations to offer all available supplies to the market, and companion bidding rules that are designed to ensure that market prices and supplies will be closer to competitive levels.

Some argue that the commission does not have the technical capability to design and implement sound mitigation measures and will make things worse rather than better. This is a reasonable concern. However, the feared adverse effects have not been observed in other wholesale markets where the commission has approved price mitigation measures proposed by the system operators responsible for applying them. There is also a legitimate concern that temporary mitigation mechanisms have a tendency to become permanent.

The solution is to specify a few simple objective market structure criteria that automatically trigger sunset of price mitigation measures.

California has finally begun to implement reforms that are within its jurisdiction. They include large retail price increases, accelerated permitting of new power plants, conservation measures, and forward contracting for wholesale power.

While California can and should do more, the commission needs to strengthen its current mitigation program while continuing to work on long-term fixes. On June 18 it voted unanimously to do so, demonstrating both sound judgment and its independence.

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