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—Enron trader

IV. Electricity Deregulation Led to Higher Costs and Reduced Reliability

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In the mid-1990s, advocates said deregulating electricity markets would lead to lower prices and an array of ancillary benefits.

"Bringing electricity into the competitive world will unleash new products, greater efficiencies, business synergies and entrepreneurial success stories," then-House Majority Leader Tom Delay (R-Texas) said in 1997. "It will create new industries, new entrepreneurs and new jobs."[2]

None of these dividends materialized. Deregulation of electricity services in California failed quickly and spectacularly. Since then, deregulation has been an enduring, if less dramatic, failure elsewhere.

Although deregulation was instituted in the name of harnessing the benefits of competition, it instead served as an exhibit of the potential of profit motives to prompt anticompetitive behavior.

Deregulation ended up allowing electricity producers to command higher prices and left consumers with less reliable service.

A Strong Regulatory System Prevailed From the New Deal Through Most of the Rest of the 20th Century

The nation's electricity system was working fairly well when efforts to deregulate it arose in the 1990s. The system owed much of its success to sensible New Deal-era regulations.

The evolution from *laissez faire* systems, to regulated systems, to deregulated systems began in the 1920s. During the roaring '20's, a few holding companies seized control of the vast majority of the U.S. electricity market. Industry titans evaded most forms of regulation by setting up pyramids of holding companies that operated subsidiaries across state lines.[3]

The companies achieved efficiencies through economies of scale, but did not pass their savings on to their customers. The holding company system was "frequently a menace to the investor, the consumer, or both," the Federal Trade Commission concluded in 1928. The stock market crash of 1929 pushed many holding companies into bankruptcy, inciting investor outrage and causing the reliability of electricity service to deteriorate.[4]

As part of the New Deal, President Franklin Roosevelt pushed through two pieces of legislation in 1935 that would shape the electric utility sector through most of the 20th century. The Public Utility Holding Company Act broke up the holding companies. The Federal Power Act gave the federal government authority over interstate electricity markets and instructed the Federal Power Commission (now the Federal Energy Regulatory Commission, or FERC) to ensure "just and reasonable" electricity rates.[5]

For the remainder of the 20th century, most electricity service in the United States was provided by vertically integrated monopolies at rates set by public utility commissions. Service was reliable and rates did not generally prompt public outcry.

But in the last quarter of the century, a series of developments began to chip away at the status quo.

The 1978 Public Utility Regulatory Policy Act, or PURPA, required utilities to purchase electricity, sometimes at higher-than-market rates, from independent producers. The law included incentives to produce electricity from alternative sources.[6]

Three-and-a-half months after deregulation started in California, electricity producer Dynegy commanded $9,999 per megawatt hour to provide standby power, which had previously been available for just $10 a megawatt hour.

As an unintended consequence of PURPA, utilities mostly abandoned their traditional role of building power plants. Since the mid-1980s, virtually all new generating capacity has been created by independent firms.[7] This change set the nation on a course toward deregulation.

In 1992, Congress passed the Energy Policy Act, which permitted FERC to grant independent power producers the right to share utilities' transmission lines. In 1996, FERC availed itself of that permission by requiring utilities to provide access to the independent producers.[8]

These measures not only enhanced the ability of independent producers to sell electricity to large industrial and commercial customers, but also raised the prospect that they could provide electricity service to residential consumers.

In June 1996, a pair of Clemson University economists released a study financed by the libertarian group Citizens for a Sound Economy (now Freedom Works) which concluded that deregulation of the retail electricity market would boost the economy by $191 billion annually.[9]

In September 1996, California passed the most comprehensive electricity deregulation plan to date. The "landmark legislation," said California Governor Pete Wilson (R), was "a major step in our efforts to guarantee lower rates, provide consumer choice and offer reliable service, so no one literally is left in the dark."[10]

By 2001, half of the nation's states would deregulate electricity services.[11] By then, many of California's residents would literally be left in the dark as a result of their state's deregulatory program.

A comprehensive study concluded that the crisis cost California $40 billion to $45 billion.

Deregulation in California Quickly Flopped

Deregulation of electricity services in California took effect in early 1998. The system called for the state's major utilities to divest themselves of their electricity generating assets, then to purchase electricity from independent providers.

The plan promised something for just about everyone. Consumers were to receive at least a 10 percent rate reduction and manufacturers a 30 percent cut. Meanwhile, utilities were given permission to recoup nearly $30 billion from bad investments, including those from building unexpectedly expensive nuclear power plants.[12]

It did not take long for the dreams attached to the California plan to be crushed.

Just three-and-a-half months in, electricity producer Dynegy exploited scarce supplies to command a staggering $9,999 per megawatt hour for the provision of standby power. This was 1,000 times more than the traditional rate, which was about $10 a megawatt hour.[13] (It was rumored that the Dynegy was only prevented from asking for more because the bidding software could not accept a higher figure.[14])

In June 2000, nearly 100,000 San Francisco customers experienced rolling blackouts—the first of several in California in 2000 and 2001.[15]

California's annual electricity costs jumped from $7.4 billion in 1999 to an average of $27 billion a year for 2000 and 2001.[16]

By November 2000, FERC concluded that wholesale electricity prices "were unjust and unreasonable and reflected the exercise of significant market power." Market power refers to the ability of a single firm to manipulate the price of a good or service. But even though FERC had authority to take actions to ensure "just and reasonable prices," it did not take significant actions at this juncture.[17]

> "Enron gets paid for moving energy to relieve congestion without actually moving any energy or relieving any congestion. By knowingly increasing the congestion costs, Enron is effectively increasing the costs to all market participants."
>
> *—Enron lawyers' memo*

California's electric utilities, which were prohibited from passing on their higher costs to their customers, were either forced to declare bankruptcy or to negotiate arrangements with the state to stay in business. To help the utilities survive, the state's Public Utilities Commission in 2001 approved rate increases averaging 30 percent.[18]

Instead of blaming unscrupulous market manipulation for the disaster unfolding in California, industry officials and pro-deregulation politicians claimed that a shortage of generating capacity was at fault.

In May 2001, President George W. Bush told an audience in Los Angeles that he would not relent to demands to set limits on wholesale electricity prices. "We will not take any action that makes California's problems worse," Bush said. "Price caps do nothing to reduce demand, and they do nothing to increase supply."[19]

But three weeks after Bush's speech, FERC voted unanimously to impose a system of price controls across 13 western states, including California.[20] Prices soon began falling and the crisis abated. By June 2002, wholesale prices had fallen to one-tenth of their level from the previous year.[21]

The declining prices led some power producers to call off plans to build new plants, prompting some experts to predict future shortages. But California's supply of electricity has remained adequate since the crisis of 2000 and 2001.

A study conducted by the Public Policy Institute of California concluded that the crisis cost the state at least $40 billion.[22]

> "So what do we need—we need a blackout and then they're going to remove the [price] cap?"
>
> —*Enron trader*

Experts attributed the crisis to a "perfect storm" of adverse circumstances. These factors included: reduced hydroelectric generating capacity caused by drought; reduced ability to import electricity because of increased demand in surrounding states; delayed construction of new power plants because of environmental regulations; a poorly constructed market; and a poorly functioning electricity transmission grid.

Free-market evangelists focused particularly on the allegedly inadequate supply and poor transmission infrastructure. For instance, President Bush warned that the "rolling blackouts in the great state of California" were a preview of a "darker future" if America did not act on his administration's call to increase generating capacity.[23]

Additionally, Bush said, "a weak link in California's electrical grid makes it difficult to transfer power from the southern part of the state to the north, where the blackouts have been worse."[24]

Market Manipulation Caused the California Electricity Crisis

We now know that the "perfect storm" that led to supply shortages and skyrocketing prices in California was engineered by power suppliers and traders who suppressed supply, sabotaged transmission networks and manipulated the price of natural gas. Now-disgraced, Enron Corp. was the most notorious practitioner of these actions. But many other companies were involved.

Enron's traders employed a series of tricks—with code names such as "Fat Boy," "Death Star," "Get Shorty," "Load Shift" and "Ricochet"—to maximize the price they could command for selling or transporting electricity. Sometimes, their tricks permitted them to get paid for doing nothing at all.

In "Death Star" and "Load Shift," Enron would indicate its plans to transmit electricity across California's power lines in a

manner that the firm knew would threaten to overload the system. The state would then offer to pay the firm to alter its plans.[25]

> The strategy of shipping electricity out of state "appears not to present any problems, other than a public relations risk arising from the fact that such exports may have contributed to California's declaration of a Stage 2 Emergency yesterday."
>
> —*Enron lawyers*

"Enron gets paid for moving energy to relieve congestion without actually moving any energy or relieving any congestion," Enron lawyers wrote in an internal memo.[26] "By knowingly increasing the congestion costs, Enron is effectively increasing the costs to all market participants."[27]

What about the "weak link" in the transmission lines that President Bush lamented? It turned out that Enron created the illusion of a weak link by intentionally overloading the line.

"What we did was overbook the line we had the rights on during a shortage or in a heat wave," an Enron trader told National Public Radio. "We did this in June 2000 when the Bay Area was going through a heat wave and the [Independent System Operator] couldn't send power to the North. The ISO had to pay Enron to free up the line in order to send power to San Francisco to keep the lights on. But by the time they agreed to pay us, rolling blackouts had already hit California and the price for electricity went through the roof."[28]

Another trick, "Ricochet," involved shipping electricity out of state then importing it back. The process allowed Enron to dodge price caps that California instituted during the crisis.

In "Fat Boy," Enron would buy electricity produced in California that was subject to price caps, then sell it in a state in which caps did not apply. The strategy, Enron's lawyers wrote at the time, "appears not to present any problems, other than a public relations risk arising from the fact that such exports may have

contributed to California's declaration of a Stage 2 Emergency yesterday."[29]

At other times, Enron simply curtailed supply altogether by using its sway with the managers of independent power plants. In a phone call revealed years after the crisis, an Enron official told a plant operator "there's not much, ah, demand for power at all and we're running kind of fat. Um, if you took down the steamer, how long would it take to get it back up?"[30]

"Oh, it's not something you want to just be turning on and off every hour. Let's put it that way," the operator replied.[31]

"Well, why don't you just go ahead and shut her down, then, if that's OK," the Enron official said.[32]

In another instance, Enron's traders discussed a plan to cause a blackout in hopes of rallying opposition to price caps.

"Take it and move it out. Bring it to the Northwest, bring it to Palo Verde so you're seeing all this energy that's supposed to be used for Californians go elsewhere —out —they export it out," one Enron employee said.[33]

"So what do we need—we need a blackout and then they're going to remove the [price] cap?" an Enron trader responded.[34]

Through it all, Enron pledged that it was doing all it could to abate the crisis and insisted that the free market would solve the problem.

Enron CEO Ken Lay praised the free market system as one that "entrusts people to make choices and enjoy the fruits of their labor, skill, intellect and heart."[35]

In December 2001, after losses hidden by a fraudulent accounting scheme were revealed, Enron submitted what was then the largest bankruptcy filing in U.S. history.[36]

Deregulation Also Has Failed in Other States

While the California experiment failed suddenly and spectacularly, the experience of the rest of the country has provided a more enduring indictment of electricity deregulation.

Numerous analyses have found that electricity costs have risen more rapidly in states that deregulated than those that did not. This is largely because deregulation has shifted power producers' incentives from maximizing the reliability of service to maximizing their revenue per megawatt.

For example, a 2008 analysis by Public Citizen found that the 12 deregulated states that did not have price caps had experienced average price increases of 5.5 percent since 2002, compared to average increase of 3.6 percent in states that still regulated.[37]

A 2007 study by Power in the Public Interest found that consumers in the 12 deregulated states without caps had paid nearly $48 billion more for their power in the previous year than they would have paid if they were charged the same rates as those in regulated states.[38]

The strongest initial advocates for electricity deregulation were industrial users, who believed competition would result in lower prices. But the Power in the Public Interest study found that electricity prices for industrial customers were 37 percent higher in deregulated states than in regulated states in 2007. Rates for industrial customers in deregulated states had been only 18 percent higher in 1999.[39]

Electricity prices have come under particular criticism in recent years in Texas. In 2012, the operator of the Texas grid released a study calling for prices to triple amid steadily declining natural gas prices.

"After the state embraced deregulation, Texans endured a decade of electricity prices that were higher than most of the country. We were told that was because natural gas prices rose," a *Houston Chronicle* article stated. "Now that [natural gas prices] have fallen to the level they were at when this experiment began, we're told prices must triple."[40]

Conclusion: Supporters of Deregulation and Market Experts Recognize That Deregulation of Electricity Failed

Even those who generally oppose regulation recognize that deregulation of electricity has failed to lower prices.

"High-cost states have seen little price relief, and competition has had a negligible impact on prices," wrote Peter Van Doren and Jerry Taylor of the libertarian Cato Institute, typically one of the most intransigent opponents of regulation.[41]

Although they favored complete deregulation—removing all government authority over electricity markets—Van Doren and Taylor offered a surprising recommendation if states would not go for their total hand-offs proposal.

"A second-best alternative would be for those states that have already embraced restructuring to return to an updated version of the old, vertically integrated, regulated status quo," they wrote.[42]

By 2010 seven states had suspended their deregulation programs.[43]

Warren Buffett, whose investment firm owns MidAmerican Energy, one of the nation's largest electric utilities, opposes deregulation of electricity because it provides an incentive to limit supply rather than provide the best service.

"I've personally felt that most of deregulation was a mistake," Buffett said in 2006. "If you own in a deregulated environment and you own generating assets, you want the market to be tight."[44]

To best serve the public, Buffett said, "It's crazy to operate without a margin of safety."[45]