



10 Years of Senate Bill 7

THE HISTORY OF ELECTRIC DEREGULATION IN TEXAS

*The Unfulfilled Promise of
Utility Restructuring*

A Special Research Project by
Cities Aggregation Power Project, Inc.

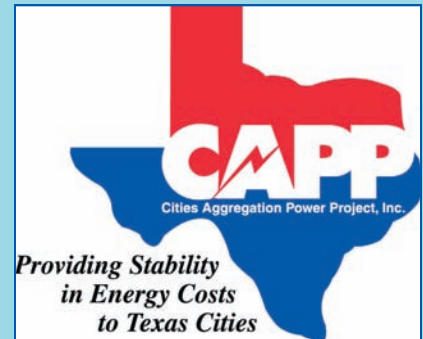
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ABOUT THE CITIES AGGREGATION POWER PROJECT, INC.

When it comes to electric deregulation, the Cities Aggregation Power Project enjoys a unique vantage point. The non-profit city coalition was created in 2001 for the specific purpose of purchasing power in the new market. CAPP members have educated themselves about energy policy and have worked shoulder-to-shoulder with experienced energy consultants. Its members have gained first-hand knowledge about what works right and what needs to change.

CAPP pools the energy needs of its more than 100 members in order to negotiate for better prices from power generators. CAPP remains committed to making competition work. After all, the price CAPP members pay for electricity affects city budgets and the ability to fund essential city services. This report confirms much of the coalition's experience as consumers in the deregulated market — that competition does not simply develop once regulation is abandoned. As we have seen from the recent financial market collapse, the absence of regulation and unchecked profit motivation can also lead to market power abuses that needlessly drive up prices. There also has been reluctance by some to confront obvious market flaws head-on. Electric consumers continue paying unwarranted costs. Mismanagement of technical systems has been common.



CAPP supports all efforts to secure affordable energy in Texas. Its hope is that by presenting this detailed history and highlighting some of the documented problems that continue to plague the market, *The History of Electric Deregulation in Texas* will help promote understanding. The good news is that as long as we know where we've been, we can chart a path forward. CAPP, like all consumers, wants what the architects of Senate Bill 7 set out to create 10 years ago — a competitive electric market that truly works.

OVERVIEW AND EXECUTIVE SUMMARY

The History of Electric Deregulation in Texas

On Jan. 20, 1999, Sen. David Sibley unveiled legislation that would fundamentally change how Texans buy electric power. The legislation that came to be known throughout the industry simply as Senate Bill 7 (SB 7) called for the elimination of regulated energy rates and monopoly providers. At the time, Texas touted plentiful supplies of cheap power for its booming population and to feed heavy industrial users like

“...SEN. SIBLEY SET THE CRITERIA FOR JUDGING SENATE BILL 7: “IF WE DON’T GET CONSUMERS LOWER RATES, THEN WE HAVE BEEN A FAILURE -- I’LL BE THE FIRST TO SAY IT.”

refineries. But lawmakers said that under Senate Bill 7 competition and market forces would drive already low prices in Texas even lower.

Sen. Sibley could not have been more clear about SB 7's bottom line goal. "We want this bill to bring down the cost of electricity for all Texans," he said. Underscoring his point, Sen. Sibley set the criteria for judging SB 7: "if we don't get consumers lower rates, then we have been a failure -- I'll be the first to say it."

Ten years later, there seems to be no end to industry-sponsored reports and studies proclaiming the success of SB 7, many going so far as to declare the restructured market "an example for the world." But ask anyone paying an electric bill and they will tell you that it doesn't feel like a success. Prices are much higher since the start of deregulation. Using virtually any pocketbook comparison – whether it is to prices paid in parts of the state that have not deregulated, to prices paid

by ratepayers in surrounding states that remain regulated or to prices paid by other deregulated states – Texans in the deregulated market are paying more and getting hit with bigger price increases.

Has deregulation really produced competition? Why does the energy industry tell us that Texas is success when prices have gone up? Where has Texas gone wrong and what has it done right? The Cities Aggregation Power Project (CAPP), a group of more than 100 communities throughout Texas, commissioned this report, *The History of Electric Deregulation in Texas*, to provide a fact-based chronology of major market events to help answer these questions.

But this is not a typical policy analysis. Rather, *The History of Electric Deregulation in Texas* tells the story from the beginning and examines year-by-year the successes and failures of SB 7. The goal of this report is to provide historical context with which to judge some of the most difficult challenges facing the state today and to highlight important innovations. And unlike the sponsors of other reports issued on the Texas market, the sponsor of this report – CAPP – derives no incentive or profit from selling electricity. Instead, the member communities of CAPP want what all Texans want: affordable and reliable power and a healthy economy. The lawmakers who approved SB 7 knew that affordable power would mean economic development in our cities and a better life for our citizens. They intended for competition to bring lower prices.

MAJOR FINDINGS

When lawmakers adopted Senate Bill 7, they intended the legislation to bring about a fully competitive market that greatly expanded the number of providers, improved customer service and lowered prices for all Texans. Has the deregulated market fulfilled the promise of SB 7? *The History of Electric Deregulation in Texas* records significant events over the past 10 years to help answer that question. Major findings of this report include:

- **The Number of Providers Has Increased But Customer Prices Are Higher, Not Lower**

The number of electric providers has increased since the market deregulated. However, when it comes to the impact on consumer prices and the establishment of a truly competitive market, the legislation fails to live up to the early promises. Texans paid prices below the national average in the years leading up to Senate Bill 7. Since the market opened, prices have climbed above the national average. Deregulated prices paid by Texas households have increased by a greater percentage than in any other deregulated state with retail competition. (See chart on page 6)

- **Enron Played a Key Role in the Deregulation of the Market**

If not for the disgraced energy company's considerable political influence, Texas and other states may never have pursued deregulation in the first place. Some of the current problems with deregulation can be attributed, at least indirectly, to the company's influence.

- **Market Power Abuses are Serious and Reoccurring**

Abuse in the wholesale power market has been a serious and reoccurring problem. In some cases, abuses have contributed to the financial

failure of market participants. The abuses have increased the cost of electricity for ratepayers.

- **Efforts to Help Customers Have Been Ignored**

Proposals to limit the monopoly control of some electric providers, or to limit unfair increases in a semi-regulated rate under the deregulation law, were rejected during repeated legislative sessions. Lawmakers also reneged on a key commitment of SB 7 and in the process hiked rates for hundreds of thousands of poor Texans.

- **Renewable Energy Gains May Be Tempered by Higher Costs for Consumers**

Over the past 10 years, Texas has become a leader in encouraging the development of renewable power. However, the aggressive build-out of wind power in West Texas is projected to drive up transmission costs for all Texans and create new reliability challenges.

- **Problems with the Power Grid Operator Persist**

The Electric Reliability Council of Texas (ERCOT), the operator of the power grid, continues to have problems managing the transition to competition. There have been expensive missteps from the very beginning, criminal charges, and a major market overhaul is now years behind schedule and approximately 900 percent over initial cost projections.

- **Transmission System Constraints Hamper Seamless Flow of Power**

Moving power from parts of the state where power is plentiful to areas where it is needed most remains a major problem in the deregulated market. The transmission system in Texas was built to support the old monopoly system, not the dynamic deregulated market. There is not enough transmission capacity, and power cannot

flow smoothly. This makes it easier for power producers to exploit transmission bottlenecks and system constraints to manipulate market prices. Addressing this issue will result in billions of dollars in added expense for consumers.

RECOMMENDATIONS

Cities Aggregation Power Project members are committed to making competition work in Texas. Affordable power in a fully competitive market means economic development for our communities and a better life for our citizens. But competition does not simply develop once regulation is abandoned. CAPP proposes the following reforms to help transform the deregulated market into a truly competitive one.



- The statute should be updated to provide greater authority to guard against wholesale market abuses. SB 7's prohibition against owning or controlling more than 20 percent of the generation within a power region should be updated to reflect the fact that transmission constraints have created several power regions within ERCOT.
- In the alternative, return to a single ERCOT-wide market and abandon use of separate regions within ERCOT to set wholesale spot energy prices. This change would bring the Texas market more in line with the language of SB 7, which never contemplated separate zones within ERCOT. The cost of relieving transmission congestion in this ERCOT-wide market should be based on production costs and spread in a "postage-stamp" style to all those who procure power. That is, relevant market participants should pay a uniform price for relieving congestion, regardless of their geographical location.
- When market power abuses occur, market participants harmed by such anti-competitive activities must be given the right to participate in investigations and enforcement actions undertaken by regulators.
- Changes should be made to better facilitate community aggregation programs. The statute provides only for "opt-in" citizen aggregation programs that are unworkable.
- Policymakers should abandon efforts to create a so-called "nodal" market. Many of the benefits promised by this over-budget market overhaul can be achieved through less expensive means. The nodal market will also lead to higher prices in many parts of Texas.
- Lawmakers should demand more accountability at ERCOT, the operator of the Texas power grid.

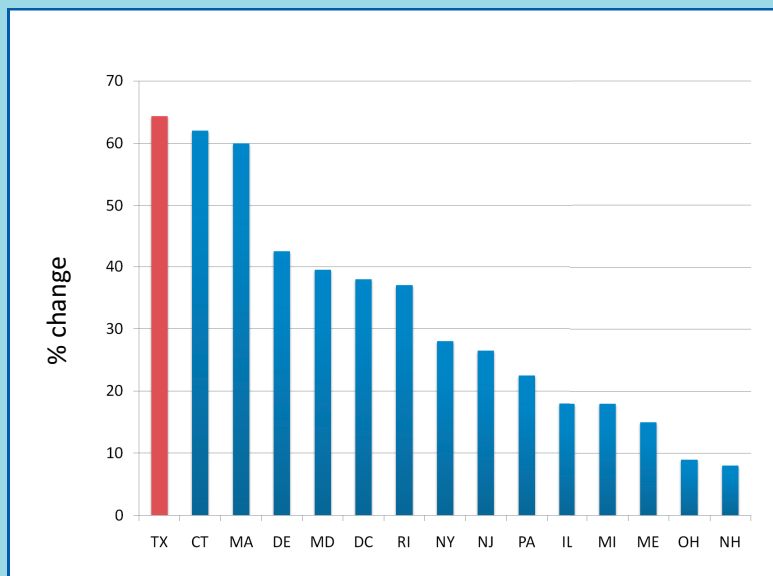
ABOUT THE REPORT

The History of Electric Deregulation in Texas tells the story of Senate Bill 7 from the very beginning. It is organized chronologically, with a preliminary section describing the years prior to passage of SB 7. That begins on page 8. Separate annual sections, beginning on page 11, describe key events relating to deregulation during every year since lawmakers adopted SB 7.

- *The History of Electric Deregulation in Texas* includes a number of subsections that highlight key issues. These subsections are interspersed chronologically throughout the report. For example, subsections include those that describe Enron’s activities, explain ERCOT, and describe issues relating to so-called “Excess Mitigation Credits.” These subsections have blue backgrounds.
- An description of the key components of Senate Bill 7 begins on page 13.
- *The History of Electric Deregulation in Texas* includes a number of charts and graphs that describe price increases in Texas and under deregulation generally. The charts examine the effect of natural gas generation on prices, compare prices in regulated states versus deregulated states and compare price increases among all states over time. Particularly noteworthy are “Electric Deregulation in Texas: From Low Rates to High Rates” on the facing page and the chart below.

TEXAS LEADS ALL DEREGULATED STATES FOR PRICE INCREASES

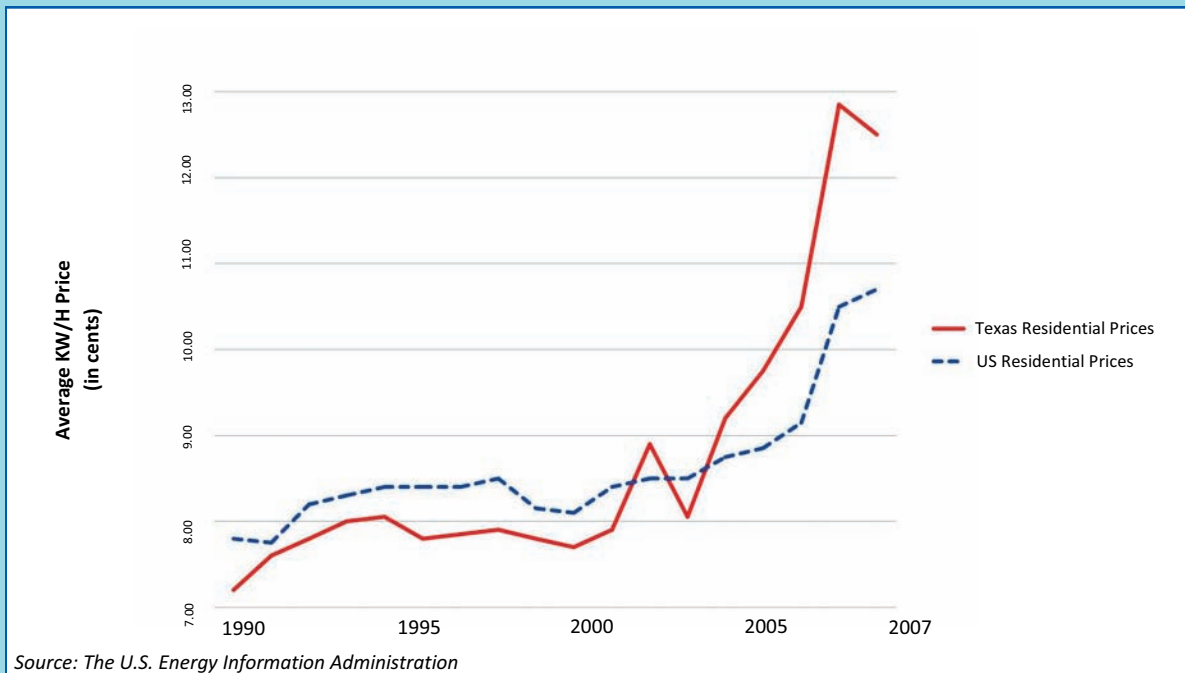
Residential Electric Price Increase, 1999 - 2007
Deregulated States with Retail Choice



Source: U.S. Energy Information Administration

On average, residential electricity rates have increased by greater percentages in deregulated states than they have in regulated states. And among deregulated states, nowhere has it increased by a greater percentage than it has in Texas. A review of federal data shows that since 1999, electricity prices for residential users have increased by more than 64 percent in Texas.

ELECTRIC DEREGULATION IN TEXAS: FROM LOW RATES TO HIGH RATES

Average Residential Electricity Prices
Texas and the United States

For years, Texans enjoyed electricity prices below the national average. After the Texas electric market deregulated, prices increased above the national average and have remained significantly above that mark.

Note that this chart shows average residential rates in Texas spiking above the national average only once during the entire decade prior to deregulation. That spike came in 2001. Industry-sponsored studies typically compare the 2001 spike with later years to support their contention that under Senate Bill 7, electric prices in Texas have not substantially increased relative to the rest of the nation. However, these industry studies ignore the clear trend — illustrated in this chart — that shows that Texans consistently paid below the national average before deregulation.

Also note that the 2001 price spike, in itself, is a function of deregulation. The Texas Public Utility Commission allowed utilities in 2001 to collect from ratepayers excess earnings and high fuel surcharges as a down payment on later collections that were anticipated from the restructuring law. Average residential prices in Texas dropped after the market opened in 2002 because the fuel surcharges expired and because Senate Bill 7 mandated a 6 percent cut in base rates. Prices then increased above the national average and have remained above the national average.

THE EARLY YEARS

Electric deregulation – that is, the use of free-market principles to dictate prices -- did not begin in Texas, nor did it arise in a vacuum. Rather, electric deregulation was a part of a larger nationwide trend that took hold during the 1970s and included the deregulation of railroads, airlines, telephone service and banks.

Most of the nation’s electricity markets are governed by the Public Utility Holding Company Act, a Depression-era law that Congress adopted as a bulwark against anti-competitive behavior by power companies. Under that system, the states’ public service commissions – agencies like the Public Utility Commission (PUC) in Texas – design rates sufficient to cover the monopoly utility’s operating and investment costs, plus a reasonable level of profit.

The first meaningful change to the model came in 1978 with congressional passage of the Public Utility Regulatory Policy Act. Congress acted again in 1992 when it adopted the Energy Policy Act that led to the deregulation of wholesale markets. In 1995, lawmakers passed legislation deregulating the wholesale power market in Texas. The Federal Energy Regulatory Commission in 1996 also issued Order 888 requiring that utilities provide open access to their transmission lines to other power companies.

Together, these changes opened the door to a new market system, and one clamored for by big industrial users. Utilities had invested in costly nuclear and coal generation during the

1970s. Industrial users wanted to be free to buy cheaper power from other generating units, but that could only happen if they could extricate themselves from rate regulation. Industrial users also predicted that their economic and organizational clout would allow them to negotiate better deals under a deregulated system.

Some economists perceived a potential benefit in electric deregulation, arguing that regulated utilities as monopoly providers lacked strong incentives to keep down costs and to pursue efficiencies in their operations. They argued that under the traditional regulated system, utilities had an economic incentive to build out their systems to the largest extent possible. They could then shift costs on to their captive ratepayers and, in the process, increase overall profits.

Others cautioned that technological and economic barriers unique to electric power make deregulating electric markets infeasible. Electricity – unlike most tradable commodities – cannot be stored. This means that in a deregulated system, consumers are captive to volatile price swings. Because electricity is essential to the public welfare in the 21st century, dips in reliability or increases in prices can cause serious hardships, medical problems or, in the most extreme cases, death.

CALIFORNIA DEREGULATES

California became the first state to move to deregulate its electric market when legislators there unanimously adopted Assembly Bill 1890 in August of 1996. AB 1890 had been pushed

through the California legislature in just a few weeks at the urging of Enron, other power lobbyists and big business interests. Perhaps indicative of the increased attention on the California electric market, Gov. Pete Wilson and other major political players in the California deregulation effort took in about three times the amount of political donations from utilities that year than they had just two years earlier.

Problems appeared almost immediately. Enron and other new suppliers quickly realized that there was no profit in serving residential customers and so stopped signing them up. Three months after the power market deregulated, the price for reserve power jumped from \$1 to \$2,500 per megawatt-hour. It then jumped to \$5,000, stayed there for three hours and then mysteriously dropped back to \$1. Four days later, it spiked again – this time to \$9,999. The price stayed there for four hours and then dropped to one penny.

“All of us saw those numbers and realized ... there was nothing to stop someone from bidding infinity,” said Jeffrey Tranen, then the chief executive for the California grid operator.

Meanwhile in Texas, Gov. George W. Bush wanted to proceed beyond wholesale deregulation. He unveiled an Enron-supported bill in 1997 that would deregulate the Texas retail electric market. But big utilities like Texas Utilities Co. (later TXU) questioned whether the “Texas Consumer Power Act” would allow them to receive payments for investments they said would become uneconomical under the new system. Gov. Bush and Lt. Gov. Bob Bullock brokered a compromise that appeased the utilities, but the effort fell short, and the bill died in committee.

Texas lawmakers continued studying the issue during the 1998 interim with a seven-member Senate committee going so far as to fly to England to examine that country’s deregulation efforts. During this period, Enron, industrial users and Gov. Bush shored up political support for electric deregulation.

New Hampshire, Rhode Island and Pennsylvania also had begun implementing retail deregulation in 1997.

THE SENATOR AND THE NAPKIN DOODLE

Even state Sen. David Sibley, the Waco Republican now remembered as one of the architects of the Texas law, saw during an early fact-finding mission to California that that system could be manipulated.

During the plane ride back, Sen. Sibley began doodling on a napkin.

“We got a napkin, and it looked like you could game the power exchange,” Sen. Sibley later told a reporter. “We had our (PUC) guy and our staff and people just started talking about how you could figure out how to withhold just enough electricity. We were just kind of toying with it, kind of war games things on the airplane.

“Now, I’m a dentist,” Sen. Sibley said, “and if I could figure it out, it seemed like someone else could, too.”

POSTAGE STAMP PRICING

In 1995, lawmakers passed legislation deregulating the wholesale power market and requiring all utilities owning transmission lines to provide “open access” to their wires to transport wholesale power.

Even before the wholesale market deregulated, electric companies voluntarily connected their transmission systems to each other to enhance the reliability of the system. By interconnecting, utilities were also able to transfer wholesale power to each other.

Not all buyers and sellers in the deregulated wholesale market own transmission lines, which means power must sometimes be transmitted -- called “wheeling” the power -- over power lines that are not owned by the buyer or the seller.

There is a cost involved with wheeling power across a company's transmission system. Lawmakers understood that in order for competition in the wholesale market to work, power must be able to move freely across the state. Wheeling costs that varied by transmission company could hamper the ability of a generator to sell power to buyers throughout ERCOT. As a result, the 1995 legislation led to the policy of “postage stamp pricing.” Postage stamp pricing means that, like the price of a stamp on a piece of mail, the price to wheel one megawatt of power is the same whether the power is sent across the state or to the next city.

Moving power from parts of the state where power is plentiful to areas where it is needed most has become a major problem in the deregulated market. The transmission system in Texas was built to support the old monopoly system, not the dynamic deregulated market. Without enough transmission capacity, power cannot flow smoothly in some areas. This makes it easier for power producers to exploit transmission bottlenecks and system constraints to manipulate market prices.

UTILITY OVEREARNINGS

By 1999, the PUC, under then-Chairman Pat Wood, openly acknowledged that the rates charged by utilities were too high. In its Scope of Competition report, the PUC made clear that selling electricity in Texas was a declining-cost industry: “With declining costs and the strong load growth in the State, it is likely that the commission could find itself facing a never-ending stream of rate cases in an attempt to harness utility over-earnings.”

This meant that by 1999 utilities in Houston, Dallas and elsewhere were charging regulated rates that the PUC confirmed were in excess of what otherwise had been permissible levels. But instead of initiating proceedings to lower regulated rates, the PUC allowed the companies to continue charging the same amounts. The commission reasoned that in the event that the Legislature moved to deregulation in 1999, the

utilities would demand certain payments for so-called “stranded investments” in such things like nuclear power plants that could become uneconomical in the new market. Under the

“WITH DECLINING COSTS AND THE STRONG LOAD GROWTH IN THE STATE, IT IS LIKELY THAT THE COMMISSION COULD FIND ITSELF FACING A NEVER-ENDING STREAM OF RATE CASES IN AN ATTEMPT TO HARNESS UTILITY OVER-EARNINGS.”

commission’s reasoning, extra revenue from the inflated regulated rates could be applied to accelerate debt payments on the stranded investments.

These PUC-approved over-earnings by utilities were intended to help facilitate the transition to deregulation. Instead, they became a contentious point during the upcoming legislative session when deregulation supporters began promising savings.

YEAR: 1999

The 76th Texas Legislature - Senate Bill 7 Becomes Law

On Jan. 20, 1999, during a packed press conference in a room just outside the Senate chambers, state Sen. David Sibley laid out his plan to deregulate the Texas electric market. The 76th legislative session was just getting under way. Sibley, co-sponsor of Senate Bill 7, would become a leading force in successfully guiding through the legislation that would fundamentally change how electricity is bought and sold in Texas. Sen. Sibley was clear in his intention.

“We want this bill to bring down the cost of electricity for all Texans,” he said. Building on that goal, Sen. Sibley later added that “if we don't get consumers lower rates, then we have been a failure -- I'll be the first to say it.” The Waco Republican also pledged his law “would benefit virtually everyone living within our state's borders.”

Rep. Steve Wolens, champion of deregulation in the Texas House, acknowledged that while Texans already enjoyed relatively low electric rates, they spent more money on electricity than the national average. Never mind that the main reason for these bigger bills was not a flawed market design but rather Texans' reliance on air-conditioning to battle the state's famous summer heat -- a fact no amount of electric deregulation could change.

“Lower electric rates will help Texas companies compete in the international marketplace, make more household money available for spending on non-energy goods and services and bring new investments into Texas,” Wolens said.

Deregulation proponents also predicted (incorrectly as it turned out) that the federal government could soon require retail deregulation nationwide. By adopting its own deregulation law first, Texas could avoid coming under federal jurisdiction, according to the proponents.

Eventually Rep. Wolens and Sen. Sibley merged their ideas into a single piece of legislation, approximately 200 pages long.

SB 7 was supported by business interests.

“One of the drivers of this legislation is that large business customers can see some of the cheap electricity available from the independent power producers, and they want some of it,” said Enron Vice President Kathleen Magruder, during the early days of the 1999 debate. “It makes them more competitively situated.”

At the same time, consumer advocates urged caution.

“I think it's the industry people who are pushing it, trying to create this kind of frenzy, so that legislators feel like they have to act,” said Janee Briesemeister, of Consumers Union. “They're trying to create urgency by putting ads on television, trying to tell people what they want, even though people don't know they want it.”

A few lawmakers reiterated this message.

“I don't see the great public necessity for what we're doing,” said one East Texas lawmaker. “Texas has some of the lowest rates

in the nation. We have some of the best reliability in the nation ... And obviously, we don't know what this will do."

"IN ANNOUNCING THE LANDMARK LEGISLATION, THE GOVERNOR UNDERScoreD ITS PURPOSE:

'COMPETITION IN THE ELECTRIC INDUSTRY WILL BENEFIT TEXANS BY REDUCING MONTHLY RATES.'"

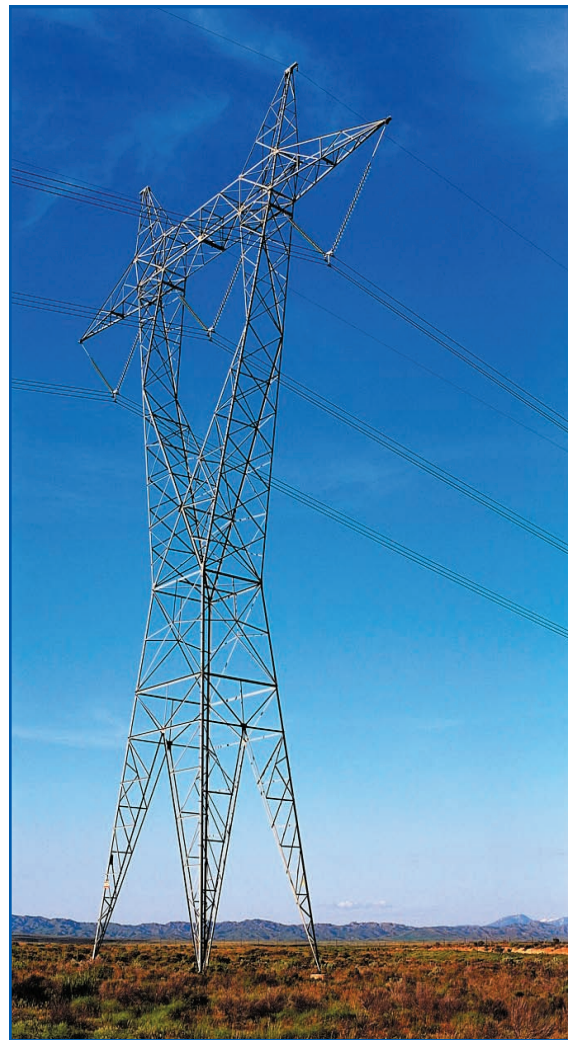
On March 8, a Senate committee adopted the legislation unanimously. On March 17, the full Senate gave its approval. On May 12, Wolens' House committee signed off. One amendment adopted by Wolens' committee potentially could have helped residential consumers by shifting away the burden of certain costs to industrial users. The amendment, which nearly derailed the legislation, ended up getting largely undone. On May 21, the full House adopted SB 7. Gov. Bush signed SB 7 on June 18. In announcing the landmark legislation, the governor underscored its purpose: "Competition in the electric industry will benefit Texans by reducing monthly rates."

SB 7 resulted in some of the most significant changes to the state's electricity market in history. It included more than a half dozen major provisions, including a wide expansion of wholesale electric deregulation, the first-ever authorization for competition among retail electric providers, new renewable energy mandates and a green light for utilities to seek billions of dollars in "stranded costs" payments. All of this had the potential to dramatically impact the consumer pocketbook.

Unions and environmental groups for the most part supported the law. Most major

consumer advocacy organizations opposed it or eyed it with deep skepticism. A large majority of Texans said they were satisfied with the current regulated system, which for more than a decade had resulted in rates below the national average.

In fact, most Texans in 1999 were probably unaware that electric deregulation was underway, or even contemplated. And yet with the passage of SB 7, electric deregulation is what they would get.



SENATE BILL 7 Key Components

When Gov. George Bush signed Senate Bill 7 into law, he instituted what some have called America's most audacious experiment in the deregulation of electric power. Gov. Bush was clear about his intentions. "Competition in the electric industry will benefit Texans by reducing rates and offering consumers more choices," he said.

No longer would the production and sale of electricity be considered monopoly enterprises. Instead, SB 7 called for "the establishment of a fully competitive electric power industry" where market forces dictate prices and service. The companies that own, operate and manage the transmission and distribution system remained regulated -- but the regulation of companies that produce and sell electricity would end.

SB 7 states: "The Legislature finds that the production and sale of electricity is not a monopoly warranting regulation of rates, operations and services and that the public interest in competitive markets requires that ... electric services and their prices should be determined by customer choices and the normal forces of competition." The Legislature ordered far-reaching changes to the market.

Key components are listed below.

Structural Changes

The electric power industry has three main functions – generating power, transporting power over power lines to the customer and interacting with the customer (billing, opening new accounts, resolving problems, etc.). Prior to deregulation, a single electric company performed these services for all customers within its designated service area. SB 7 made power generation and the provision of retail electric service subject to the normal forces of competition and customer choice. Transmission and distribution services remain regulated. Accordingly, the statute required the former monopoly provider to "unbundle" – that is, to separate – its operations into three distinct entities:

- The power generating company owns and operates the electric power plants and sells its power into the deregulated wholesale power market.
- The regulated transmission and distribution company owns and operates the wires to transport power from the plant to all customers within a certain geographical area.
- The deregulated retail electric provider purchases wholesale power from power-generating companies and re-sells the power to customers. The retail provider is responsible for all interaction with the customer, including billing the customer for transmission and distribution services and for the power purchases. However, a retail provider may not own generation.

At the very minimum, the former monopoly providers were required to create separate companies for each service although the new companies can remain under the same ownership.

SB 7 exempted municipally-owned utilities and cooperative utilities although those entities could opt into deregulation. Areas of Texas not covered by the state's main transmission grid remained outside deregulation unless they met certain requirements. The Panhandle, El Paso, the Golden Triangle and the far northeast corner of the state remain outside those areas where deregulation is mandated.

Recovery of Stranded Costs

Before deregulation, utilities were required to build plants to serve the energy needs of their customers. In order to build a plant, a company would invest millions of dollars in construction costs. Once the Public Utility Commission (PUC) determined that the construction costs were prudently incurred, the company was allowed to recover all of its costs and a reasonable level of profit from ratepayers. However, because the costs were substantial, the utilities were not paid back immediately. The payback, with interest, was spread over the projected life of the plant -- usually 30 years.

Once the electric market became deregulated, former monopoly providers could not continue to charge regulated rates to recover power plant construction costs they had already incurred to serve customers. Former monopoly providers feared that they would not be able to sell the power plants at a price that would offset the outstanding debt, and the companies would be forced to choose between two untenable options: charge high prices that could not compete or absorb all of the costs related to the uneconomic plants. The difference between the net book value of the plant and the price that the plant could fetch if sold in the market became the formerly monopoly providers' "stranded costs."

Lawmakers determined that former monopoly providers should have the right to recover so-called stranded costs from ratepayers. SB 7 includes several provisions regarding the calculation and collection of stranded costs. The statute also imposes some restrictions on the utilities' ability to recover stranded costs and represents that no utility would be allowed to over-recover stranded costs.

To minimize the impact to customers, SB 7 established a three-phase process for stranded cost recovery:

- **First Phase (September 1999 – Dec. 31, 2001)** – Regulated rates that otherwise should have been reduced are frozen. All profits in excess of Commission-set levels are applied to buy down the uneconomic plants' book value.
- **Second Phase (Jan. 1, 2002 – Dec. 31, 2004)** – Preliminary estimates of potential stranded costs are developed for each utility to determine whether efforts taken in the first phase were successful. If the preliminary estimates indicate stranded costs are still possible, an initial fee is surcharged to the transmission and distribution utility. The fee to the transmission and distribution utility is passed on to customers by the retail electric provider and would be used to continue buying down the uneconomic plants' book value.

- **Third Phase (Beginning January 2004)** – Former monopoly providers are required to true-up the actual, final value of stranded costs, taking into account the efforts in the previous two phases. Unlike the stranded cost projections in the earlier phases that relied upon a mathematical model to calculate potential-stranded costs, SB 7 provided utilities four different options to derive a final market value for potentially stranded generation assets. If the net book value exceeds the final market value, then the utility is entitled to recover stranded costs. Stranded costs are to be recovered through a fee that will be surcharged to the regulated rates of all customers within the former monopoly provider's service area.

The Price To Beat

SB 7 required utilities to freeze their rates beginning on Sept. 1, 1999. When the deregulated market opened on Jan. 1, 2002, retail electric providers affiliated with the utilities were required to charge a price that was six percent less than the regulated rate that existed on Dec. 31, 2001. Until 2005, this new rate (known as the “Price to Beat”) was the only rate that the provider affiliated with the former monopoly company was allowed to charge residential and small commercial customers in the old service area. The Price to Beat created a target for competitors to undercut with lower prices. A provider affiliated with a former monopoly electric company was required to offer the Price-To-Beat rate until Jan. 1, 2007. However, it also could offer plans with alternative prices after Jan. 1, 2005, if it could demonstrate that it had lost more than 40 percent of its customers.

SB 7 offered one exception to the fixed Price-To-Beat rate providers must charge. Individual Price-To-Beat providers were able to increase or decrease the rate no more than twice each year to reflect changes in natural gas fuel prices, which fuel some generation plants. The decision to increase or decrease the Price-To-Beat rate and the timing of the change was left to the Price-To-Beat provider.

Prohibition Against Market Power Abuses

SB 7 requires the PUC to monitor market power associated with the generation, transmission, distribution and sale of electricity and to protect against any company acquiring generation capacity sufficient to exercise market power in the newly deregulated market. A company with market power is capable of restricting, impairing, or otherwise reducing the level of competition in the market.

Market power abuses specifically prohibited by SB 7 include predatory pricing, withholding of power, precluding entry to the market and collusion.

Because a company usually has market power by virtue of controlling a large portion of the market, no company is allowed to own and control more than 20 percent of generation capacity within a power region. If the PUC finds market power abuses, the statute requires that the offending company submit a plan to mitigate its market power. These market mitigation plans could require the company to sell assets, auction off capacity or take other measures to decrease the amount of generation capacity they own and control.

Environment

SB 7 included two major provisions relating to the environment, as well as establishing new energy efficiency guidelines.

The first provision relates to older generating plants that had been exempted from obtaining clean air permits under the 1971 Texas Clean Air Act. SB 7 set a deadline of May 2003 for utilities to cut overall nitrogen oxides emissions on this fleet of generating plants by 50 percent, and sulfur dioxide emissions by 25 percent (with deeper cuts of nitrogen oxide and sulfur dioxide emissions in urban areas around Houston, Galveston, Dallas and Fort Worth). To accomplish the reductions, SB 7 created a “cap and trade” system. The statute allowed utilities to recover the cost to meet the new standards by including the expenditures in their calculations of stranded costs.

SB 7 also established new statewide mandates and corresponding deadlines for the use of renewable energy. The responsibility for meeting the mandates was assigned to electric retailers based upon their individual share of the overall market. To help carry out this provision, SB 7 created a Renewable Energy Credit trading program, which is managed by the Electric Reliability Council of Texas (ERCOT). Under the program, an electric retailer that acquires more than enough renewable energy to meet its own requirements can sell credits for its excess renewable energy to other companies that have fallen short.

Although the overall renewable energy mandates in this section have increased since SB 7 was first enacted, it was originally intended to foster the construction of 2,000 megawatts of additional renewable energy by 2009 -- or enough to power about 1.6 million homes.

New energy efficiency requirements were also introduced in SB 7, including a requirement that regulated transmission utilities administer energy savings incentive programs, provide customers access to energy efficiency alternatives and provide incentives for electric retailers to engage in energy efficiency efforts. Under this provision, electric utilities were expected to reduce their annual growth in energy demand by at least 10 percent by Jan. 1, 2004.

CUSTOMER PROTECTIONS

The Provider of Last Resort

It was critical to lawmakers that customers always receive power in the deregulated market, even if some providers went out of business or if there was a billing dispute. To ensure reliable service, SB 7 established “Provider of Last Resort” service for customers who cannot get power from other providers, or for customers of failed companies that abruptly leave the market. The Provider of Last Resort is selected by the commission and charges a commission-approved fixed rate for standard service.

The System Benefit Fund

SB 7 established a user fee on electric service. Funds generated by this fee were deposited in a special account, known as the System Benefit Fund. The System Benefit Fund was intended to support electric rate discounts for low-income customers, finance energy efficiency programs for low-income households, fund a customer education media campaign relating to retail competition and compensate school districts for the loss of any property tax revenue attributable to the deregulation law.

The Price to Beat

SB 7 created the Price to Beat to serve as both a target for competitors to undercut in order to win new customers and to provide a modest rate cut for customers that were unwilling or unable to switch providers.

Registration and Certification of Market Participants

Although the production and sale of electricity to customers was no longer subject to regulation, SB 7 authorized the PUC to establish minimum requirements for registration and certification of entities operating in the deregulated market.

Aggregation

SB 7 specifically contemplates that multiple customers would join together for the purpose of negotiating better deals in the new market. For example, municipalities and other political subdivisions that procure electricity for their own purposes – consider the expense of lighting city buildings or powering a wastewater station -- can join together to purchase electricity. SB 7 refers to entities that band customers together in this fashion as “aggregators.” The law requires aggregators to register with the PUC.

Municipalities and other political subdivisions are authorized to act as aggregators to join together their citizens in order to purchase electricity on their behalf. Under this provision, the citizens must affirmatively request to be included in the aggregation group.

Independent System Operator

SB 7 requires that an independent entity oversee important operational aspects of the new market. ERCOT was designated as an “Independent System Operator” to fulfill this function.

SB 7 stipulates further that the Independent System Operator remain independent from the individual buyers and sellers of electricity in the market. At the same time, the independent organization must ensure that such buyers and sellers have equitable access to the transmission network. Under SB 7, this organization also is charged with ensuring the reliability and adequacy of power.

As manager of the Texas power grid, ERCOT already was charged with maintaining reliability and adequacy of its operations. ERCOT also was already designated as an Independent System Operator under

the provisions of the 1995 law that partially deregulated wholesale electricity.

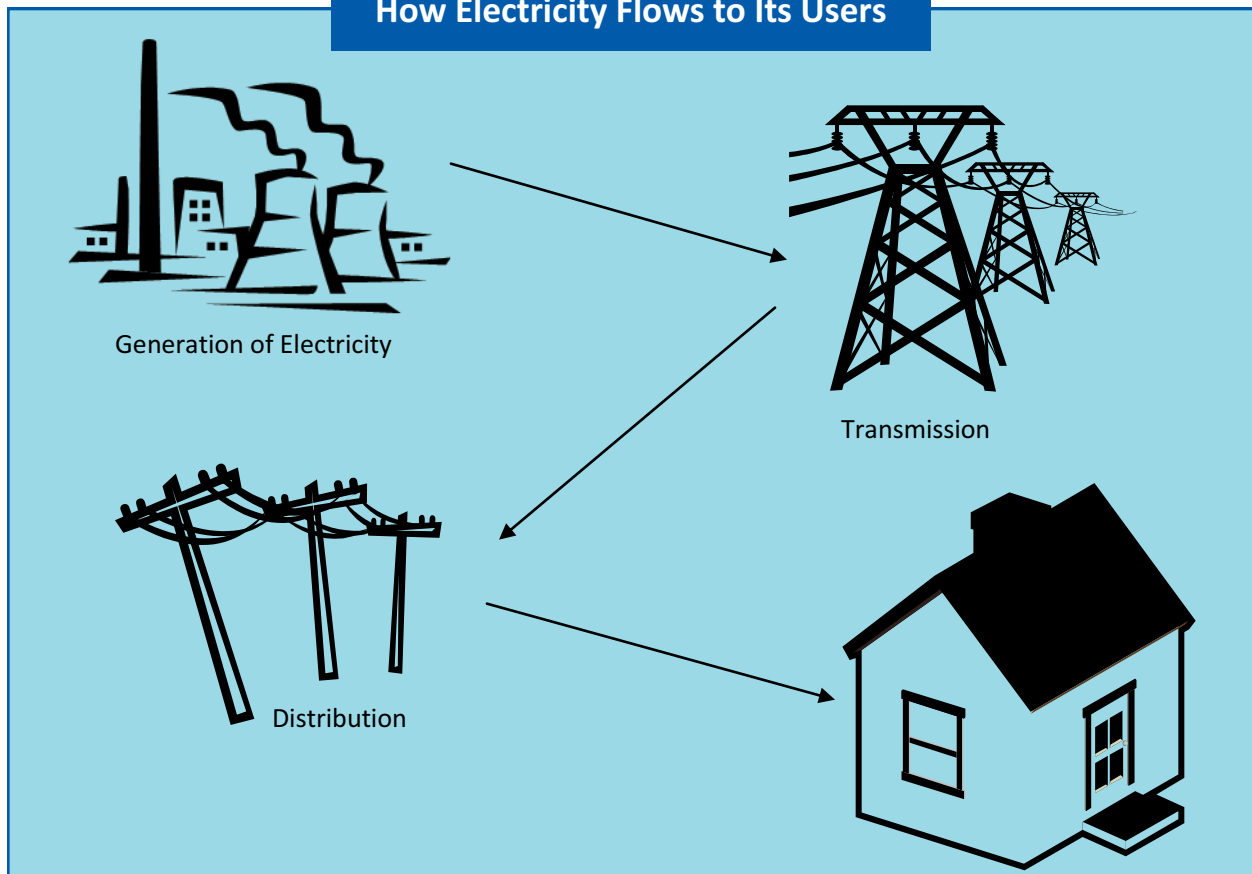
But under SB 7, ERCOT's duties – especially those relating to its mission as an Independent System Operator -- would expand greatly. Its responsibilities would include the management of new billing and settlement systems, the establishment of broad new rules for wholesale power transactions and the creation of policies relating to the scheduling of power.

As an Independent System Operator under SB 7, ERCOT must:

- Provide an accurate accounting of electricity production and delivery among generators and wholesale buyers and sellers.
- Ensure that entities that require information relating to a customer's choice of retail electric provider receive that information in a timely fashion.
- Establish and enforce rules governing wholesale electricity transactions.

As the Independent System Operator, ERCOT also must set up a governing body comprised of four representatives of power generators, four representatives of transmission and distribution operators, four representatives of businesses that sell power and three members representing consumers.

How Electricity Flows to Its Users



YEAR: 2000

The California Crisis and the Texas Experience

The turn of the century also marked the beginning of California's energy crisis, brought on by the implementation of that state's deregulation law. Wholesale prices surged to unprecedented levels and some consumer bills increased three-fold. California's largest utilities were left at the cusp of financial ruin. There were rolling blackouts because power was unavailable or overscheduled.

California had removed price controls in the wholesale market, but left them on retail rates. That pinched the utility companies. There was also a spike in natural gas prices, a drought in the Northwest that reduced hydropower and — as was revealed later — price manipulation by Enron traders. "Every possible thing that could go wrong has happened," said Michael Worms, an energy-industry analyst with Gerard Klauer Mattison in New York. "It's actually pretty amazing."

Unlike other states that began cautiously pumping the brakes on deregulation in the face of the unfolding disaster in California, Texas

"WHOLESALE PRICES SURGED TO UNPRECEDENTED LEVELS, AND SOME CONSUMER BILLS INCREASED THREE-FOLD."

continued forward with its plans. "We don't foresee going back and working and doing any changes," said state Rep. Steve Wolens, during a legislative hearing on Aug. 22, 2000.

Rep. Wolens and state Sen. David Sibley rightly pointed out that their law differed in

many respects from the Golden State legislation. They noted, for instance, that electric retailers in Texas had greater incentives to enter into long-term contracts. By entering into long-term contracts, retailers could more easily avoid the price spikes that can accompany seasonal increases in electricity demand. They also noted that Texas enjoyed healthy power reserves and that this extra generating capacity should help keep wholesale prices down.

STRANDED COSTS: CUSTOMERS OWE NOTHING?

In September 2000, an administrative law judge ruled that instead of owing \$2.8 billion to TXU Electric for its stranded costs, that ratepayers instead may be due \$1.45 billion in credits. The judge ruled that TXU ignored commission instructions when it made its calculations.

TXU immediately blasted this preliminary ruling, claiming that it "robbed" the company of due process. "Our stranded costs are \$2.8 billion, and we have the right to prove it," utility spokesman Christopher K. Schein said.

Stranded costs, remember, represent the value of expenditures made by utilities in a regulated environment that would be recoverable from ratepayers over time under regulation but which might be unrecoverable in a competitive environment. The theory is that if generation assets become uneconomical burdens under deregulation, then ratepayers owe utilities the lost value of those assets.

Stranded costs are calculated by considering the difference under deregulation between the book value of a utility's generation assets like coal, lignite and nuclear generation plants and the market value of those assets. While the book value remains relatively constant (changing annually with depreciation accounting entries) during the transition to deregulation, market value changes daily. The calculation of market value is tied to natural gas commodity prices, which can directly impact the value of a utility's entire generation fleet.

To understand the judge's ruling, consider that when natural gas commodity prices are low - as they were in the years preceding deregulation -- the cost to generate power using natural gas plants is also low compared to plants that use coal, lignite or nuclear fuel. That means that low natural gas commodity prices would tend to make a utility's standard fleet of coal, lignite and nuclear plants relatively less valuable in the market -- and therefore increase the value of the utility's stranded costs.

By contrast, when natural gas commodity prices go up, plants that use coal, lignite and nuclear fuel become more attractive, and their market value increases. That would tend to decrease stranded costs or - theoretically -- create negative stranded costs. Rather than owing billions of dollars to utilities for uneconomical plants, ratepayers instead may be owed billions of dollars in refunds for having helped finance lucrative generating plants that now put the incumbent utilities at an economic advantage in the deregulated market.

Generally speaking, this was the assessment of the administrative law judge when she ruled against TXU in the September case. The

“RATHER THAN OWING BILLIONS OF DOLLARS TO UTILITIES FOR UNECONOMICAL PLANTS, RATEPAYERS INSTEAD MAY BE OWED BILLIONS OF DOLLARS IN REFUNDS FOR HAVING HELPED FINANCE LUCRATIVE GENERATING PLANTS THAT NOW PUT THE INCUMBENT UTILITIES AT AN ECONOMIC ADVANTAGE IN THE DEREGULATED MARKET.”

PUC staff likewise suggested the total value of some utilities' stranded costs may have become negative. "The increases in the cost of natural gas over the past year have resulted in revised stranded cost projections that for most utilities are much lower or negative amounts, based on the commission model," the agency noted in its 2001 Scope of Competition report. "Since the commission first estimated stranded costs, the magnitude of total stranded investment has been reduced—and, in fact, may have become negative."

Of course, the mere suggestion of negative stranded cost refunds caused a ripple through the entire industry. Senate Bill 7 "only recognizes positive stranded costs," said TXU spokesman Chris Schein, echoing the prevailing industry sentiment among incumbent utilities. This policy divide - how to calculate stranded costs and whether ratepayers could receive credits if calculations produced a negative result—would foreshadow one of the bitterest regulatory fights of the decade.

“THE WORST THEY’D SEEN IN 30 YEARS”

The California power crisis of 2000 was so profound and devastating that no state has initiated market deregulation since that year. In fact, many states that had passed legislation deregulating their markets have reversed course.

In August, after San Diego ratepayers began withholding utility payments in protest of their astronomically high bills, the California Legislature adopted a plan to roll back rates to pre-deregulation levels. In September, Pacific Gas & Electric revealed that it was about to begin surcharging its northern California customers billions of dollars. The company estimated that its power-related debt had reached nearly \$5 billion and that deregulation was costing it about \$1 million an hour.

Both PG&E and Edison also warned they were running out of money. Besides threatening to derail California’s booming economy, the expanding crisis started sinking the state’s biggest utilities. Said Paul Patterson, an analyst at Credit Suisse First Boston in New York: “No one wants to hold stock in a company that is subsidizing its customers -- if PG&E has to swallow this loss, investors will run in droves.”

The crisis led the state’s Independent System Operator – California’s version of ERCOT – to declare “energy emergencies” on an almost daily basis. Supplies continued to dwindle, forcing the ISO to take dramatic action to avoid rolling blackouts. Then, near the end of the year, the system operator declared an unprecedented Stage 3 alert. Stage 3, the grid’s highest emergency level, is called when power reserves evaporate so completely as to become almost non-existent.

“Operators here in the control room were saying this was the worst they'd seen in 30 years in the utilities business,” said Stephanie McCorkle, a spokeswoman for the organization. Only by frantically pushing through power from other states at the last minute could the grid operator dodge system-wide blackouts.



YEAR: 2001

The 77th Texas Legislature—Saying No To Ratepayer Refunds

APPREHENSION ABOUT DEREGULATION

Lawmakers should apply the brakes. With the crisis in the news daily, that's what Texans were telling pollsters in 2001. More than 40 percent of respondents to a Scripps Howard survey said deregulation should be put on hold, and another 13 percent said plans to deregulate should be scrapped altogether; three-fourths of those surveyed said they were satisfied with the regulated electric system already in place. There had never been a public groundswell in the first place – it was a market change pushed by and for big business – and now the public was calling for lawmakers to reconsider it. But the move toward deregulation in Texas continued undeterred.

During the 77th Texas Legislature lawmakers rejected two measures that could have added significant consumer protections to SB 7.

The first of those consumer-friendly bills, House Bill 918 by state Rep. Sylvester Turner, would have allowed regulators to extend price limits on residential electricity, put limits on wholesale electric prices and suspend a number of deregulation-related collections from ratepayers. Also, importantly, HB 918 would have given regulators more authority to delay the Jan. 1, 2002 market opening. Industry representatives warned against tampering with Senate Bill 7, and the legislation died in House committee.

In February, Rep. Turner filed House Bill 2107. This one addressed the issue of so-called “negative” stranded costs -- that is, the ratepayer refunds that can theoretically result when market value exceeds book value of generation assets. Under some estimates, HB 2107 could have resulted in nearly \$7 billion in customer refunds, or more than \$300 for every man, woman and child living in Texas -- an astronomical amount.

The utilities argued that SB 7 never contemplated negative stranded costs, and that such refunds were out of order. Tom Baker, then president of TXU Electric, said all those billions of dollars in potential refunds belonged to the company's investors, not the ratepayers who funded the construction of the plants through the rates they paid – and that taking the money away from the company would constitute an illegal confiscation. “No legal or business model would support such a confiscation,” he said.

But the Public Utility Commission, in a report issued shortly before the legislative session, said the question of negative stranded costs was an open one. Chairman Pat Wood III, an architect of the deregulation law, said making utilities pay for their over-earnings “would be the fix that will make this whole thing work because, otherwise, you've got money that would make the market work going to the owners of the generators.” Chairman Wood said SB 7 left open the question of whether consumers can be awarded negative stranded costs and that Rep. Turner's bill would clarify that issue.

It was a wild ride for HB 2107. It made it through the House committee, just barely, and then improbably onto the floor of the House, where it won passage. But it was killed in early May before it could be considered by the full Senate. The *coup de grace* was a parliamentary move by state Sen. Tom Haywood. A spokesman for Sen. Haywood said that by killing the bill the senator was doing consumers a favor.

Responded one consumer advocate: “How is it bad for consumers to get their own money back? When consumers overpay, decent responsible businesses usually give the money back.”

PROBLEMS AT ERCOT

Nobody expected that deregulating the state’s energy markets would be easy. In preparation, ERCOT, the operator of the Texas power grid, had consolidated its six regional centers into a single control facility near Austin to manage the newly revamped wholesale market. In addition to ensuring the power grid

“... IN APRIL, ERCOT OFFICIALS RECEIVED A CONFIDENTIAL INTERNAL REPORT WARNING THAT THEIR SYSTEMS WERE IN DISARRAY...IT ADDED, PRESCIENTLY, THAT ERCOT’S UPGRADE PROJECT WOULD GO OVER-BUDGET. IT NOTED THAT ERCOT HAD FAILED TO MEET NUMEROUS PROJECT GOALS ...”

had exactly enough power moving across its lines to meet demand and prevent blackouts, ERCOT also assumed responsibility for overseeing a six-month deregulation pilot project to give its engineers an opportunity to test new computer systems. During the trial period, new retail electric providers could

compete for up to 5 percent of the market. As it would be under full deregulation, ERCOT was responsible for transferring customers between companies participating in the pilot project.

On Feb. 15, 2001—exactly on schedule – the PUC allowed new electric providers to begin signing up customers for the pilot project. Businesses began getting information about the project in their electricity bills that went out in February. Residential customers got information a month later. Service in the trial market was to begin in June. “The time is right,” said Jeannie Verkinnes, marketing manager for Shell Energy.

ERCOT had spent months upgrading its systems in anticipation of the pilot project. However, in April, ERCOT officials received a confidential internal report warning that their systems were in disarray. The report called for a host of last-minute changes. “Many of the changes identified ARE critical, and there is already a significant amount of risk in the marketplace,” the April report stated. It added, presciently, that ERCOT’s upgrade project would go overbudget. It noted that ERCOT had failed to meet numerous project goals and that ERCOT employees and contract workers required better management. Instead of discussing the report with the auditors, ERCOT officials got sidetracked and filed the report away.

Two months after the first report, ERCOT received another internal draft report. It stated that the new system setup for deregulation “remains at high risk for (technical) and marketplace failures” and that “major delays were a result of systems that were not tested and/or ready.” Like the previous report, it was authored by technical experts hired by ERCOT and was intended to guide the

organization in its decisions as it prepared to handle customer switches once the market opened in January 2002. At the time of their release, very few people outside of ERCOT knew of either report's existence.

As predicted, problems began to emerge as ERCOT prepared for the pilot project. Power companies sent switch requests to ERCOT, but ERCOT's new computer systems couldn't process them. So instead of using its expensive automated systems, ERCOT officials were

"ON JULY 31, THE PILOT PROJECT OFFICIALLY GOT UNDERWAY. IT HAD BEEN DELAYED THREE TIMES, WAS TWO MONTHS BEHIND SCHEDULE AND WAS IMMEDIATELY BESET BY PROBLEMS."

depending on less technically sophisticated "work-arounds." ERCOT personnel depended upon emails and phone calls to process switch

requests. Customer switching was supposed to have begun by June, but problems at ERCOT led to delay after delay after delay. Industry insiders began expressing concern. "There is a risk to the marketplace ... this performance is unacceptable," PUC commissioner Brett Perlman told ERCOT leaders. Commissioner Perlman said he had been regaled with complaints about giant billing errors generated by the organization.

On July 31, the pilot project officially got underway. It had been delayed three times, was two months behind schedule and was immediately beset by problems. ERCOT had managed to get a computer center up and running on schedule but then could only manage to switch service for a handful of the 80,000 residential customers who signed up under the pilot project. ERCOT said the new system would be able to handle 20,000 switches

THE BALANCING ENERGY MARKET

The state's wholesale spot market, also known as the "Balancing Energy Market," establishes real-time prices in 15-minute intervals, 24 hours a day. ERCOT technicians manage the Balancing Energy Market at two control centers near Austin. Through this market, ERCOT can ensure the continuous "balancing" of production and consumption of energy on the grid -- hence the market's name.

Under ERCOT rules, generators bid power into the balancing market and then the highest-cost bid for required energy sets the price for all other accepted bids. This means that generators that produce relatively cheap coal-fired or wind energy still get paid like they're producing more expensive power from natural gas-fired plants. These prices eventually get passed onto consumers.

Said another way, under Senate Bill 7, the economic benefit of producing cheap electricity mostly ends up in the pockets of generators as extra profits, not in the pockets of consumers as savings. This differs from a regulated cost-based system, whereby wholesale prices are linked more directly to the cost of production.

Balancing energy comprises less than 10 percent of the energy bought and sold in the state's deregulated wholesale market, and yet it's crucial in setting those wholesale prices overall. That's because those who buy and sell wholesale electricity through longer term contracts typically look to the Balancing Energy Market in order to value their own energy. To the extent that balancing energy prices are higher than market conditions warrant, then it's a good bet that wholesale power prices overall are also too high.

Before Senate Bill 7, regulators strove to maintain a link between wholesale prices and the cost of generation. Before Senate Bill 7, if a utility obtained power from both low-cost and high-cost generators, then the utility's rates reflected that mix of low-cost and high-cost power. But in the balancing energy market -- and indeed, in the restructured wholesale energy market overall -- the link between energy prices and the cost of producing energy has been severed.

daily once they got it to work properly. But during the pilot project it was incapable of managing almost any customer switches.

The computer problems at ERCOT began harming not only residential customers and companies seeking to serve those customers – *but companies not even participating in*

“THERE IS NO ACCOUNTABILITY ON THE SPENDING AT ERCOT.”

deregulation. Austin Energy, a municipally-owned utility outside the deregulation area, started getting multi-million dollar errors on ERCOT-generated bills. “At the time of this filing, Austin Energy has not yet received a single accurate settlement,” wrote Bob Kahn, Austin Energy vice president. “In fact, the statements we received contain gross allocation and calculation errors. In one case, Austin Energy received a statement for \$90 million ... when in fact it owed nothing.”

An official at another municipally owned utility complained of “bigger than big” errors -- errors so colossal that they could drive the utility to bankruptcy.

That year ERCOT created a budget that it kept almost entirely secret. It outlined its spending plans for 2002, the first full year of deregulation, and noted that spending would nearly double from the levels experienced in the previous few years. But other than that, details were scarce. “There is no accountability on the spending at ERCOT,” Janee Briesemeister of Consumers Union said. “They adopt their budget in secret ... and the budget results in a fee on every consumer electric bill.”

PRICE SPIKES IN THE WHOLESALE MARKET

Also in 2001, prices in the wholesale market started spiking. The magnitude of the price spikes – 100 times typical price levels – were similar to spikes seen during the California crisis. The first spike occurred on July 31, the very first day of the pilot project. Power that had been selling for between \$10 and \$45 per megawatt-hour suddenly shot up to \$1,000 per megawatt-hour. That price doubtlessly would have increased even more if not for caps established by the PUC to guard against the price-gouging witnessed in California.

ERCOT officials blamed the first spike on an anomaly. “I don't think people are going to do it again,” said Tom Noel, chief executive officer of ERCOT, referring to a supposed one-time mistake by power generators. But then on Aug. 5, the market experienced more price spikes. In this new case, the power surged to *1,000 times* its regular price. The prices could go no higher because of the regulatory cap. On Aug. 8, wholesale prices spiked again – from a relatively typical level of less than \$60 per megawatt-hour for balancing energy to \$999. An hour later, the balancing energy price skyrocketed to \$10,000 -- but was adjusted downwards to \$1,000 because of the price caps.

Although the spikes impacted a relatively small segment of the wholesale market

“...SHORTFALLS COULD GIVE ELECTRIC COMPANIES ‘PERVERSE INCENTIVES’ TO INFLATE PRICES.”

called the “Balancing Energy Market,” they signaled big trouble. This is because the overall

WHAT IS ERCOT?

The network of transmission lines owned by different utilities but connected to each other forms a single power grid within Texas. The organization that manages it is known as ERCOT, the Electric Reliability Council of Texas. There are two other power grids in the United States – an Eastern grid and a Western grid – but ERCOT is an island unto itself and is not connected to either one.

ERCOT is not a government agency, nor a private business, nor a court of law. The public does not elect its leaders, and yet those leaders make some of the state’s most important public policy decisions. ERCOT does not spend tax dollars, and yet its policies impact what is inside every Texan’s wallet.

ERCOT decisions impact the health and welfare of all Texans, can benefit or greatly undermine the state’s economy, and can mean the difference between massive blackouts or reliable service.

WHAT IS ERCOT?

Technically a non-profit corporation, ERCOT was created by the state in 1970. It has responsibility for managing the flow of power across 38,000 miles of transmission lines to more than 21 million Texans. It facilitates operations of the wholesale electricity market, supervises transmission planning, ensures that there is always adequate power on the grid and takes action to minimize congestion on transmission lines.

ERCOT operates on a \$165.9 million annual budget, which is provided through charges on electric bills. Stakeholders – that is, representatives of electric generators, transmission companies, consumers and other interested market participants – set ERCOT policy and determine the rules by which the wholesale market operates.

WHAT ARE ERCOT’S RESPONSIBILITIES?

ERCOT functions both as the technical operator for the transmission grid and a decision-making organization that creates rules for the wholesale electricity market.

As an independent system operator, ERCOT employs technicians and engineers at two control centers in the Austin area. Using complex computer systems, these technicians manage the flow of electricity on the grid by continually ordering generators to ramp up or ramp down production to match the amount of power demanded by consumers during any given 15-minute period. Because of the physics of electricity, if the amount of power scheduled to be consumed is not exactly in sync with the amount of power to be produced then load and generation become unbalanced, and blackouts can result.

ERCOT technicians also take actions to control congestion on transmission lines. During emergency situations, these actions can include the curtailment of electricity to certain big customers and the implementation of limited rolling blackouts.

As a decision-making forum, ERCOT depends upon interested market participants to study, debate and ultimately recommend or reject complicated wholesale market rules. These stakeholders – men and women representing power generators, commercial customers, industrial users, retailers and other interested parties – make recommendations to the full ERCOT board, which in turn makes binding decisions for the market.

ERCOT Board decisions can be overturned only by the Texas Public Utility Commission. The PUC also has limited authority over the ERCOT budget and general operations.

Because ERCOT’s transmission grid serves only Texas and does not cross state lines, there is minimal federal jurisdiction that applies to ERCOT’s day-to-day market operations.

HOW DOES ERCOT MAKE DECISIONS?

The most important and frequently made decisions by stakeholders involve ERCOT protocols, which are the complicated rules that govern the wholesale electricity market. Revisions to ERCOT protocols typically begin within a work group or task force.

ERCOT work groups and task forces are comprised of interested stakeholders who make decisions by consensus. From there, recommended protocol changes go to the “Protocol Revision Subcommittee,” then to the “Technical Advisory Committee” and finally to the ERCOT Board of Directors, which usually has the last word.

The ERCOT Board of Directors is made up of 16 men and women, most of whom represent various segments of the market. ERCOT stakeholders from each of those segments elect their own Board representatives. Non-voting board seats are reserved for the chief executive officer of ERCOT and the chairperson of the Texas Public Utility Commission.



cost of power in the wholesale market – even the price of power in so-called longer-term bilateral contracts – parallels these spiking prices set in the smaller spot market. Also, under the ERCOT-managed spot market, the cost of the highest acceptable bid for power dictates the price to all successful bidders. For example, ERCOT might receive scores of bids ranging from \$50 per megawatt-hour to \$1,000 per megawatt-hour. If the grid operator needs 100 percent of that power to meet demand, then all bidders get the top price, or \$1,000 per megawatt-hour – even those who submit bids offering to accept payment of \$50 per megawatt-hour.

“IF THE GRID OPERATOR NEEDS 100 PERCENT OF THAT POWER TO MEET DEMAND, THEN ALL BIDDERS GET THE TOP PRICE, OR \$1,000 PER MEGAWATT-HOUR – EVEN THOSE WHO SUBMIT BIDS OFFERING TO ACCEPT PAYMENT OF \$50 PER MEGAWATT-HOUR.”

The price spikes experienced during the first week of the deregulation pilot project would prove to be a pernicious problem that would plague the deregulated market for years. The spikes spurred regulatory investigations, lawsuits and bankruptcies. Underscoring the gravity of the situation and the uncertainty regarding appropriate controls, Danielle Jaussaud, the PUC's director of economic analysis, warned: “We don't know if the market is going to work -- we don't know how well these rules are going to perform. ... People ought to be concerned.”

Other warnings appeared in various reports to the PUC, ERCOT or in the comments of policy makers. One expert told the PUC in 2001 that under the Texas system, shortfalls could give electric companies “perverse incentives” to inflate

prices. Another expert warned that some of the underlying premises behind Texas deregulation could be incorrect. Industry backers of Texas deregulation were blaming California's problems on a lack of generation capacity, but Harvard expert William W. Hogan and University of California-Berkeley expert Shmuel S. Oren told the PUC that more complicated factors in California that also impacted Texas were at play. In 2001, both Hogan and Oren forecasted possible price spikes, bureaucratic headaches and anti-competitive price inflation.

SYSTEM RELIABILITY IS TESTED

ERCOT -- an organization that literally has “reliability” as one of its middle names -- also nearly caused blackouts during the pilot project. On the third, fourth and fifth day of the pilot project, the organization grossly miscalculated the state's energy needs. As a result of its incorrect projections, the price of wholesale power appeared to spike to \$15,000 per megawatt-hour when the cost was actually closer to \$1. Grid operators went scrambling for the phones, frantically imploring power generators to ignore the erroneous computer data and ramp down production. Otherwise: lights out.

ERCOT officials attributed the miscalculations to human error and not to any defect in the market itself. No market participant actually paid the misstated prices.

ERCOT blamed the next meltdown – on Aug. 9 – on a computer failure. It said an

“AS A RESULT OF ITS INCORRECT PROJECTIONS, THE PRICE OF WHOLESALE POWER APPEARED TO SPIKE TO \$15,000 PER MEGAWATT-HOUR WHEN THE COST WAS ACTUALLY CLOSER TO \$1.”

EXCESS MITIGATION CREDITS

The Public Utility Commission responded to the collapse of House Bill 2107 with a decision that ultimately increased prices for ratepayers. In November 2001, not long after the end of the 77th legislative session, the PUC ordered the payment of what became known as “excess mitigation credits.” Termed “EMCs” in the alphabet soup of ratemaking, these credits represented the value of refunds that would have gone back to ratepayers had the Legislature adopted HB 2107. But instead of flowing back to ratepayers, the PUC sent the money (through an indirect process) to electric retailers. These retailers had never suffered from the stranded cost overcharges, and yet they would now benefit from them. In many cases, the retailers were financially affiliated with the companies that were ordered to pay the EMCs.

HOW THEY WORK

Under the PUC-initiated excess mitigation credit ruling, generation companies affiliated with the incumbent monopoly provider that presumably over-collected for stranded costs were directed to return the money (in the form of EMCs) to transmission and

distribution companies. Those transmission and distribution companies, in turn, were directed to make a corresponding reduction in rates they charged to electric retailers. But the retailers were not required to pass those savings onto customers. In fact, in some cases they were actually *prohibited* from doing so.

Remember: under SB 7, retailers affiliated with the state’s traditional utilities charged the Price-To-Beat rate. Setting aside adjustments for fuel costs, the Price to Beat was a fixed rate. Customers on the Price to Beat paid that rate and only that rate – no more, no less -- which meant they could not receive EMCs. But Price-To-Beat retailers were receiving almost all of the excess mitigation credits because they then controlled 85 to 95 percent of the residential market. The Price-To-Beat retailers took the EMCs but were prohibited by rule from passing along the benefit to their residential customers.

Because the retailers charging the Price to Beat typically remained affiliated with the incumbent generators who owed the excess mitigation credits, the effect of the PUC order was to require companies to take money due to

ratepayers and instead pay it to a separate arm of the same company, a transfer sometimes characterized as moving ratepayer money from one company pocket to another.

The PUC ordered the collection of \$55 million in excess mitigation credits from Central Power & Light in South Texas, \$1.24 billion in excess mitigation credits from the predecessor of Houston’s CenterPoint Energy and \$888 million in excess mitigation credits from TXU in North Texas. Although most of this money ended up with retail electric providers affiliated with the state’s traditional utilities, some of it ended up with competitive electric providers. The PUC argued that the competitors could use the money to lower prices and potentially steal away more customers. But there’s little evidence that this worked or that these competitive retailers did anything but pocket the windfall.

The Public Utility Commission’s EMC rule also led to even greater consumer expenditures in 2005, during final stranded cost decisions that year. More about that on page 48.

“REGULATORS HAD KNOWN FOR YEARS THAT THE LACK OF TRANSMISSION COULD STYMIE DEREGULATION. THE WIRES SYSTEM WAS NEVER BUILT TO MOVE POWER ACROSS VAST REGIONS OF THE STATE – A VITAL NECESSITY IF DEREGULATION IS GOING TO EFFICIENTLY LOWER WHOLESALE POWER PRICES.”

unknown problem shut down part of the wholesale market for four hours, a malfunction that was serious enough that officials had to make another round of urgent phone calls to generators to prevent blackouts.

The pilot project was supposed to have given ERCOT an opportunity to test its systems, and give Texas a moment to take a deep breath before beginning the big show on Jan. 1. But as one consumer advocate wryly quipped: “They (ERCOT officials) don't appear to be ready to play with live ammo.” Given the problems, some began raising concerns about the readiness of ERCOT to handle the market going live in January. Many would-be residential customers, commercial customers and other market participants echoed those concerns.

Sam Jones, the chief operating officer at ERCOT, said the problem was with the transmission system itself. He attributed the price spikes experienced during the pilot project to the lack of power lines: “We have a south-north constraint on the system, and people are trying to move a lot of power to the north -- and it's driving prices up.”

Regulators had known for years that the lack of transmission could stymie deregulation. The wires system was never built to move power across vast regions of the state – a vital necessity if deregulation was going to efficiently lower wholesale power prices. Jones

explained that without enough transmission, there would always be bottlenecks – especially during times of high demand, like during hot summer days. Because of the bottlenecks, also called “congestion constraints,” the cheapest power sometimes cannot get wheeled to parts of the state where it's needed most. And because electricity cannot be stored, power companies cannot keep cheap electricity in reserve.

STRANDED COSTS ARE SETTLED FOR TXU CUSTOMERS

One other highlight in 2001 bears note. An agreement reached late in the year between TXU and a coalition of cities, consumer groups and other market participants is still seen as one of the most far-reaching regulatory settlements in Texas history. Under the deal, TXU agreed to surrender billions of dollars in claims for stranded costs.

“I cannot think of a single case in Texas regulatory history that has been as comprehensive,” TXU spokesman Chris Schein said. “It settles, resolves or eliminates a dozen different lawsuits. We're looking at (an effect) going back as far as the Comanche Peak deal (of the '80s) and going forward for a decade.”

Under the terms of the deal, TXU would relinquish its claim on reimbursements for so-called “stranded” investments – that is, those investments like nuclear power plants that utilities claim would become uneconomic under deregulation. SB 7 allowed companies like TXU to seek ratepayer reimbursements for such stranded investments. TXU at one time said it was owed more than \$6 billion.

The deal in 2001 recalculated the value of TXU's stranded costs to zero. TXU also agreed to surrender claim on about \$350 million in fuel related charges. In exchange, consumer groups agreed to lift their objections to a bond-financing technique known as securitization that allowed the company to get up-front payment for over \$1 billion in ratepayer obligations. The PUC, with the support of consumer groups, had objected to the company's securitization claim, and prior to the settlement, the issue had been tied up in court.

The settlement is now seen as an extremely significant consumer victory because companies other than TXU have subsequently argued successfully for billions of dollars in stranded costs. Houston's CenterPoint Energy, for instance, was awarded \$2.3 billion – money that every customer of CenterPoint must pay for the next decade through surcharges on their transmission and distribution rates.



THE ENRON COLLAPSE

On Aug. 15, just months before the Texas market was set to open, Enron's chief executive Jeffrey Skilling unexpectedly announced his resignation. He had been in the CEO position only six months and by voluntarily resigning, he was surrendering what would have been a sizeable severance package. Predictably, the departure set off alarm bells in Wall Street. But Enron chairman Ken Lay, who announced he would resume his role as chief executive officer, told analysts to expect "no change in the performance or outlook of the company going forward." He said there was "absolutely no accounting issue" behind Skilling's departure – "no trading issue, no reserve issue, no previously unknown problem issues."

Skilling sold 450,000 shares of Enron stock worth at least \$33 million in the months before his departure. Enron stock surged in 2000 and for the early part of 2001 before dropping precipitously. By the time Skilling announced his resignation it was down nearly 50 percent for the year. In after-hours trading shortly before news of Skilling's departure was public, it fell again another 8 percent. The value of Enron's shares dropped another 10 percent during the first week of September, bringing it down 62 percent for 2001.

On Oct. 16 Enron posted a third-quarter loss of \$618 million, the result of what it said was \$1 billion in one-time charges for various businesses. Much of the losses were related to the poor performance of New Power, the complaint-maligned company set up to vie for retail business in deregulated markets. On Oct. 23, in a conference call to nervous investors, Lay insisted the company had sufficient cash on hand to keep from writing off additional investments.

By this point, analysts had begun asking questions about the company's labyrinthine business practices and financial reporting. The Securities and Exchange Commission initiated inquiries into transactions involving the company's chief financial officer, Andrew Fastow. Lay declined to provide details of those transactions during the conference call but nonetheless insisted that Enron board members "continue to have the highest faith and confidence in Andy." A day later, the board relieved Fastow of his duties.

Time was running out for the once giant energy trader. The company consistently avoided giving straight answers to investors' questions, Moody's Investor Services lowered Enron's credit rating and shares continued to nosedive. It was becoming unclear whether the company could even raise enough cash to maintain day-to-day operations.

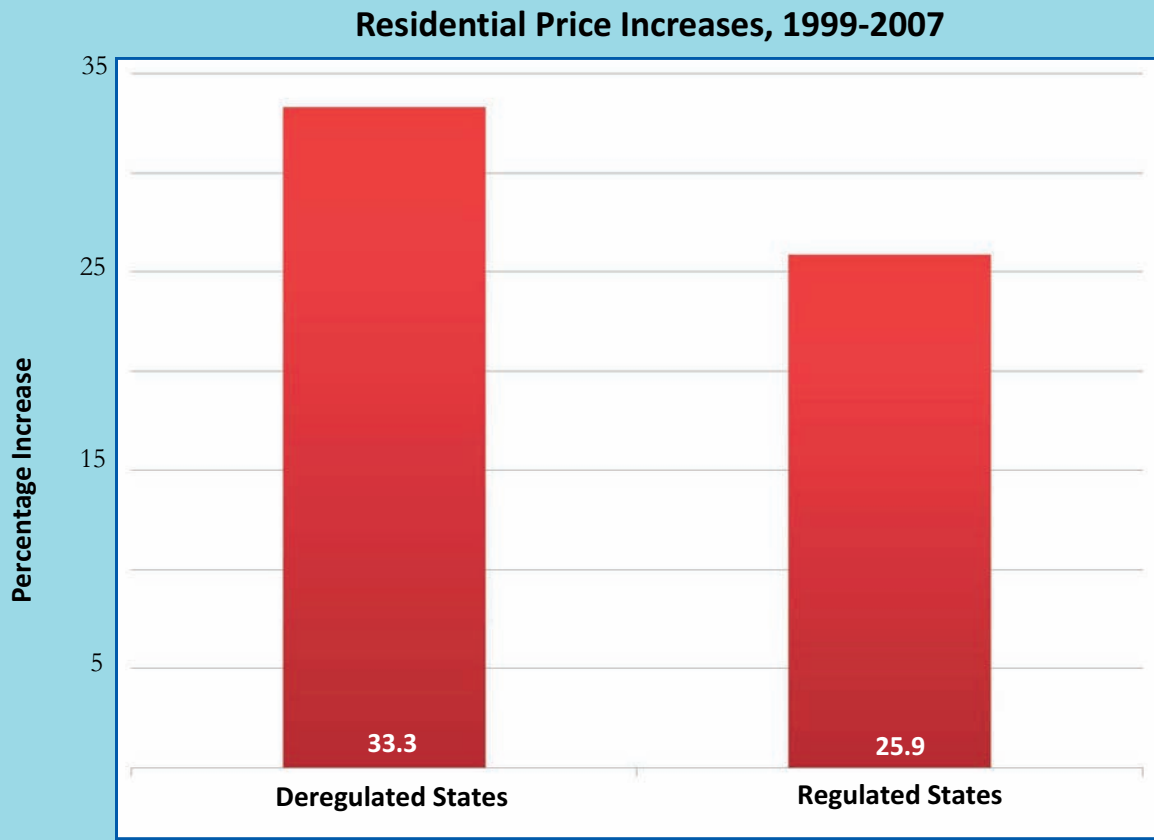
On Nov. 8, rival Dynegy agreed to acquire Enron for about \$8 billion. It was a short-lived offer: after Enron's financial situation continued to deteriorate and more of Enron's questionable practices came to light, Dynegy pulled its offer. Once the world's largest energy trader and the seventh largest company in the country, Enron imploded. The company filed for bankruptcy on Dec. 2.

In a story marking the company's end, *The New York Times* noted that the company's "decade-long effort to persuade lawmakers to deregulate electricity markets had succeeded from California to New York." *The Times* pointed out that Enron pioneered large-scale energy trading, a practice that had existed for less than a decade before the company's demise. *The Times* noted Enron's "ties to the Bush administration assured that its views would be heard in Washington."

Enron, *The Times* noted, "dripped contempt for the regulators and consumer groups that stood between it and fully deregulated markets." Enron's end came just days before Texas went forward with the deregulation system the company had pioneered.

In August, not long before the collapse and just as Enron was attempting to open up electric transmission systems in the southeast, President Bush appointed former Public Utility Commission chairman Pat Wood III to chair the Federal Energy Regulatory Commission. Enron CEO Lay had recommended Wood for that post, just as Lay earlier had recommended Wood's appointment to the PUC. In June 2001, shortly before Enron went belly-up, Gov. Rick Perry appointed Max Yzaguirre, a former Enron executive, to chair the PUC.

Deregulation Short-Changing American Consumers



It's true that the price of electricity has increased everywhere over the past decade. But it's *really up* in deregulated states. Between 1999 and 2007, the average price of electricity for residential users in deregulated states with retail competition increased by more than 33 percent. During that same period, the average price of electricity for residential users in states that never deregulated increased by 25.9 percent.

YEAR: 2002

The Market Opens

On Jan. 1, 2002, at precisely midnight, the deregulated retail market opened. Under the rules of Senate Bill 7, retail electric providers affiliated with the state's traditional utilities on this day were required to charge prices equivalent to 6 percent less than the regulated rate charged prior to the start of competition. This new semi-regulated rate became the "Price to Beat" – that is, the price that new competitors tried to beat with lower rates. By undercutting the Price to Beat, the new competitors could steal away customers from the legacy electric providers. In theory, competition between the new providers all fighting to undercut the Price to Beat would keep prices down.

That almost no residential customer paid a price other than the Price to Beat on the first day of deregulation was no surprise. Of course, it would take time for customers to become comfortable with the deregulated market, investigate price offerings and make the switch. No one expected however, that most customers would remain on the Price to Beat for years and years. The market remained "sticky," and customers remained cautious.

Deregulation's proponents claimed that Price-To-Beat customers were saving money. The enthusiasts pointed to the 6 percent cut, comparing the Price to Beat to the rates on Dec. 31, 2001 – the final day of the old regulated era. "The Price-To-Beat rates that we've established strike a good balance between immediate customer savings and attracting retail electric providers to enter our market and offer even

greater savings and service innovations," said Max Yzaguirre, the Public Utility Commission chairman.

But there's another side to the story. Consider this: While state regulators put potential savings to residential customers at more than \$900 million, their analysis included savings attributed to the expiration of an unnecessary and overstated surcharge relating to fuel costs. That surcharge would have expired even under the old

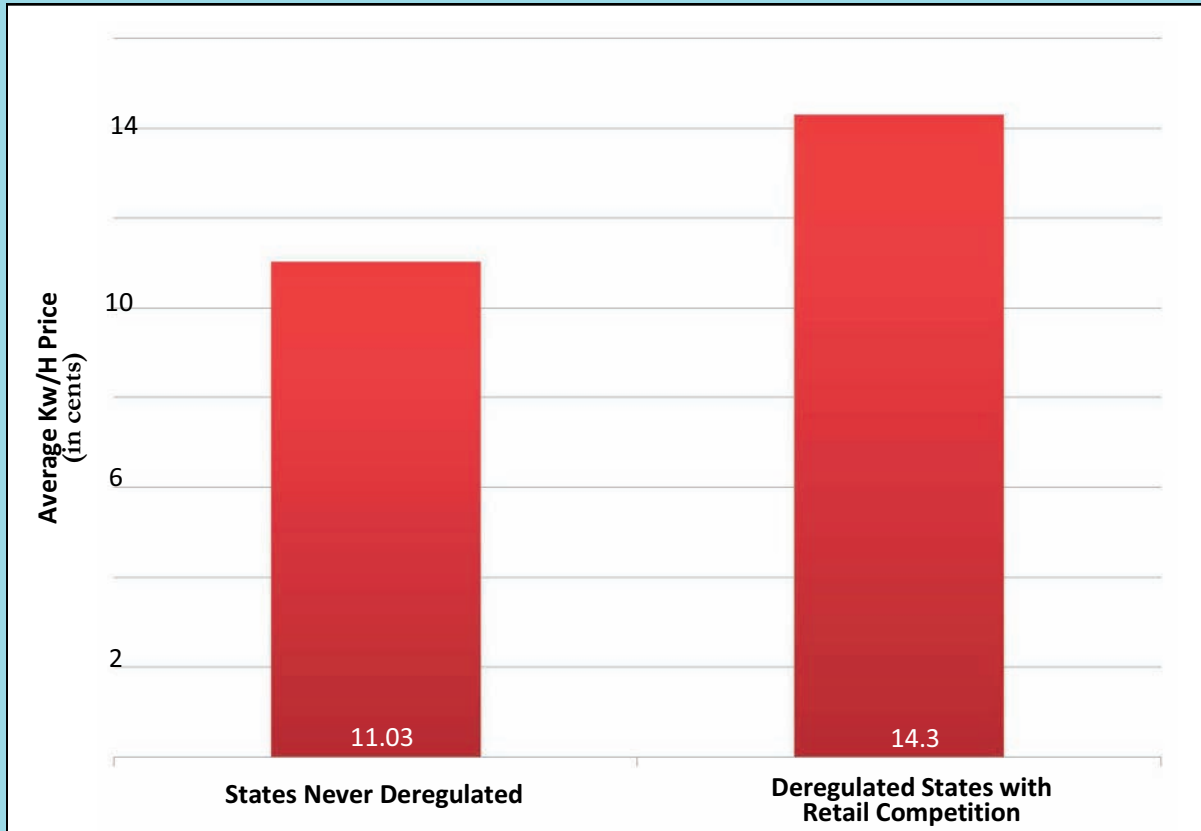
"WHEN ONE CONTROLLED FOR NATURAL GAS PRICES -- AS THE STATE'S OFFICE OF PUBLIC UTILITY COUNSEL (OPUC) DID IN ONE REPORT -- IT BECOMES CLEAR THAT CUSTOMERS ENDED UP PAYING MORE FOR POWER ON THE FIRST DAY OF DEREGULATION COMPARED TO REGULATED RATES IN PLACE JUST PRIOR TO THE ADOPTION OF SENATE BILL 7."

regulated system (and the overcharges refunded to customers) and can't be attributed as customer savings from deregulation. In fact, when controlling for natural gas prices -- as the state's Office of Public Utility Counsel (OPUC) did in one report -- it becomes clear that customers ended up paying *more* for power on the first day of deregulation compared to regulated rates in place just prior the adoption of Senate Bill 7.

An example: a typical Metroplex homeowner had paid about \$74.08 a month for electricity in January, 1999. By January 2002, even with the rate cuts required by SB 7, that customer would pay \$76.74, according to the OPUC analysis.

NATURAL GAS DOES NOT EXPLAIN HIGH PRICES

Average Residential Prices for Top Gas-Dependent States (2007)



Source: The U.S. Energy Information Administration

A commonly held belief is that high electric prices in Texas are attributable solely to the state's dependence on natural gas as a fuel source, and are not related to deregulation. To test that assumption, this exhibit compares average residential rates (in kilowatt/hours) among states heavily dependent on natural gas-fired generating plants. This exhibit illustrates that even among such natural gas-dependent states residential electricity is more expensive in deregulated states. As of 2007, Alaska, Louisiana and Oklahoma are the most heavily gas-dependent states that have never deregulated their electric markets. The gas-dependent deregulated states with retail competition are Rhode Island, Massachusetts and Texas.

The new Price-To-Beat rules also included a provision for calculating changes in fuel costs that would continue to drive up prices. Under it, companies could increase the Price-To-Beat rate twice a year to cover increases in the cost of natural gas, which fuels many of their plants. But SB 7 -- at least, as interpreted by the Texas Public Utility Commission -- has no provision that would push the Price to Beat down in the event that natural gas prices *decreased*. As a consequence, the price paid by most Texans in the deregulated market went up, never down, for several years. If the price of natural gas increased, then the utilities increased Price-To-Beat rates. But if the natural gas price dropped, Price-To-Beat rates still remained high. Rather than aggressively undercutting Price-To-Beat rates

“IN EXCHANGE FOR AN ABILITY TO SHOP AROUND AND GET SAVINGS, (CUSTOMERS MUST ALLOW) FOR A PROCESS THAT IS MORE COMPLICATED THAN IT USED TO BE...”

that were already out of step with the market, competitive retail electric providers inexplicably clustered their prices around Price-To-Beat rates, which suggested that true competition did not exist.

Another closely-related problem was that all adjustments made to the Price-To-Beat fuel factor were based entirely on changes in the price of natural gas. Generators use plenty of other fuel sources – including cheaper coal, lignite and nuclear generation – and the price of these fuels are much less volatile than natural gas. But lawmakers created SB 7 when natural gas prices were low and based the legislation upon the incorrect assumption that natural gas prices

would stay that way. However, natural gas prices climbed steadily upward during the years since the passage of SB 7, and the Price-To-Beat prices marched up right behind them.

On April 23, 2002, TXU filed for its first increase under this controversial natural gas-based Price-To-Beat fuel factor mechanism. The PUC approved that rate hike and others – up to 10 percent in some regions – within eight months of the market opening. A spokesman for the utility said increasing the Price To Beat would foster deregulation because new retailers would have more room to undercut it and still make a profits. Consumer advocates were skeptical.

“You have to raise rates to lower rates?” asked a puzzled Carol Biedrzycki, director of the Texas Ratepayers' Organization to Save Energy. “Competition was supposed to provide electricity at lower prices and with a higher level of service. ... If we have to raise [rates] so a competitor can afford to operate in the market place, which defeats the whole purpose of opening the market in the first place.”

The linkage between natural gas commodity prices and the method for pricing electricity established by Senate Bill 7 has continued to negatively impact Texans in other ways – even after the expiration of the Price To Beat. About half of the generation in Texas comes from such natural gas plants. Some other states also have a similar reliance on natural gas. A comparison of prices between such natural-gas dependant states shows that consumers under deregulation typically pay more and have endured greater price increases than have consumers under regulation.

DELAYED SWITCH REQUESTS, LATE BILLS AND EXCESSIVE SPENDING

ERCOT officials began the year by making bold promises. Despite the clunker of a pilot project and wholesale prices that went haywire, ERCOT officials said the organization was now up to the task of managing the new market. Sam Jones, the system's chief operations officer, predicted that ERCOT would be able to switch about 41,000 residential and business customers each day in January. (Not that so many customers were choosing new providers. Rather, all customers in deregulated areas of ERCOT – even those who did not choose a competitive provider, had to get switched to the retail electric provider affiliated with the incumbent.)

But problems persisted. In early January, in a report to regulators, Jones acknowledged that incorrect data entries, service switching mistakes and communication problems

“THE RATEPAYER-FINANCED ORGANIZATION’S 266 EMPLOYEES EARNED AN AVERAGE OF \$99,000 ANNUALLY IN SALARY AND BENEFITS, INCLUDING FULLY PAID HEALTH, VISION AND DENTAL INSURANCE. THIS COMPENSATION WAS WELL IN EXCESS OF THE STATE GOVERNMENT EMPLOYEE AVERAGE.”

continued to hamper ERCOT operations. Jones went so far as to indicate that some inefficiency would become permanent fixtures of deregulation. “In exchange for an ability to shop around and get savings, (customers must allow) for a process that is more complicated than it used to be,” Jones said.

ERCOT problems also prevented retail electric providers from delivering accurate and

timely bills to their customers. Sometimes bills were delayed by ERCOT and were not sent to customers for several months. ERCOT ended up addressing many of the problems, but only by creating manual processes in the place of automated ones. The PUC predicted that fixing the problems would end up resulting in significant additional costs.

In April 2002, Public Utility Commissioner Brett Perlman said a multi-million dollar ad campaign designed to alert consumers to the new market should be put on hold. He warned that if the media blitz went forward as scheduled, a backlog of 100,000 switch requests could result. The campaign was to include a mass mailing of 5 million customer guides, as well as television advertising. Commissioner Perlman also complained that no one seemed willing to take responsibility for ERCOT's poor performance.

Also in 2002, the public got its first real glimpse of ERCOT's financial dealings -- and what they saw was alarming: \$500,000 for marketing and advertising (even though the quasi-governmental organization had absolutely zero reason to advertise because it had no competitors); ratepayer money spent to send employees to baseball games and up to \$10,000 per ERCOT employee-authorized travel expenses. The ratepayer-financed organization also spent \$29,000 for a holiday party at a four-star hotel in Austin and \$18,500 on a sponsorship deal for a minor league hockey team. The ratepayer-financed organization's 266 employees earned an average of \$99,000 annually in salary and benefits, including fully paid health, vision and dental insurance. This compensation was well in excess of the state government employee average.

“ALL TOLD, THE COMPANIES NETTED \$29 MILLION IN IMPROPER REVENUES FOR ENGAGING IN ACTIVITIES SIMILAR TO THE ILLEGAL ACTIVITIES THAT ENRON USED IN CALIFORNIA.”

On June 11, ERCOT agreed to curb some of its most egregious spending. A month later, however, ERCOT called for a near doubling of the ratepayer fee that supports its operations. The hike would come in addition to the Price-To-Beat increases requested by the state’s major utilities. “Clearly, there needs to be greater oversight,” said state Rep. Sylvester Turner, then vice chairman of the House panel overseeing deregulation.

Wholesale Market

More details emerged in 2002 about the wholesale price spikes that occurred during the deregulation pilot project. A PUC investigation found that six companies had improperly profited by incorrectly projecting their own energy needs in late 2001. In one case, a company consistently missed its projections by incredible margins – between 75,000 percent to 400,000 percent. By failing to accurately project their power needs, the companies would create the appearance that power demand did not match power availability – and then get paid extra for relieving congestion that didn't exist.

The PUC declined to publicly identify these companies, claiming they were protected by privacy

ENRON’S ILLEGAL MARKET MANIPULATION

In October 2002, Timothy Belden, the chief energy trader for Enron’s West Coast power trading desk, pleaded guilty to conspiracy to commit wire fraud. Belden was among several Enron traders who created schemes with nefarious sounding names like “Ricochet” and “Death Star.” Their purpose was to manipulate California’s energy markets in order to gain unfair profits.

“Beginning in approximately 1998, and ending in approximately 2001, I and other individuals at Enron agreed to devise and implement a series of fraudulent schemes through these markets,” Belden admitted in his plea agreement. Toward that end, the company knowingly submitted false information to the system operator in California, he said.

“We intentionally filed schedules designed to increase congestion on California transmission lines,” Belden stated in his plea agreement. “We were paid to ‘relieve’ congestion when, in fact, we did not relieve it. ... We scheduled energy that we did not have, or did not intend to supply. As a result of these false schedules, we were able to manipulate prices in certain markets.” Belden would later testify that the activities resulted in as much as \$1 billion in profits for Enron during the California energy crisis.

In audio tapes that became public in 2004, Enron traders could be heard making jokes about stealing from “those poor grandmothers” in California and gleefully proclaimed “burn, baby, burn” when a fire on a transmission line allowed the company to increase profits. Enron also allegedly engaged in market manipulation in Texas during this state’s deregulation pilot project in 2001, according to the Public Utility Commission and the Office of Public Utility Counsel.

rules. But gradually the companies identified themselves. Among them were: TXU, Constellation Power Source, Mirant Americas Energy Marketing, Reliant Energy Service and American Electric Power Service. In April, after being confronted by a reporter, the last company finally owned up. It was Enron.

All told, the companies netted \$29 million in improper revenues for engaging in activities similar to the illegal activities that Enron used in California. In Texas, TXU made the most money off the activities. The company and others claimed the overpayments were the result of start-up problems in the wholesale market. In terms of missed projections, Enron was – by far – the worst offender. According to PUC documents, Enron improperly received \$1 million to \$6 million by over-scheduling transmission by an average of 66,000 percent for a period of 29 days. Municipally-owned utilities reported that they would have to pay about \$10 million in excess charges as a result of Enron’s activities and those of other power wholesalers.

CUSTOMER PROTECTIONS TESTED: Enron Affiliate Abandons Texas Market and its Customers

On June 10, 2002, New Power, the cash-strapped Enron affiliate, announced it was abandoning the state’s electric market and switching its nearly 80,000 customers to other providers. A day later, the company, which had lost \$173 million through the end of 2001, filed for bankruptcy.

Until its implosion, New Power had been the most aggressive marketer of energy in Texas – so aggressive, in fact, that it also led all other electric retailers for the number of complaints lodged against it for signing up

customers without proper authorization. In September, the PUC went after New Power for errors on about 46,000 bills. PUC executive director Lane Lanford said in a letter to New Power that the agency sought to fine the company based on “the egregiousness and repetition of the violations, the seriousness of the violations, the resulting economic harm, previous history of violations and efforts to correct the violations.”

The company also figured in conflict-of-interest lawsuits filed during 2002. Max Yzaguirre, a former Enron executive, was serving as PUC chairman in December when the PUC was setting the initial Price-To-Beat rates. A coalition of cities argued that the PUC set those rates too high and that as such they unfairly benefited New Power. Two other city lawsuits alleged a similar conflict by Commissioner Brett Perlman, who had worked as an Enron consultant. The suits said both Commissioner Perlman and Commissioner Yzaguirre should have recused themselves because their actions, in effect, benefited the company that formerly wrote their paychecks.

Although the suits were ultimately dismissed, Chairman Yzaguirre came under deep criticism because he had failed to disclose the extent of his Enron connections and ultimately resigned from the PUC in early 2002.

“This also calls into question the whole process as to how we establish rates,” said Tom “Smitty” Smith, director of the Texas office of Public Citizen. “Is our goal to make electricity affordable for consumers, or is it to ensure profits for companies? Is our government designed to protect the people or the power companies?”

YEAR: 2003

The 78th Texas Legislature—Staying the Course

The 78th Texas Legislative Session got underway in January, with state Sen. Gonzalo Barrientos, D-Austin, proposing Senate Bill 1792 that would correct some of the flaws in the Price-To-Beat rule. The utility response: don't do it. "Any further change to the system could upset the competitive electric market in Texas," said John Fainter, president of the Association of Electric Companies of Texas. "Now is the time to stay the course and let the market evolve as designed by state legislators."

Another bill, House Bill 2335 by state Rep. Sylvester Turner, D-Houston, would put new limits on how much generation capacity any one company can control. It was designed to prevent companies from controlling too much of the market and manipulating prices. Senate Bill 7 had included such market limits for generation in the ERCOT region overall, but Turner's bill would go further by limiting the amount of generation that could be owned or controlled by one company within smaller discreet zones. Turner's bill recognized a reality of the market that Senate Bill 7's authors couldn't foresee — that congestion caused by transmission bottlenecks would justify creation of separate zones in ERCOT. Again, the industry insisted the market was working fine. Despite the price spikes during the opening days of the market — and more suspicious spikes during a recent cold snap — industry representatives insisted that the Texas market was a model for the rest of the nation. "In 1999, lawmakers carefully considered all of these issues," TXU spokesman Chris Schein said.

Although virtually all of Senate Bill 7 was left intact, low-income customers ended up being far worse off by the end of the session. Senate Bill 7 authorized a surcharge on every ratepayer bill to provide assistance to lower electric bills for 700,000 low-income Texans. The \$185 million fund created by these surcharges — the System Benefit Fund — was appropriated to balance the budget instead. Ratepayers continued to be surcharged hundreds of millions of dollars for the low-income assistance fund that never went to assist low-income households pay their electric bills.

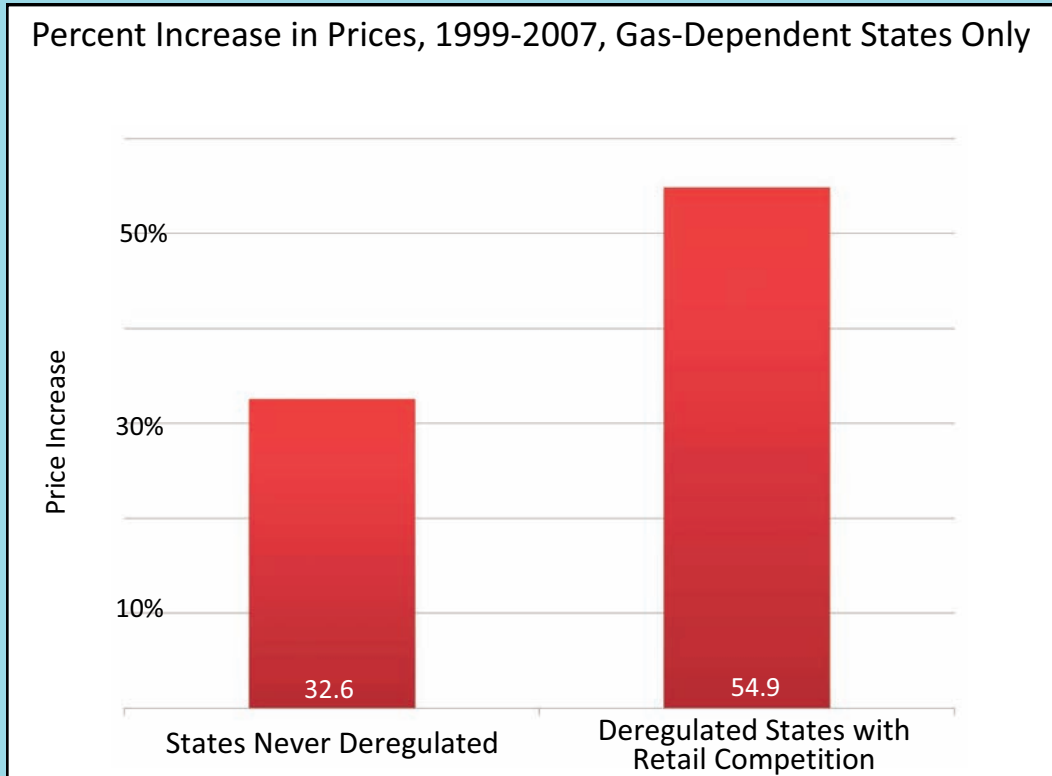
PRICE-TO-BEAT INCREASES CONTINUE

Retail electric providers continued using the controversial Price-To-Beat mechanism in 2003 to ratchet up rates in lockstep with increases in natural gas prices. In TXU's case, its first new rate hike of the year amounted to a 12 percent price increase — the largest in recent memory, far larger than any rate increases initiated under regulation. In August, the company increased its prices for a second time. By any measure, Price-

"...IN TXU'S CASE, ITS FIRST NEW RATE HIKE OF THE YEAR AMOUNTED TO A 12 PERCENT PRICE INCREASE — THE LARGEST IN RECENT MEMORY, FAR LARGER THAN ANY RATE INCREASES INITIATED UNDER REGULATION."

To-Beat customers would now be paying more for electricity than they did on the last day of the old regulated system. *And this, even though the price of natural gas had gone down from the level it*

NATURAL GAS DOES NOT EXPLAIN INCREASE IN PRICES



Rather than looking at average residential rates charged in a single year, we examine the overall increase in residential rates from the year 1999 until 2007. As in the preceding exhibit on page 34, we consider here only states most dependent on natural gas to fuel generating plants. This exhibit illustrates that the price of electricity has increased by a greater percentage in deregulated states, even when one considers the reliance on natural gas to fuel generating plants.

was before the market deregulated. The problem was the flawed Price-To-Beat mechanism that effectively became a one-way street for prices. They went one direction: up.

WHOLESALE MARKET: Hockey Stick Bidding Causes Price Spikes

During a cold snap at the end of February, prices in the wholesale market spiked. The freezing temperature on Feb. 24, 25 and 26 hampered plant operations, curtailed natural gas supplies and sent wholesale spot prices soaring to \$990 per megawatt hour for brief periods. Because the wholesale prices were so high, the PUC investigated the pattern of energy market bidding to determine whether the unusual weather conditions were the sole cause for the price spikes. The PUC's investigation turned up evidence that energy traders took advantage of the unusual weather to ratchet prices and increase profits.

How did this occur? ERCOT manages an automated bidding process for the spot market, called the "balancing energy market." Power

"In the investigation of the February price spikes, the PUC determined that some companies were engaging in hockey stick bidding."

companies submit bids reflecting the amount of power they are able to supply and the price they are willing to receive if selected to supply the power. ERCOT accepts the bid or combination of bids to fully supply power needed, starting with the lowest price bid first and continuing with higher priced bids until it has enough power to cover all demand during a given 15-minute interval.

But pursuant to its rules, ERCOT pays the last accepted price per megawatt-hour – that is, the

most *expensive* selected bid – to *all* successful bidders. That means a bidder who offered electricity for \$1 per megawatt-hour could end up getting paid \$1,000 for that energy if the last bid accepted by ERCOT was for \$1,000 per megawatt-hour energy. This aspect of ERCOT rules leaves the market vulnerable to a strategy known as "hockey stick" bidding.

"ERCOT pays the last accepted price per megawatt-hour – that is, the most expensive selected bid – to all successful bidders. That means a bidder who offered electricity for \$1 per megawatt-hour could end up getting paid \$1,000 for that energy."

In the investigation of the February price spikes, the PUC determined that some companies were engaging in hockey stick bidding.

"Hockey stick bidding occurs when a market participant offers a small portion of its capacity or energy at an extremely high price," the PUC noted. "Under normal circumstances, these small amounts of energy and capacity are not needed, and therefore do not affect prices. However, during the extreme weather event, ERCOT needed the entire energy bid into the (wholesale spot market), and the resulting price was set by a hockey bid." The commission estimated that hockey stick bidding cost the market an extra \$17 million.

Effects to the market from these price manipulation strategies go beyond just increasing the cost that is paid for power. For instance, the price spikes experienced during the February ice storm led to the bankruptcy of a competitive electric provider, Texas Commercial Power. The company sued, alleging that TXU and other companies were unfairly manipulating the market in order to drive up their own revenues.

ERCOT BEGINS MOVE TOWARD THE NODAL MARKET

In the wake of early price spikes in the wholesale market – spikes typically associated with congestion on the overburdened transmission system – the PUC gave the green light to a market overhaul. This new system, a “nodal” system, would change how ERCOT oversees wholesale electricity transactions. It would replace the existing “zonal market” system whereby ERCOT supervises transactions as they occur in broad geographic regions (zones) of Texas with one where ERCOT oversees transactions in hundreds of smaller areas, or nodes. ERCOT began ironing out the details in 2003.

In theory, the nodal system would allow the laws of supply and demand to bring more efficiency to grid operations. “This is the natural progression of things -- the question is how far we need to go,” said Tom Noel, the organization’s chief executive officer. But to implement this new system, ERCOT – an organization that as yet had failed to inspire much confidence with lawmakers and regulators -- would have to traverse an ocean of complex technical hurdles. In discussions with policymakers in 2003, ERCOT officials said they expected the nodal market to “go live” within three years. A consultant hired at the direction of the PUC projected the costs to ERCOT for implementing the nodal market at between \$59.8 million and \$76.3 million.

But the transition would have to take place without ERCOT CEO Tom Noel. Already under fire for the disastrous pilot project in 2001, the billing errors and the switching problems, Noel announced his resignation from ERCOT in October. Some lawmakers had openly called for it.

GOOD NEWS/BAD NEWS: Consumers Complain to PUC in Record Numbers; State Exceeds Energy Efficiency Goals

The number of complaints regarding electric service filed at the Texas Public Utility Commission increased steadily since market opening and peaked in July and August of 2003. Over the course of the fiscal year, the PUC’s Customer Service Division concluded more than 31,000 complaints – most relating to billing, although many consumers also complained about service disconnections and faulty service.

The numbers of complaints decreased somewhat after August, possibly due to cooling temperatures that kept energy bills from soaring, which in turn reduced the number of disconnection complaints.

Also in 2003, the state exceeded an energy efficiency goal set forth in Senate Bill 7 by

“OVER THE COURSE OF THE FISCAL YEAR, THE PUC’S CUSTOMER SERVICE DIVISION CONCLUDED MORE THAN 31,000 COMPLAINTS...”

11 percent. Under the legislation, regulated transmission utilities were to administer incentive programs designed to reduce by 10 percent annual increases in energy demand. In 2003, utilities spent \$70 million on the program, according to the PUC.

The agency reported that the demand reduction goal for 2003 was 135 megawatts, and utilities exceeded that target with an actual reduction of 151 megawatts. The PUC noted that the program equitably served residential, commercial and industrial customers.

YEAR: 2004

The ERCOT Scandal—A “Crisis of Confidence”

DOMINANT TXU CAN DRIVE UP PRICES

In January 2004, the Texas Public Utility Commission issued a 33-page report examining price spikes in the balancing energy market. The PUC report concluded that at least one generator, TXU, owned or controlled so much generation capacity that it was capable of undermining the electricity market. By virtue of the amount of power it could deploy or withhold, TXU was able to drive up prices in the wholesale market, even if it did not intend to do so. The agency’s report concluded the company’s uniquely dominant position raises questions for the future of competition.

The PUC report analyzed prevailing market conditions at the time of the price spikes in the balancing energy market. It found that while the megawatt-hour price of such energy typically sold for less than \$50, it spiked to \$990 during the study period, which was between May 2002 and August 2003.

The analysis demonstrates that TXU routinely was guaranteed to have its bids selected – no matter the price – simply because it controlled so much power. “The results of this study show that TXU’s market position is so pivotal that just about anything the company does with respect to (that segment of the wholesale market) will affect balancing energy prices, regardless of the reasons behind its decisions,” the study said.

Legislation considered during the 2003 session would have addressed pivotal provider problems by adding more market controls on wholesale providers. But generators successfully

opposed the legislation, just as they opposed any suggestion of improper conduct raised by the price spikes. “Our position is that we do not have control over prices,” TXU spokesman Chris Schein said. “They [the authors of the PUC report] are saying we have an impact on

“...WHILE THE MEGAWATT-HOUR PRICE OF SUCH ENERGY TYPICALLY SOLD FOR LESS THAN \$50, IT SPIKED TO \$990 DURING THE STUDY PERIOD, WHICH WAS BETWEEN MAY 2002 AND AUGUST 2003.”

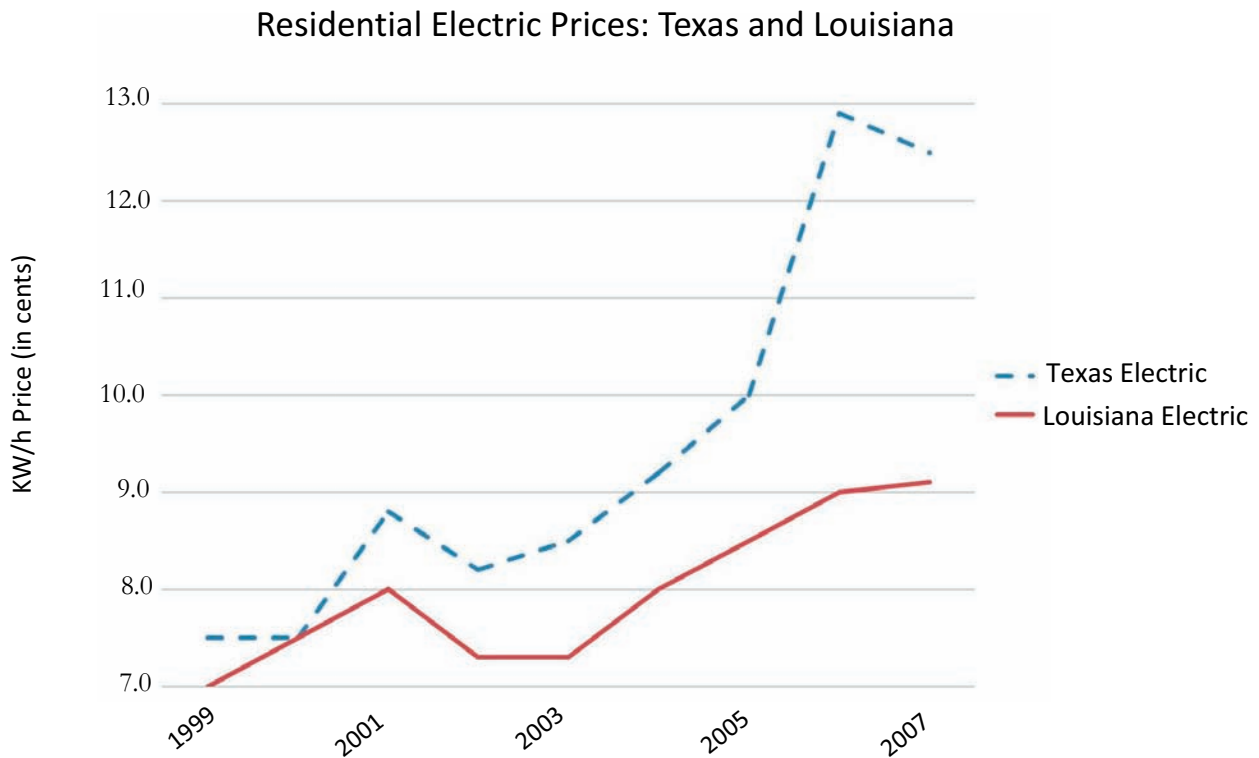
momentary prices, but there’s no way that we can sustain control over prices.” In December, however, the PUC announced it was again looking at TXU for its involvement in a new round of price spikes. In the newest case, TXU had submitted bids to sell its power for \$400 per megawatt-hour, although such power typically sold for about \$50 at the time.

These price spikes occurred with shocking regularity. All told, power prices spiked nearly 100 times in late November and early December of 2004. The problem was so pronounced that PUC Chairman Paul Hudson threatened to call upon the Attorney General’s Office or the Securities and Exchange Commission to investigate.

ERCOT: Cost-Benefit Analysis of the Nodal Project Raises Questions

ERCOT and regulators continued working in 2004 on creating a “nodal” market. ERCOT hired a Massachusetts-based consulting firm to conduct a cost-benefit analysis of

A TALE OF TWO STATES: TEXAS VERSUS LOUISIANA



Source: The U.S. Energy Information Administration

Like Texas, Louisiana depends heavily on natural gas-fired plants for its electricity needs. According to McCullough Research, an Oregon-based energy consulting firm, generation in Louisiana is far more susceptible to changes in natural gas prices than generation in Texas because so much of Louisiana’s generation is gas-fired. However, electricity in Louisiana – a state that has remained regulated -- has remained consistently more affordable than it has in Texas. In fact, the price of electricity for residential customers has increased twice as fast in Texas as it has in Louisiana.

This exhibit shows the average residential kilowatt/hour price of electricity in Texas in 1999 was 7.55 cents. In Louisiana, it was 7.12 cents. In 2007, the average Texas price was 12.41 cents. In Louisiana, it was 9.38 cents. This data indicates that the price of electricity in deregulated Texas increased by more than 64 percent while in regulated Louisiana it increased by only 31.7 percent over the same period.

implementing a nodal market in Texas – a study that regulators said they wanted to see before giving their final OK.

However, the review did not include any consideration of the nodal system’s potential impact on home bills. “How can you do a cost-benefit study without knowing the impact on consumers? That doesn't make any sense at all,” said Diane Weklar, executive director of the DFW Electric Consumer Coalition. ERCOT also declined to say publicly how much it spent on the report, even though (as with all ERCOT expenditures) it was Texas ratepayers who ultimately would foot the bill. “We're not in the habit of releasing information on ongoing business practices,” Susan Vincent, corporate counsel for ERCOT, said in early July.

The Procurement Scandal

Less than one month later, then ERCOT-board chairman Mike Green, a TXU executive, would be telling the PUC: “I want openness.” But he wasn’t responding to PUC inquiries about the nodal project or consultant’s reports. Rather, Green was responding to inquiries about what then became a much more pressing matter: possible criminal activity.

At issue were what ERCOT officials vaguely termed “vendor procurement irregularities.” ERCOT’s CEO had learned about the irregularities on March 29, 2004, but waited two months before alerting the commission. The Department of Public Safety was also alerted, and ERCOT acknowledged its own investigation.

Details remained elusive, although eventually it became clear that the allegations involved billing improprieties and possible self-dealing by ERCOT’s cyber-security personnel. ERCOT failed to detect the criminal background of a former employee allegedly involved in

“IN SEPTEMBER, ERCOT WAS TAKING HEAT FROM A JOINT INTERIM HOUSE-SENATE COMMITTEE FOR ITS LACK OF FINANCIAL CONTROLS, FOR PERCEIVED ARROGANCE AMONG TOP OFFICIALS IN THE FACE OF THESE PROBLEMS AND FOR CUTTING CHECKS TO A CONTRACTOR THAT HAD A DEAD MAN ON ITS PAYROLL.”

improprieties. As a result of the allegations, several ERCOT staff members quit or were fired.

The police investigation began to focus on three managers in two firms that handled computer security for ERCOT. The two firms, Cyberensics Corp. and ECT Global Solutions Inc., had ERCOT contracts worth at least \$2.5 million. Investigators attempted to ascertain whether the managers had stolen or laundered ERCOT funds.

By June, PUC chairman Paul Hudson had declared a “crisis of confidence” with ERCOT’s internal controls. By July, more than four dozen witnesses had been interviewed by DPS investigators, and a grand jury in Williamson County had subpoenaed notes from an ERCOT lawyer. In September, ERCOT was taking heat from a joint interim House-Senate committee for its lack of financial controls, for perceived arrogance among top officials in the face of these problems and for cutting checks to a contractor that had a dead man on its payroll.

“There appears to have been some serious breakdowns of internal controls and management practices at ERCOT,” said Sen. Troy Fraser, R-Horseshoe Bay, chairman of one of the committees reviewing the organization.

Continued Customer “Stickiness”

As of September 2004, fewer than 20 percent of residential customers were getting service from a power company not affiliated with one of the state’s traditional utilities. Although

more customers were testing the deregulated market than in 2003, the fact that such a small percentage of customers had switched from traditional electric providers illustrated the continued “stickiness” in the residential market.

The PUC reported that between seven and 12 retail electric providers were serving residential customers in the state’s major service territories. The PUC blamed “substantial customer acquisition costs” – that is, the expense of advertising faced by electric competitors. The

“THE PUC ACKNOWLEDGED THAT THE PRICE-TO-BEAT RATE PAID BY MANY TEXANS WAS ABOVE-MARKET.”

PUC also said competitors faced increasing investments for billing systems and call centers as well as added costs associated with resolving customer complaints.

The PUC acknowledged that the Price-To-Beat rate paid by many Texans was above-market. Repeated Price-To-Beat increases had driven up Price-To-Beat rates 20 to 35 percent between January 2003 and September 2004, according to the agency. Competitive prices generally remained below the Price to Beat, but nonetheless rose in tandem with it. The PUC also noted that since the market had opened to competition, the price of electricity in Texas had risen at a greater pace than they had in the United States as a whole.

BILLIONS OF DOLLARS IN STRANDED COSTS AND EXCESS MITIGATION:

Credits Repayments Added to Electric Bills

In November, 2004, the Texas Public Utility Commission determined that ratepayers owed Houston’s CenterPoint Electric Delivery Company \$2.3 billion in stranded costs. The PUC

would also make similar determinations for other Texas generating companies – albeit for lesser amounts.

Stranded costs, remember, are meant to represent the difference between the book value of a company’s assets and the price that would be paid by someone buying the assets on the open market. Think of a company that pays \$1 billion to build a nuclear power plant under regulation but then can only sell it for \$500 million in a deregulated market. In this over-simplified example, the \$500 million difference would be the “stranded cost” of the nuclear plant. Under Senate Bill 7, electric companies have the right to recover from ratepayers the stranded costs attributable to generation assets that the utilities were ordered to build but are no longer valuable.

The idea behind stranded costs is that utilities should not be harmed by the transition to the deregulated market because they owe more for generating plants than what they could sell those plants for in the open market. Ultimately, it was decided that ratepayers would pay the utilities their “stranded investment” through surcharges that would be assessed against every customer. In exchange for paying stranded costs, it was rationalized that ratepayers would have access to better prices in the competitive market. In theory, the benefit of lower prices would far outweigh the burden of stranded cost surcharges.

But decisions relating to stranded costs for CenterPoint, Texas Central Company and Texas-New Mexico Power caused real harm to consumers. That’s because clear evidence suggests that supposedly uneconomic plants were woefully undervalued.

For instance, in determining the stranded cost pay-out to Houston’s CenterPoint, the PUC considered a partial stock sale by the company

that established the value of its generating assets at \$3.65 billion. But days after the PUC calculated CenterPoint's stranded costs, the company's equity owners resold those same generating assets for \$5.8 billion.

So what was the true value of those assets -- \$3.65 billion or \$5.8 billion? If the PUC had used something closer to the \$5.8 billion figure, the stranded costs associated with the assets

"...RATEPAYERS WHO NEVER RECEIVED ANY BENEFIT FROM THE EXCESS MITIGATION CREDITS NONETHELESS WERE ON THE HOOK FOR PAYING THEM BACK. AND THESE PAYMENTS WERE TO BE ADDED TO ALREADY QUESTIONABLE MULTI-BILLION DOLLAR CHARGES TO RATEPAYERS FOR STRANDED COSTS."

would be very close to zero. Instead the \$3.65 billion figure was used. As a result, all customers of the former HL&P must pay billions of dollars in stranded costs for years to come.

In fact, all assets in Texas used to calculate the billions of dollars of stranded costs charges to ratepayers were resold at a substantial profit.

Also, remember that the PUC earlier projected that Texas electric companies would end up with *negative* stranded costs. In 2001, the PUC's economic modeling showed that assets like nuclear power plants would become more valuable, not less, and as a consequence the owners of those assets should surrender some money to reflect the windfall they would receive under deregulation.

When legislation failed in 2001 that would have required electric companies to refund that projected windfall to ratepayers, the PUC stepped in and ordered generators to make

corresponding payments in the form of "excess mitigation credits," or EMCs. But as noted previously, the credits for the most part ended up in the pockets of electric retailers, not ratepayers. The total value of the EMCs exceeded \$2 billion. The PUC then added the excess mitigation credits -- *again credits that never went to ratepayers* -- to their stranded cost calculations. Said another way: Ratepayers who never received any benefit from the excess mitigation credits nonetheless were on the hook for paying them back. And these payments were to be added to already questionable multi-billion dollar charges to ratepayers for stranded costs.



HOW CONSUMERS LOST WITH EXCESS MITIGATION CREDITS (IN SEVEN STEPS)

Under Senate Bill 7, consumers would end up paying the expense of excess mitigation credits from which they derived no benefit, the expense of reimbursing energy companies for supposedly uneconomic investments that actually ended up becoming quite profitable for those companies and the expense of overpriced power in the restructured market.

Here's how it works:

1. Senate Bill 7 contemplates that as a result of deregulation, ratepayers eventually will owe stranded cost payments to utilities. The 1999 legislation provides methods for mitigating those future stranded costs payments by allowing utilities to overcharge ratepayers in the run-up to deregulation.
2. But in 2001, the PUC makes a determination that utilities instead could face “negative” stranded costs — and as a consequence ratepayers were overcharged in the run-up to deregulation.
3. This prompted the PUC to order generators to repay those overcharges through so-called “excess mitigation credits.” But because the Price to Beat prohibits any discounts, most of the credits go into the pockets of the electric retailers and customers aren’t able to benefit.
4. Beginning in 2004, the PUC reverses course again and finds that electric companies do not face negative stranded costs but rather positive ones. That is, the PUC agrees with electric companies — despite great evidence to the contrary — that key generating assets have lost value in the transition to deregulation.
5. This finding, in turn, leads the PUC to determine that the excess mitigation credits awarded in 2001 were unwarranted and should be returned.
6. The value of those credits — more than \$2 billion -- is added to already questionable stranded cost bills faced by ratepayers. This means that ratepayers, most of whom never received the benefit of the excess mitigation credits in the first place, were nonetheless on the hook for paying them back.
7. Meanwhile, the nuclear and coal plants that created billions of dollars in stranded cost payments for electric companies end up becoming quite profitable in the newly restructured market. Instead of becoming uneconomic burdens, the plants prove to be efficient producers of relatively inexpensive power. But under the structure of the deregulated market, this relatively inexpensive power gets re-priced for retail customers as if generated by more costly natural gas-fired plants.

YEAR: 2005

The 79th Texas Legislature—The Wind Power Initiative

In April 2005, Public Citizen released a study showing that the price of electricity in deregulated areas of the state had increased at more than twice the rate as electricity prices outside deregulation. In May, the Public Utility Commission concluded yet again that TXU had the ability to unilaterally drive up wholesale prices. So these factors together, plus clear problems with the defective Price-To-Beat mechanism and a scheduled top-to-bottom sunset review of the Public Utility Commission in 2005, led some to expect major reforms to the electric market during the 79th Texas Legislature.

That none were forthcoming is all the more surprising given that industry representatives had convinced lawmakers during previous sessions to put off considering changes *until* the 79th session at which time lawmakers also would be considering changes to the PUC as part

“IN APRIL 2005, PUBLIC CITIZEN RELEASED A STUDY SHOWING THAT THE PRICE OF ELECTRICITY IN DEREGULATED AREAS OF THE STATE HAD INCREASED AT MORE THAN TWICE THE RATE AS ELECTRICITY PRICES OUTSIDE DEREGULATION. ”

of the regular sunset review process. That process was now complete, and although electric bills had gone up nearly 50 percent since the beginning of deregulation, utility representatives claimed the system was working just fine. They continued to urge lawmakers against making any serious alterations, as one utility representative said: “If it ain’t broke, don’t fix it.”

Two important bills that lawmakers considered and ultimately rejected during the 78th

session were Senate Bill 759 and Senate Bill 765. The first would have made it easier for cities to aggregate their residents and negotiate for cheaper electricity. The PUC reported that such aggregation projects had resulted in ratepayer savings in other states, but retail electric providers successfully stalled consideration of the bill. The second bill would have limited how much supply could be owned or controlled by generation companies. The legislation would have addressed market power issues by discouraging electric companies from unfairly controlling wholesale prices.

But that’s not to say that ratepayers would be unaffected by the actions of their lawmakers in 2005. Here are a few of the measures adopted during the 79th regular and special sessions. Some had the potential to increase bills.

- Money meant for the System Benefit Fund, which had been created as part of Senate Bill 7 to provide bill discounts for low-income Texans, was diverted to general revenues. The Texas Legislature had taken money from the ratepayer-supported fund once before, in 2003, to help fill a budget gap that year. With the latest budget action, lawmakers used the last of the available money, and as a result, rates went up for 350,000 low-income Texans. The budget action also had the effect of converting what otherwise would be considered a surcharge on ratepayers’ bills into a sales tax on electricity.
- Senate Bill 5, not technically a electric bill but one relating to the telecommunications industry, would nonetheless permit electric

utilities to enter into deals to create broadband service over ratepayer-financed transmission systems. Broadband companies that sell the service can keep the revenue, although some of it would potentially flow back to the utility. Ratepayers who paid for the transmission system and made the arrangement possible would not be able to receive the broadband service unless they were to pay for it, and would not get any reduction in their rates to reflect profit to the utility company from the service. Ratepayers would also have to pay for the digital meters that work with the broadband service. As it turned out, Oncor Electric would end up installing over 100,000 of the meters and then reverse course and seek to yank them all out and replace them – all at added ratepayer expense.

- Senate Bill 20, adopted during special session, establishes special zones (called “Competitive Renewable Energy Zones”) to mark the site of future transmission construction. However, the new lines will not directly address the state’s ongoing transmission shortage but rather connect to sparsely populated areas of the Panhandle and far West Texas to support future wind generation. The cost of the transmission would reach into the billions. Such new wind construction also would lead to more reliability challenges for ERCOT. Senate Bill 20 likewise expanded the renewable energy goals included in Senate Bill 7 -- from 2,880 megawatts of capacity by Jan. 1, 2009, to 3,272 megawatts – and established a new target of 10,000 megawatts of renewable energy capacity by 2025.

STATE EXCEEDS SENATE BILL 7 TARGET FOR RENEWABLE ENERGY

Senate Bill 20 set forth other targets as well: 4,265 megawatts of renewable energy capacity by 2011, 5,256 by 2013 and 5,880 by 2015. But lawmakers had plenty of reason for optimism. Already, the construction of renewable energy generation had exceeded the goals set forth in Senate Bill 7. The Public Utility Commission estimated that by 2005, there would be more than 1,300 megawatts of new renewable energy capacity online in Texas. That exceeded the original target in SB 7 by more than 500 megawatts, or nearly 63 percent. The PUC reported that wind generation comprised the lion’s share of the new renewable generation and linked much of the growth to federal tax credits.

The PUC also reported success in the implementation of energy efficiency programs established by Senate Bill 7. Under the legislation, utilities were required to administer energy efficiency incentive programs with the goal of reducing annual growth in energy demand by at least 10 percent. The PUC noted that the programs saved nearly 500,000 megawatt-hours of energy in 2005. Utilities exceeded their demand reduction goals in 2005 by 27 percent, according to the PUC.

“Overall, program performance appears to have been successful,” the PUC reported.

Utilities spent roughly \$78 million in ratepayer money on the program in 2005. However, the PUC estimated the potential 10-year savings from the program at \$290 million.

The ERCOT Procurement Scandal Continues

In January, a grand jury indicted six former ERCOT managers in the procurement scandal. The officials were accused of having improperly billed \$2 million to the organization for work that was never done. In August, prosecutors obtained a guilty plea from the former director of information technology and information services for ERCOT. The former executive admitted to conspiring with five others to set up shell security companies and using those companies to bilk ERCOT. The Attorney General said some invoices corresponded to unperformed work or undelivered goods. The group also billed for work supposedly performed by non-existent employees, according to the AG's office.

Responding to the scandal, lawmakers in 2005 adopted legislation giving the Public Utility Commission greater authority over ERCOT's finances and activities.

Customer Choice: Higher Prices than Regulated Rates, Plus More Complaints

By the end of 2005, after four years of deregulation, fewer than half of residential customers had switched off the above-market Price-To-Beat rate, according to PUC estimates. In part, this reflected the inherent "stickiness" in the residential market. But many consumers also complained that the deals offered by competitors were less than enticing. "Guess what? There is only a cent or two difference in the cost between all providers," one frustrated resident wrote to PUC Chairman Paul Hudson. The PUC also acknowledged that for part of 2005, the average

"THE PUC ALSO ACKNOWLEDGED THAT FOR PART OF 2005, THE AVERAGE PRICE OF COMPETITIVE OFFERS WAS ACTUALLY HIGHER THAN THE PRICE TO BEAT."

price of competitive offers was actually higher than the Price to Beat.

To make matters worse, Hurricanes Katrina and Rita disrupted natural gas production in the last months of 2005. That sent both natural gas and electricity prices to historically high levels. In November, TXU began phasing in a 24 percent rate increase. Other companies followed suit with similar increases. Because of the defective Price-To-Beat rule, electric rates would remain at those historically high levels even after natural gas production came back online and gas prices stabilized.



YEAR: 2006

Rolling Blackouts

The year began with what the PUC touted as good news for consumers. According to a report released by the agency in February, Houston residents could have saved over \$1,000 under deregulation and Dallas residents could have saved about \$800.

Not that Texans had actually saved this money under Senate Bill 7. Only that they *could have*.

The “savings” were created by comparing the last regulated rate — meaning the rate charged on Dec. 31, 2001 — to the lowest competitive offers in Houston, Dallas and Fort Worth for the years 2002, 2003, 2004 and 2005. The agency then calculated the difference, assuming that a hypothetical resident had selected the lowest-priced offer during each of those four years. A Dallas resident, for instance, could have saved 17 percent over what he would have paid had under the old regulated system, according to the report.

There were some limitations to this analysis. First, it was unclear how many customers would have been eligible for the lowest priced offers. Some of the retailers cited by the PUC report had limited capacity and typically operated with plenty of caveats. There is also the question of what is the appropriate benchmark price with which to make a comparison. By using the regulated rate charged on Dec. 31, 2001, the study relied upon a rate that included exorbitant fuel surcharges (later refunded) and excess earnings valued at hundreds of millions of dollars. Utilities were allowed to keep charging this regulated rate in anticipation of deregulation.

Even if the study is accepted at face value, it is clear that the millions of ratepayers still paying the Price to Beat in 2006 were getting an awful deal by paying unnecessarily high prices. And indeed, a separate review of rate filings showed that by 2006, the Price to Beat had increased by 84 percent in the Metroplex, by 81 percent Houston, by 101 percent in Corpus Christi and by a whopping 116 percent in West Texas. Outside deregulated areas, price increases occurred over the same period but were much more modest. In Austin, with its municipally owned utility, rates increased by 19.4 percent, for example. That means the most commonly paid rate in deregulated Houston increased five times faster than the rate paid in Austin, which remained outside deregulation.

The PUC analysis did not focus on the Price-To-Beat rate but rather the lowest-competitive offer in each service territory. But several reports from 2006 suggested that even those Texans who shopped around for electricity were paying too much for it. In March, for instance, AARP released a report showing that TXU and all of its cheapest North Texas competitors were charging rates out of line with fuel costs. Another survey released later in the year demonstrated that rates offered to customers in deregulated areas of North Texas are higher, on average, than rates in areas that remain under regulation. The survey showed that the best offer under deregulation was still more expensive than rates from almost every company outside deregulation. Likewise, Kenneth Rose, a senior fellow at Michigan State University and a leading expert on electric pricing and policy, released a

nationwide survey in 2006 showing that electricity prices had gone up in Texas since deregulation, while those in regulated states had gone down. Another expert concluded that under deregulation Texans had paid some of the highest rates in the nation, a reversal of a decade of relatively cheap power under the old system.

The nationwide comparisons between regulated and deregulated prices were possible because the mix of markets provided for a control group to help answer a basic question: Does deregulation save money for consumers? Rose said the growing consensus among experts was that it does not. "Evidence that we're gathering (shows that the effectiveness of deregulation) -- at least as we had originally thought it would work -- is not bearing out from the customer perspective," Rose said.

In response to these concerns, the chairman of the Public Utility Commission pushed a proposal in 2006 to lower the Price to Beat. Chairman Paul Hudson noted that the price of natural gas had gone down substantially since Hurricanes Katrina and Rita, but that the Price-To-Beat rates didn't reflect the decrease. He wanted to push down the Price to Beat shortly before it expired for good in January. "It would be a disservice if ... residential customers remained on a final regulated rate (the Price-To-Beat rate) ... that no longer reflected the market," said Chairman Hudson, also noting that natural gas prices then embedded in Price-To-Beat rates were at least 15 percent higher than the actual price of natural gas in the open market.

The chairman's plan would have saved Texans an average of \$17 on their monthly power bills, but it was ultimately rejected. The commission voted 2-1 to deny Chairman Hudson's proposal. Two commissioners also

voted to block agency staff from even taking testimony on the issue.

COMPLAINTS

In addition to concern about the Price to Beat, the PUC continued receiving thousands of complaints each year related to electricity service. Complaints had been on the rise ever since the state deregulated its market, peaking in 2003 and 2004 and then, after a dip in 2005, increasing again in 2006.

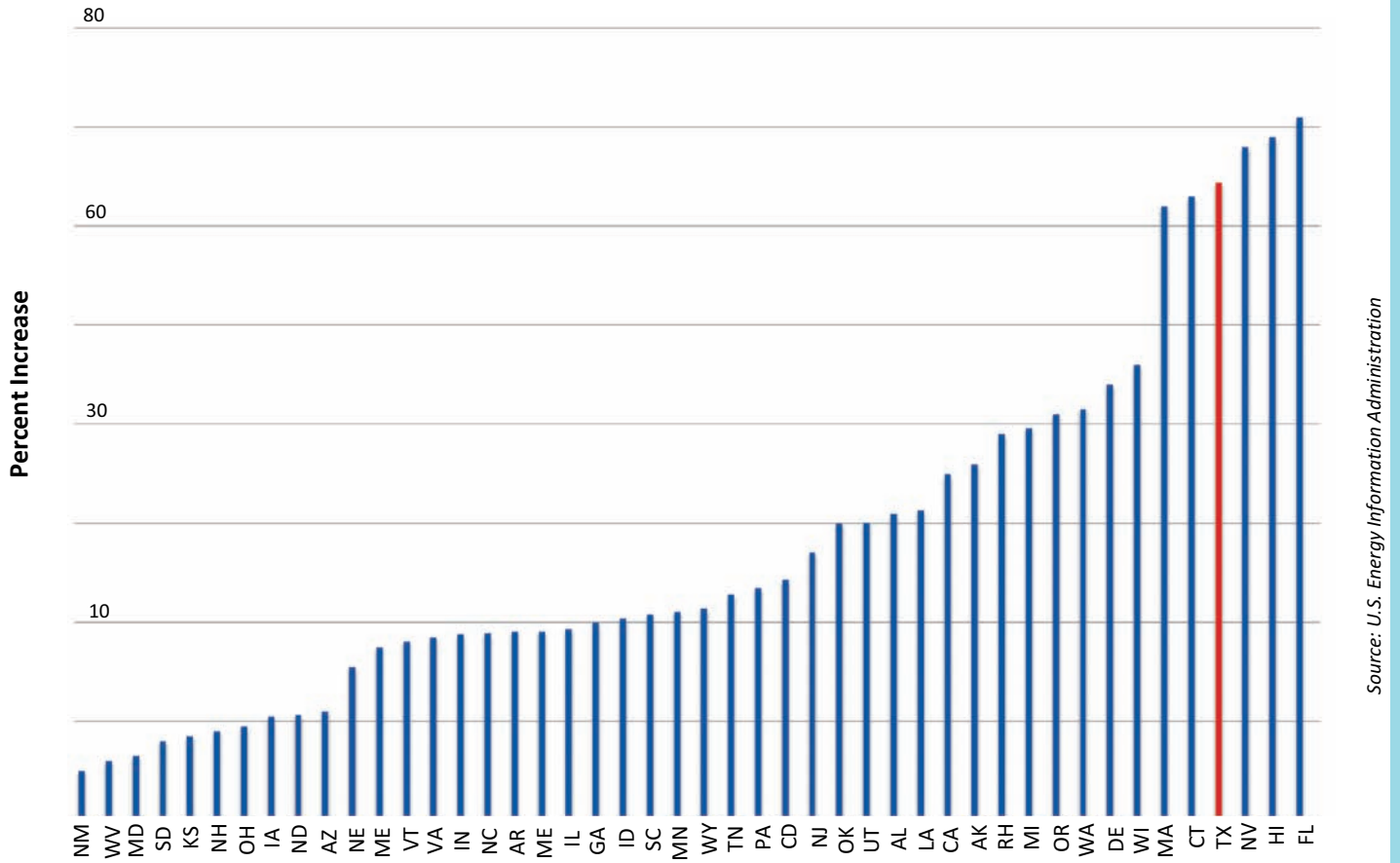
Problems with customer switching motivated a significant portion of those complaints. It had become clear that a process that typically had taken a day under the previous regulated system now could take two weeks or longer.

ROLLING BLACKOUTS

On April 17, shortly after 4 p.m., hundreds of thousands of Texans started losing power. The operator of the Texas power grid, the Electric Reliability Council of Texas, suddenly found itself without enough available generating capacity and ordered rolling blackouts across the state. Although ERCOT acted quickly to avert a more serious system-wide outage, its response nonetheless raised serious management questions. "You can't be out there cowboying, operating on your own," state Sen. Troy Fraser told organization officials shortly afterwards. Sen. Fraser and others complained that ERCOT had failed to alert key policymakers and law enforcement officials. He said regulators were caught flat-footed, and police officers were sent scrambling to direct cars after traffic signals unexpectedly stopped working.

Electric Prices Up in the Lone Star State

Residential Electric Price Increases
By State, 1999—2007



Source: U.S. Energy Information Administration

Few states have had electric prices increase more than they have in Texas. This chart shows that only people living in Nevada, Hawaii and Florida have suffered percentage increases in residential rates greater than those experienced in Texas.

PUC Chairman Paul Hudson also blasted ERCOT's response, complaining that grid managers left a message on his assistant's voicemail instead of calling him directly. "My immediate one-word reply is a bit too colorful to restate," Hudson said. But the PUC chairman also said that when it came to dealing with ERCOT, such communications breakdowns were nothing new.

The organization, charged with scheduling power across 38,000 miles of transmission lines, had done little to earn the confidence of lawmakers and regulators. Since the passage of SB 7 in 1999, ERCOT had mismanaged the deregulation pilot project, appeared incapable of efficiently processing switch requests for many months and drew fire for multi-million dollar billing errors. There were also problems with the organization's financial controls, as evidenced by the guilty pleas of several former executives on bribery and corruption charges.

In May, ERCOT chief executive officer Thomas F. Schrader resigned amid questions about his leadership. Schrader had, on occasion, bucked the PUC, even awarding raises to some employees over the objections of the commissioners. Schrader, when he came on board in 2004, had followed the tenure of Tom Noel, another ERCOT CEO who left under pressure.

MARKET POWER ABUSES PERSIST

Enron agreed shortly before the beginning of the new year to pay more than \$1.5 billion to settle claims that it had manipulated the California market. In 2006, TXU Wholesale came under investigation for allegedly engaging in similar trading practices in Texas.

This continued a history of such inquiries. In 2003, TXU drew regulatory scrutiny when energy that the company typically sold for less than \$50 a megawatt-hour shot up to \$990. In 2004, TXU was identified by a PUC consultant for more questionable bidding practices. In 2005, TXU practices "that raise substantial competitive concerns" were highlighted in another report issued by the group assigned to investigate potential market power abuses. That same year, a bankrupt competitor questioned TXU's market activities in an unsuccessful lawsuit.

TEXAS MEETS RENEWABLE ENERGY MILESTONES

Senate Bill 7 called for the creation of 2,880 megawatts of new renewable energy by 2009. Texas exceeded that goal in 2006 -- three years early -- and was ahead of schedule for meeting updated renewable energy targets created by Senate Bill 20. Texas also surpassed California in 2006 as the number one state in the nation for installed wind power. Worldwide, only Germany, Spain and Denmark had more wind power than Texas in 2006.

About 2.1 percent of electricity generated in Texas came from renewable energy sources in 2006, up from 1.5 percent from 2005. Within the ERCOT region, renewable energy resources provided 2.1 percent of peak generation, up from 1.5 percent in 2005.

To foster the creation of new renewable generation, Senate Bill 7 established a system whereby electric retailers could earn and trade "Renewable Energy Credits" (RECs) for a portion of their energy sales. Under the program, electric retailers that do not acquire enough renewable energy to satisfy their obligations can

“WITHOUT A DOUBT, (THESE ENVIRONMENTAL GOALS) COULD HAVE BEEN ACCOMPLISHED WITHOUT GOING TO FULL-SCALE DEREGULATION ... WITHOUT CREATING THE SERIES OF UNNECESSARY MIDDLEMEN, IN THE FORM OF RETAIL ELECTRIC PROVIDERS.”

purchase credits from other companies that have exceeded their obligations. Electric retailers that market so-called “green power” to customers also can obtain renewable energy credits for that purpose.

The RECs needed for the state to meet its renewable energy goals represented about 1.7 percent of energy sold to retail customers in 2006. According to the PUC, the monthly impact in

2006 of the REC program for a typical residential customer was about 7 cents.

“This has been more successful than any other provision of the bill,” said Tom “Smitty” Smith, director of the Texas office of Public Citizen, referring to the environmental safeguards included in Senate Bill 7. He added, however, that “without a doubt, (these goals) could have been accomplished without going to full-scale deregulation ... without creating the series of unnecessary middlemen, in the form of Retail Electric Providers.” He also noted that much of the dramatic increase in wind power in Texas was attributable to federal tax credits.



YEAR: 2007

The 80th Texas Legislature—The TXU Buyout

Lawmakers in 2007 reported phone calls from hundreds of constituents irate about electric rates. The AARP said Senate Bill 7 had created a “deregulation mess” and made reform its No. 1 legislative priority. Even key supporters of Senate

“THE AARP SAID SENATE BILL 7 HAD CREATED A DEREGULATION MESS...”

Bill 7 began raising doubts. “There has been insufficient participation of lower-cost providers - - unfortunately, we have not seen the Southwest Airlines of the electric industry,” lamented former state Rep. Steve Wolens, the co-author of SB 7. He went onto say that “there are many, many issues, there are a ton of issues” with SB 7 and acknowledged that it had failed to create meaningful savings.

This was particularly troublesome given that Texas in 2007 had passed one of the last major milestones under SB 7. On Jan. 1, the Price to Beat expired. TXU in Dallas, Reliant Energy in Houston and the other legacy providers had been allowed to offer a variety of rate packages for some time. But one of them always had to be the Price to Beat. No longer. Now the legacy providers had free rein to charge whatever they wanted. The brakes were completely off.

In theory, market forces would keep prices down now that there were no capped rates. But evidence emerged in 2007 that the deregulated market continued to have problems transitioning into a fully competitive one.

For instance, a survey of residential electric prices through 2007 showed that Texans paid below average rates in the years prior to Senate Bill 7 and then well above the national average after deregulation came into effect. The survey indicated that consumers in Texas paid on average more for electricity than consumers in all other deregulated states with retail competition.

Industry representatives have consistently blamed high prices in Texas on the state’s reliance on natural gas as a fuel source for generation. But the survey showed that regulated states with a similar dependence on natural gas, such as Louisiana, experienced residential rate increases smaller than those in Texas. The PUC likewise noted that TXU’s Price-To-Beat rate was the second highest among a sample of major providers nationwide with a heavy reliance on natural gas.

These findings illustrate a central fact about pricing under deregulation: High prices in Texas are not simply a function of the market’s reliance on natural gas but rather a function of *how* the market relies on natural gas. Under ERCOT rules *all* power accepted to meet demand in the spot market is paid for at the price of the *most expensive* power accepted to meet that demand. This becomes the “clearing price” on the wholesale spot market — and in most cases, it’s an expensive gas plant that sets it. So, high natural gas prices help set the price for *all spot* energy in ERCOT, which then ripples throughout the entire wholesale market, ultimately increasing residential bills.

By contrast, regulated investor-owned utilities are required to charge rates that reflect the actual cost to generate power, based on the average of *all* of the fuel used in the utility's generation fleet. This means that regulated retail rates include a fuel cost that is a blend of costs associated with several kinds of fuel, ranging from stable, low-priced lignite or coal, coal or nuclear generation to high-priced gas.

Wholesale Energy Prices Double

The price of energy on the spot market more than doubled in September 2007, as compared to the price during the same month in 2006, according to an ERCOT report. This created revenues of \$76 million for generators in September of 2007, as compared to \$37.4 million during the same month in the previous year. This price increase, and others, were made possible in part because of rule changes at ERCOT and by the Public Utility Commission. Among other things, the PUC increased the price caps at which generators can offer their energy into the wholesale spot market. Previously, the cap was set at \$1,000 per megawatt-hour, a very high price and far in excess of the cost to operate any power plant on the system. After the PUC's decision, the cap went to an even higher level and will eventually go to \$3,000.

“THE PRICE OF ENERGY ON THE SPOT MARKET MORE THAN DOUBLED IN SEPTEMBER 2007, AS COMPARED TO THE PRICE DURING THE SAME MONTH IN 2006, ACCORDING TO AN ERCOT REPORT.”

As for ERCOT, the organization had earlier implemented market rules that allow for higher prices during the deployment of a particular form of capacity used to protect against power shortages.

That these changes contributed to the doubling of those September energy prices was not met with alarm by most market participants or by the PUC. Indeed, under the theory that higher prices represent a “truer” economic result, increased prices have been the goal of several recent regulatory changes. The idea is that higher prices will provide an incentive to new generators to come to Texas and build power plants. Far from raising questions about whether the ERCOT market is working for consumers, under this view, high prices and consistent increases are seen as evidence that the market is correct from an economic standpoint.

Of course, higher spot energy prices eventually lead to higher retail prices – that is, the prices that end-use consumers like homeowners pay. That's because ERCOT's spot market for energy heavily influences the prices paid by *all* wholesale buyers – whether they deal directly through that market or not.

When low prices are equated with a problem in the market and higher prices are viewed as “success,” it is not clear how consumers can ever benefit from deregulation.

Alleged Market Power Abuses Impact the Market

TXU's trading practices remained an issue in 2007. In lawsuits, two former TXU power traders alleged a pattern of market manipulation by the power company. The traders said they notified their superiors about the improper activities, but the superiors condoned the behavior. The company denied wrongdoing.

The PUC also concluded on March 12 that TXU Wholesale had engaged in unfair trading practices. An outside expert hired by the agency to

review market power issues said TXU, during one period it studied in 2005, had driven up some

***“IN LAWSUITS, TWO FORMER TXU POWER TRADERS
ALLEGED A PATTERN OF MARKET MANIPULATION
BY THE POWER COMPANY.”***

wholesale prices by 15.5 percent and racked up \$20 million in unfair profits. The consultants found that “since TXU raised prices in the market and profited from its activities ... TXU's behavior constitutes market power abuse.” Two weeks later, the PUC recommended \$210 million in fines, a record for the agency.

The very next month, on April 3, 2007, wholesale prices spiked to levels never before seen in Texas. ERCOT reported that balancing energy shot up to \$1,500 per megawatt hour on three separate occasions. The prices could have gone even higher, if not for an existing cap of \$1,500. Typically, the power sells for less than \$100.

Later that same month, a sister company of Houston's Reliant Energy improperly held back wholesale power. It later agreed to pay over \$100,000 in penalties.

The TXU Buyout: The Largest Leveraged Buyout in History

The 80th legislative session began with bold talk of reform from leading lawmakers, many of whom reported that they received the message loud and clear from their constituents. The deregulated market was not living up to the potential envisioned by Senate Bill 7, they said, and so it was time to confront the reality of it head-on. Lawmakers promised to make the necessary changes to create real competition and lower rates. They floated bills to establish new controls over market manipulation among wholesale generators,

to create some price controls and to allow municipalities to negotiate deals on behalf of large blocks of customers. They had the support of consumer groups across the state, some of whom mounted door-to-door campaigns.

By contrast, industry representatives warned against changing SB 7. Despite the price spikes, the numerous findings of questionable conduct and the evidence of ratepayer overpayments, the industry's position remained immutable: SB 7 was, for the most part, working as intended. Said John Fainter, president of the Association of Electric Companies of Texas: “You've got to be careful about what you do. We think that we have a well-designed market.”

Among the most important of the reform bills were Senate Bills 482 and 483, both by state Sen. Troy Fraser, R-Horseshoe Bay. The first would have made TXU split into separate entities to limit its dominance in Texas. It would also have given the Public Utility Commission power to cap residential rates if the agency found them out of line with market prices. As drafted, the second bill, SB 483, would have prohibited any company from controlling more than 20 percent of power generation in any of four distinct regions or zones within Texas. In the North Texas zone, TXU owned about 45 percent of the generation – and indirectly controlled much more than that. Sen. Fraser unveiled both bills on Feb. 7, noting that SB 7 had not sufficiently helped residential ratepayers. “The legislation filed today will strengthen competitive forces and improve the residential market,” he said.

Other important bills included one that would reinstate the System Benefit Fund, one that would allow for the creation of a regulated rate if the PUC determined the market was insufficiently competitive, one that would create a regulated rate

based on cost of service and one that called upon the PUC to recommend alternatives to deregulation. But the political landscape changed dramatically after word leaked out of a proposed business deal between TXU and Kohlberg Kravis Roberts & Co., a private equity firm. The outside investors were offering to buy TXU for \$45 billion, including debt. If it went through, it would be the largest such transaction in U.S. history.

To garner support, the buyout partners promised a host of inducements, including lower rates through 2008 and an agreement to build only three of 11 coal generating plants planned for construction by TXU. However *The Dallas Morning News* released an independent study on June 24 that concluded that TXU probably would have cut prices and shelved plans for the coal plants anyway – even without the buyout. The study concluded that ratepayers would eventually see higher bills and that the “the buyout of TXU provides no inherent benefits to the customer.”

Sen. Fraser feared as much and so drafted Senate Bill 896 that expressly granted the PUC authority to ensure the transaction was in the public interest. But by mid-May, it was increasingly clear that that provision – as well as any other legislation that was seriously opposed by TXU and KKR – would not survive the session.

Energy companies typically employ plenty of lobbyists, but in 2007, with the buyout at stake, they deployed a vast army of them. According to one report, TXU and its buyout partners spent \$6 million for lobbyists, \$11 million for advertising and \$200,000 for legislative gifts. That figure was about twice what TXU has said it planned to spend before the announcement.

Under intense lobby pressure, Senate Bill 482 was killed May 27 on the House floor. Senate Bill 483 died during the waning days of the session after House and Senate negotiators failed to come up with a compromise.

System Benefit Fund Permitted to Provide Some Assistance to Low-Income Texans

Low-income ratepayers did, however, get one small bit of good news. The System Benefit Fund had been financed through what is typically a \$1 average fee on electric bills. It was created as part of SB 7 to finance discounts for low-income residents. Previous legislatures had raided the fund mercilessly, using the money for budget balancing purposes. But in 2007, at the urging of state Rep. Sylvester Turner, lawmakers appropriated about \$170 million for the System Benefit Fund – meaning that it would again begin funding rate discounts for poor Texans.

However, about \$400 million in money already collected for the System Benefit Fund -- plus another \$100 million that would accrue over the next two-year budget cycle -- was used for budget balancing purposes.



YEAR: 2008

ERCOT's Over-Budget and Behind-Schedule Market Overhaul

More research in 2008 found that deregulated market structures in Texas and elsewhere had failed to produce lower prices. A study released in September by the Technology Policy Institute, an independent Washington-based economics think tank, reviewed wholesale energy prices in ERCOT and other states that operate similar regional transmission organizations, or RTOs. These RTOs are an intrinsic feature of deregulated electricity markets.

The study demonstrated that almost without exception, wholesale electricity prices in states with RTOs had increased more steeply than in markets without them. The researchers confirmed that differences in fuel costs and “start-up jitters” in newly deregulated markets could not explain the differences. Many deregulation proponents had pointed to both factors as possible explanations for higher prices in deregulated markets relative to regulated ones.

“...THE RESEARCH SHOWS THAT EVEN BY THIS MEASURE, DEREGULATION IS MISSING THE MARK IN TEXAS. THE STUDY REPORTED THAT THERE WERE 58 ELECTRICITY WHOLESALERS IN 1999, BUT ONLY 46 IN 2006.”

“Our results show that RTO membership is consistently related to higher average wholesale electricity prices,” the authors determined. “With the exception of (New England), RTOs have failed to deliver lower wholesale electricity prices.”

Moreover, the authors found that the move to RTO-based retail competition had led to

less wholesale competition, not more. Many proponents of deregulation have pointed to an increase in market competitors as evidence of a success. But the research shows that even by this measure, deregulation is missing the mark in Texas. For instance, the study reported that there were 58 electricity wholesalers in 1999, but only 46 in 2006.

“There appears to be much more work still to do before the promise of competition is realized in areas that currently have organized wholesale markets,” the authors conclude. “Regulators in regions still served by traditional markets would do well to wait for the results of these efforts to be evaluated before moving to develop and implement new RTOs.”

PRICES SPIKES CONTINUE DURING TIMES OF SYSTEM STRESS

And as if to confirm those research findings, wholesale prices in ERCOT spiked to unprecedented levels in 2008. Over and over again balancing energy prices shot up to the \$2,250 per megawatt hour cap. This was for power that typically sold for less than \$100 per megawatt hour.

And then, somehow, the prices shot past the \$2,250 cap and into the \$4,000 range. ERCOT blamed several days of high temperatures and the loss of a number of plants and power lines, which were down for maintenance. “All of these factors contributed to higher wholesale prices during the spring,” the PUC reported in its 2009 Scope of Competition report.

Although isolated to a small portion of the wholesale market, such dramatic price spikes do not occur without repercussions. There's a risk to retail electric providers that rely on the Balancing Energy Market. In the summer of 2008, the spikes contributed to market failures of several of them. As a result, thousands of Texans served by those retailers ended up getting dumped to high-cost provider-of-last-resort service.

Customers harmed in this way had taken action recommended by members of the Texas Public Utility Commission and deregulation proponents: they had shopped around in the open market and selected a competitive electric provider. But as a consequence of getting forced onto provider-of-last-resort service, many reported a doubling or tripling of the prices on their bills.

Former state Rep. Steve Wolens, one of the co-authors of Senate Bill 7, was among those getting

service from a competitive electric provider that failed in 2008. Mr. Wolens said he checked with the PUC after his company closed and was told not to pay his last bill. He ended up getting turned over to a collection agency.

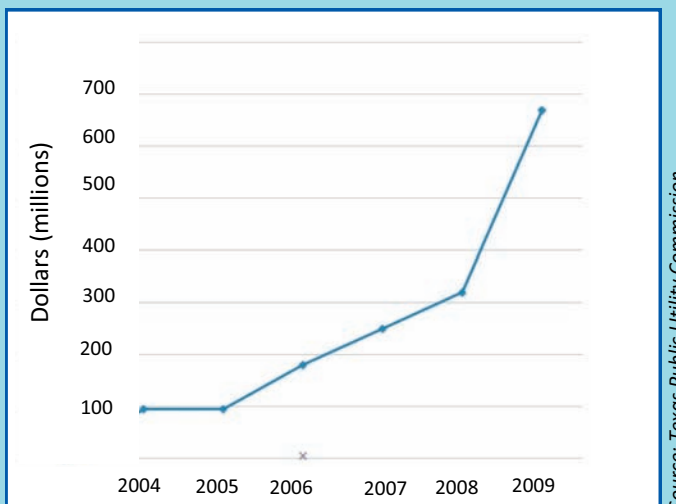
Given his role in creating the restructured market, Wolens said: "It serves me right. I'm getting my just desserts."

And in perhaps an ominous sign of more trouble in 2008, Reliant Energy, one of the state's largest electric retailers, announced in October that it was looking for a buyer.

The Texas Public Utility Commission held emergency meetings in which they called for changes in market rules and more customer protections relating to Provider of Last Resort Service.

Nodal Transition Cost Increases Since 2004

ERCOT's market overhaul to cost approximately nine times more than original estimates



An initial analysis commissioned by the Texas Public Utility Commission put the cost to ERCOT of transitioning from a zonal market to a nodal market at between \$59.8 million and \$76.3 million. The cost estimate eventually increased to \$311 million, and now stands at \$660 million.

The transition also remains more than four years overdue – from an initial implementation target for the fall of 2006 to the current target of December 2010.

WHAT IS NODAL?

BELEAGUERED NODAL TRANSITION AGAIN TAKES CENTER STAGE AT ERCOT

Power lines can handle only so much electricity without overheating. This can become a problem when lines get congested, that is – when there is too much power and too few power lines. Under the current system, ERCOT manages congestion by ordering generators to ramp up or ramp down production during peak energy-use periods. ERCOT pays generators for these services and then spreads the costs out uniformly within zones among those purchasing electricity in the wholesale market.

A nodal market theory was created for the U.S. Eastern grid to optimize the efficiency and cost of generation. ERCOT and the Texas Public Utility Commission decided to adopt a nodal market structure to allocate congestion costs and, in theory, reduce the overall cost of grid operations. In the nodal market, ERCOT would have the ability to charge entities responsible for “creating” congestion (by demanding more power than can be supplied over transmission lines in the area) and then would re-allocate the money it collects to the generators that relieve the congestion. This means that when complete, the new nodal market should increase revenues to some market participants, like certain generators, while increasing costs to some entities that buy power.

Using a bank of new computers and complicated software, the new system will spit out rapid-fire calculations for electricity prices. The computers will calculate these prices at thousands of points on the transmission grid, or “nodes”, where power is either added or removed by wholesalers or users. The new computer system also will give ERCOT the ability to model electricity demand, the ability to manage a trading system similar to those operated by eBay, and could improve ERCOT’s energy-management system to help guard against outages. It is alleged that the new technical systems also will improve ERCOT’s ability to collect and aggregate technical data, which can help the organization guard against market abuses.

QUESTIONS REMAIN

But the PUC and ERCOT can order many of these system improvements – and others – without going forward with the expensive nodal overhaul. There is nothing “inherently nodal” for instance, with collecting and aggregating technical data. Given the constant budget overruns, many are questioning whether the expensive project makes sense. The project once projected to cost ERCOT between \$59.8 million and \$76.3 million now could cost 10 times that much. At the same time that the price tag is increasing, the benefit level is decreasing.

Also remember: the entire nodal system was proposed as a way of reducing congestion costs. However, ERCOT’s independent monitor has reported that those congestion costs have already come down dramatically without nodal. According to a recent report, congestion costs decreased from a high of about \$275 million in 2004 to \$186 million. The reason probably relates to ERCOT’s improved strategies for dealing with overburdened lines, and with the construction of new lines by utilities. Likewise, no one is suggesting that nodal, by itself, will ever push those costs to zero.

Among the proposed changes are requirements for higher capitalization standards for Retail Electric Providers and additional security for customer deposits to prevent their loss in the case of a company default.

MARKET “WATCHDOG” REPORTS PRICES ARE TOO LOW

Despite the clamor about high bills, a key regulatory advisor explicitly called for rule changes that would not result in lower prices, but higher ones.

In a report from August, the consultant hired to serve as the Independent Market Monitor recommended changes that would artificially increase wholesale prices. “More reliable and efficient shortage pricing could be achieved by establishing pricing rules that automatically produce scarcity level prices when defined shortage conditions exist on the system,” he stated in the report. In other words, the consultant called for new rules that would create wholesale price spikes.

THE GE STUDY

Under the Competitive Renewable Energy Zone (CREZ) process, the Texas Public Utility Commission has delineated various geographical regions of the state as areas where the agency will approve multi-billion dollar transmission construction to support the development of wind generation. As part of the CREZ process, ERCOT hired General Electric to conduct a cost-benefit and reliability analysis to determine the amount of transmission to build. The GE study was largely glowing, with the company claiming that system reliability would not suffer with the addition of another 15,000 megawatts of wind power. GE said the new wind generation would reduce market prices. Those supporting the transmission build-out cited the report often. But the study had various problems. For instance, the company did not account for the extra payments that would have to be made to gas generators that must stand ready to provide back-up power when the wind stops blowing. GE also declined to release the background data and assumptions used in its computer models.

Another point lost on many was that GE, as the nation's largest manufacturer of wind turbines, had a very large financial stake in Texas going forward with the Competitive Renewable Energy Zone process. This is because GE had entered into contracts with wind developers doing business in Texas, including T. Boone Pickens, whose Mesa Power had ordered 667 turbines from the company at a cost of \$2 billion. GE also had a \$300 million equity investment in Horizon Wind Energy, a leading proponent of one of the CREZ transmission scenarios considered by the PUC.

The consultant, Potomac Economics of Delaware, was hired at the behest of the Texas Legislature in 2005 as an independent market watchdog. The consultant's findings carry

“IN A REPORT FROM AUGUST, THE CONSULTANT HIRED TO SERVE AS THE INDEPENDENT MARKET MONITOR RECOMMENDED CHANGES THAT WOULD ARTIFICIALLY INCREASE WHOLESALE PRICES. ”

considerable weight with ERCOT and especially with the Texas Public Utility Commission, where commissioners have echoed many of the same concerns.

This proposal for higher prices is in no way an anomaly for Potomac. In annual reports from both 2007 and 2008, Potomac concluded that without higher prices -- and especially without higher prices during periods when power supplies run short -- generators won't make enough money to invest in new construction.

The market monitor likewise concluded that the reason there aren't more spikes is because *there's already too much generation*. That is, the market monitor asserted that generation reserves were too high, which puts downward pressure on prices, which prevents companies from making enough money to build more generation. He said that the market needs to support the creation of more generation, but it can't because it already has too much generation.

The ERCOT “watchdog” did not express concern that price spikes of 2,000 percent that occurred in March of 2008 caused harm to consumers, but rather concern that there were not similar price spikes during an earlier period of scarcity.

The cap on wholesale prices in ERCOT's balancing energy market stands at \$2,250 per megawatt-hour, which is already more than twice the level of similar caps in other states and represents a price more than 20 times greater than typical energy prices. Generators have received that much for their power on numerous occasions, and stand to receive even more when the cap eventually goes to \$3,000.

MARKET ABUSE?

In November, Luminant – formerly TXU – agreed to pay a \$15 million penalty for alleged abuses in the wholesale market. While the \$15 million penalty is one of the largest paid by a generator, the PUC had originally recommended penalties of more than \$200 million. The PUC's own investigation found evidence that the company had profited by nearly \$20 million through its improper activities and that the company's actions had cost the market at least \$57 million.

“Settling for pennies on the dollar just reinforces the belief that the PUC is unwilling or unable to stand up to electric companies,” said Tim Morstad, a policy analyst for the AARP.

THE NODAL MARKET: OVER PROMISED, OVER BUDGET AND BEHIND SCHEDULE

PUC commissioners and some industry representatives said an ambitious overhaul of the wholesale market would cure many of the problems. Supporters said the new market design – known as a “nodal” or “marginal locational pricing” market (see the report on page 63) – would reduce or eliminate gaming opportunities and produce incentives to build generation where it is needed most.

The PUC initially authorized nodal in 2003, and expected to have it up and running by the fall of 2006. But that deadline came and went. The next deadline for the end of 2008 was also abandoned. Then, on the day before Thanksgiving, ERCOT announced that the project wouldn't be ready until at least the end of 2010, and estimated its cost a whopping cost of \$660 million. That's more than double the size of ERCOT's last estimate and far in excess of initial cost estimates for ERCOT of less than \$100 million.

"It's exceptionally disturbing," said Rep. Phil King, R-Weatherford, chairman of the House Regulated Industries Committee. "I don't want to see us strap \$660 million on Texas consumers unless the savings exceed that."

The new system is supposed to make the market more efficient by changing the assignment of wholesale costs associated with line congestion. That is, when complete, customers in the zones with the most congestion (where the demand for power outstrips the supply of available transmission lines) likely will end up paying more than they would under the old system.

A cost-benefit analysis commissioned by the PUC found that consumers would save \$5.6 billion in wholesale power costs during the first 10 years of the nodal system. The Boston-based consulting firm, CRA International, said those savings did not reflect a system-wide benefit, but rather a "transfer of wealth" from generators to consumers. Generators have been among the greatest advocates of the market overhaul.

A separate report commissioned by a coalition of West Texas and North Texas cities found that incorrect and speculative assumptions

in the CRA report led to a massive over-estimation of benefits for consumers. The cities found that flaws in the CRA report were so pervasive as to call into question its conclusion that the nodal market would benefit consumers.

Also a report by the American Public Power Association (APPA) found that proponents had oversold the benefits of nodal, and that similar markets elsewhere had not worked particularly well in practice. The APPA noted, for instance, that customers living in the Northeast had not realized any cost savings from a nodal system there. It also noted that implementing such a system does not guarantee competitive markets or prevent market abuse. Nor does a nodal market provide incentives for investment in some areas with the most overburdened power lines.

SYSTEM RELIABILITY AND WIND POWER

On February 26, 2008, ERCOT officials took emergency action to avoid more blackouts. A sudden loss in wind power, coupled with other factors, sent grid operators scrambling. "This situation means that there is a heightened risk of ... regular customers being dropped through rotating outages, but that would occur only if

"WIND POWER IS SO UNSTABLE THAT ERCOT WOULD ONLY FACTOR IN ONLY 9 PERCENT OF TOTAL AVAILABLE WIND CAPACITY WHEN DETERMINING AVAILABLE POWER DURING SUMMER PEAK HOURS."

further contingencies occur, and only as a last resort to avoid the risk of a complete blackout," the state's command center for disasters stated in an e-mail notice to municipalities.

It was a serious emergency for ERCOT, and one that illustrated the inherent challenges

associated with wind power. Kent Saathoff, ERCOT's vice president for system operations, said because the wind doesn't give advance notice before it stops blowing, grid engineers must remain nimble enough to respond quickly with replacement power. Otherwise, blackouts occur.

That fickle nature of wind also means the state cannot forego building other sorts of generators - more polluting ones - to provide replacement power. Those generators have to remain on standby and ready to ramp up quickly. That's an extra expense to the system. In fact, wind power is so unstable that ERCOT would

“ERCOT ALSO HAS FOUND SEPARATELY THAT WIND IS ONE OF THE MOST EXPENSIVE FORMS OF POWER COMMONLY USED IN TEXAS, WITH EACH MEGAWATT OF POWER COSTING \$53 TO GENERATE.”

only factor in only 9 percent of total available wind capacity when determining available power during summer peak hours.

In its 2009 Scope of Competition report, the PUC suggested that wind generation has suppressed electric wholesale and retail prices. As evidence, it cites findings by the Independent Market Monitor that correlated wholesale prices on the one hand, and wind production, system load and fuel prices on the other.

The monitor said that for each additional 1,000 megawatt of wind power produced, the clearing price in the balancing energy market fell by \$2.38.

However, that analysis doesn't appear to tell the whole story. For instance, the calculation of balancing energy savings did not account for

the multi-billion dollar expense of building new transmission. Neither did it account for the increased cost of purchasing additional backup capacity, known in ERCOT as “ancillary services.” ERCOT also has found separately that wind is one of the most expensive forms of power commonly used in Texas, with each megawatt of power costing \$53 to generate. And if one figures in its actual operating capacity, then the cost of wind power goes to \$80 per megawatt hour.

The U.S. Department of Energy shows that the most expensive form of power generation through 2030 will come from wind generators. It remains competitive as an energy source only because of government subsidies. For every \$100 million of investment, wind-power developers received more than \$74 million in federal tax credits and other benefits, according to a study from the University of North Texas. Wind developers get corporate income tax breaks from the state and property tax abatements from local governments.

A quick review of the Power-To-Chose website shows that plans that focus on wind energy typically sell at a premium. Wind power is more expensive for residential ratepayers, not less.

The Houston Chronicle, in an analysis from July, called wind power “an open trough of government subsidies, tax credits and state mandates.” The newspaper described the sponsorship of wind in Texas “a massive corporate welfare effort that means big money for the wind-power developers and big costs for the rest of us.”

CREZ ZONES

The wind industry has grown exponentially in Texas. By 2008, Texas had nearly

7,000 megawatts of installed generation capacity which far exceeds what exists in most other states, and even many nations.

Texas also has plans, through its so-called “Competitive Renewable Energy Zone” process, to construct enough new transmission lines to West Texas and the Panhandle for nearly 18,500 megawatts of additional wind generation.

Under that process, the PUC has designated various zones to mark the site of future transmission construction. The PUC estimated the cost of building those lines at \$5 billion – a rather startling figure considering that the entire investment of the existing statewide transmission system is only about \$10 billion. And while West Texans and residents of the Panhandle could clearly reap the benefits of economic development from that construction, ratepayers statewide would foot the bill. By some estimates, the new construction would cost typical Texas residents around \$75 per year.

The Commission expects the new lines in service within four to five years.

PROVIDERS AND PRICES

By July 2008, about 44 percent of Texans had switched to electric service other than that offered by the old legacy providers like TXU. By comparison, only 14.3 percent of New Yorkers had switched in that state by the end of 2007. “Though retail competition exists in a number of other states, including New York, Michigan, Illinois and several New England states, few REPS have attempted to compete for residential customers in those states and few residential customers have switched or changed providers,” the PUC reported in its 2009 Scope of Competition Report.

The same report noted that as of September 29, a customer visiting the state’s Power-To-Choose website would find as many as 27 competitive retail electric providers throughout competitive areas of Texas. It noted that these REPS offered 96 different plans in various territories – including 23 different renewable energy options.

The PUC said that this large number of competitors is an important indicator of success for the state’s deregulated system. “The number of REPS has increased steadily since 2002,” the report states. “Residential customers have at least 50 percent more options than they did at the end of 2006.”

That switching activity, however, has not translated into lower prices. A survey by the Texas Coalition of Cities For Utility Issues found that north Texans could shop around all they like – that is, they could switch to the very best deal in their area – and still not find more affordable electricity than that offered by municipally-owned utilities, cooperatives and Texas investor-owned utilities outside competition.

The report considered all the best competitive offers in North Texas, and compared those prices to electric providers outside deregulation. The seven lowest rates in the survey were offered by providers outside competition. The average of typical monthly bills under competition was higher than the bill averages for customers in municipally-owned utilities, cooperatives and investor-owned utilities outside competition.

Noted the report: “Clearly, nothing about a deregulated system inherently drives prices lower than a non-competitive system. Otherwise,

one might expect most – if not all – of the ten lowest rates in the survey to be offered by competitive REPs.”

POWER AGGREGATION

In 2008, a group of six West Texas cities operating in the state’s deregulated market tried and failed to use a bulk purchasing strategy in order to lower rates for their constituents.

The strategy, known as *opt-in aggregation*, is explicitly authorized by Senate Bill 7. However, as the cities of Cisco, Comanche, Dublin, Eastland, Hamilton and Snyder discovered in 2008, the aggregation provision in the law doesn’t work particularly well in practice.

The cities managed to sign up 1,600 households during an extensive outreach program and then attempted to negotiate a bulk rate power deal on their behalf. But citing the relatively small number of customers, electric providers either decided not to participate or

would not offer prices lower than those already advertised on a web site operated by the Texas Public Utility Commission.

Organizers of the bulk rate effort concluded that they would have been more successful using another bulk rate purchasing strategy, known as *opt-out aggregation*. However, *opt-out aggregation* is not permitted under Senate Bill 7. (See the report on page 70).

CUSTOMER COMPLAINTS

The PUC’s Customer Protection Division experienced a spike in customer complaints in April 2008. The PUC cited as reasons for the complaints the high electricity prices in Texas and the market failures in 2008 of several electric providers.

Since August of 2006, provision of service complaints increased by 5 percent and billing complaints increased by 8 percent, according to the PUC.



Opt-Out Aggregation

Many experts – including those at the Texas Public Utility Commission – report that consumers have saved money in states that permit a purchasing strategy known as “*opt-out aggregation*.” But while an unambiguous success in other deregulated markets, *opt-out aggregation* is not available to consumers in Texas.

What is *opt-out aggregation*? In the simplest terms, it is a method that cities, counties or other political subdivisions deploy to purchase affordable power, in bulk, on behalf of their constituents. Under typical *opt-out* programs, the city council authorizes the aggregation of the residents’ power needs through a public hearing and vote. Once approved, the political subdivision then mails notices to ratepayers advising them of the new energy aggregation program. Citizens who do not wish to participate in the program can check a box on the advisory and send it back, or can contact program organizers via the Internet or telephone. Those ratepayers who choose to participate need not take any further action at all. If the ratepayer doesn’t respond within a given timeframe, it’s assumed they want to participate and the political subdivision will negotiate a bulk-rate electricity deal on their behalf.

This is in contrast to *opt-in aggregation*, which is explicitly authorized by Senate Bill 7. Under *opt-in* aggregation, citizens must affirmatively sign up for service before their political subdivision will begin negotiations on their behalf. But *opt-in aggregation* creates an untenable conflict because large numbers of customers typically won’t sign up for service unless they know how much money they will save, and retail electric providers won’t offer substantial savings unless they have a reliable estimate of customers and the power to serve them.

A group of six West Texas cities tried and failed to use *opt-in aggregation* in 2007 and 2008. About 1,600 households in the cities of Cisco, Comanche, Dublin, Eastland, Hamilton and Snyder (in largely rural West Texas) agreed to participate after being contacted by their cities through a long, extensive and costly outreach program. Most of the residents had never before negotiated electric contracts and many expressed enthusiasm about the sense of empowerment they received from the program. Their city representatives then attempted to negotiate a bulk rate deal. But competitive electric providers – some noting the relatively small number of residential participants -- either declined to submit bids to serve them or would not beat the lowest prices already advertised on a web site operated by the Texas Public Utility Commission.

A study by the National Center for Appropriate Technology describes *opt-out aggregation* programs in states other than Texas as one of the few bright spots for consumers under electric deregulation. In Ohio and Massachusetts, *opt-out aggregation* programs clearly led to lower prices, the study concluded. The Texas Public Utility Commission likewise has acknowledged the success of *opt-out aggregation* programs and has suggested the creation of an *opt-out aggregation* in Texas as a way of enhancing the competitive market.

Year: 2009

The 81st Texas Legislature—Still Awaiting the Promise

PRICES STILL TOO HIGH

Among consumers in 21 major metropolitan areas across the country, it's those in two Texas cities who pay the most for their electricity, according to a survey released early in 2009. The survey confirmed what many Texans already knew: they're paying too much for power.

Released in January by a for-profit consumer Web site, the survey compared average bills for the last six months of 2008 and found that for each of those months, residents in Dallas and Houston paid more for power than residents anywhere else in the nation. Dallas and Houston were the only Texas cities included in the survey.

“PRICE INCREASES IN TEXAS HAVE OUTSTRIPPED PRICE INCREASES IN MOST OTHER STATES – INCLUDING ALL OTHER DEREGULATED ONES. DEREGULATION ALSO APPEARS TO HAVE NEGATIVELY IMPACTED ECONOMIC DEVELOPMENT, WITH AN ANALYSIS OF FEDERAL DATA SHOWING THAT INDUSTRIES IN DEREGULATED STATES – INCLUDING THOSE IN TEXAS – HAVING SUFFERED ELECTRIC PRICE INCREASES OUTSTRIPPING THOSE IN REGULATED STATES.”

Some of the price disparities during the summer months can be attributed to Texans' love of air conditioning. But the survey also considered electric prices in Las Vegas and Phoenix. And how can air conditioners explain why prices in Houston and Dallas were more than prices elsewhere during the winter?

Two Texas cities not included in the survey were San Antonio and Austin. Had they been, it would have been found that their residents enjoyed significantly more affordable power than residents in Houston and Dallas. However, San Antonio and Austin remain outside the Lone Star State's restructured market.

What does this tell us? It confirms that after 10 years, the promise of electric competition remains unfulfilled. The survey suggests what this report already confirms: Texas electric consumers have lost ground because of Senate Bill 7. Price increases in Texas have outstripped price increases in most other states – including all other deregulated ones. Deregulation also appears to have negatively impacted economic development, with an analysis of federal data showing that industries in deregulated states – including those in Texas – having suffered electric price increases outstripping those in regulated states.

THE TEXAS LEGISLATURE CONVENES

Against this context, lawmakers convened in January for the 81st Texas Legislature. The new regular session marks the fifth since the state adopted SB 7 and the third since the opening of the restructured market. The electric price increases have continued unabated over that period, as have problems relating to restructuring in general. But often with an eye towards the possibility of making changes later, legislatures in 2001, 2003, 2005 and 2007 have refrained from significant reform.

Some bills advanced in 2009 could bring change. For instance, one would reform the System Benefit Fund, which had been raided repeatedly for budget balancing purposes. The fund provides bill assistance for low-income residents. It was partially restored in 2007, and legislation filed for the 81st session would bolster it further. Other bills would give the PUC authority to inspect the books of retail electric providers, and to create new customer protection rules.

In its 2009 report to the Texas Legislature, the Public Utility Commission also recommended new laws. For example, the agency wants more authority over the Electric Reliability Council of Texas, including control over the issuance of debt by the organization. The PUC also wants to repeal a provision in SB 7 that favors the use of natural gas as a fuel source for electric generation, and the PUC calls for tax breaks for the purchase and installation of solar panels by residential and commercial customers.

But at a time when many are calling for more transparency, the PUC wants more secrecy. Specifically, the agency recommends that the Legislature grant it clear authority to withhold from public disclosure investigative records pertaining to enforcement actions.

The PUC did not request greater authority to pursue such cases – only authority to keep their investigative records secret. Also notably absent from the PUC’s recommendations was any suggestion that the Legislature should change rules governing the potentially abusive exercise of market power by dominant generators.

This has been one of the most pernicious problems under deregulation. Year after year,

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PERTAINING TO ENFORCEMENT ACTIONS.”*

regulators have found evidence of questionable bidding practices and undue market influence by dominant players like TXU. Recall that in 2008, the agency fined the company \$15 million in a market abuse case (although the agency also found that the company had profited by nearly \$20 million for the improper behavior).

Not included in the PUC’s legislative recommendations are any that would address wholesale price spikes, address the problem of economic withholding of electricity or make changes relating to the management of congestion on transmission lines. However, the PUC did call for new authority to order restitution payments to help commercial entities harmed by improper market conduct.

Also, perhaps ironically, the PUC forwarded recommendations that could have the effect of exacerbating market power problems over time. That is, the PUC recommended that the Legislature provide public assistance for the nuclear industry, including the possibility of taking money from the state treasury to prepay the cost of decommissioning nuclear plants. Besides potentially putting ratepayers on the hook for billions of dollars, the recommendation could result in a dominant player becoming even more so because its share of the wholesale market would go up with the construction of massive new nuclear facilities.

LOOKING AHEAD

Recall that under deregulation, only transmission and distribution utilities remain rate regulated. One of the state's major transmission and distribution utilities, AEP Texas, recently has begun advocating for a process to compress and accelerate rate cases.

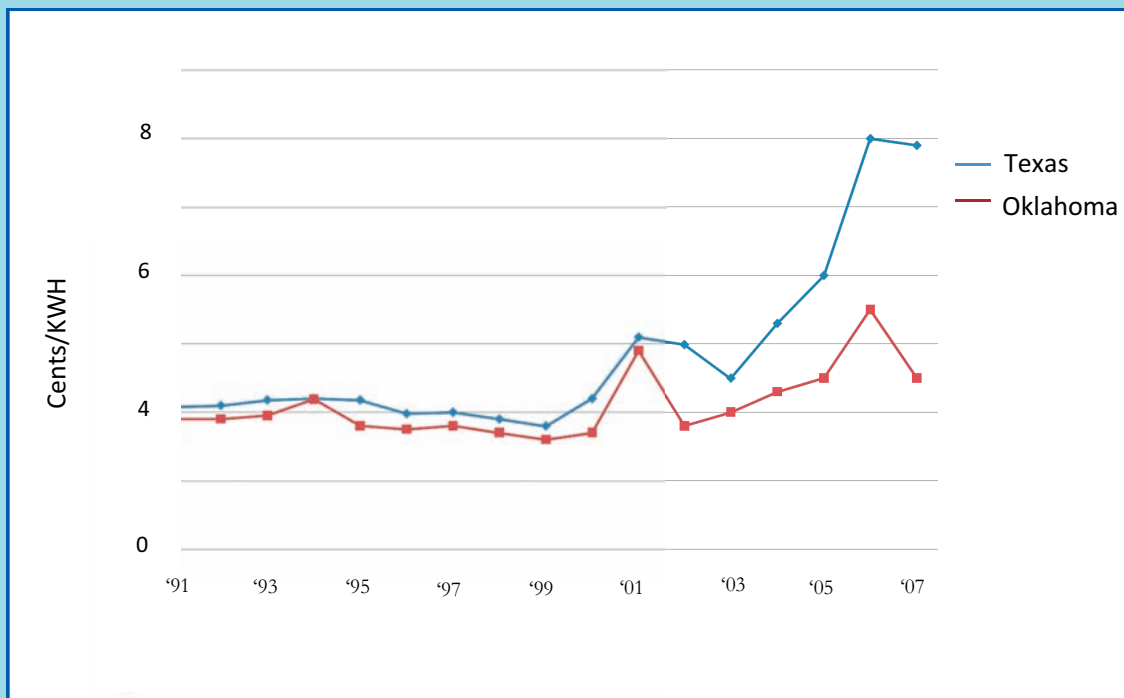
AEP argues that because of the duration of such cases, there's typically a lag between when the company makes new expenditures and when

they can implement new rates to pay for those expenditures. The company argues that this lag is too long and the current ratemaking process too contentious.

But several consumer groups note that the time lag could reduce utility incentives to overbuild. Consumer groups also say the accelerated ratemaking proposal helps the utility when their costs goes up but does not include parallel provisions to benefit ratepayers when utility costs decline.

Businesses Pay More Under Deregulation

Average Delivered Retail Electricity Prices



It's not just residential consumers who pay more under deregulation. U.S. Energy Information Administration data also suggest that, on average, industrial customers in deregulated states pay more for electricity than industrial customers in regulated states. Likewise, electricity prices for industrial customers in deregulated states have increased by a greater percentage than prices for industrial customers in regulated states. This widening gap in prices for industrial customers can have an impact on economic development.

This chart, based on an analysis by a consortium of utilities and utility organizations, compares average electric prices for industrial customers in deregulated Texas against average electric prices for industrial customers in neighboring Oklahoma, which remains under regulation.

The issue remains pending before the PUC and is likely to grow in prominence during 2009.

Another emerging issue relates to customer protection rules. Two PUC commissioners have called for an end to the ERCOT practice of notifying customers by postcard before switching them to new electric providers. One of the commissioners argued that no similar notification requirement exists for telecommunications customers. However, consumer groups warned that such a change would open the door to more “slamming” – that is, the switching of customers without prior authorization – and that unlike slamming victims in the telecommunications industry, a slammed electric customer easily could end up paying hundreds of extra dollars.

One of the thornier consumer issues created by the PUC’s interpretation of SB 7 also could soon be resolved. Recall that in November 2004, the PUC ordered ratepayers to reimburse utilities for the value of so-called “excess mitigation credits,” or EMCs, even though most ratepayers never received any benefit from those credits. (See chart on page 48).

The agency’s EMC decisions were appealed to the courts. In April 2008, the Third Court of Appeals ruled that the agency was in error. The court noted that Houston’s CenterPoint had originally paid many of the credits to its affiliated retail electric provider, Reliant, and that Reliant did not relinquish the benefit to ratepayers. The Third Court stated that it would be improper for CenterPoint to now obtain reimbursement from ratepayers who never received EMCs in the first place.

The case is now pending before the Texas Supreme Court.

THE NEXT 10 YEARS?

Lawmakers adopted SB 7 with the promise of lowering rates. They knew that with affordable energy comes economic development for Texas communities and a better standard of living for its citizens. But with 10 years of hindsight, it’s now clear that this promise remains unfulfilled.

So, what should Texas consumers expect from the next decade?

Consider first that the consequences of some decisions are irreversible. Consumers will never get their money back from overpaying an inflated Price to Beat. They will never be repaid for the years they lived with a flawed wholesale market or repaid the extra expense they incurred because Texas went forward with deregulation, even though its transmission grid wasn’t ready.

But also consider that many of the problems continue to plague consumers. And each of these problems presents an opportunity for meaningful reform.

Cost overruns at ERCOT? Then crackdown on management there and end its woefully over-budget nodal transition. Flaws in the wholesale market? Reform market power rules. Transmission grid inadequate? Build more lines where they’re needed – but avoid expensive additions where they’re not. No savings for consumers? Authorize opt-out aggregation to bring them the benefits of the bulk purchase of electricity that is already benefiting many Texas municipal governments.

When Gov. George W. Bush signed SB 7, he underscored its purpose with this simple pledge: “Competition in the electric industry will benefit Texans by reducing monthly rates.”

Texas consumers are still waiting.

END NOTES

EARLY YEARS

This section relies on various journalistic sources, including a Sept. 23, 2006, article by Steven T. Dennis in *Congressional Quarterly*, entitled “The Broken Promise of Electricity Deregulation”; a deregulation timeline that appeared in the Nov. 22, 2007 edition of the Galveston newspaper, *The Daily News*; a Dec. 1, 2000, article by Mark Gladstone and Brandon Bailey in the *San Jose Mercury News* entitled “Deregulation: Who Were The Power Brokers?”; a May 7, 2001, article by Sam Stanton in the *Sacramento Bee* entitled “Californians Reflect on Path Taken toward Deregulation of Electricity Market”; and a May 23, 1997, article by Welch Suggs in the *Dallas Business Journal*, “Failure of electric deregulation disappoints Nye.”

This section also draws from a Jan. 20, 1999, press release from former state Sen. David Sibley; the book “Regulation: Economic Theory and History” by Jack High (University of Michigan Press, 1991); the January 1999 report from the Texas Public Utility Commission, “The Scope of Competition in the Electric Industry in Texas”; and Volume 1 from the 1997 report from the Texas Public Utility Commission, “Electric Power Industry Scope of Competition.”

The subsection entitled “**The Senator and The Napkin Doodle**” is based on an anecdote found in a May 7, 2001, article by Sam Stanton in the *Sacramento Bee*. The article is entitled: “Californians Reflect on Path Taken toward Deregulation of Electricity Market.”

YEAR: 1999

The annual 1999 section draws from various journalistic sources, including a Feb. 12, 1999, article in the *Corpus Christi Caller-Times* by Anna Tinsley, “Electric Deregulation Bill Filed”; a July 17, 2008, article in the *Wall Street Journal* by Rebecca Smith, “Deregulation Jolts Texas Electric Bills”; a March 9, 1999, article in the *Dallas Morning News* by Stephen Power, “Electric Deregulation sent to state Senate”; an April 28, 1999, article in *Megawatt Daily*, “Wolens and Texas Could Err by Not Passing Dereg bill”; and several articles in the *Fort Worth Star-Telegram*, including “Electric Overhaul Clears First Hurdle” on March 9, 1999; “Utilities overhaul pushed” on January 18, 1999; “Texas Senate Approves Bill for Electric-Industry Competition” on March 18, 1999; “Compromise reached on deregulation bill” on May 20, 1999; and “Poll reveals ratepayers' concern,” March 11, 2001. The section also draws from the State Electric Profiles found at the U.S. Energy Information Administration website.

The “**Key Components of Senate Bill 7**” subsection is based on a reading of Senate Bill 7 itself.

YEAR: 2000

This section draws from various journalistic sources, including a Dec. 29, 2000, article by David Lazarus in the *San Francisco Chronicle* entitled “Summer Ushered in a Power Crisis”; and two articles from the *Fort Worth Star-Telegram*, “Transmission Line Shortage Inhibits Texas Electric Deregulation, Expert Says” from Aug. 23, 2000, and “Judge Rules against Dallas-Based Utility TXU Electric on Stranded Costs” from September 20, 2000. This section also draws information from page 21 of the 2001 edition of the “Scope of Competition in Electric Markets in Texas,” published by the Texas Public Utility Commission.

The subsection entitled “**The Worst They’d Seen in 30 Years**” is based on a Sept. 23, 2006, article in *Congressional Quarterly Weekly* entitled “The Broken Promise of Electricity Deregulation”; a Dec. 29, 2000 article in *The San Francisco Chronicle* entitled “Summer ushered in a power crisis that promises only to get worse”; and page 4 of “Scope of Competition in Electric Markets in Texas, 2001,” published by the Texas Public Utility Commission.

YEAR: 2001

This section draws largely from reporting in the *Fort Worth Star-Telegram*. Articles include “Texans wary of decontrol of electricity; Poll reveals ratepayers' concern” from March 11, 2001; “Lawmakers Urge New Limits on Texas Electric Deregulation” from Jan. 25, 2001; “PUC chief favors electricity refunds” from March 28, 2001, “Action likely kills refunds on utility bills; A Wichita Falls lawmaker blocks further consideration of the measure” from May 11, 2001; “Reports say grid facing big risk” from Oct. 11, 2001; “Billing errors are impeding test of deregulation, officials say” from July 20, 2001; “Utilities say bills they got had 'bigger than big' errors” from August 23, 2001; “Electric council shrouds budget” from Nov. 24, 2001; “Electric-Price Spikes on Texas' First Day of Deregulation Called a 'Mistake'” from Aug. 2, 2001; “Another price spike in Texas' deregulation experiment” from Aug. 8, 2001; “Advisers Warn Texas Electric Deregulation System Has Flaws” from March 7, 2001; “Part of Texas' electric market mysteriously shuts down 4 hours” from Aug. 10, 2001; “Price spikes linked to lack of power lines” from August 14, 2001; and “Texas Utility Surrenders Claim on Billions of Dollars,” Dec. 29, 2001.

It also includes material from the *Houston Chronicle*, including the Feb. 7, 2001 article by Janet Elliott, “Customers of Houston-Based Reliant Energy Get to Choose New Power Supplier”; and a July 31, 2001, article by Laura Goldberg, “Texas Launches Preview of Electricity Deregulation Program.” It includes material from an article that appeared on March 6, 2006, in *Electric Utility Week*, “CenterPoint swings to \$252 mil profit in 2005 reflecting '04 disallowance of stranded costs”; and material from the “Scope of Competition in Electric Markets in Texas,” 2001, published by the Texas Public Utility Commission.

The “**Excess Mitigation Credits**” subsection draws from the “Scope of Competition in Electric Markets in Texas, 2003,” pages 38 and 39, by the Public Utility Commission of Texas; and a response brief in the case “Public Utility Commission of Texas v AEP Texas Central Company,” dated July 10, 2006.

The subsection entitled “**The Enron Collapse**” draws from “Enron's Chief Executive Quits After Only 6 Months in Job,” *New York Times*, Aug. 15, 2001; “A Self-Inflicted Wound Aggravates Angst Over Enron,” *New York Times*, Sept. 9, 2001; “Enron Reports \$1 Billion In Charges And a Loss,” *New York Times*, Oct. 17, 2001; “Enron Tries

To Dismiss Finance Doubts," *New York Times*, Oct. 24, 2001; "Enron Ousts Finance Chief As S.E.C. Looks at Dealings," *New York Times*, Oct. 25, 2001; "Enron Credit Rating Is Cut, And Its Share Price Suffers," *New York Times*, Oct. 30, 2001; "Enron's Collapse: The Overview; Enron Corp. Files Largest U.S. Claim For Bankruptcy," *New York Times*, Dec. 3, 2001; "Once-Mighty Enron Strains Under Scrutiny," *New York Times*, Oct. 28, 2001; "Former Executive Fills Spot on Texas Agency that Is Overseeing Deregulation," *The Houston Chronicle*, June 14, 2001; and "Energy czar had Lay's backing," *Fort Worth Star-Telegram*, Feb. 7, 2002.

The subsection entitled "**What Is ERCOT**" includes information gathered from the ERCOT Web site and from a reading of Senate Bill 7.

YEAR: 2002

This section draws from various journalistic sources, including a Dec. 1, 2001, article by Phil Magers of United Press International entitled "Texas launches electric choice Jan. 1"; a May 7, 2002, article by the Associated Press entitled "Enron Says it is under investigation"; and an Aug. 24, 2002, article by Michael Davis of the *Houston Chronicle*, "Texas Utility Panel Approves Reliant Energy's 5.8 Percent Rate-Hike Request."

It includes material from two articles that appeared in *The Dallas Morning News*: "TXU asks commission to raise electricity rates" from April 24, 2002; and "PUC might fine Enron for power overscheduling," June 4, 2002.

It includes material from two articles by Claudia Grisales of the *Austin American-Statesman*: "Power grid operator's spending under fire," June 12, 2002; and "New Power transferring customers Energy provider, which served 80,000 in Texas, expected to file for bankruptcy," June 11, 2002.

This section also draws from several articles that appeared in the *Fort Worth Star-Telegram*, including "Power rate may not be as low as envisioned" from Dec. 7, 2001; "Dallas-Based Utility Parent Seeks to Increase Electricity Costs by 5 Percent" from April 24, 2002; "Ready or Not, Deregulation starts" from Jan. 2, 2002; "Report Lists Snags in Texas Electric Deregulation" from Jan. 11, 2002; "Regulator urges PUC to delay state ad campaign" from April 12, 2002; "Budget Items for Texas Power-Grid Operator Spark Controversy" from April 4, 2002; "Texas' Electric-Management Fee May Increase" from Aug. 21, 2002; "Budget Items for Texas Power Grid" from April 4, 2002; "Errors profit some electric companies" from Dec. 17, 2001; "Enron admits PUC inquiry" from April 17, 2002; "Texas Utility Says It Expects No Profit from Deregulation Flaw" from May 2, 2002; "New Power files for bankruptcy" from June 12, 2002; "Texas Public Utility Commission Seeks Huge Fine against New Power" from Sept. 14, 2002; and "Dozens of Texas Cities Sue over State Regulators' Role in Electric Rates," May 7, 2002.

This section references material that appeared on page 14 of the Public Utility Commission's "Scope of Competition Report in Electric Markets in Texas, 2003." It also contains material from the report entitled "Unplugged, High Prices Under Texas Deregulation," released in November 2008 by the Cities Aggregation Power Project.

The subsection entitled "**Enron's Illegal Market Manipulation**" draws from these two articles: "The Fall of Enron: Enron Chief Trader vows to tell all; Officials hope guilty plea, conviction boost probe of Calif. Energy Debacle," David Ivanovich and Tom Fowler, *Houston Chronicle*, Oct. 18, 2002; and "Ex-Enron Trader gets

probation,” Kristen Hays, Bloomberg News, March 23, 2007. It also includes information taken from the Plea Agreement of Timothy Belden, United States District Court, Northern District of California, San Francisco Division, attachment 1; and the legal document “Petition of El Paso Electric Company to Reconcile Fuel Costs before the State Office of Administrative Hearings,” dated May 9, 2003.

YEAR: 2003

This section draws from various articles that appeared in the *Dallas Morning News*, including “TXU Corp. Seeks to Increase Electricity Rates in North Texas” from Jan. 25, 2003; “More Switching Could Follow TXU's Electricity Rate Hike, Experts Say” from Aug. 22, 2003; and “Power play over grid intensifies,” Dec. 18, 2004. All three articles were written by Sudeep Reddy.

Referenced articles from the *Fort Worth Star-Telegram* include “Electric rate rollback proposed” from March 15, 2003; “Houston Lawmaker Pushes More Electric Deregulation” from March 14, 2003; “The taxing task of defining 'tax'” from Sept. 9, 2003; “PUC grants TXU 12% rate increase” from March 6, 2003; “Electricity plan may add to Metroplex bills” from Oct. 19, 2003; and “Texas' Top Power Grid Official Resigns,” Oct. 21, 2003.

This section also includes material taken from the “Scope of Competition in Electric Markets in Texas, 2005,” published by the Texas Public Utility Commission. Note especially pages 32, 33, 65, 66 and 68.

YEAR: 2004

This section draws from a July 4, 2004 article from the Associated Press, “State investigates suspicious deals at ERCOT” and several *Dallas Morning News* articles, including “Texas Regulators Investigate Security Issues at Power Grid” from June 3, 2004 and “ERCOT cuts ties to contractor” from June 10, 2004. Also included is material drawn from the Oct. 5, 2005 edition of the *Houston Chronicle*, “Deregulation helps buyout firms, if not the ratepayers” by Loren Steffy; and material drawn from a Jan. 29, 2004, Greenwire article: “State Regulators Say TXU May Be Too Dominant in Wholesale Market.”

Articles references from the *Fort Worth Star-Telegram* include “PUC: TXU may be too dominant” from Jan. 29, 2004; “Utility panel is looking at electricity price spikes” from Dec. 9, 2004; “Critics call overhaul plan impractical, costly, risky” from July 6, 2004; “Power-grid operator under fire” from July 20, 2004; “Regulators call for broader investigation of electric council” from June 10, 2004; “Texas power grid operator faces state investigations” from Dec. 1, 2004 and “Operator of State Power Grid Takes Heat” from Sept. 30, 2004.

This section also draws from the “Scope of Competition in Electric Markets in Texas, 2005,” published by the Texas Public Utility Commission. Note especially material included in that report from pages 25, 26, 51, 52, 56 and 60. It also draws from “The Report to the 78th Texas Legislature, Scope of Competition in Electric Markets in Texas,” published by the Texas Public Utility Commission of Texas in January 2003.

The subsection entitled “**How Consumers Lost with EMCs**” draws information from three articles: “CenterPoint Takes surprise charge; write-down to prepare for PUC ruling creates loss,” *Houston Chronicle*, Nov.

10, 2004; “AEP plan would raise electric bills by almost \$5,” *Victoria Advocate*, March 5, 2006; and “Deregulation Helps buyout firms, if not the ratepayers,” *Houston Chronicle*, Oct. 5, 2005.

YEAR: 2005

This section draws from various editions of the “Scope of Competition in Electric Markets in Texas,” published by the Texas Public Utility Commission for the Texas Legislature. See especially page 101 from the 2003 edition, page 70 from the 2005 edition and pages 58, 61, 67 and 78 from the 2007 edition. This section includes data collected from the United States Energy Information Administration Web site. It includes rate case material collected from Texas Public Utility Commission Docket #35718.

Journalistic references include the June 10, 2005 edition of *The Texas Observer*; a June 1, 2005 article in *The Dallas Morning News*, “Legislature: Tallying the bills”; a May 24, 2005 article from *The Dallas Morning News* entitled “House OKs phone-line TV franchise bill”; and a July 28, 2005 article from *Global Power Report*, “Texas revives bill to introduce renewable portfolio standard.” This section also draws from the *Fort Worth Star-Telegram*, including: “Electricity up more in deregulated areas” from April 19, 2005; “TXU’s dominance cause for regulatory concern” from May 6, 2005; “Bill aims to deter monopoly-like control” from April 18, 2005; “Aid in electric fund set to shift” from May 23, 2005; “The taxing task of defining ‘tax’” from Sept. 9, 2003; “The cost of wind power generating controversy” from Sept. 17, 2007; “Texas power grid operators narrowly avoid rolling blackouts” from Feb. 27, 2008; “Suit claims meters have a number of issues” from May 7, 2007; “Rate boost to begin in days” from Oct. 29, 2005; and “Former executive pleads guilty,” Aug. 18, 2005.

YEAR: 2006

This section draws information from page 76 of the 2005 “Scope of Competition in Electric Markets in Texas” report, by the Texas Public Utility Commission, and page 74 of the agency’s “Scope of Competition” report from 2007. It also includes data from the European Wind Energy Association Web site, specifically data found at <http://www.ewea.org/index.php?id=180>. This section includes data in from the *Electric Power Monthly* reports for March 2006 and August 2006, produced by the United States Energy Information Administration. Also, Tom “Smitty” Smith, director of the Texas office of Public Citizen, provided information for this section. He was interviewed on Jan. 2-3, 2009.

Journalistic sources for this section include “Heat forces power cuts across Texas,” *Austin American-Statesman*, April 18, 2006; “Former power firm exec pleads guilty,” *The Dallas Morning News*, March 25, 2006; “ERCOT chief resigns amid questions about his leadership style,” The Associated Press, May 16, 2006; “Reliant FERC Settle Over Energy Crisis,” Associated Press, Dec. 23, 2005; and an article in *Power Markets Week*, dated Oct. 30, 2006. Articles from the *Fort Worth Star-Telegram* include “PUC report citing savings of deregulation criticized,” Feb. 11, 2006; “Bills up 84 since end of regulation,” Nov. 8, 2005; “Study: Rates are out of line,” March 2, 2006; “Market rules haven’t paid off,” Dec. 1, 2006; “Study: Rates are up, not down,” March 20, 2006; “PUC rejects chief’s plan to trim rates,” Feb.24, 2006; and “Officials criticize ERCOT’s conduct,” April 26, 2006.

YEAR: 2007

This section references “Unplugged, High Prices Under Texas Deregulation,” released in November 2008 by the Cities Aggregation Power Project. It also draws from page 6 of a “Market Operations Presentation” included in a Nov. 13, 2007, report to the ERCOT board of directors. That presentation can be found on the ERCOT Web site.

This section draws largely from journalistic accounts, especially with regard to its description of the 2007 Texas Legislature. Articles include those that appeared on the Associated Press newswire on Feb. 23, 2007, and Feb. 26, 2007; a *San Antonio Express-News* article from May 26, 2007, entitled “Lawmakers work to spend taxes right, or get rid of them entirely”; and an exclusive report from *The Dallas Morning News*, “What are the chances consumers will benefit from TXU's sale?” That report appeared on June 24, 2007.

This section also draws from the following *Fort Worth Star-Telegram* articles: “A controversy brews as a milestone nears,” Dec. 24, 2006; “Suits claim manipulation,” April 18, 2007; “Report says TXU drove up prices,” March 13, 2006; “TXU faces record fine,” March 29, 2007; “Energy price hits \$1,500,” April 4, 2007; “Reliant Energy sister company agrees to pay penalty of \$111,581,” May 4, 2006; “TXU is winning battle at Capitol,” May 23, 2007; “Lawmakers file major utility legislation,” Feb. 7, 2007; “Power is an issue again,” Feb. 15, 2007; “TXU deal splits traditional allies,” March 1, 2007; “Debt is issue in sale of TXU,” Feb. 28, 2007; “Millions spent on lobbyists, legislators,” Aug. 22, 2007; “TXU sale may be held up by state,” March 16, 2007; “Utility legislation is 'history',” May 28, 2007, and “Consumers see mixed results,” May 29, 2007.

YEAR: 2008

This section draws from the “Scope of Competition in Electric Markets in Texas” for 2009 from the Texas Public Utility Commission. Specifically, it references data on pages 50, 55, 64 and 65. It also references 2007 and 2008 reports from Potomac Economics, the Delaware-based firm that acts as the Independent Market Monitor for ERCOT. This section draws information from a July 21, 2008, ERCOT press release, entitled: “Jerry Sullivan has left his position as executive director of the nodal program, CEO Bob Kahn announced today.” It also references a Nov. 30, 2004 report from Tabors Caramanis & Associates and KEMA Consulting entitled “Market Restructuring Cost-Benefit Analysis.” This section references a study “Should Texas Be Subsidizing Wind Energy Producers at the Expense of its School Children,” by University of North Texas economics professors Bernard L. Weinstein and Terry L. Clower. It was dated July, 2008. It also references “Transmission Issues Associated with Renewable Energy in Texas,” dated March 28, 2005, which was produced as a joint effort between the Electric Reliability Council of Texas and ERCOT stakeholders.

The following news articles were used as source material:

“Redesign for power grid moved back indefinitely; Delayed system expected to provide more information about congestion,” *Houston Chronicle*; May 21, 2008; “Power play over grid intensifies,” *The Dallas Morning News*, Dec. 18, 2004; “Overruns hit power overhaul,” *Fort Worth Star-Telegram*, Jan. 13, 2008; “Electric

grid project over budget,” Associated Press, Nov. 27, 2008; “Texas power grid operators narrowly avoid rolling blackouts,” *Fort Worth Star-Telegram*, Feb. 27, 2008; “Price tag for new wind-power lines in billions,” *Fort Worth Star-Telegram*, April 3, 2008; “Wind might have a big impact on our wallets,” *Houston Chronicle*, July 20, 2008; “Texas is poised to pay big for wind power,” Associated Press, July 18, 2008; “Wind energy getting big boost from Pickens,” *San Antonio Express-News*, May 22, 2008; and “Feds Vow to Give States 24 Copters in Storm Season,” *Houston Chronicle*, April 27, 2006.

The subsection entitled “**What is Nodal?**” draws information from an article entitled “Electricity plan may add to Metroplex bills” that appeared on Oct. 19, 2003, in the *Fort Worth Star-Telegram*; an article entitled “Overruns hit power overhaul” that appeared in the same newspaper on Jan. 13, 2008; and the Public Utility Commission rule denoted by P.U.C. Subst. R. 25.501(m).

The subsection entitled “**The GE Study**” references the study entitled “Analysis of Wind Generation Impact on ERCOT Ancillary Services Requirements,” GE Energy, March 28, 2008. It also draws from various news articles, including: “Pickens’ Planned 4,000-MW wind farm put on hold,” *Global Power Report*, Nov. 20, 2008; and “Renewables Still Energized: Prospects Seen Strong in Wind, Solar and Biofuels,” *Investment Dealers Digest*, Feb. 4, 2008.

The subsection entitled “**Opt Out Aggregation**” draws from Senate Bill 7 itself. It also references information from “Towns to test power in numbers,” *Fort Worth Star-Telegram*, Oct. 10, 2007; “Pilot Project Offers Insight into Impact of Electricity Deregulation,” *Energy Business Journal*, May 26, 2008; and an untitled article in the *Abilene Reporter-News*, dated May 10, 2008.

YEAR: 2009

This section draws from the “Scope of Competition in Electric Markets in Texas” for 2009, from the Texas Public Utility Commission. Specifically referenced are pages 37-38 and pages 70-83. Also referenced is a Nov. 6, 2007 report from Power in the Public Interest, an Olympia, Wa.-based group. The report is entitled “Price Trends for Industrial Electricity, Deregulated Vs Regulated States.” This section cites pricing information gathered at the whitefence.com Web site, and from the United States Energy Information Administration Web site. This section references a December 2008 report from the Texas Coalition of Cities For Utility Issues that compares rates in competitive and non-competitive parts of Texas.

This section also draws from and the Public Utility Commission rule denoted by denoted by P.U.C. Subst. R. 25.501(m), and “Market Restructuring Cost-Benefit Analysis” dated Nov. 30, 2004, by Tabors Caramanis & Associates. It cites Initial comments submitted by the Steering Committee of Cities Served By Oncor relating to Consideration of Alternative Ratemaking Mechanism, in Docket 36358 at the PUC Web site. Those comments were dated Jan. 6, 2009. It cites an April 17, 2008, judgment by the Court of Appeals for the Third District of Texas styled *CenterPoint Energy, et al. v. Gulf Coast Coalition of Cities, et al.*

It cites a Jan. 14, 2009 memorandum from PUC Chairman Barry Smitherman to Commissioners Kenneth W. Anderson, Jr. and Donna L. Nelson. The memorandum relates to “PUC Rulemaking Relating to Electric Provider Disclosures to Customers.” It cites a Jan. 13, 2009, letter from Public Utility Counsel Don Ballard to the three PUC commissioners pertaining to the same subject.

ABOUT THE AUTHOR

CAPP policy analyst R.A. “Jake” Dyer has spent the last decade reporting on electricity deregulation in Texas and its impact on residential rates. In his former role covering legislative and consumer issues for one of the state’s largest daily newspapers, Dyer was present during the unveiling of Senate Bill 7 in 1999 and has kept a watchful eye on energy policy ever since. His numerous investigative articles about Senate Bill 7 frequently focused on the law’s effect on residential consumers.

Dyer’s more than 20 years experience in the newspaper industry include nearly a decade with the *Fort Worth Star-Telegram*, where he was named reporter of the year in 2007. Dyer also spent nearly a decade with the *Houston Chronicle*, where he was nominated for a Pulitzer Prize. He is the author of two books. He began work with CAPP in 2008.

CAPP Membership In Texas

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