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Electric Utility Restructuring in Texas: A Status Report

On January 1, 2002, if all goes according to plan, the lights will *not* dim as the curtains draw back for the debut of Texas' restructured electricity market. Beginning on that date, customers in many parts of the state, for the first time, will be able to choose their electricity providers. Customers will be able to evaluate competing service plans and select the service that best meets their needs. Unlike the traditional regulated environment, in which a utility must serve all customers within its geographic area, restructuring will allow electricity providers to compete for retail customers in any participating area of the state.

Not all Texans, however, will participate when customer choice begins. The 1999 restructuring law does not require municipally owned utilities and rural electric cooperatives to offer customer choice. The 77th Legislature delayed implementation of competition in the Texas Panhandle, and recent decisions by the Public Utility Commission (PUC) have delayed competition in parts of northeast and southeast Texas. On the basis of 1999 data, about 72 percent of Texas' residential and commercial electricity customers and 64 percent of industrial customers will participate in customer choice on January 1.

Although 24 states have decided to move toward retail competition in electric supply, California's experience with restructuring has been the most widely publicized. After nearly a year of rolling blackouts, threats of utility bankruptcies, and soaring electric rates, California regulators voted in September 2001 to suspend "direct access" — a customer's right to choose an electric service provider, the heart of the state's restructuring plan.

Texas will be in the national spotlight when the state's restructuring plan for the electric utility industry takes effect on New Year's Day of 2002.

Widely considered a failure, California's attempt at restructuring has raised concerns about similar efforts in other states. The California experience does not necessarily spell doom

for Texas' restructuring plan, as significant differences exist between the two states' approaches and between their electricity infrastructures. Despite these differences, however, Texas is certain to be in the national spotlight when restructuring takes effect.

This report outlines the history of utility restructuring and Texas' transitional steps toward implementing retail competition. It also identifies several areas of concern as Texas moves ahead with restructuring.

Road to restructuring

Traditional regulation was grounded, in part, on the theory that an electric utility was a "natural monopoly" because of the economies of scale inherent in electricity generation and the huge capital investment required to enter the market. Investor-owned utilities (IOUs) typically have been vertically integrated monopolies that generate electricity, transmit it over distance at high voltage, distribute it to customers as usable low-voltage electricity, and provide billing and customer services. In Texas, the PUC began regulating IOUs in 1975, taking over from earlier municipal regulation. PUC rate proceedings are intended to allow IOUs to earn fair rates of return on their investment while ensuring reasonable rates for customers. In 1999, Texas IOUs served about 5.5 million residential customers, 730,000 commercial customers, 50,000 industrial customers, 38,000 municipal customers, and 15,000 other customers, or about 70 percent of Texas' retail electricity load.

Municipally owned utilities (MOUs) provide electric service without the need to generate value for investors. Texas has 73 MOUs, including large entities such as Austin Energy, City Public Service in San Antonio, and Lubbock Power and Light. Only 12 MOUs generate electric power; the rest buy power through the wholesale market. MOUs provide electric service to nearly 3 million Texans. Electric cooperatives, nonprofit businesses owned by the consumers they serve, provide electricity in small towns and rural areas. Texas' 81 electric co-ops serve nearly 3 million member-consumers.

Interest in electric utility restructuring in Texas coincided with similar efforts in other states and at the federal level. For most of the 20th century, regulated utilities had operated free of competition. In recent years, however, technological improvements in electricity generation and increased use of new and cheaper fuels

have increased pressure to introduce competition to the industry. Also, the federal Public Utility Regulatory Policy Act of 1978 and the Energy Policy Act of 1992 encouraged nonutility generators to sell electricity into the power grid.

Proponents of deregulating the industry argued that competitive pressure would encourage utilities to invest in more efficient technology, resulting in lower prices for consumers as well as environmental benefits. Critics countered that deregulation would benefit primarily large industrial customers and would not necessarily reduce rates for residential consumers.

In 1995, the Legislature opened Texas' wholesale electric market to competition by enacting SB 373 by Armbrister. The law allowed exempt wholesale generators (EWGs) and independent power marketers to sell electricity into the power grid for purchase by regulated utilities. The utilities had to provide EWGs and power marketers with open access to their transmission networks. Wholesale competition paved the way for retail competition by allowing independent producers and marketers to enter the market and by establishing a precedent for "wheeling" — allowing nonutility companies to transmit electricity across utility-owned transmission networks for a reasonable fee.

SB 7 by Sibley, enacted in 1999, calls for the introduction of customer choice to Texas' retail electricity market. Affiliates of the former monopoly utilities and other retail electricity providers are expected to compete to provide electric service when customer choice begins on January 1, 2002. On that date, affiliates of the former monopoly utilities must reduce rates to their residential and small commercial customers by 6 percent, establishing the so-called "price to beat." MOUs and electric co-ops are not required to offer customer choice, although they may choose to do so.

To protect consumers, the law prohibits unauthorized customer switching, or "slamming"; unauthorized charges placed on customers' electric bills, or "cramming"; and disconnection of electric service during extreme weather conditions. SB 7 also creates a System Benefit Fund, based on fees paid by customers in areas participating in customer choice, to pay for a 10 percent discount for low-income electric customers, customer education programs, and a mechanism to compensate school districts for lost revenue due to property-wealth reductions related to restructuring.

The law requires the PUC to designate a provider of last resort to offer retail electric service in areas that participate in customer choice. This company must provide standard service, at rates approved by the PUC, to any customer in its assigned territory who requests service or who does not receive service from the customer's selected service provider for any reason.

SB 7 also addresses environmental quality, requiring an additional 2,000 megawatts of generating capacity to come from renewable energy sources such as solar, wind, or hydroelectric power by 2009. The law sets as a goal that 50 percent of new generating capacity in Texas use natural gas, a cleaner fuel than other fossil fuels used in electricity generation. It also eliminated older power plants' "grandfathered" exemptions from air-quality regulation.

Market participants

The U.S. electric network is divided into three grids: the Western and Eastern interconnections and the Electric Reliability Council of Texas (ERCOT). While about 85 percent of Texas' total electric load is in the ERCOT region, parts of the Panhandle, northeast and southeast Texas, and El Paso are in other adjacent power regions. Only the ERCOT power region will participate in customer choice beginning on January 1.

In the non-ERCOT regions, implementation of customer choice has been delayed because of concerns about the scarcity of competitors entering the market to provide retail service and the shortage of available transmission capacity, among other factors. HB 1692 by Chisum, et al., enacted by the 77th Legislature, delayed implementation of retail competition in the Texas Panhandle until 2007 or until the PUC authorizes customer choice in the area, whichever is later. In October 2001, the PUC issued an order delaying the introduction of retail competition in the northeast Texas service area of Southwestern Electric Power Co. (SWEPCO) and portions of the Panhandle served by West Texas Utilities (WTU). The following week, the PUC approved a settlement agreement delaying the introduction of competition in the southeast Texas service area of Entergy Corp.

In addition, SB 7 delayed competition in the El Paso area until the expiration of El Paso Electric's rate freeze, required under the company's Chapter 11

Restructuring 101: A Glossary

- affiliated retail electricity provider (REP):** an unbundled retail business of a former regulated utility.
- electric cooperative (co-op):** a nonprofit electricity provider owned by the customers it serves.
- Electric Reliability Council of Texas (ERCOT):** the independent system operator responsible for managing Texas' electric grid.
- headroom:** the difference between the price to beat and the sum of the average wholesale price of power plus costs passed through to all customers, such as for transmission and distribution, the System Benefit Fund, and so on.
- investor-owned utility (IOU):** a regulated electric utility company, typically a vertically integrated monopoly with power generation, transmission, distribution, and billing functions.
- load:** the amount of electric power required to meet customer demand in a given period.
- municipally owned utility (MOU):** a municipally owned electricity provider.
- nonaffiliated REP:** an electricity provider not affiliated with a former regulated IOU; also called a "competitive" REP.
- price to beat:** the rate resulting from a 6-percent reduction, adjusted for fuel costs, available to residential and small commercial customers of the affiliated REP on January 1, 2002.
- provider of last resort (POLR):** company designated by the Public Utility Commission to provide service to any customer requesting service or not receiving service from the customer's selected REP for any reason.
- stranded costs:** a utility's long-term debt obligations that were expected to be unrecoverable in a competitive electricity market.
- unbundling:** separation of the business activities of a vertically integrated utility.

bankruptcy proceedings. The rate freeze will expire in August 2005.

MOUs and electric co-ops may choose to participate in customer choice on or after January 1, 2002. A MOU's decision to participate is irrevocable, but electric co-ops may revoke customer choice if no customer chooses a new retail electricity provider within four years. Industry

observers say that most MOUs and co-ops appear to have adopted a “wait and see” approach to participating in customer choice.

The state’s two largest metropolitan areas, Dallas/Fort Worth and Houston, will participate in customer choice beginning January 1. The San Antonio and Austin metro areas, served by MOUs, will not offer customer choice on that date.

ERCOT’s role. ERCOT, an independent not-for-profit organization, will serve as the independent system operator, charged with ensuring nondiscriminatory access to transmission and distribution facilities for all buyers and sellers of electricity and for maintaining the reliability and adequacy of the power grid. ERCOT also will be responsible for processing customer requests to switch electricity providers and for overseeing the accurate accounting of wholesale market transactions.

One of 10 regional electric reliability councils in North America that together serve nearly all of the United States and Canada, ERCOT is the only council located entirely within a single state’s borders. As such, ERCOT also is unique in being exempt from the jurisdiction of the Federal Energy Regulatory Commission, which regulates interstate electricity transmission and wholesale markets. ERCOT is governed by a board of directors who represent sectors of the electric industry, including power generation, transmission and distribution, retail and wholesale marketing, and retail customers.

ERCOT’s role in electricity supply has been likened to that of an airport. Private airlines use airport facilities to provide flight service to customers, while the airport provides air traffic controllers to oversee inbound and outbound flights and manages runways to accommodate airplane arrivals and departures. Similarly, ERCOT ensures that electricity is transmitted reliably, adequately, and safely across Texas’ electric grid, a 37,000-mile network that makes up the bulk of the state’s electricity infrastructure.

Transition to competition

To understand how Texas’ restructured electricity market will work, it is helpful to examine the transitional steps from a regulated monopoly market to a competitive market in which entrepreneurial and independent electricity providers will compete for customers with the affiliated

companies of former monopolies. This process has involved four major steps: “unbundling” vertically integrated utilities, freezing retail electric rates, establishing a customer-choice pilot program, and setting the “price to beat.”

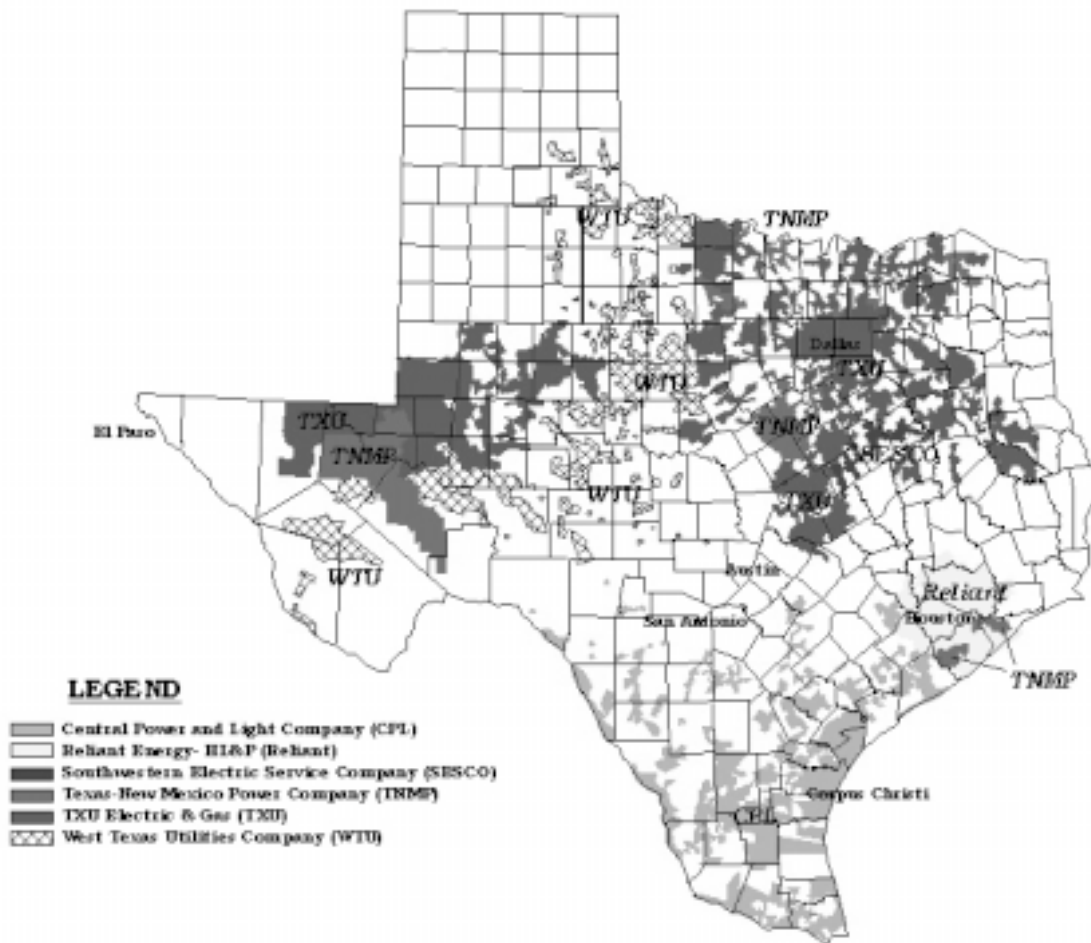
Unbundling. SB 7 requires each IOU to separate or “unbundle” its business activities. By January 1, 2002, each IOU must separate into a power generation company, a transmission and distribution utility, and a retail electricity provider (REP). Utilities may unbundle by creating separate nonaffiliated companies or separate affiliates owned by a common holding company, or by selling their assets to third parties. The unbundled transmission and distribution utilities will remain regulated, providing service at rates, as well as under terms and conditions for open access, approved by the PUC.

To prevent unfair competitive advantages due to relationships between utilities and their unbundled affiliates, SB 7 requires the PUC to adopt a code of conduct governing such relationships. This code (Texas Administrative Code, sec. 25.272) limits a utility’s ability to share employees, facilities, and other resources with its affiliates. Transactions between a utility and an affiliate must be conducted “at arm’s length,” as in a bargained transaction with a disinterested third party. The code also governs the sharing of customer information with affiliates and other entities and prohibits utilities from engaging in joint marketing, advertising, and promotional activities favorable to affiliates.

Rate freeze. SB 7 requires utilities to freeze retail electric rates at the level in effect on September 1, 1999, until January 1, 2002, the start of competition. Without the freeze, retail rates would have been expected to fall because of depreciation of debt and lower fuel costs.

SB 7 allows utilities to retain excess earnings from the artificially high rates in effect during the freeze in order to reduce their potential “stranded costs” — long-term debt obligations, such as for investments in nuclear power plants, that were expected to be unrecoverable in a competitive market. At the time of enactment, electricity generated by natural gas-fueled power plants was the cheapest electricity on the market. In a competitive market, the market value of nuclear power plants was expected to drop because these plants would have to sell electricity at a loss to compete with gas-fueled plants.

Customer Choice Areas as of January 1, 2002



Comparison of Current Rates to Price-to-Beat Rates (Residential)

On January 1, 2002, retail electricity providers affiliated with the former monopoly utilities must offer their residential and small commercial customers the “price to beat.” This rate reflects a 6-percent reduction from a utility’s base rate, adjusted to account for estimated future fuel prices. Actual reductions from the current rate will vary according to the utility’s generating fuel mix and the decrease in natural gas prices during 2001, as shown below.

Utility service area	Current rate (cents per kilowatt-hour)	Affiliated retail provider	Price to beat (cents per kilowatt-hour)	Difference, PTB vs. current rate
CPL	9.57	Mutual Energy CPL	8.80	-8.1%
Reliant	10.40	Reliant Energy Retail Services	8.62	-17.2%
SESCO	6.21	TXU Energy Services/SESCO	5.99	-3.6%
TNMP	10.57	First Choice Power	8.66	-18.1%
TXU	9.67	TXU Energy Services	8.25	-14.6%
WTU	9.98	Mutual Energy WTU	8.88	-11.0%

Source: Public Utility Commission of Texas.

After competition begins, a utility may recover any estimated remaining stranded costs through a surcharge called a competition transition charge (CTC). After January 10, 2004, utilities will participate in a “true-up” proceeding to establish their final stranded costs and to reconcile those costs with the estimates used to develop the CTC. Any resulting difference, including overrecovery for stranded costs, will be applied to charges passed through to all customers, such as for transmission and distribution and the System Benefit Fund.

Pilot program. SB 7 required the PUC to implement a customer-choice pilot program on June 1, 2001. Utilities participating in the program were to offer a choice of REPs for up to 5 percent of their combined customer load, including customers of all classes. A customer participating in the pilot program could buy electricity from any REP offering service, except from the affiliated REP of the former monopoly utility that served the customer. The purpose of the program was to enable the PUC to evaluate the ability of each power region and utility to implement customer choice. If the PUC determined that a power region would be unable to offer fair competition and reliable service on January 1, 2002, the PUC could delay implementation of customer choice and extend the pilot program in that region.

ERCOT delayed the start of the pilot program in its region until July 31. Implementation required creating a single control area for wholesale electricity operations from 10 existing utility control areas. This would enable ERCOT to dispatch electricity anywhere within the power region, rather than relying on power management by separate utility control areas. Complex new computer systems necessary to support the single control area and other market processes required additional testing that contributed to the project’s delay.

As of December 10, about 103,000 residential customers, or 44 percent of the 5-percent participation cap for residential customers, had asked to switch REPs. In contrast, participation rates among commercial and industrial customers were near 100 percent of the cap. The PUC has extended pilot programs until competition is approved for the SWEPCO and Entergy service areas and for WTU’s Panhandle service area.

REPs and other market participants say the pilot project showed that the ERCOT region is ready to implement customer choice. They say the project served its purpose by exposing “bugs” in the system so that

those flaws could be corrected before full-scale implementation of customer choice. Also, the project provided ERCOT and market participants with a one-month billing cycle of data for all pilot participants. Now that the kinks in the system have been ironed out, they say, it is appropriate to move ahead with the scheduled implementation of customer choice.

At the November 2 hearing of the Electric Utility Restructuring Legislative Oversight Committee, consumer groups said the pilot program showed that the market is not ready for customer choice. Because of the delayed implementation of the pilot program and the additional time needed to improve the process for switching customers to a new REP, the program did not provide enough billing data for all participants. Also, consumer groups said, the low level of residential customer participation indicates that there may not be enough customer interest to support retail competition.

Price to beat. On January 1, each affiliated REP must offer its incumbent residential and small commercial customers the “price to beat” — a 6-percent reduction from the former bundled utility’s rates in effect on January 1, 1999. Affiliated REPs must offer these customers the price to beat until January 1, 2007. For the first 36 months of competition, these REPs may not charge a price other than the price to beat to any residential or small commercial customers unless at least 40 percent of the affiliated REP’s residential or small commercial load shifts to nonaffiliated REPs. Nonaffiliated REPs are not required to offer the price to beat, but they are expected to offer a similar or lower rate to attract customers.

SB 7 allows the PUC to adjust the price to beat to reflect a fuel factor. The PUC must determine the fuel factor for each utility as of December 31, 2001, to cover the estimated future cost of fuel. Up to twice per year, affiliated REPs may ask the PUC to adjust the fuel factor to reflect significant changes in the price of natural gas and purchased energy.

“Headroom” — the difference between the price to beat and the sum of the average wholesale market price of power plus the cost of transmission and distribution and other charges passed through to all customers — essentially amounts to a REP’s profit margin. Nonaffiliated REPs argued that the PUC should take into account headroom in calculating the fuel-factor component of the price to beat. They said that adequate headroom is

vital to the development of a competitive retail market, as nonaffiliated REPs cannot participate in the market without enough headroom for them to earn a profit. To ensure development of a vibrant competitive retail market, these REPs said, the PUC should calculate the price-to-beat fuel factor so as to maximize headroom.

Consumer groups responded that the price to beat was intended to reduce residential and small commercial customers' electricity bills immediately. The Legislature, realizing that the benefits of competition could take longer to develop in these markets, established the price to beat to ensure that these customers receive an immediate benefit from competition. Calculating the fuel factor so as to provide increased headroom simply would provide a cushion for the least efficient competitors to participate in the market. A competitive market, consumer groups said, should promote efficiency rather than reward inefficiency. They said using the fuel factor to increase headroom would result in a retail electricity market in which rates must be raised, rather than lowered, for competition to work.

The PUC finalized price-to-beat rates on December 7, opting not to consider headroom explicitly in determining the fuel factor. PUC staff calculations indicate that headroom will exist in every former utility service area in which competition will take place.

Bumps in the road

As Texas' electricity restructuring plan moves forward, additional concerns are likely to arise about rates charged to low-income customers of the provider of last resort (POLR), transmission constraints, and adequate retail competition.

POLR rates. SB 7 requires the PUC to designate a POLR for areas of the state participating in customer choice (Texas Administrative Code, sec. 25.43). The PUC awarded Assurance Energy, an affiliate of Texas Utilities (TXU), the POLR contract for residential and small commercial customers in the ERCOT region, except in TXU's former service area. The commission appointed affiliates of American Electric Power, Texas-New Mexico Power, and Reliant to provide POLR service in the three regions of the former TXU service area. Although the PUC must approve rates charged by the POLR, it has no authority to set them.

The POLR must serve any requesting customer and any customer not receiving service from the selected REP and automatically assigned to the POLR. This pool of customers is expected to include those whose service has been terminated by REPs leaving the market and those whose service has been cut off by a REP for nonpayment.

POLRs say they serve as a safety net for all customer classes, ensuring that electric service will not be interrupted in the event that a REP terminates a customer's service. Many of the customers transferred to the POLR when their REP left the market likely would receive POLR service only for a short time while they select a new REP. The POLR also will have to serve high-risk customers whose electricity service has been cut off because of late or insufficient payment. POLR rates, these providers say, are appropriately higher than standard rates because of the unpredictable number of customers in the pool, the lack of long-term service contracts, and higher risk associated with customers with poor payment histories.

Consumer groups argue that POLR rates are too high and will punish low-income families who already have difficulty paying their electric bills, even at the low-income discount rate. They claim that the high rates are a result of the POLR rule, which concentrates the riskiest customers in a single pool. A more appropriate approach, consumer groups say, would be to require the affiliated REP to provide POLR service at the price to beat. Affiliated REPs could provide POLR service at this rate because they could spread the risk associated with POLR service across all their residential and small commercial customers — a much larger pool of customers. When the price to beat expires in 2007, REPs should be able to bid for POLR contracts in a more mature retail market, consumer groups say. Fortified with more data on POLR customers, REPs could predict better the number and duration of POLR contracts and the likelihood of payment default, enabling them to predict more accurately their risk exposure.

The PUC says it plans to revisit the POLR rule before renewing POLR contracts in 2002.

Transmission constraints. Retail competition in ERCOT's single control area requires that power flow unimpeded through the grid. However, concerns have arisen regarding transmission constraints in Texas' electric grid. Of particular concern is the Dallas/Fort Worth area, which cannot add new generating capacity because of

the mandate for the area to reduce electricity generation-related emissions under the State Implementation Plan, required by the U.S. Environmental Protection Agency under the federal Clean Air Act. Although other parts of the state have surplus generating capacity, not enough transmission lines exist to serve the DFW area during peak demand periods, causing transmission “bottlenecks.”

As recommended by ERCOT, six major transmission projects are underway to help ease these constraints. However, local residents oppose many transmission projects. Property owners’ concerns include possible negative health effects from proximity to transmission lines that conduct high-voltage electric current, reductions in property value, and adverse environmental impact. Proposed transmission lines often run through rural areas to serve urban customers. Property owners in the path of new transmission projects may not benefit from the projects but must bear any consequences.

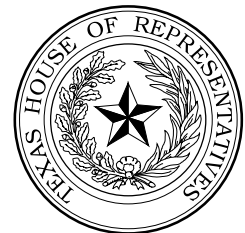
Retail competition. As the nationwide pace of utility deregulation has slowed, concerns have arisen about the amount of competition that will take place in Texas when customer choice begins.

In September 2001, Shell Energy announced that it no longer intends to participate in retail competition in Texas and other states. Expected to be a significant competitor, Shell already had signed up 40,000 customers for the pilot program when it withdrew from the market. In addition, the recent collapse of Enron Corp. — a major player in wholesale electricity markets and a partner in New Power, a certified REP in Texas — has raised concerns about Texas’ progress toward competition. Some observers say that if other REPs were to drop out of the Texas market, the only retail competition left in the state would be among the affiliated REPs pursuing customers in the former service territories of the other monopoly utilities.

Concerns about the number of competitors may prove unfounded, according to market advocates, who say that many potential REPs may be waiting to make sure that customer choice moves ahead as planned before they enter the Texas market. Opening the market to competition on schedule, they maintain, will reassure potential market entrants that retail competition will succeed in Texas, resulting in the greatest benefit for electric customers in Texas.

— by *Travis Phillips*

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