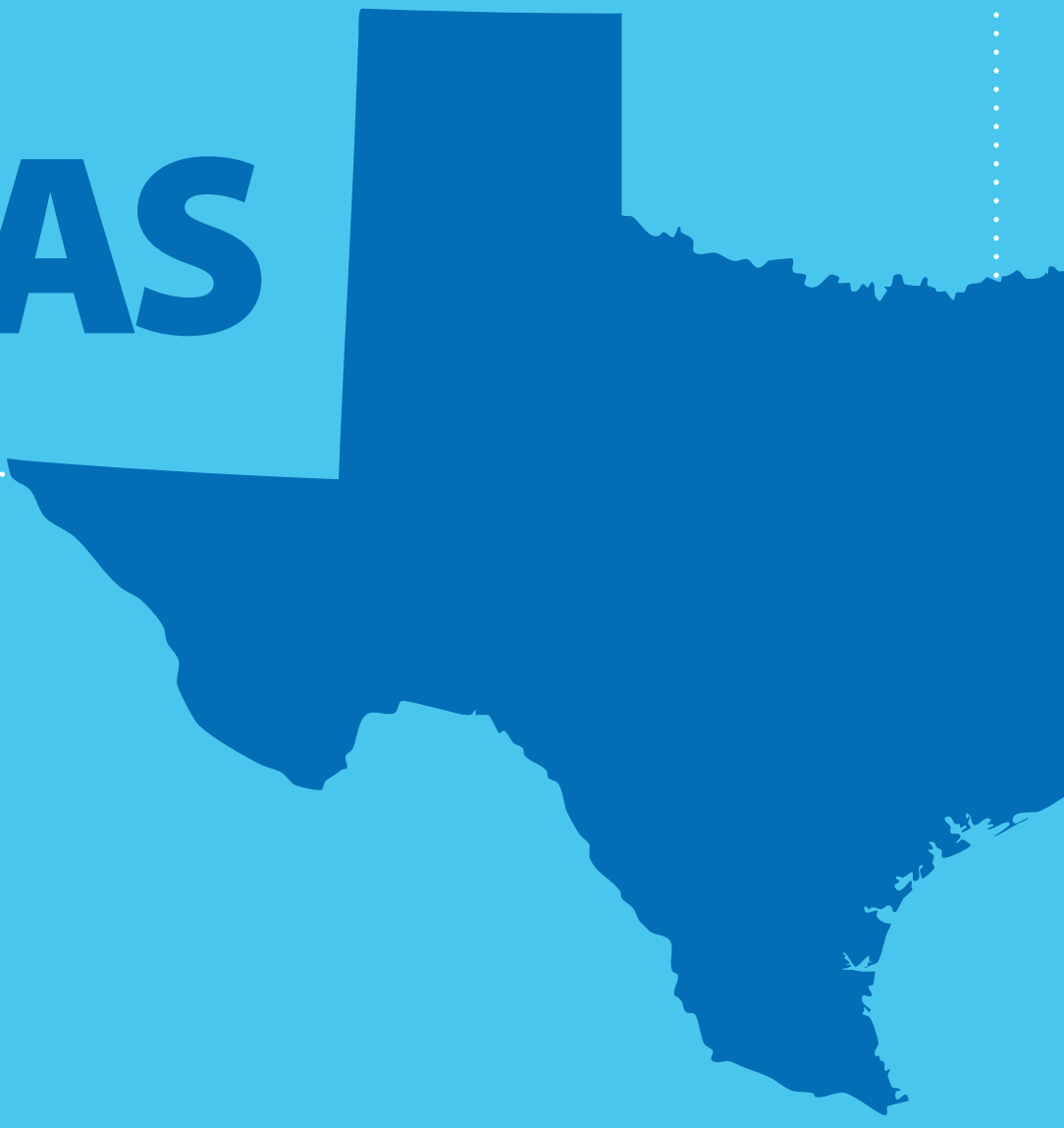
Snapshot Report

AUGUST 2015

ELECTRICITY PRICES IN TEXAS



Texas Coalition for Affordable Power

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Executive Summary

Texans living under retail electric deregulation have paid less for electricity than the national average for two consecutive years. Texans living in deregulated areas also can find a growing number of deals with prices that meet or beat those commonly found in deregulation-exempt areas.

But over the long term, Texans living in areas with retail electric deregulation are likely to have paid more for power than Texans living outside deregulation.

These findings and more are included in this year's Snapshot Report on Electricity Prices, from the Texas Coalition for Affordable Power. This new Snapshot Report, an update of a similar analysis released by TCAP in 2013, includes information about Texas residential electric rates since 2002, information about non-bypassable charges assessed by Texas transmission and distribution utilities, and a review of pricing trends nationwide.

With regards to Texas, which implemented retail electric deregulation for most of the state in 2002, the findings are mixed. The report shows a trend of generally higher electric prices under electric deregulation — as compared to prices in areas exempt from deregulation. But it remains unclear whether that trend continues beyond 2013, the last year for which there is federal data for which to conduct the analysis. There also exists separate evidence that the price gap between deregulated and non-deregulated areas of Texas has narrowed over the last 18 months.

Average Residential Electricity Prices

Inside & Outside Areas of Texas with Retail Electric Deregulation

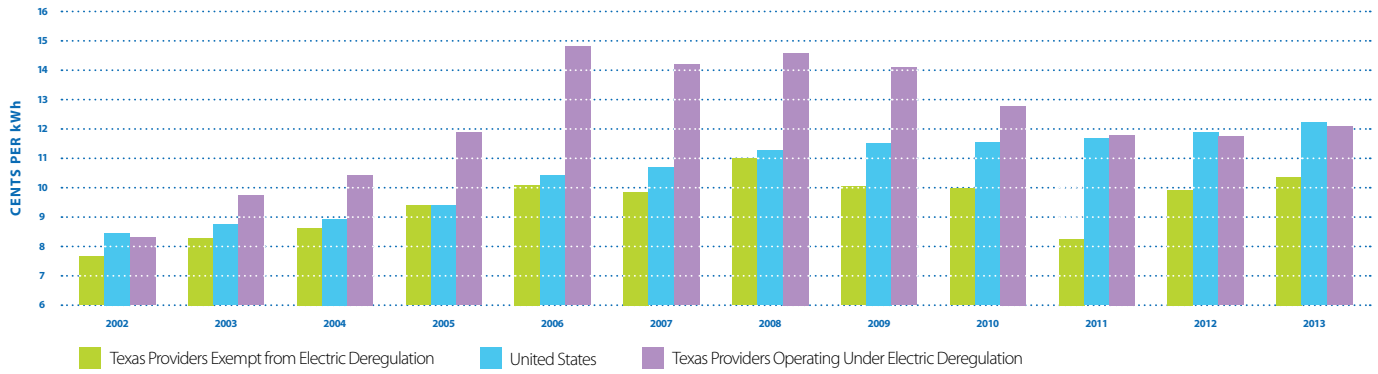


EXHIBIT 1: *Residential prices inside and outside deregulated Texas*

Source: United State Energy Information Administration
http://www.eia.doe.gov/cneaf/electricity/page/eia861.html

Major Findings Include

— Texans, on average, have paid lower residential electric rates in areas of the state exempt from deregulation, as compared to rates in deregulated areas of the state. This trend has been observed in every year from the beginning of retail electric deregulation through 2013, the last year for which data is available to conduct the analysis. It remains unclear whether this trend continued in 2014 and 2015.

— All told, Texans living in deregulated areas would have saved more than $23 billion in lower residential electricity bills between 2002 and 2013 had they paid the same average prices during that period as Texans living outside deregulation. This "lost savings" amounts to more than $4,800 for a typical household.

— Despite the historic disparity between average residential prices inside and outside areas of Texas with deregulation, Texans now can find many low-priced individual deals inside deregulated areas that beat prices commonly paid in deregulation-exempt areas. These relatively low-cost competitive deals appear to be more numerous than in previous years.

— Charges assessed by the major regulated transmission and distribution service providers have increased since 2003 — and at a pace greater than inflation. Although transmission and distribution rates are regulated, these increases nonetheless contribute to higher prices in deregulated areas of the state.

The year's electric pricing report includes an extensive benchmark analysis comparing average residential electric rates between deregulated and deregulation-exempt areas of Texas. The underlying federal data for this benchmark analysis extends through 2013. This report also includes a separate analysis employing more recent pricing data from 2014 and 2015, as reported in surveys by the Texas Public Utility Commission. This report includes various pricing exhibits and key findings.

The Analyses

Under the Texas electric deregulation law, consumers in Houston, Dallas, Fort Worth, Corpus Christi and surrounding areas can choose among different retail electric providers. These providers compete for customers by offering different terms of service and prices. However, about 15 percent of the state remains exempt from this competitive system. Areas exempt from retail electric deregulation include those areas served by municipally-owned utilities (such as in San Antonio and Austin) and those served by electric cooperatives. Also exempt from retail electric deregulation are investor-owned utilities operating outside the area covered by the state's primary power grid, known as the Electric Reliability Council of Texas.

This bifurcated electricity system — one in which some Texans receive service from competitive electric retailers and others do not — provides a unique opportunity to compare pricing outcomes. The Texas electric deregulation law was adopted in 1999 with the promise that it would lower rates. But as this analysis shows, the results have been mixed.

This report includes a benchmarking analysis that employs data obtained from the United States Energy Information Administration and which compares pricing outcomes inside and outside deregulated areas of Texas. This benchmark analysis begins with data from 2002 — the first year of retail electric deregulation in Texas — and continues through 2013. The benchmarking analysis does not extend to 2014 and 2015 because the necessary US EIA data for those years is not yet available.

This Snapshot Report also includes an analysis of recent statewide and nationwide pricing trends, but of a more generalized nature. This separate analysis employs pricing data from 2014 and 2015, gathered both from the US EIA and the Texas Public Utility Commission.

This report also includes a non-comprehensive sample of individual offers in 2015 from deregulated areas of the state, such as around Houston and Dallas. The pricing samples were retrieved from a rate survey conducted by the PUC.

Finally, this report examines rates charged during two separate years, 2003 and 2014, by the state's two largest monopoly transmission and distribution providers. This data was retrieved from the PUC website.

More than $23 Billion in Lost Savings

The Price of Higher Residential Rates Under Deregulation (Statewide)

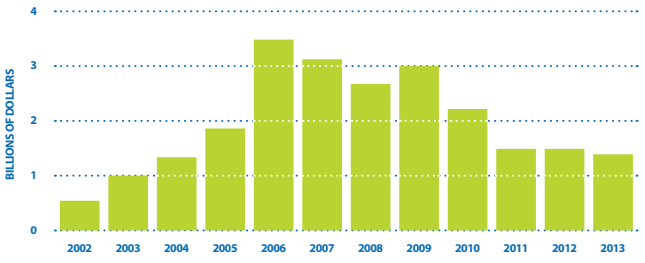


EXHIBIT 2: *Average electric prices in Texas charged by deregulated providers have been consistently higher than average prices charged by providers exempt from deregulation. The exhibit above measures the potential impact of these higher prices. The green bars illustrate the aggregate savings that would have accrued to Texans in deregulated areas had they instead paid the lower average rates charged in areas outside deregulation. The lost savings ranges from about a half billion per year to more than $3.5 billion. Providers exempt from deregulation include municipally-owned utilities and electric cooperatives. Also, investor-owned utilities operating within Texas but outside the ERCOT region are exempt. Only residential prices are considered.*

Source: United States Energy Information Administration
http://www.eia.doe.gov/cneaf/electricity/page/sales_revenue.xls

More than $4,800 in Lost Savings*

The Price of Higher Residential Rates Under Deregulation (Customers)

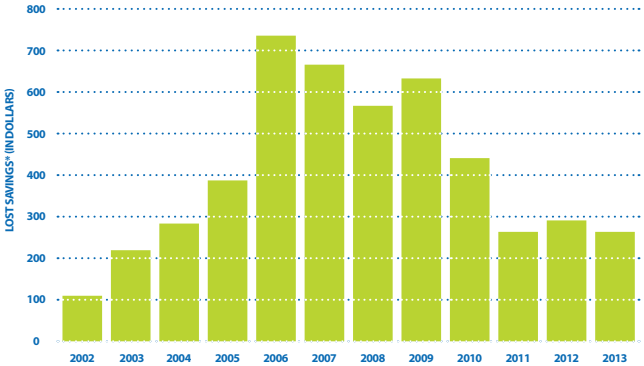


EXHIBIT 3: *This exhibit compares electricity costs for a typical customer paying average rates charged by deregulated retail electric providers in Texas, to costs for a customer with the same usage but paying average rates charged by Texas providers exempt from deregulation. *For purposes of comparison, this exhibit assumes monthly electricity usage of 1,300 kWh.*

Source: United States Energy Information Administration
http://www.eia.doe.gov/cneaf/electricity/page/sales_revenue.xls

Background History

Texans enjoyed residential electricity rates below the national average for many years prior to the adoption of the retail electric deregulation law in 1999. That trend flipped shortly after the law took effect, with average residential prices statewide rising above the national average in 2003 and remaining above the national average until 2011 [See Exhibit 5].

Some observers have suggested that this uptick in residential electricity after the deregulation law took effect is not related to the law, per se, but rather to an increase in natural gas prices. This is because natural gas prices are closely linked to wholesale electricity prices, and natural gas prices went up for many years after deregulation.

However, fluctuations in natural gas prices alone cannot explain the historic disparity between average electricity prices inside and outside deregulated areas of Texas. For every year for which data exists with which to conduct the analysis — that is, between 2002 and 2013 — average residential prices in deregulated areas of Texas have been higher than average prices in deregulation-exempt areas [See Exhibit 5].

Possible explanations for this disparity include persistent inefficiencies in the state's deregulated electricity market, continued customer confusion about rates and service, and relatively high prices charged by the state's legacy electric providers. These legacy providers — that is, companies associated with the former monopoly providers prior to deregulation — serve millions of Texans under deregulation. Their rates are often higher than some of the smaller, low-cost competitors. The cost of service of monopoly transmission and distribution utilities operating in deregulated areas of Texas also may contribute to relatively high electric prices observed in those areas.

It remains unclear whether the trend of higher average prices in deregulated areas of Texas continued in 2014 and 2015, given the unavailability of necessary data from those years for which to conduct the analysis. However, some evidence suggests that the price gap between areas of Texas with electric deregulation and deregulation-exempt areas may be narrowing.

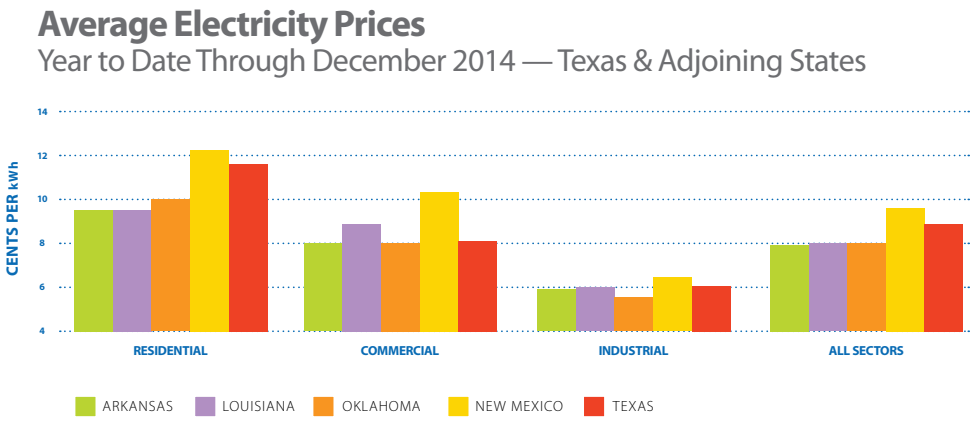


Exhibit 4: *This exhibit shows that in 2014, overall residential and industrial electric prices in Texas were higher than those in adjoining states except for those collected in New Mexico. Meanwhile, both New Mexico and Louisiana had higher average commercial rates those collected in Texas.*

Source: United States Energy Information Administration
http://www.eia.gov/electricity/monthly/epm_table_grapher.cfm?t=epmt_5_06_b

For instance, the differential between average residential electricity prices inside and outside deregulation has been generally trending downward since 2009. In that year, residential prices in deregulated areas of the state were, on average 40.5 percent higher than prices in areas of Texas outside of deregulation. In 2013, prices in deregulated areas were 16.5 percent higher than prices outside deregulation [See Exhibit 1].

Likewise, a number of deregulation-exempt providers have implemented rate increases since late 2013. These include rate increases by the municipally-owned utilities in Austin

and San Antonio, and rate increases by the Southwestern Electric Power Company, an investor-owned utility in East Texas. The federal data underlying the benchmark analysis in this report do not fully reflect the impact of those recent increases.

Also, a survey of recent competitive pricing offers indicates that many individual competitive offers in Houston (the state's largest city operating under retail electric deregulation) beat the price of electricity in San Antonio (the largest city in Texas exempt from deregulation) [See Exhibit 9]. The number of such offers that meet or beat prices in deregulation-exempt areas appears to be on the rise.

A survey of competitive electricity prices around the Dallas-Fort Worth area shows a similar number of deals that meet or beat prices in areas of Texas exempt from deregulation [See Exhibit 10].

About US EIA Data and PUC Data

This analysis employs data collected by the United States Energy Information Agency, which is the statistical and analytical arm of the U.S. Department of Energy. U.S. EIA data is known to be impartial, and is widely cited by economists, scholars, industry experts, the news media and governmental agencies, including the Public Utility Commission of Texas.

The consistent manner in which the agency calculates electricity prices across all 50 states allows analysts to make apples-to-apples market comparisons. How does the U.S. EIA calculate prices? First, it gathers both revenue and sales data from electricity providers in a given region. It then derives a kilowatt hour or megawatt hour price by dividing revenues in that region by the amount of energy sold there.

TCAP has employed more granular U.S. EIA data to calculate average electricity prices inside and outside deregulated areas of Texas, inside and outside areas served by the state's principal power grid (the Electric Reliability Council of Texas), and for the state's residential, commercial and industrial customers.

Employing U.S. EIA data in this fashion allows for calculations of average prices of consumed electricity, as opposed to average prices of offers made by electric companies. This distinction is important. The problem with averaging offers by electric companies — but without an understanding of how many customers take each offer — is that such an analysis can lead to conclusions that bear little resemblance to actual market outcomes. For instance, while it may be true that many low-cost offers are available in a given area, it may also be true that most Texans living in those areas do not or cannot avail themselves of those low-cost offers because of restrictions in their existing electricity contracts, or for a number of other reasons.

However, an examination of individual offers is nonetheless useful to gain a sense of commonly available electricity prices in deregulated areas, including prices contained in fixed-rate and variable-rate deals. This report examines such individual pricing offers, as included in rate surveys conducted by the Texas Public Utility Commission.

This report also examines charges by the state's two largest transmission and distribution providers, as posted on the PUC website. Transmission and distribution charges by utilities are non-bypassable, meaning that these charges are imbedded in electricity prices paid by all consumers in the utility's service territory, regardless of the retail electric provider that the consumer selects for service.

Benchmark Analysis: 2013 Electric Prices

— In 2013 Texans in deregulated areas paid, on average, 12.08 cents per kilowatt hour for residential electricity, while the nationwide average was 12.13 cents. This marked the second consecutive year that Texans in deregulated areas paid average rates below the nationwide average [See Exhibit 1].

— Had Texans under deregulation paid the same average residential prices for electricity as Texans in areas exempt from deregulation, Texans under deregulation would have saved $1.4 billion in 2013 [See Exhibit 2].

— A typical customer living in a deregulated area of Texas (defined as a customer paying average deregulated prices and consuming 1,300 kilowatt hours of electricity every month) could have saved approximately $267 in 2013 if he or she instead had paid average prices charged to Texans outside deregulation [See Exhibit 3].

— In 2013, the average statewide price of electricity (both inside and outside areas of Texas with deregulation) for all customer classes (residential, commercial and industrial) was 8.66 cents. This beats the 10.12-cent nationwide average price that year [See Exhibit 6].

— In 2013, average residential electricity prices within the region served by the Electric Reliability Council of Texas (the state's primary power grid operator) were higher than prices in Texas charged outside the ERCOT region [See Exhibit 7].

Average Residential Electricity Prices

Texas & United States (1990–2014)*

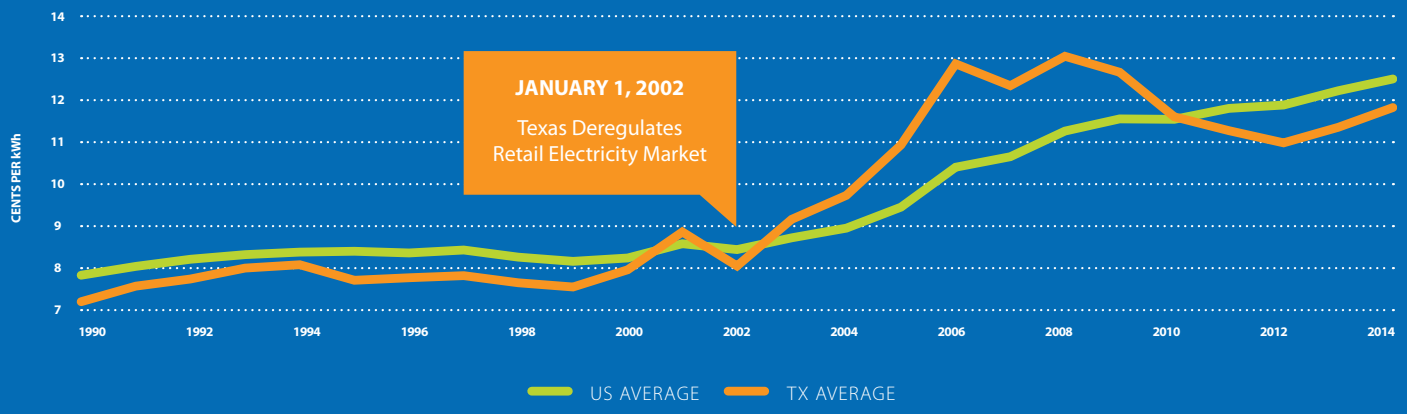


Exhibit 5: *Texans enjoyed average statewide electricity prices below the national average for many years prior to the implementation of the deregulation law. After the Texas electric market deregulated, average residential electricity prices increased above the national average and remained significantly above that mark for many years. However, this exhibit does not differentiate between average prices inside and outside areas of Texas with deregulation. Rather, it compares average residential prices statewide with average prices nationwide.*

As has been demonstrated separately, average residential prices in Texas outside deregulation remained consistently below the national average after 2002, while average prices in deregulated areas shifted above the national average [See Exhibit 1]. Therefore, the high residential electricity prices statewide relative to the nationwide average must be attributed to the deregulated sector of Texas.

Note that Exhibit 5 demonstrates that average residential prices in Texas spiked above the national average in 2001. Although that spike occurred before the deregulation of the state's retail electricity market, it was nonetheless a function of deregulation. This is because the Texas Public Utility Commission allowed utilities in 2001 to collect excess earnings and high fuel surcharges as a down payment on anticipated collections from the restructuring law. Average residential prices in Texas dropped after the deregulated market opened in 2002 because the fuel surcharges expired and because the deregulation law mandated a 6 percent cut in base rates. Average statewide residential prices then remained above the national average through 2011.

Source: United States Energy Information Administration
http://www.eia.doe.gov/cneaf/electricity/page/sales_revenue.xls

Benchmark Analysis: Long-Term Trends

— Texans living in deregulated areas of the state have paid higher average rates for residential electricity than Texans living in areas exempt from deregulation. This is true for 2002 through 2013 — that is, for every year for which necessary U.S. EIA data exists to conduct the analysis [See Exhibit 1]. Over those years, average residential prices in deregulated areas have been between 9.2 percent and 46.5 percent higher than average prices in deregulation-exempt areas.

— All told, Texans living in deregulated areas would have saved more than $23 billion in lower residential electricity bills between 2002 and 2013 had they paid the same average prices during that period as Texans living outside deregulation. This "lost savings" amounts to more than $4,800 for a typical household [See Exhibit 2 and Exhibit 3].

— Between 2002 and 2013, average residential electricity prices in deregulated areas increased at a rate slightly greater than the nationwide average. Average residential prices in areas of Texas exempt from deregulation increased at a rate less than the nationwide average [See Exhibit 8].

2013: Electricity Prices
Texas Residential, Inside & Outside ERCOT

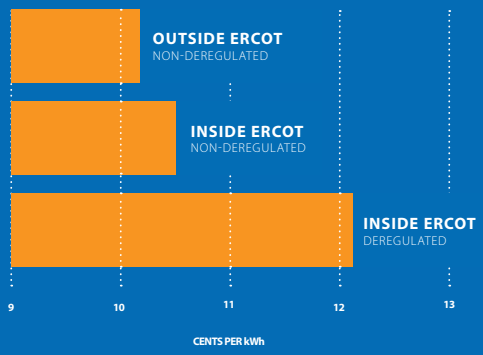


Exhibit 7: *The state's primary grid operator, the Electric Reliability Council of Texas, oversees the transmission system in about 85 percent of the state. Deregulated service providers and those exempt from deregulation both operate within this service territory. In areas of the state outside of ERCOT, all service providers are exempt from deregulation. Average residential electric prices were lower in 2013 outside ERCOT than inside ERCOT. Also, as this exhibit illustrates, average deregulated prices in Texas are higher than those charged by providers exempt from deregulation — whether the deregulation-exempt providers operate inside or outside ERCOT.*

Source: http://www.eia.doe.gov/cneaf/electricity/page/eia861.html

2013: Electricity Prices
All Customer Classes
(Residential, Commercial & Industrial)

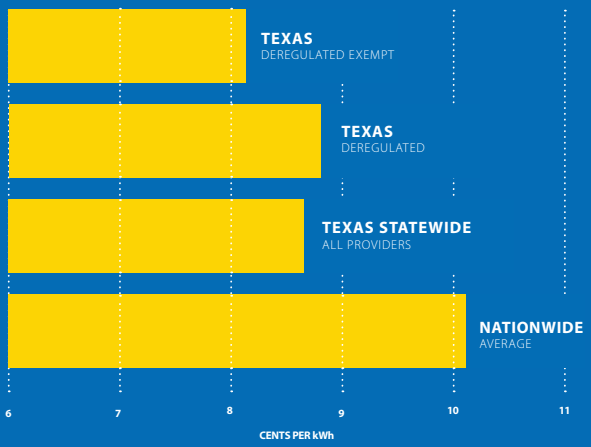


Exhibit 6: *This exhibit examines electricity prices among all customer classes (residential, commercial and industrial) during 2013. As seen in the third bar, the average statewide price in Texas for all such customers — that is, prices inside and outside areas overseen by ERCOT, and prices among both deregulated providers and providers exempt from deregulation — was 8.66 cents per kWh. More granularly, the average Texas electricity price for those exempt from deregulation was 8.43 cents. For all customer classes in Texas subject to deregulation it was 8.81 cents. Measured by each of these benchmarks — inside deregulation, outside deregulation, or statewide — average electric prices for all customer classes in Texas beat the 10.12-cent average price nationwide.*

Source: United States Energy Information Administration, Electricity Data Browser
http://www.eia.doe.gov/cneaf/electricity/page/sales_revenue.xls

— Annual average residential electricity prices in deregulated areas of Texas have been higher than the nationwide average during nine of the 12 years included in the analysis (2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010 and 2011). Annual average residential electricity prices in areas of Texas exempt from deregulation have been higher than the nationwide average once during those 11 years (2005) [See Exhibit 1].

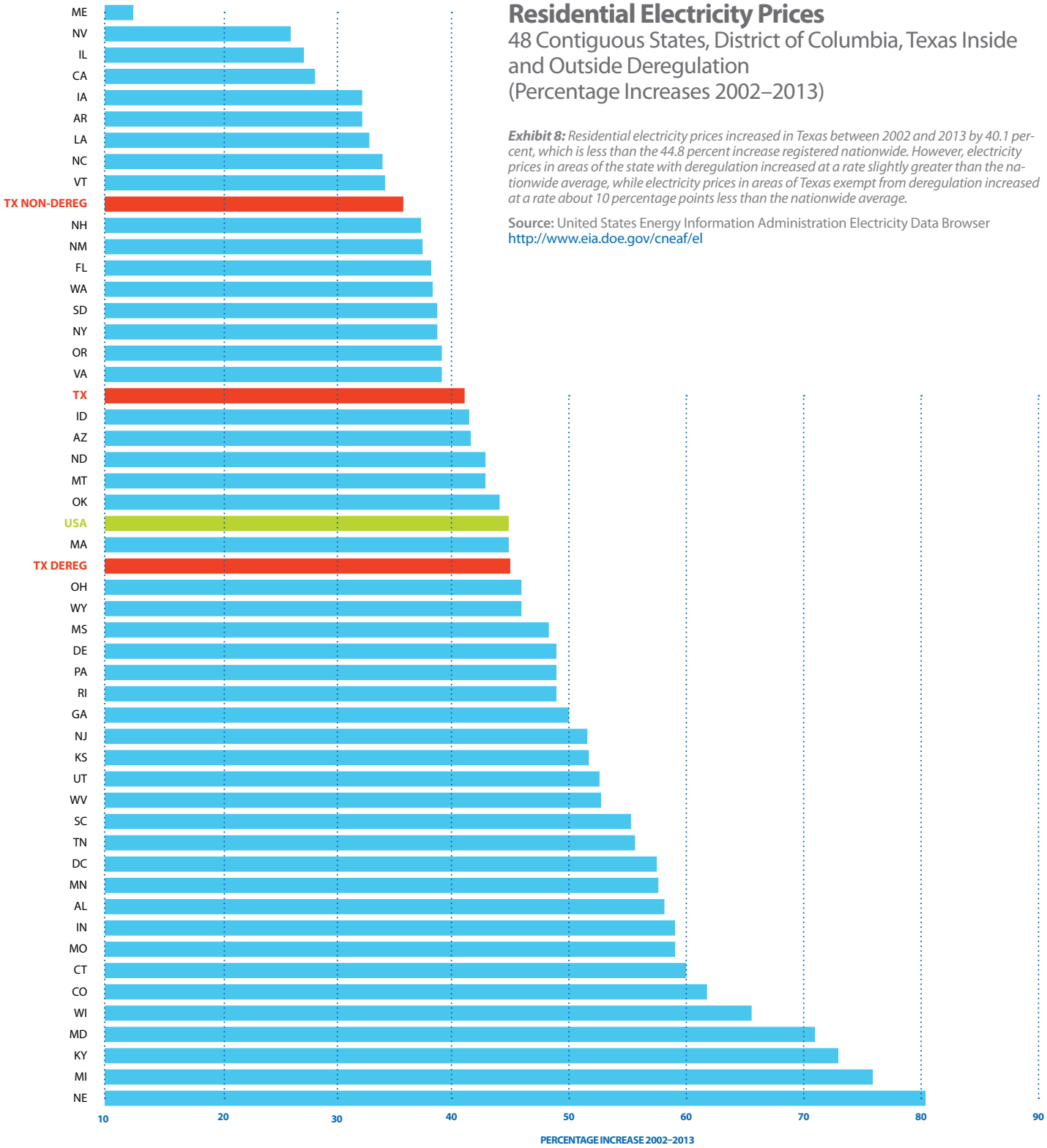
— It remains unclear whether the historic disparity between average electric prices in deregulated and non-deregulated areas continued after 2013 because the necessary data to conduct that analysis has not yet been released. However, rate surveys of more recent competitive offers show an increasing number of them meeting or beating prices in deregulation-exempt areas [See Exhibit 9 and 10].

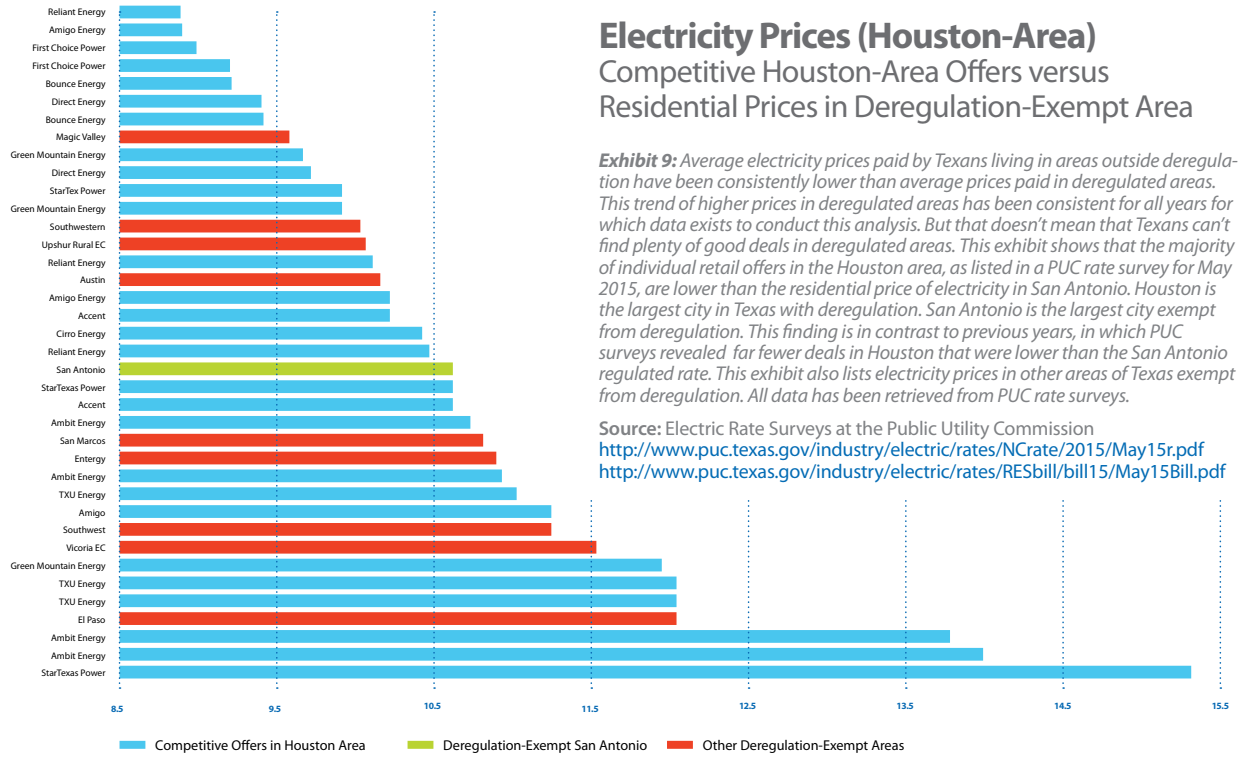
Residential Electricity Prices

48 Contiguous States, District of Columbia, Texas Inside and Outside Deregulation
(Percentage Increases 2002–2013)

Exhibit 8: *Residential electricity prices increased in Texas between 2002 and 2013 by 40.1 percent, which is less than the 44.8 percent increase registered nationwide. However, electricity prices in areas of the state with deregulation increased at a rate slightly greater than the nationwide average, while electricity prices in areas of Texas exempt from deregulation increased at a rate about 10 percentage points less than the nationwide average.*

Source: United States Energy Information Administration Electricity Data Browser
http://www.eia.doe.gov/cneaf/el



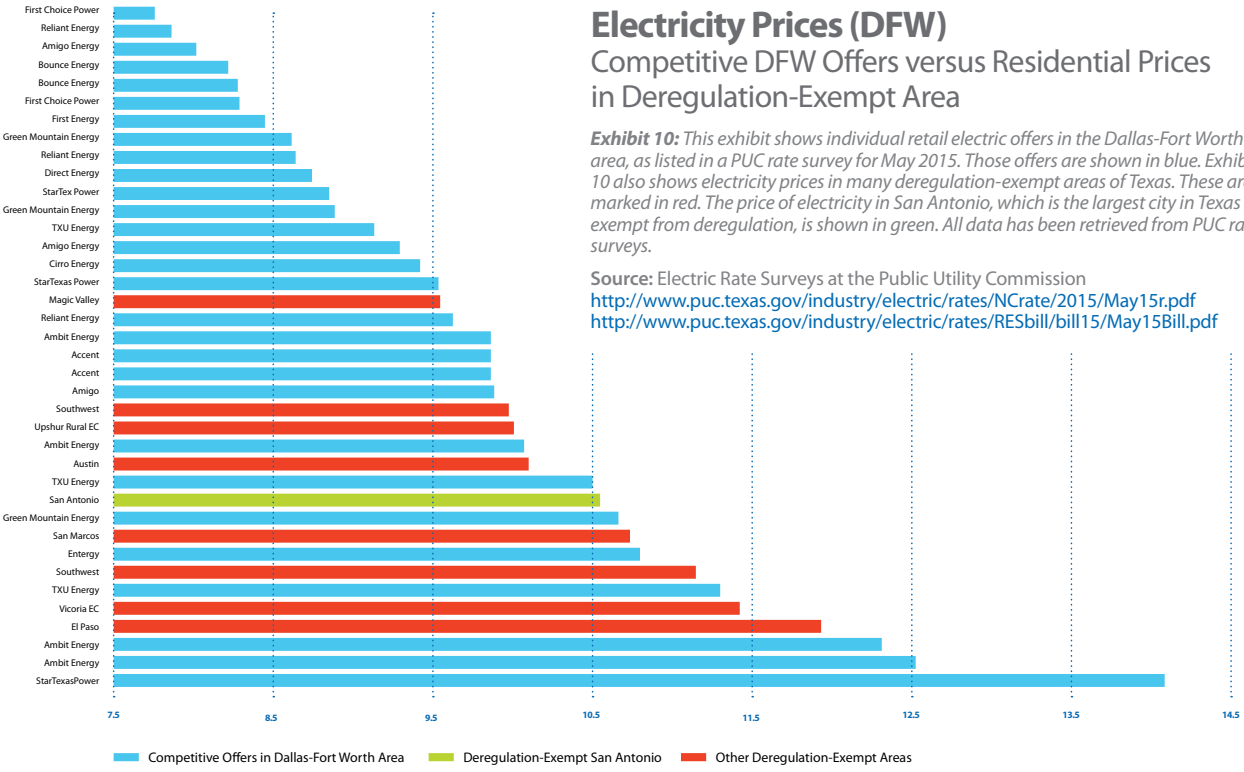


Electricity Prices (Houston-Area)

Competitive Houston-Area Offers versus Residential Prices in Deregulation-Exempt Area

Exhibit 9: *Average electricity prices paid by Texans living in areas outside deregulation have been consistently lower than average prices paid in deregulated areas. This trend of higher prices in deregulated areas has been consistent for all years for which data exists to conduct this analysis. But that doesn't mean that Texans can't find plenty of good deals in deregulated areas. This exhibit shows that the majority of individual retail offers in the Houston area, as listed in a PUC rate survey for May 2015, are lower than the residential price of electricity in San Antonio. Houston is the largest city in Texas with deregulation. San Antonio is the largest city exempt from deregulation. This finding is in contrast to previous years, in which PUC surveys revealed far fewer deals in Houston that were lower than the San Antonio regulated rate. This exhibit also lists electricity prices in other areas of Texas exempt from deregulation. All data has been retrieved from PUC rate surveys.*

Source: Electric Rate Surveys at the Public Utility Commission
http://www.puc.texas.gov/industry/electric/rates/NCrate/2015/May15r.pdf
http://www.puc.texas.gov/industry/electric/rates/RESbill/bill15/May15Bill.pdf



Electricity Prices (DFW)

Competitive DFW Offers versus Residential Prices in Deregulation-Exempt Area

Exhibit 10: *This exhibit shows individual retail electric offers in the Dallas-Fort Worth area, as listed in a PUC rate survey for May 2015. Those offers are shown in blue. Exhibit 10 also shows electricity prices in many deregulation-exempt areas of Texas. These are marked in red. The price of electricity in San Antonio, which is the largest city in Texas exempt from deregulation, is shown in green. All data has been retrieved from PUC rate surveys.*

Source: Electric Rate Surveys at the Public Utility Commission
http://www.puc.texas.gov/industry/electric/rates/NCrate/2015/May15r.pdf
http://www.puc.texas.gov/industry/electric/rates/RESbill/bill15/May15Bill.pdf

Transmission and Distribution Charges

Although monopoly transmission and distribution utilities operate under regulation, their rates impact electricity prices charged by competitive retail electric providers. This is because transmission and distribution utility rates are non-bypassable, which means they are included in a uniform fashion in the rates charged by all retail electric providers that operate in the utility's service territory.

Rate increases since 2003 by the Oncor utility (operating in the Dallas-Fort Worth area) and the CenterPoint Electric utility (operating around Houston) have outpaced inflation. Transmission and distribution charges paid by Oncor and CenterPoint customers also comprise an increasing share of monthly electric bills [See Exhibit 11 and Exhibit 12].

Non-Bypassable Charges: CenterPoint
(September 2003 – September 2015)

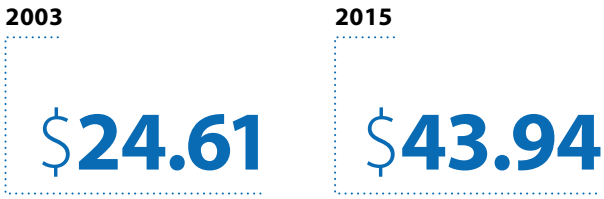


Exhibit 11: *Transmission and distribution utilities operate as regulated monopolies, even in areas of Texas with deregulation. The rates assessed by these utilities continue going up, sometimes at a rate well beyond that of inflation. For instance, rates charged by CenterPoint Electric in the Houston area have increased 78.5 percent between 2003 and 2015. In 2003, CenterPoint charges comprised 20.2 percent to 29.2 percent of a typical 1,000 kWh electric bill. In 2015, CenterPoint charges comprised 30.6 percent to 47.7 percent of a typical bill. All electric customers in deregulated areas around Houston must pay CenterPoint's rates, regardless of the retail electric provider the customer chooses for service.*

Source: Archived TDU Rate Summaries, PUC
http://www.puc.texas.gov/industry/electric/rates/TDArchive.aspx

Non-Bypassable Charges: Oncor
(September 2003 – September 2015)

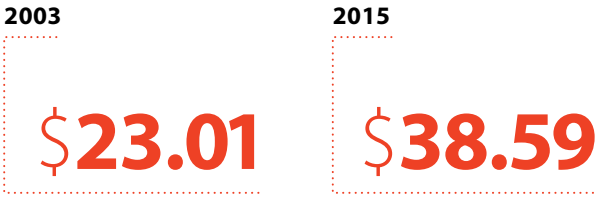


Exhibit 12: *Rates charged by Oncor utility in the Dallas-Fort Worth area increased by nearly 60 percent between 2003 and 2015. This increase outpaces the rate of inflation. In 2003, Oncor charges comprised 20.1 percent to 27.4 percent of a typical 1,000 kWh electric bill. In 2015, the charges comprised 29.3 percent to 47 percent of a typical bill. All customers in deregulated areas of the Dallas-Fort Worth region must pay Oncor's rates, regardless of the retail electric provider the customers choose for service.*

Source: Archived TDU Rate Summaries, PUC
http://www.puc.texas.gov/industry/electric/rates/TDArchive.aspx

About the Texas Coalition for Affordable Power

Unlike the sponsors of other reports about the state's deregulated power market, TCAP derives no profit from selling electricity. Instead, the 169 political subdivisions that comprise TCAP purchase electricity for their own governmental needs. TCAP understands how high-cost power can cause businesses to relocate out of state, and can place heavy burdens on home consumers. TCAP wants what all Texans want: an affordable and reliable supply of power and a vibrant economy.

About the Author

Policy analyst R.A. "Jake" Dyer has spent more than a decade monitoring consumer issues in Texas, its energy markets and ERCOT. His long journalism career included nearly a decade with the *Fort Worth Star-Telegram*, where he was named reporter of the year in 2007, and nearly a decade with the *Houston Chronicle*, where he was nominated for a Pulitzer Prize.

In 2010 Dyer authored *Natural Gas Consumers and the Texas Railroad Commission*, a report on pocketbook and policy issues. In 2011 he authored *The Story of ERCOT*, a special report on the Texas grid operator, power market and prices. His work with the Texas Coalition for Affordable Power and its predecessor organizations began in 2008.