

Wind and Electricity Prices: Saving Money for Texas Families and Businesses

Texas Has Among The Lowest Power Prices In The Country

- Texas has among the lowest electricity costs in the U.S., and two of the state's biggest resources, wind and natural gas, are to thank.
- Because wind is the cheapest source of new electricity in places like Texas, renewable energy, led predominately by wind, saved Texans \$5.7 billion from 2010 to 2017.
- Combined with historically low natural gas prices, that means Texas businesses have access to low-cost energy, and the monthly electric bill goes easy on consumers' wallets.

Negative Pricing Has Minimal Impact on Average Power Price in ERCOT

- Negative pricing occurs either at times of high electricity output or low demand, usually overnight or when there is a transmission constraint.
- Occurrences of negative pricing attributed to wind generation have declined as a result of transmission lines built under the state's Competitive Renewable Energy Zones (CREZ).
- Under Gov. Rick Perry, the Texas energy market went from "coarse" and "slow" to "fine-tuned" and "fast," leading to a "cheaper, cleaner and more reliable" grid.
- In ERCOT, system-wide negative pricing occurred in just 0.73% of all market hours in all of 2017 and only 30 hours in 2018 through August.
- Both the Independent Market Monitor and two national laboratories have conducted separate studies to determine the impact of negative pricing.
- After resetting all negative prices for a given year to zero and comparing the difference, both analyses found that there was little difference in average annual wholesale prices as a result of negative pricing.

Other Energy Sources Are Leading Contributors to Negative Pricing

- All resources, including less flexible thermal resources like coal and nuclear that cannot ramp up and down quickly, will bid negative at times.
- Many coal-fired power plants have "inflexible contracts" with coal mines and railroads, forcing them to either accept delivery and stockpile coal, or face large contract penalties if they refuse coal deliveries they do not need.
- With limited space to stockpile coal, some power plant operators may choose to run their coal-fired generation units to clear room for new deliveries, even if there is no demand for their output and it's uneconomical to run the plants at that time.
- They do this despite power prices going negative, ignoring the market signal that generation should be reduced.
- This implies that negative market prices are less costly to some coal-fired generation owners than the contract penalties for not taking delivery of the coal.

Renewable Energy Reduces Energy Costs For Texas Consumers

- According to ERCOT, wholesale market prices “tend to be lower when more wind generation is being produced.” That’s partially because in places like Texas, wind is the cheapest source of new electric generating capacity.
- Analysis shows negative pricing events “have had almost no impact on annual average day-ahead or real-time wholesale electricity prices.”

Summer 2018 Showed That Texas’ Diverse Energy Portfolio Can Withstand Extreme Demands

- Leading up to summer 2018 some cautioned that there may not be sufficient generation to meet the state’s electricity needs. High temperatures and the closure of three coal-fired power plants contributed to this concern.
- As predicted, power use broke multiple records in July. However, ERCOT did not have to call for electricity conservation-- the lights stayed on.
- Bill Magness CEO of ERCOT: “There were also a lot of days when the wind production was high when we needed it. So the various types of generation came through.”