

Zero fuel-cost renewable energy is essential to delivering lower electricity prices to Texas consumers by offsetting the prices of higher-cost power generation resources. Because it is such a counter-intuitive concept, detractors of renewable energy continue to raise the issue of “negative pricing,” despite its insignificance as a competitive issue.

Who really sets the price of electricity ?

In ERCOT, the most affordable resources are dispatched first to meet demand. So, a zero fuel-cost resource like wind – even without federal subsidies – will always be the most competitive bidder. **Stated plainly, renewable energy does not price negatively to compete with other types of generation.**

Negative pricing is infrequent and temporary. It generally takes place overnight when there is high wind output and low demand. More localized negative pricing can occur when there is a lack of available transmission **leading largely to wind and solar units competing with one another** to get out from behind the constraint to avoid being curtailed by ERCOT. Insufficient transmission and unaddressed grid constraints most often force negative pricing when it occurs.

What is the true impact of negative pricing and how often does it occur ?

Electricity prices have a strong correlation to the price of natural gas, as **a gas-fired unit sets the clearing price during more than 98% of the available hours of the year.**

In the eleven-year period from 2011-2021, ERCOT-wide negative pricing existed during **slightly more than one-half of one percent of the total hours** (616.5 out of 96,360).

A 2016 study by the Independent Market Monitor used a hypothetical scenario in which all negative prices were replaced with a value of \$0.00. The study showed an impact of **less than one cent per megawatt hour in average annual wholesale prices.**

Who else participates in negative pricing ?

ERCOT has noted that “*low and/or negative offers are not limited to any particular resource, and it is not uncommon for **thermal generators** to submit negative prices to decrease their chances of being dispatched below their desired or capable levels.*” Other examples of resources that participate in negative pricing include:

-  **Nuclear units**, who prefer to run at capacity without ramping up and down, to ensure that their power is dispatched to the grid;
-  **Commodities such as natural gas**, who see prices turn negative as production exceeds available pipeline capacity; and
-  **Petrochemical producers**, who will continue to operate co-generation units despite extreme negative price spreads of \$14,000 MWh, due to the value of continued production.

The Advanced Power Alliance is an industry trade association that promotes the development of advanced power solutions, such as wind, solar, hydrogen, and energy storage. The organization and its member companies are leading the effort to defend regulatory, tax, and siting policies that are equitable and technology neutral. Learn more at PowerAlliance.org or by contacting Judd.Messer@PowerAlliance.org.