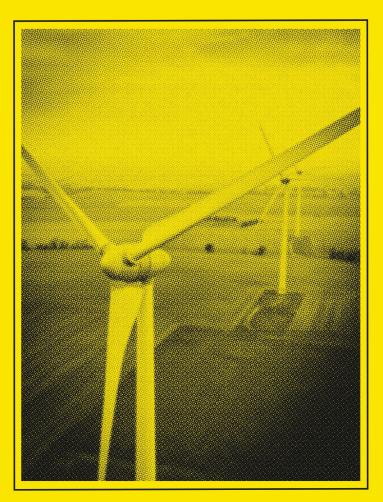
# PREDATORY PRICING IN THE TEXAS ELECTRICITY MARKET

The third in a four-part series examining the harm caused by renewable energy subsidies in Texas.

Prepared by Bill Peacock



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**ENERGYALLIANCE** 

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#### **Executive Summary**

Renewable energy generators are driving other, more reliable sources of energy out of the Texas electricity market. The reason is straightforward. Renewable generators often undercut the prices of their competitors by selling electricity below their costs, and even their marginal costs, to gain market share.

In many ways, this behavior matches one of the classic "anticompetitive" behaviors in antitrust theory known as predatory pricing. A few aspects of predatory pricing are missing, however, in the Electric Reliability Council of Texas (ERCOT) market, the largest electricity market in Texas (which covers most of the state geographically and close to 90% of the load). In particular, rather than raise their prices to increase their profit after their competitors have been forced out of the market, renewable generators continue to sell at low prices that undercut the competition. And yet they continue to receive above market rates of return on their investments.

What enables below market prices to provide generators with above market returns is renewable energy subsidies. No matter what price a renewable generator sells its electricity for, it receives a better return on investment than its competitors because of subsidies. And with almost half their income and benefits (in the form of reduced costs) coming from local, state, and federal governments, renewable energy generators are far less concerned about the price at which they sell than their competitors. They have no need to raise their prices to take advantage of competitors exiting the market.

Policymakers and regulators have not pursued the anticompetitive behavior of renewable generators under antitrust law in part because it does not fit the classic definition of predatory pricing. But neither have they sought to reduce or eliminate renewable energy subsidies, despite the obvious harm they are causing to competition and the reliability of the electric grid. Rather, they have responded by making electricity more expensive through administrative price adders (which we will examine in Part 4). In other words, regulators (with the implicit blessing of elected officials) have raised electricity prices and thus revenue for generators by imposing a monopoly pricing regime on Texans. This has further distorted the market with more subsidies for both renewable and traditional thermal (coal, natural gas, and nuclear) generators.

The path toward reducing prices and restoring the reliability of the ERCOT market is clear; let consumers choose what electricity they want to purchase in Texas' competitive market by eliminating subsidies for all generators.

#### What is Predatory Pricing?

In anti-trust theory, "predatory pricing ... is an economic phenomenon whereby a company lowers its prices (possibly below costs) in an attempt to drive rivals out of the market. The predatory firm is then expected to increase prices, after competitors have been forced out of the market, to a level that allows them to recoup any losses incurred during the predation period" (Mises.org).

- Renewable generators often undercut their competitors by selling electricity below cost to gain market share
- This is similar to the classic anticompetitive behavior in antitrust theory known as predatory pricing
- Renewable energy subsidies enable renewable generators to receive above market returns with below market prices
- Regulators have responded to this by increasing electricity prices through administrative price adders
- Consumers will benefit by eliminating all subsidies for electric generators

In a free market, though, there are reasons to believe that predatory pricing may not actually occur because it does not benefit the firm lowering prices. This is because "rival firms could just exit the market when prices are lowered and re-enter when prices are increased. Even if rival firms are forced out of the market when prices are increased by the predatory firm, this could induce new competitors into the market" (Mises.org).

#### Investment in Renewable Generation Driven by Profits from Subsidies

The possibility of successfully pursuing a type of predatory pricing looks more promising in the competitive Texas electricity market distorted by renewable energy subsidies. ERCOT reports that "system-wide prices in the ERCOT wholesale market tend to be lower when more wind generation is being produced [because] the ERCOT market generally uses the lowest-cost resources to meet consumer demand."

The reference to lowest-cost resources does not refer here to the electricity that is least expensive to generate. Rather, the term refers to the electricity that costs less to buyers because it is priced lower than competitors. The term lowest-cost resources refers to the "lowest-price" resources, which in the Texas market are the most heavily subsidized resources, i.e., wind and solar.

ERCOT attributes lower prices of wind and solar to the fact that they "do not incur any fuel costs when producing electricity," citing "federal tax credits" only as "a contributing factor." However, this begs the question as to why inefficient, intermittent generation facilities like wind and solar are built in the first place. Investors do not invest in a generation asset because it has low marginal costs. They invest in a generation asset because they predict its overall costs will be lower than its revenue.

The investment decision when it comes to wind and solar generation is skewed in two important ways because of government intervention in energy markets. First, wind and solar generators in Texas (and many other states) can lower their costs due to local property tax abatements and subsidized transmission. Second, wind and solar generators can increase their revenue through the federal Production Tax Credit (PTC) and Investment Tax Credit (ITC) and state Renewable Energy Credits (RECs).

Figure 1: Texas Renewable Subsidies That Skew Investment Decisions - 2006-19			
Renewable Cost Subsidies		<b>Renewable Revenue Subsidies</b>	
Transmission	\$8,211,000,000	PTC & ITC	\$9,538,000,000
Property Tax	\$1,116,000,000	RECs	\$546,000,000
Total	\$9,327,000,000	Total	\$10,084,000,000
Source: The High Cost of Renewable Energy Subsidies			

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The effect of these subsidies on investment decisions should not be underestimated. For instance, "[i]n 2016, new wind was eligible for a \$23 per MWh PTC, 39% of that year's EIA levelized cost estimate of \$58.5 per MWh." Today, the "PTC for wind farms that begin construction in 2020 is \$15 per MWh, which is 44% of the \$34.10 per MWh levelized cost of building and operating a new on-shore wind facility in 2020" (America's Power). Ginn and Nikolaou explain why this weighs heavily on investment decisions: "Since the bulk of the costs for renewable projects are fixed, the profitability of new projects are dependent on current and future fiscal and regulatory environment," i.e., subsidies, rather than on the price of electricity. Further highlighting the dependence of investment decisions on subsidies in is that the "intermittent nature of wind and solar means that renewable operations are likely to systematically receive a lower overall market price than the average generator" (Wyman). Billionaire investor Warren Buffet acknowledges the importance of subsidies on investment in wind farms. "[O]n wind energy, we get a tax

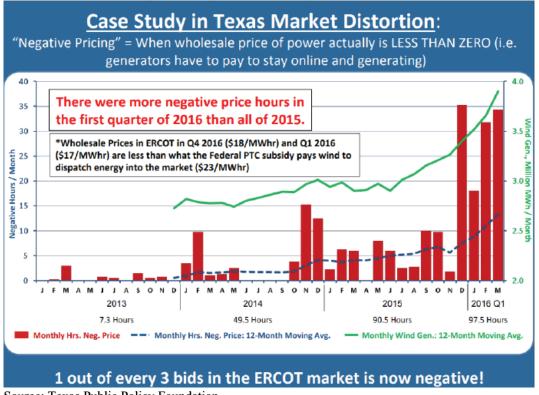
credit if we build a lot of wind farms. That's the only reason to build them. They don't make sense without the tax credit" (Bastasch).

Wind and solar generators often are the low bidders in the market not because the capital, operational, or marginal costs—without government interventions—of developing wind and solar generation are lower. They are low bidders because the subsidies lead investors in renewable generation to act *as if* they have lower costs overall. Investors and renewable generators thus conduct what otherwise would be irrational behavior in two primary ways. First, investing in and building generation facilities that sell electricity at prices below what is needed to recover their overall investment. Second, selling electricity below their almost zero-dollar marginal costs, i.e., engaging in negative pricing, when the generators pay "buyers" to take electricity.

#### Competition in ERCOT is Being Harmed by Renewable Generator Pricing Practices

While sellers often give away promotional goods for a variety of reasons, negative prices in electricity markets are not used in that way and make no sense except in the context of renewable energy subsidies. ERCOT further explains negative pricing:

Market prices tend to go negative when there is low consumer demand and the thermal generators that have chosen to remain online cannot be backed down further to allow the available, lower-cost wind generation to serve consumer demand. In situations like this, some wind generators will be curtailed to balance generation with load. In these cases, since wind is the marginal generation, it sets the market price, which may be low or negative. In 2017, system-wide negative pricing occurred during 64 hours; in 2018, as of August, during 30 hours.



#### Figure 2: Negative Electricity Prices in Texas

Source: Texas Public Policy Foundation

When evaluating the effect of renewable subsidies in Texas, William Hogan, PhD., Professor of Global Energy Policy, Harvard University, notes that "wind capacity in Texas thus has an incentive to operate as much as possible, even at locational prices less than zero. ... Subsidized wind energy is not only increasing the frequency of negative prices in Electric Reliability Council of Texas (ERCOT), it is decreasing prices in every hour that the wind farms are generating."

In 2017, Donna Nelson, when she was chair of the Public Utility Commission of Texas, similarly noted the problems caused by the PTC. "You can see if your average summer price is \$24/MWh and you're paying one of the segments of the market \$23/MWh, that's going to distort the market and drive prices down."

The low prices in ERCOT created by renewable subsidies have repeatedly been blamed for harming thermal generators by lower their profitability and decreasing investment in new thermal generation. This in turn has led to lower reserve margins and the decreasing reliability of the grid. Nelson observed the problem is particularly harmful at times of high demand:

Last summer, for the first time, we saw days with high demand where we saw about 4,000 MW of wind online. Now, that's not enough where you can count on wind to always be there, but it is enough to remove the scarcity pricing, so that's another way scarcity pricing has been affected by renewables.

Generators, including NextEra Energy, Calpine, NRG, and Exelon, have claimed the low prices as the cause for a looming crisis:

Electricity is essential to our everyday lives, and our growing economy. Did you know Texas is on course for a power reliability crisis, with the potential for regular rolling blackouts in just a few short years? With low temperatures earlier this week, we narrowly escaped rolling blackouts. We won't be so lucky in the years ahead if we don't take action now.

Lower electricity prices in Texas have led to bankruptcy for several generators, including Panda Temple Power, Energy Future Holdings, and Exelon Generation Texas Power.

Why Don't Regulators Investigate Predatory Pricing Practices in the Texas' Renewable Industry? Given the obvious harm caused by the renewable energy industry's pricing practices. why are they not being treated by regulators as predatory pricing potentially in violation of antitrust laws?

One reason is that renewable energy has become the energy de jour of many politicians, regulators, environmental groups, and members of the public. As will be demonstrated in our next paper, there is little political will to take on the renewable energy industry. Antitrust regulators have long demonstrated great selectiveness in what companies they target for enforcement of potential violations.

Another reason can be garnered from the Federal Trade Commission's explanation of predatory pricing:

Can prices ever be "too low?" The short answer is yes, but not very often. Generally, low prices benefit consumers. Consumers are harmed only if below-cost pricing allows a dominant competitor to knock its rivals out of the market and then raise prices to above-market levels for a substantial time. A firm's independent decision to reduce prices to a level below its own costs does not necessarily injure competition, and, in fact, may simply reflect particularly vigorous competition. Instances of a large firm using low prices to drive smaller competitors out of the market in hopes of raising prices after they leave are rare. This strategy can only be successful if

the short-run losses from pricing below cost will be made up for by much higher prices over a longer period of time after competitors leave the market.

The focus of antitrust regulators is on firms that impose higher monopoly prices *after* their competitors have been put out of business because of the below cost prices. This is not happening in the Texas electricity market. There are still numerous generators in the market and prices remain low because of the subsidies received by renewable generators. Without raising their prices, they still benefit *as if* prices were being raised as their competitors go out of business. Because of the subsidies, they can continue to undercut their competitors with predatory pricing indefinitely and still make profits that their cost structure would not otherwise allow. And this can go on even after the subsidies have run out, because the subsidies have paid their capital costs and they can sell electricity having to cover only minimal marginal costs.

In theory, antitrust laws are designed "to protect the process of competition for the benefit of consumers" (Federal Trade Commission). Since renewable generators continue unabated their strategy of undercutting the prices of their competitors, the question becomes how are consumers harmed?

Consumers are harmed by the ongoing low market prices in two primary ways. First, the artificial imposition of monopoly pricing on consumers by regulators through administrative price adders. In the face of pressure from generators and the fear of blackouts, regulators will not let the prices stay low. We will examine this in our next paper.

Second, even when the prices remain low, consumers are harmed because they are also taxpayers who must bear the cost of the renewable energy subsidies in the form tax credits and direct payments to generators. While the visible price that consumers pay for electricity because of renewable energy may be lower, the total cost is not. The hidden costs include higher taxes and the less reliable supply of electricity. Our previous research has shown that renewable subsidies in Texas this year should total about \$2.3 billion. Since 2006, Texas renewable generators have received about \$19 billion in subsidies.

Despite the FTC's claims, in reality antitrust laws have been adopted not to police anticompetitive activity that harms consumers—which rarely, if ever, takes place in a free market, but to help increase the profits of inefficient companies struggling against more efficient competitors. In the case of the Texas electricity market, it is the efficient thermal generators that are going out of business while the inefficient renewable generators are raking in the profits. This does not fit into antitrust theory. Add to this the fact that renewable energy has a powerful lobby supporting it, and elected officials, regulators, and the media are simply ignoring the cause of the harm being done to business, taxpayers, and consumers by this government-imposed scheme.

#### Conclusion

Policymakers and regulators have not pursued the anticompetitive behavior of renewable generators under antitrust law because it does not fit the classic definition of predatory pricing. But neither have they sought to reduce or eliminate renewable energy subsidies, despite the obvious harm they are causing to competition and the reliability of the electric grid. Rather, they have responded by making electricity more expensive through administrative price adders. In other words, regulators have raised electricity prices for the generators by imposing a monopoly pricing regime on Texans, thus further distorting the market with more subsidies for both renewable and traditional generators. Our next paper will examine the cost this is imposing on Texans.

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Bill Peacock is the policy director of The Energy Alliance. He conducts research for the Alliance on issues related to energy policy. These include federal and state regulation of electricity markets, the Texas electricity market, renewable energy, federal, state, and local energy subsidies, and the relationship between free markets, regulatory policy, and economic prosperity.

The Energy Alliance is a project of the Texas Business Coalition to raise awareness of issues about the energy market that matter most to consumers: Reliability, Affordability, and Efficiency.



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