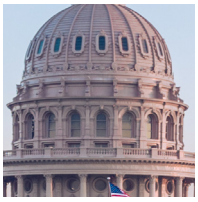

TEXAS PUBLIC POLICY FOUNDATION
BillAnalysis

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SB 2232
Identifying the Harmful Effects of Renewable Energy Subsidies

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Purpose

SB 2232 requires the Public Utility Commission of Texas (PUC) to "identify and study the effects that renewable energy subsidies have on pricing, reliability, and efficiency of the electric power market in the ERCOT power region."

Background

From 2006 through 2029, we estimate that renewable energy generators in Texas will receive about $36 billion in subsidies or credits from federal, state, and local governments.

The Production Tax Credit (PTC) is the largest of these subsidies. It is a federal subsidy that provides a $23 tax credit for each megawatt-hour of renewable energy sold. The PTC will cost U.S. taxpayers approximately $65 billion in foregone revenue before it fully phases out in 2030 as currently scheduled. In 2017 the PTC cost taxpayers $4.2 billion. This subsidy primarily benefits a few major energy corporations. Only 15 companies account for more than three-fourths of all PTC eligibility—more than $19 billion in 10 years (2007-2016).

The PTC distorts electricity markets. Combined with depreciation it can represent as much as 70 percent of a wind farm's capital cost. The PTC results in negative prices, increases costs for other energy producers, and decreases reliability of the grid. These distortions are leading to widespread reliability problems in Texas' electricity market and are the primary cause behind concerns about recent declines in the Electric Reliability Council of Texas' (ERCOT) forecasts of summer reserve margins; the latest forecast shows a 7.4 percent margin for the summer of 2019.

Other renewable energy subsidies that distort the Texas electricity market include:

- **The Investment Tax Credit (ITC)**. The ITC is currently a 30 percent federal tax credit claimed against the tax liability of residential (Section 25D) and commercial and utility (Section 48) investors in solar energy property.
- **The Texas Renewable Portfolio Standard (RPS)**. The RPS was first adopted in 1999 and later expanded to require 5,000 new megawatts of renewables be installed by January 1, 2015, with a final target of 10,000 megawatts operating by 2025. We estimate that the RPS and Renewable Energy Credits have cost Texas consumers about $500 million since 2006.
- **Competitive Renewable Energy Zone (CREZ) Transmission Lines**. CREZ lines were mandated by the Texas Legislature in 2005 for the sole purpose of providing transmission capacity for wind and solar generation facilities located in the western portions of the state. We estimate that the total cost of the CREZ lines, including profit, operations, depreciation, interest, and maintenance over the life of the project, to be more than $15 billion.
- **Grid Interconnection of Renewable Generation**. In order to supply power to the grid, renewable energy sources have to enter into interconnection agreements with existing Transmission Service Providers (TSPs). The cost of interconnection agreements for renewable projects to Texas consumers is over $1 billion.
- **Chapters 312 and 313 Tax Abatements**. The Texas Legislature authorizes local governments to administer property tax abatements under sections 312 and 313 of the Tax Code. Of the 389 Chapter 313 agreements, 221—or 57 percent—are for renewable energy projects. The renewable Chapter 313 projects account for only 9.7 percent of the Chapter 313 jobs created, an average of 5.4 per project. The total tax abatements given over the life of these Chapter 313 renewable-energy projects is $2.53 billion.

continued

- **Renewable generators also receive benefits other than direct subsidies and tax credits**. These usually entail operating rules and procedures that benefit renewable generators more than other generators. For instance, renewable generators—unlike all other generators that serve load, are not required to dispatch. When the wind stops blowing and the sun stops shining, renewable generators are not forced to cover the costs imposed on the system for their failure to deliver energy the system was expecting.

In response to the distortions caused by these subsidies, the PUC commissioners recently ordered ERCOT to "implement a .25 standard deviation shift in the loss of load probability (LOLP) calculation using a single blended ORDC curve as soon as practicable with a second step of .25 in the spring of 2020." The ORDC, or Operating Reserve Demand Curve, is an administrative pricing mechanism that ERCOT can use to artificially increase electricity prices for all Texas consumers. The PUC "estimated that the change would increase wholesale power costs by nearly $80 million over two years, assuming that new power plants come online to boost supplies, old plants stay online for longer than they would have otherwise and people react to higher prices by cutting their consumption." However, the actual costs could be much higher.

Generation owners, for example—who will benefit from this change, have suggested that the costs may be much higher. Exelon estimated that a shift of one standard deviation in the LOLP would result in price increases totaling $4 billion, so the PUC's order for a 50 percent shift over two years translates to roughly $2 billion in annual price increases. This is also close to the Texas Industrial Electric Consumers estimate of $2.5 billion. These estimates are based on the additional costs to customer bills had Exelon's proposal been in place in summer of 2018.

Analysis

SB 2232 is straightforward. It requires the PUC to "identify and study the effects that renewable energy subsidies have on pricing, reliability, and efficiency of the electric power market in the ERCOT power region." As part of this process, the PUC "shall request comments from interested parties and the independent organization certified for ERCOT as part of the study. The scope of the study under this section must include peak price formation, negative pricing, ancillary services, congestion, reserve margins, and transmission and distribution costs." It is required to report its findings to the Legislature.

This study is important because even though the PUC and ERCOT have reviewed the costs of renewable subsidies for years, they have not directly addressed the harm being done. Instead, they have socialized the cost and required all parties—consumers and businesses alike—to bear the costs. This study can help policymakers and the public see exactly how renewable subsidies impose costs on the system, and help identify solutions where those who impose the costs can pay for them—instead of Texas consumers.

Recommendations

From 2006 through 2029, we estimate that renewable energy generators in Texas will receive about $36 billion in subsidies or credits from federal, state, and local governments. Put another way, taxpayers and consumers are being forced to pay over $1 billion a year for 24 years to a multi-billion-dollar industry for the benefit of receiving expensive, unreliable energy. This study is a first step to shining a light on these high costs.

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