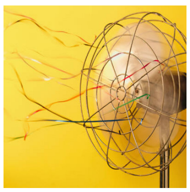
Capacity Markets



The Issue

Texas has the most competitive electricity market in the country. Nevertheless, there has been an ongoing debate at the Public Utility Commission (PUC) of Texas on whether it should replace the current energy-only market with a centralized capacity market. Making such a change would reregulate the market unnecessarily and shift the costs (and risks) of new investments to consumers.

A capacity market operates by giving electricity generators yearly subsidies in exchange for a promise that they will use the guaranteed revenue to invest in new capacity. These payments are not for the electricity that generators produce, but for the amount of electricity that they could theoretically produce if their operations were running at peak efficiency and, most important, were that energy needed.

Even if successful, a capacity market would be a very expensive way to meet Texas' energy needs. Studies repeatedly show that the capacity payments alone would cost Texas consumers somewhere between $3 and $5 billion per year—an assessment that does not include design, implementation, and litigation expenses. The most recent Brattle Report calculated that these hard costs would come to an annual $3.2 billion.

That money would not be offset by ensuing benefits to the state's economy. Although capacity market supporters suggest that reregulation would result in an eventual savings by eliminating future blackouts, these speculated reimbursements only arise under a straw man scenario that assumes the energy-only market will reach a long-run reserve margin of 8%. Supporters provide no independent justification for that assumption. ERCOT's energy-only market has never reached that low of a reserve margin, and current forecasts show a capacity supply substantially above the suggested amount.

In addition, there is no evidence that a centralized capacity market boosts a region's energy capacity, much less helps avoid future blackouts. Capacity payments in PJM—the regional transmission organization serving the mid-Atlantic—yielded less investment in new generation than Texas' energy-only market not only in terms of sheer megawatts but also as a percentage of the region's installed capacity, despite costing PJM consumers over $50 billion during that timeframe.

One reason for this lackluster result is that most of the funds never went to finance new generation but instead found their way into subsidizing the operational costs of existing resources. For example, more than 93% of the money paid by PJM customers went to existing generation; only 1.8% found its way to new or "reactivated" generation sources. Additionally, the bulk of capacity payments subsidized base load generation plants even though there was no shortage of investment in base load generation and even though those plants can recoup their fixed costs from energy sales alone.

Finally, capacity markets suffer from a severe design flaw that damages the grid's overall reliability and may make the market more prone to blackouts. Capacity markets interpret reliability as being dependent on the amount of capacity alone. They, therefore, offer all generators uniform payments regardless of the plant's efficiency and ignore those characteristics that ensure that grid operators can convert and transport installed capacity to consumers. This has the consequence of eliminating price signals and discouraging investors from building plants where and when they are needed most—a perverse incentive that hurts ERCOT's overall operational reliability.

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The Facts

- In 2013, competitive price offers were an average 21% lower than the 2001 regulated price. This means that Texas consumers paid less in real dollars under the energy-only market than they did before competition.
- Numerous studies predict that a capacity market will cost Texas consumers an additional $3 to $5 billion per year, not including the market's design, implementation, and litigation expenses. The most recent Brattle report estimated that these hard costs would come to an annual $3.2 billion.
- The Brattle Report claims that, even assuming the optimal scenario, where a Texas capacity market delivers on its promises and offsets some of its hard costs, capacity payments would have an annual net cost of at least $400 million.
- PJM spent $50 billion in capacity payments between 2007 and 2011 and added 7,000 megawatts of new generation, about 4% of its total install capacity. During that same period, Texas' energy-only market added 10,000 megawatts of new generation, about 12% of its installed capacity, with zero extra cost to consumers.
- In September 2013, PJM suffered a series of rolling blackouts due to unusually high temperatures in combination with mechanical issues and plants being taken offline for season maintenance. The blackouts occurred despite a fully mature capacity market and over $54 billion spent in capacity payments.

Recommendations

- Preserve Texas' energy-only electricity market.
- Reject all proposals that implement a mandatory reserve margin or capacity market.
- Clarify that the PUC of Texas does not have the statutory authority to restructure and reregulate the electricity market under any form of capacity market.

Resources

A Texas Capacity Market: The Push for Subsidies by Kathleen Hunker, Texas Public Policy Foundation (Sept. 2013).

Capacity Markets Represent a Bad Bargain for Texas Consumers by Kathleen Hunker, Texas Public Policy Foundation (Oct. 2013).

Reforming Texas Electricity Markets: If You Buy the Power, Why Pay for the Power Plant? by Andrew Kleit and Robert J. Michaels (Summer 2013)

Money for Nothing in the Power Supply Business by the American Public Power Association (Mar. 2012).

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