Texas PUC should mull cutting reliability capacity from ORDC formula: staff

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In a memo filed Thursday, Public Utility Commission of Texas staff recommended considering the removal of generation committed for reliability from the Electric Reliability Council of Texas' calculations used with its Operating Reserve Demand Curve, a scarcity price adder, which drew mixed reactions from industry observers Friday.

Currently, generation committed for reliability purposes is included in the actual reserves used in the ORDC calculation. Such units can be committed on a temporary basis, known as "reliability unit committed," or for an extended period, known as "reliability-must-run."

"If the Commission determines that RUC and RMR capacity should be removed from the ORDC, this change could be put in place by summer 2018, assuming the Commission provides such direction at the February open meeting," the memo states.

Chen-Hao Tsai, senior energy economist at the University of Texas' Bureau of Economic Geology's Center for Energy Economics, said the PUC should not eliminate RUC and RMR units from the ORDC calculation.

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The staff memo points out that "based on ERCOT, 81% of RUC instructions were issued for 'congestion' rather than reserve shortage," Tsai said in an email Friday. "In this regard, I consider the elimination of RUC/RMR units from ORDC is unnecessary."

But the idea of eliminating RUC and RMR units from the ORDC -- and doing so before this summer -- drew a favorable response from Michael Giberson, an energy economist at Texas Tech University's business school.

"Consumers may prefer that changes to the ORDC be delayed until after the summer, but given the recent and anticipated retirements of generating resources it may well be wise to implement the changes sooner," Giberson said Friday in an email.

SUPPLIES TIGHT IN THE SUMMER 2018

Summer 2018 is considered a critical time, as generation retirements totaling more than 5,000 MW have been completed this winter, and ERCOT's December Capacity, Demand and Reserves Report showed that its planning reserve margin would be only 9.3% this summer, well below the 13.75% target reserve margin and less than half of the 18.9% summer 2018 planning reserve margin forecast in the May CDR report.

The 13.75% target was developed as a minimum to ensure ERCOT had a capacity-related blackout no more often than once in 10 years, but the PUC directed ERCOT in 2016 to develop a new standard of reserve margin, based on the concept of an economically optimal reserve margin and a market equilibrium reserve margin.

ERCOT plans to complete a study to determine the new standard reserve margins in the third quarter of 2018.
Deleting RUC and RMR units from the ORDC calculation was one recommendation in a paper submitted in April by NRG Energy and Calpine, "Priorities for the Evolution of an Energy-Only Market Design in ERCOT," by Harvard's William Hogan and FTI Consulting's Susan Pope, who concluded that several non-market factors had contributed to wholesale power prices in ERCOT remaining too low to maintain sufficient capacity to meet load over the long term.

In June 2014, the PUC implemented the ORDC "as a mechanism to transparently set prices during reserve scarcity based on consumers' willingness to pay," states the staff memo filed Thursday.

The ORDC's parameters include a minimum level of operating reserves at which blackouts are imminent. As the actual reserve levels decline to that point, the ORDC provides an adder to prices approaching the "value of lost load," which is theoretically the price at which consumers are indifferent to having their service curtailed, the memo states. The PUC set the VOLL at $9,000/MWh.

The PUC in May established Project No. 47199, "Project to Assess Price Formation Rules in ERCOT's Energy-Only Market," in which Thursday's staff memo was filed, as a response to the Hogan-Pope paper.

That paper recommended deleting RUC and RMR units from the reserves used in the ORDC, as their inclusion "inappropriately increases the quantity of available capacity on the system, reducing the ORDC adder and interfering with the ability of the scarcity pricing mechanism to provide critical incentives to drive investment and maintenance decisions," the staff memo states.

**DELAY LOSS-OF-LOAD PROBABILITY CHANGE: MEMO**

Another factor in the ORDC is the loss-of-load probability, and the Hogan-Pope paper "proposed shifting the mean of the LOLP distribution by a scaling factor of up to one standard deviation" to reflect the increased risk "associated with an increased presence of intermittent renewable resources" in ERCOT, the PUC staff memo states.

But the staff recommended deferring any changes to the LOLP calculation "pending additional observation of the ORDC outcomes over a longer period of time."

"Additional observation would allow the Commission to determine whether, as asserted by commenters, the current design underestimates the volatility of intermittent generation" and whether the current situation "results in undesirable market outcomes," the memo states.

Taking more time to consider market changes has drawn support from several stakeholders and industry observers.

For example, Katie Coleman, an attorney representing Texas Industrial Energy Consumers, Friday cited the organization's previous filings calling for no action before this summer.

*This will be the first time the market has been tested since the Commission overhauled ERCOT's scarcity pricing regime, including: (1) tripling the price caps, (2) implementing the Operating Reserve Demand Curve (ORDC), and (3) creating a mechanism to offset the impact of price-taking energy during emergency conditions through the Reliability Deployment Price Adder (RDPA), TIEC's filing states. "The Commission will have the first opportunity to stress-test the market it has built in 2018, and should see how it performs before changing it yet again."

UT's Tsai also favors no action on changing the LOLP calculation.

"ORDC has been implemented for only few years, and market participants, particularly merchant generators, are too impatient and asking unnecessary 'band-aid' solutions to the sustained low energy price, which was primarily driven by cheap natural gas and increasing wind generation," Tsai said. "The concept of ORDC is built upon reserve scarcity. [If] market participants worry about the impact of a 4-GW coal retirement to the summer reserve this year, they should let ORDC function as-is. This would allow everyone to observe if ORDC will produce accurate scarcity price in a potentially legitimate 'reserve shortage' condition."

The staff also recommended that the PUC direct the opening of a new project "to assess RUC pricing, with an emphasis on the Extended [Locational Marginal Pricing] concept ... that considers the start-up and minimum energy costs of certain units in the pricing logic and relaxes the minimum dispatch level to allow the unit to set a price reflective of these costs if the unit is economic."

*"[N] Staff’s preliminary view, the ELMP concept represents a possible improvement to the design that merits further review in a discrete project," the memo states.

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