



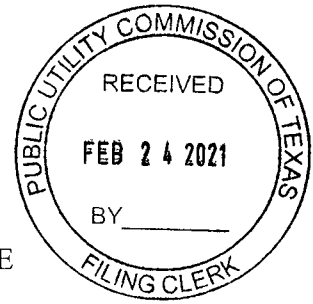
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OVERSIGHT OF § BEFORE THE
THE ELECTRIC RELIABILITY § PUBLIC UTILITY COMMISSION
COUNCIL OF TEXAS § OF TEXAS

VERDIGRIS ENERGY'S COMMENTS RELATED TO SETTING OF ANCILLARY SERVICE PRICES DURING THE WEEK OF FEBRUARY 14, 2021

While balancing-energy prices are getting a great deal of attention, a larger issue looms over the industry and appears to be going unnoticed and unquestioned. Ancillary Service prices are not transparent. They are poorly understood, and many Retail Electric Providers are not yet willing or even able to share cost estimates with their end-use customers who take this item as a pass-through.

Ancillary Services are procured by ERCOT for a set of activities conducted by generators and, to a limited extent, by interruptible loads. These services are offered in \$/MW on an hourly basis in the day-ahead market. Like balancing energy, ERCOT buys Ancillary Services via reverse auction each day, in an amount it judges as adequate to ensure grid stability for each hour of the following day. ERCOT takes the lowest-cost offers to meet their requirement, and the highest price accepted establishes the price for all accepted offers.

However, unlike balancing energy, clearing prices for Ancillary Services far exceeded the offer cap. In fact, they settled in excess of \$20,000/MWh. Below is a table with the daily average price for Ancillary Services.

Marginal Clearing Price of Capacity for Ancillary Services

Average of MCPC	Ancillary Type			
Date	NSPIN	REGDN	REGUP	RRS
2/1/21	\$2	\$7	\$9	\$10
2/2/21	\$1	\$6	\$9	\$11
2/3/21	\$1	\$9	\$12	\$15
2/4/21	\$1	\$14	\$11	\$11
2/5/21	\$1	\$7	\$9	\$10
2/6/21	\$1	\$8	\$14	\$12
2/7/21	\$1	\$10	\$11	\$11
2/8/21	\$1	\$6	\$8	\$9
2/9/21	\$2	\$5	\$9	\$9
2/10/21	\$2	\$4	\$9	\$9
2/11/21	\$13	\$3	\$21	\$21
2/12/21	\$34	\$7	\$58	\$58
2/13/21	\$447	\$140	\$1,032	\$1,228
2/14/21	\$3,498	\$1,052	\$6,185	\$7,982
2/15/21	\$4,778	\$2,356	\$7,626	\$11,949
2/16/21	\$6,953	\$5,443	\$11,986	\$17,911
2/17/21	\$8,708	\$9,278	\$16,045	\$20,753
2/18/21	\$8,388	\$6,323	\$19,725	\$20,678
2/19/21	\$9,076	\$4,745	\$13,439	\$15,740
2/20/21	\$2,720	\$811	\$5,475	\$8,562
2/21/21	\$95	\$80	\$701	\$890
2/22/21	\$50	\$46	\$155	\$315

Source: www.ERCOT.com/Mktinfo Daily file downloads from "DAM Clearing Price for Capacity". Values in this table represent the simple average of 24 hourly values for each day.

Three of the largest cost items among the ancillary services are Responsive Reserve Service (RRS), Regulation Up (Reg Up) and Regulation Down (Reg Dn). RRS is provided by generators on standby to ramp-up capacity that hasn't otherwise been scheduled, as well as loads who have agreed to be interrupted without notice. Reg Up and Reg Down are small adjustments made by generators to keep the grid at 60 Hz. ERCOT procures these services and passes costs through to load serving entities on a pro-rata basis. These items are commonly unhedged in total or in part by energy suppliers, who will fix the values for end users (including a risk premium), or pass these costs through without premium.

For many commercial and industrial end users, these cost items are passed-through at cost. These typically amount to a tiny fraction of the overall cost of energy. Historically when LMPs (aka "spot prices") have surged, Ancillary Services

have climbed, but not close to the extremes of last week. As the table reflects, RRS, RegUp and RegDn typically clear at prices lower than the zonal LMP ("Spot price"), but last week values exceeded \$20,000/MW per hour, the highest being \$25,674.30 for Responsive Reserve Service at 8am on Wednesday, Feb. 17, nearly three times the \$9,000 offer cap. This is the first time Ancillary Service prices have exceeded the offer cap. According to Carrie Bivins, ERCOT IMM Director, discussing Ancillary Service prices at the ERCOT Urgent Board of Directors Meeting held February 24, "Optimization is setup to procure *at pretty much any price*."

To illustrate the impact of the extraordinary Ancillary Service prices, a commercial energy buyer taking Ancillary Services as a pass-through has received a good-faith estimate from their Retail Electric Provider that the Ancillary Services portion of their bill for the week of Feb 14 is more than 495x the typical ancillary services pass-through. For a mid-sized commercial energy user typically paying an all-in cost of energy of \$1,000 per week, the typical Ancillary Services pass-through is about \$50. For the week of February 14, it will be about \$25,000.

Given the \$9,000/MWh offer cap for Ancillary Services, is an "optimized" settlement price of in excess of \$20,000/MWh justified? It is unprecedented and should be scrutinized by regulators and legislators.

Some of the questions the PUCT should address include the following.

- 1) Given that the maximum offer for Responsive Reserve Service, Regulation Up and Regulation Down was \$9,000, how do the settlement price for these Ancillary Services clear at multiples of the highest offer? Is it possible that these extraordinary clearing price calculations were subject to error?
- 2) Should the PUCT order Ancillary Service values be revised back to the offer cap?
- 3) Is it possible for market participants to "game" the availability of Ancillary Services to cause the clearing price of capacity to vastly exceed the offer cap?
- 4) Do these lines of questions simply suggest prudent profit maximization and reasonable price signals, or do they reveal instances of price gouging during a

public safety emergency?

- 5) Once all firm load is subject to involuntary interruption, should all load be recognized as de-facto interruptible resources with an offer price of \$0 and placed into the RRS offer stack? If not, should interrupted loads receive a pro-rata share of the RRS payout?
- 6) During periods of sustained rolling blackouts, does ERCOT need to procure much, if any, RRS from generators when every MW of capacity available is needed for balancing energy to meet the ongoing crisis?

The Public Utility Commission of Texas should consider these matters in earnest.

Many end-use customers will ask similar questions when these costs start appearing in invoices.

Respectfully Submitted

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