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DOCKET 24770

REPORT OF ERCOT TO THE PUCT **REGARDING IMPLEMENTATION** OF THE ERCOT PROTOCOLS

PUBLIC UTILITY CO **OF TEXAS** § §

ERCOT'S RESPONSE TO ORDER NO. 19 – INITIAL EVALUATION OF BALANCING ENERGY PRICE MITIGATION PROPOSALS

The Electric Reliability Council of Texas (ERCOT) respectfully submits an initial evaluation of three mitigation proposals for Balancing Energy Service (BES) currently under discussion in this Docket. This evaluation is submitted in compliance with Order No. 19, "Scheduling Technical Conference; Setting Comment Deadline." This evaluation does not apply to other mitigation methods (with similar names) that have been proposed for application to ERCOT Ancillary Services markets as part of this Docket.¹

In this evaluation, ERCOT provides a description of our understanding of each proposal followed by a description of the implementation complexities, to the extent ERCOT can do so given the short time provided to file this initial evaluation. Additional detail and clarification will be required prior to a full and complete impact analysis. Given these limitations, where possible, ERCOT provides herein a cost and implementation timeframe based on the use of internal ERCOT labor and resources. The time estimates are for development time only and do not include Protocol language development and approval or project management limitations (where applicable), and they do not include time for development of potentially impacted ERCOT functions and Protocol calculations, as set forth in the questions posed by ERCOT below.

The proposals under consideration for mitigation of Balancing Energy are:

- Modified Competitive Solution Method proposed by Commission Staff (Staff) Proposal
- Reliant Resources, Incorporated (Reliant, RRI) Proposal

¹ See, e.g., Staff Comments of May 1, 2003, Appendix: "Implementation of the Competitive Solution Method in ERCOT Ancillary Capacity Service Markets."

- City Public Service of San Antonio (CPS) Proposal
- Lower Colorado River Authority (LCRA) Proposal

All of the proposals share the following in common: ex-post price mitigation in the payment of BES deployed by ERCOT. E ach proposal supports a mitigation mechanism that occurs in the settlement process—and no proposal would change the current ERCOT real-time deployment *decision-making* process. ERCOT assumes that additional cost or shortfall of payments resulting from these proposals would be allocated or uplifted in a manner similar to the existing allocation and uplift process. No proposal addresses the link between the MCPE and the Shadow Price. Is the expectation under each proposal that the Shadow Price calculation would also be based off of the mitigated price, or would the Shadow Price be calculated as it is today? This issue should be addressed to make clear the impact of the price mitigation on other market features.

ERCOT urges the Commission to consider whether these proposals may discourage generation capital investment and thereby pose a longer-term risk to system security. In addition, from a market perspective, the Commission should keep in mind that BES typically makes up less than 10% of the energy supplied in the ERCOT Region, and that Commission Order 20 has extended the BES bid cap of \$1000 indefinitely.²

A. Commission Staff's Modified Competitive Solution Method (MCSM) Proposal—as Modified in May 2003 Filing

Staff provided a description of MCSM in its Memo filed in this Docket in March 2003.³ This proposal was supplemented by information presented in filings of April 3, 2003,⁴ and May 1, 2003.⁵

² See Order 20—Such caps to be reviewed periodically as will be set forth in the final Order in this docket.

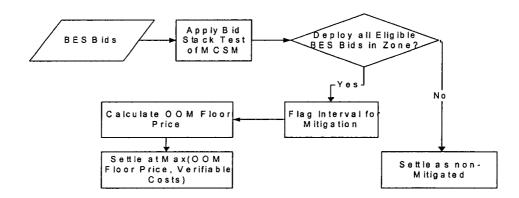
³ PUCT Staff Memo to Commissioners dated March 18, 2003.

⁴ PUCT Staff Response to Order 18, April 3, 2003.

⁵ PUCT Staff Response to Order 19, May 1, 2003.

ERCOT has summarized the proposal for MCSM set forth by Staff in the March 18 Memo in the graphic below. In its filing of May 1, 2003, Staff proposed a modification to the payment equation for the Mitigated Market Clearing Price for Energy (MCPE) calculated under MCSM. This modification would change the settlement calculation but not the condition determination methodology.

ERCOT's Understanding of Staff Proposed Modified Competitive Solution Method for Balancing Energy Service



A number of filings in this Docket have stated that implementation of MCSM would not impact ERCOT systems.⁶ To be clear, ERCOT has stated, and hereby affirms in this filing, that Staff's MCSM could be implemented on a manual basis immediately upon passage of the required Protocol revisions *PROVIDED* that it would apply only when the entire eligible BES bid stack *ERCOT-wide* has been exhausted *AND PROVIDED* that the frequency of the occurrence of deploying all eligible bids remain at historical levels.⁷ If the price mitigation is required to be applied on a zone-by-zone basis, ERCOT could not implement this proposal immediately, and—modifications to ERCOT systems would be required. If occurrences of BES bid stack exhaustion were to increase significantly from historical levels, even if applied on an

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⁶ PUCT Staff Memo to Commissioners dated March 18, 2003, states: "MOD concludes that a simplified version of CSM could be implemented quickly, with little impact on ERCOT systems..." Commission Staff Response to Order 18 states: "ERCOT has stated that MCSM could be implemented immediately, with no system impacts," referring to a statement by ERCOT that the implementation would be a manual one and the application of same would be infrequent.

⁷ ERCOT's response to Order 18 in this Docket noted that the historical incidence of the occurrence of this condition was very low. In that filing, ERCOT stated: "From the start of the market through March 27, 2003, ERCOT estimates that the bid stack has been exhausted 512 times out of 58,080 intervals, or approximately 0.9 percent of the time."

ERCOT-wide basis, ERCOT would need to make system changes to automate many of steps of the mitigation functions.

Implementation of this proposal (on a system wide basis) would require identification of the "bid stack exhaustion" condition in the market operation system. This information would have to be passed to the settlement system. Additionally, new calculations would have to be developed in the market system and passed to the settlement system. The process of determining verifiable c osts would be a manual one. T his c onclusion does not include the ongoing labor costs estimated to be half of a Full Time Equivalent (FTE) employee to support the verifiable cost identification effort.

As stated above, ERCOT believes the Staff's MCSM could be implemented immediately upon passage of the required Protocol revisions, *unless* the zone-by-zone evaluation were required for each interval, in which case ERCOT believes the needed system changes would take at least eight months following Protocol passage, and the costs would exceed \$100,000.

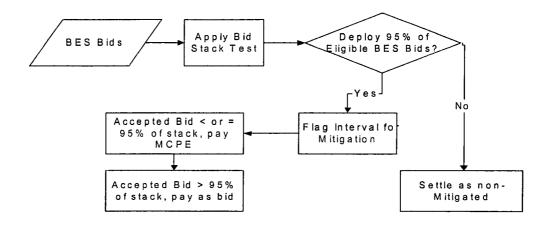
B. CPS Proposal⁸

CPS proposes to determine a threshold percentage in the bid stack, below which accepted offers would be paid MCPE, and above which accepted offers would be paid as bid. This is set forth in the graphic below. Outstanding questions are: What would determine the MCPE? Is the price mitigation applicable on both a zonal and an ERCOT-wide basis, and how might the settlement calculation differ? These questions should be further addressed at a Commission workshop or ERCOT work group—or in the development of the appropriate Protocols.

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⁸ See CPS response to Order 18.

ERCOT's Understanding of CPS Proposal for Balancing Energy Service Mitigation

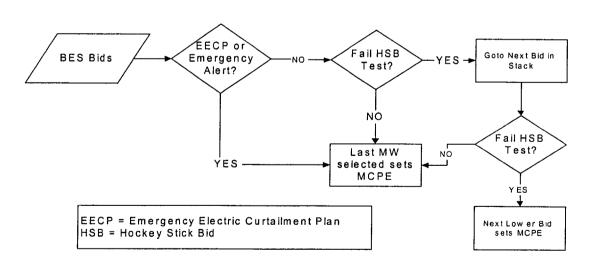


Implementation of this proposal would require identification of the "bid stack condition" in the market operation system. This information would have to be passed to the settlement system. Additionally, this proposal would require that multiple bids be passed from the market system to the settlement system. This proposal also would change the requirements on the public posting system, data passed to data extracts, as well as the archive and warehouse. This structure adds complexity due to the requirement to have multiple settlement values for a particular interval. Currently, ERCOT systems are designed to have one value for each interval for Up Balancing Energy Service and Down Balancing Energy Service per zone. This proposal requires the systems to be scaled for multiple points for each service for each zone for each interval.

ERCOT's initial evaluation of the CPS proposal is that the required system modifications are expected to take approximately eight months to implement and cost approximately \$96,000 for labor.

C. Reliant Proposal⁹

Reliant proposes to examine the operational system conditions as part of its mitigation check. This check would precede the mitigation calculation, and unlike the other proposals, mitigation would only occur when the system was not in an emergency condition. This conditional check would ensure that in times of operational scarcity, providers would be able to respond to market signals without ex-post mitigation risk. Reliant's proposal appears to be the proposal that most encourages full Resource participation. Moreover, the bright line test proposed by Reliant for evaluation of the "hockey stick" condition is readily quantifiable and programming implementation for the test itself would be straightforward. Additionally, this proposal specifically penalizes the hockey stick bid condition presented by the bidder(s) which fail the test and rewards the rest of the market by providing an MCPE which is less than or equal to the bid(s) that were mitigated. The Commission has stated identification of hockey stick bidding to be a primary goal of price mitigation in this context.¹⁰



ERCOT's Understanding of RRI Proposal for Balancing
Energy Service Mitigation

⁹ See Reliant response to Order 18.

¹⁰ See Commission Staff Response to Order 18 which states: "In response to the price spikes in the BES market in February 2003 [which the Commission has identified as being partly due to a case of hockey stick bidding in its March 18, 2003 Memo in this Docket] and the resulting bankruptcy of Texas Commercial Energy, Staff developed MCSM."

Implementation of this proposal would require identification of the EECP or other emergency condition. In the absence of this condition, ERCOT would test for the hockey stick bid condition and mitigate in the event of failure by moving down the bid stack to the offer that does not violate the condition. At this point, ERCOT is unsure whether the bid evaluation for the hockey stick condition would be conducted in the market operation system or the settlement system. Regardless of where (or in which step) the hockey stick condition evaluation occurs, ERCOT would not anticipate it to affect the deployment decision. If the evaluation were to occur in the market system, the resultant information would have to be passed to the settlement system. If the hockey stick condition evaluation were to occur in the settlement system, the market system would have to pass individual bid information to settlements. This would necessitate a system change. One benefit of this proposal over the CPS proposal is the maintenance of a single MCPE for a given interval.

ERCOT's initial evaluation of the Reliant proposal is that the required system modifications are expected to take approximately four months after passage of the necessary Protocol revisions with a labor cost of approximately \$50,000.

D. LCRA Proposal¹¹

LCRA discusses the Competitive Solution Method as it applies to Ancillary Service Capacity markets and offers some observations about ERCOT operational procedures. ERCOT does not have an understanding of the LCRA proposal as it applies to BES. If LCRA is able to provide additional information, ERCOT will provide an evaluation similar to those provided for the other proposals.

¹¹ See LCRA Response to Order 19.

Respectfully submitted,

Mark A. Walker

Senior Corporate Counsel Texas Bar No: 20717318

Tel. (512) 225-7076 Fax (512) 225-7079 mwalker@ercot.com

ERCOT

7620 Metro Center Drive

Austin, TX 78744

CERTIFICATE OF SERVICE

I, Mark A. Walker, attorney for ERCOT, certify that a copy of this document filed in this docket by ERCOT was served on all parties of record in this proceeding on May 8, 2003, in the following manner: by facsimile, first class U.S. mail or hand delivery.

Mark A. Walker