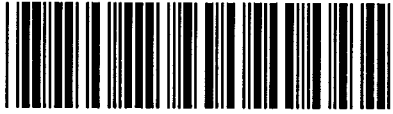


Control Number: 24770



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**PUC DOCKET NO. 24770**

**REPORT OF THE ELECTRIC  
RELIABILITY COUNCIL OF TEXAS  
(ERCOT) TO THE PUCT REGARDING  
IMPLEMENTATION OF THE ERCOT  
PROTOCOLS**

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**PUBLIC UTILITY COMMISSION**

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**ORDER**

This Order approves revisions to the Electric Reliability Council of Texas (ERCOT) protocols as discussed below. The Commission finds that the protocol revisions are reasonable and necessary as part of the Commission's oversight role of the ERCOT market. ERCOT shall implement the protocol revisions in accordance with this Order.

**I. Procedural History**

On October 1, 2001, ERCOT filed its Report Regarding the Implementation of the ERCOT Protocols (Report) in accordance with the Commission's directive in Docket No. 23220.<sup>1</sup> The Report contained the ERCOT Board's recommendations addressing several wholesale market design issues identified by the Commission. These issues were divided into the following categories:

- Day-Ahead Ancillary Services Commitments
- Ancillary Services Procurement and Market Solution
- Replacement Reserve Service (RPRS) Generator Offer Caps
- Avoiding Excessive Payments to RPRS Load Services
- Pre-Assigned Transmission Congestion Rights (PCRs)
- Load Participation Opportunities in the ERCOT Market

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<sup>1</sup> *Petition of the Electric Reliability Council of Texas for Approval of the ERCOT Protocols*, Docket No. 23220, Order on Rehearing (Jun. 4, 2001).

The Report reflected the recommendations of the Technical Advisory Committee (TAC) Special Task Force (STF). The TAC STF was comprised of stakeholders in the ERCOT market, and, ultimately, the recommendations in the Report were approved by not only the TAC STF, but also the ERCOT Board.<sup>2</sup>

Following the filing of the Report, the Commission administrative law judge (ALJ) issued Order No. 1 and directed ERCOT to provide notice of its Report to interested parties. The Commission ALJ conducted a prehearing conference that established the process for addressing issues raised in the Report. This process was structured in a way that allowed parties to develop lists of issues,<sup>3</sup> submit briefs, and participate in two technical conferences. Parties agreed that in the absence of a request for hearing, the legal and policy issues could be best addressed by submitting briefs.<sup>4</sup> The Commission followed this approach as the best way to resolve the numerous policy issues raised by the recommendations contained in the Report.

Order No. 3 established November 30, 2001 as the deadline to file requests for hearing. On November 30, 2001, Austin Energy and City Public Service of San Antonio (San Antonio) filed requests for hearing related to the pre-assigned congestion rights (PCRs) pricing issue. On January 18, 2002, those requests were withdrawn.<sup>5</sup> Therefore, because no hearing was necessary, the Commission's findings are based on the briefs filed in this proceeding as well as the sworn testimony provided by expert witnesses at the July 19, 2002 and the May 14, 2003 technical conferences.

The contested issues that emerged from the Report for Commission decision fall into three major categories: competitive-solution method, bid caps, and PCRs. This Order discusses and memorializes the Commission's decisions with respect to each of these issues.

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<sup>2</sup> Two issues, Staff's Competitive Solution Method and Demand Side Resources and Demand Responsiveness, did not have a recommendation.

<sup>3</sup> These issues were memorialized in the decision point list (DPL) filed on April 9, 2002. All substantive issues, with the exception of Issue No. 8, are addressed in this Order. Issue No. 8 was not fully considered in this docket, and is being considered in Project No. 26055, *Load Participation and Price Responsiveness Project*.

<sup>4</sup> See Order No. 3 at 2-3 (Nov. 15, 2001).

<sup>5</sup> See Letter to Judge Burns from John Tempesta, Austin Energy (Jan. 18, 2002).

## II. Discussion

### A. Competitive Solution Method and Modified Competitive Solution Method

#### 1. Background

In its Order on Rehearing in Docket No. 23220, the Commission directed ERCOT to “consider and report to the Commission on expanding the definition of market solution to apply to all circumstances in which ERCOT procures ancillary services.”<sup>6</sup> In its Report, ERCOT stated that it was unable to provide a final recommendation on this issue. ERCOT did, however, attach a report prepared by the TAC STF, and an alternative approach offered by Commission Staff.

When Staff initially addressed the issues of ancillary-services procurement and market solutions, Staff proposed a competitive-solution method (CSM) as a market failure mitigation tool for ERCOT’s ancillary-services markets.<sup>7</sup> Staff described the three-step CSM as a well thought-out and straightforward method to control the potentially severe effects of market failure, while still allowing manageable price increases and price spikes to provide appropriate price signals to stimulate the addition of new supply.<sup>8</sup> With the exception of South Texas Electric Cooperative (STEC), the parties commenting on the CSM either cautioned against mandating its immediate implementation or opposed it altogether. The CSM was one of the topics discussed at some length during the Commission’s technical conference on July 19, 2002. Ultimately, the Commission decided to defer further consideration of the CSM to a subsequent rulemaking project dealing more broadly with market power mitigation.<sup>9</sup>

In a March 18, 2003 memorandum, Staff proposed applying a modified form of the CSM (MCSM) to the balancing-energy service (BES) markets operated by ERCOT. Unlike the original CSM proposal, which would involve a two-part competitive sufficiency test even when

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<sup>6</sup> Docket No. 23220, Order on Rehearing at 11.

<sup>7</sup> Staff’s Initial Brief at 14-20 (Jan. 25, 2002). These services include Regulation (Up and Down), Responsive Reserve, Non-Spinning, Replacement Reserve, and Balancing Energy (Up and Down).

<sup>8</sup> *Id.* at 15.

<sup>9</sup> Open meeting Tr. at 90 & 105 (Apr. 17, 2003); open meeting Tr. at 169-170 & 177-178 (May 22, 2003).

ERCOT procures less than the full set of capacity offered by market participants, the MCSM would simply set a lower price for balancing energy than then-current ERCOT protocols dictated *when ERCOT procures the entire bid (offer) stack of balancing energy*.<sup>10</sup> In other words, the MCSM is just the CSM applied to a case in which, because ERCOT must procure all balancing energy offered, each supplier is pivotal<sup>11</sup> and could set the market-clearing price of energy (MCPE) at any level it desired, absent mitigation. As described in Staff's memorandum, the MCSM would calculate an out-of-merit (OOM) floor price, corresponding to what the MCPE would be if ERCOT deployed 90% of the eligible bid stack.<sup>12</sup> Each deployed resource then would receive the greater of that OOM floor price or its verifiable incremental costs.

Staff proposed the MCSM in response to the dramatic price spikes in the Up-Balancing Energy Service (UBES) market on February 24-25, 2003. As reported by Staff, prices for UBES reached \$990/MWh for 28 fifteen-minute intervals during those two days.<sup>13</sup> These price spikes resulted from one market participant's offering a *single* MWh at \$990, or several hundreds of dollars above what that entity or any others offered for any of the remaining bid stacks, which totaled between 4,100 and 4,900 MWh per interval. Staff estimated that the additional cost of procuring this last MWh during the 28 intervals was at least \$17 million.<sup>14</sup>

This behavior, Staff alleged, provided clear evidence of the threat of hockey-stick bidding, reflecting not costs but a participant's attempt to "win the lottery" if the price of its outlying offer is the highest offer accepted by ERCOT for UBES.<sup>15</sup> Countering criticism that the

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<sup>10</sup> See Staff's Memo to Commissioners at 2 (Mar. 18, 2003). Staff stated that the MCSM would apply when ERCOT procures all Up-Balancing Energy Service (UBES) or Down-Balancing Energy Service (DBES) for a particular zone or, if there is no zonal congestion, for all of ERCOT. Staff later stated, however, that in this docket Staff was seeking an order applying MCSM to UBES only.

<sup>11</sup> A supplier is pivotal if removing from the market bid stack that supplier's offer would reduce the market bid stack to a quantity below what ERCOT must obtain.

<sup>12</sup> Staff's Memo to Commissioners at 2 (Mar. 18, 2003).

<sup>13</sup> See Staff's Memo to Commissioners, Attachment at 1-2 (Mar. 17, 2003). The Attachment, Market Oversight Division's Analysis of Balancing Energy Price Spikes During the Extreme Weather Event of February 24-25, was originally filed in Project No. 23100, *PUC Market Oversight Activities*, on March 3, 2003.

<sup>14</sup> *Id.*

<sup>15</sup> See Staff's Reply Brief at 23 (Feb. 15, 2002).

MCSM would fail to adequately signal scarcity and induce the addition of new electricity supply, Staff stated that if scarcity characterized the market as a whole, the price corresponding to the 90<sup>th</sup> percentile of energy offers would be expected to rise, along with other offers. On the other hand, “the highest price can reflect blatant opportunism.”<sup>16</sup>

Staff’s proposed MCSM was an attempt to address market failure resulting from hockey-stick bidding.<sup>17</sup> Current electricity markets are especially vulnerable to this type of behavior because of the essential nature of electricity service, the inability to store electricity cost-effectively, short-run inelasticity, and the need to balance electricity demand and supply in real time.<sup>18</sup> In addition, as explained by Staff’s expert, Dr. Shmuel Oren, the true windfall potential of hockey-stick bidding results from the complete rigidity of ERCOT’s procurement protocols.<sup>19</sup> The protocols preclude ERCOT from reducing its procurements in response to even extreme price increases, resulting in a completely inelastic demand for BES and other ancillary services. Therefore, if total bids for BES in a particular interval fall short of ERCOT’s procurement requirement, ERCOT is required to purchase every single MWh offered, regardless of the price of the most expensive bid. This action would not be required in most markets, where buyers react to price hikes by playing off sellers against each other and reducing total purchases, thereby moderating price increases.<sup>20</sup>

A number of parties responded to Staff’s proposed MCSM. STEC and the Office of Public Utility Counsel joined Staff in supporting the immediate implementation of the MCSM. ERCOT did not support or oppose the MCSM, but stated that implementing it on a manual basis “would be acceptable so long as the incidence of exhausting 100% of the eligible BES bid stack

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<sup>16</sup> Staff’s Response to Order No. 18 at 13 (Apr. 3, 2003).

<sup>17</sup> See Staff’s Memo to Commissioners at 2 (Mar. 18, 2003); *see also* Technical Conference Tr. at 117-119 (May 14, 2003).

<sup>18</sup> Staff’s Reply Brief at 20 (Feb. 15, 2001).

<sup>19</sup> Technical Conference Tr. at 5-7 (May 14, 2003).

<sup>20</sup> *Id.* at 7 and 9-10; Staff’s Response to Order No. 18 at 9.

is infrequent, as has been the case in the past.”<sup>21</sup> Some of the responding parties opposed the MCSM altogether or recommended that it be subjected to further study.

Several parties stated that accurately estimating a company’s true short-run marginal cost (SRMC) may be very difficult, especially in a scarcity situation, when a firm’s SRMC curve may be in a nearly vertical range (*i.e.*, when extra output may be obtained only with extremely high extra costs, if at all).<sup>22</sup> Some of the parties expressed concern that a much lower, essentially average, measure of marginal cost calculated during times of spare capacity would be inappropriately used to estimate a company’s “verifiable costs” under scarcity conditions.<sup>23</sup> San Antonio and Lower Colorado River Authority (LCRA) voiced a related concern, that a verifiable-cost standard could deter loads acting as resources from participating in the BES market.<sup>24</sup> Reliant Resources, Inc. (RRI) stated that mitigating the MCPE would dampen scarcity signals and weaken the incentive of new entrants to add supply.<sup>25</sup> TXU, CenterPoint, and Competitive Power Advocates (CPA) also cautioned that the MCSM could lead to “boomerang bidding,” in which generators bid far more balancing energy at the higher price than they would absent the MCSM. As a result, average BES prices could be higher rather than lower.<sup>26</sup> Kevin Gresham, RRI’s witness, reiterated this point at the May 14, 2003 technical conference: “Over time, if you take off the top of the balancing stack, those market participants . . . are still looking for recovery of their opportunity costs, . . . so what you may see is . . . an increase in the average prices that occur in the balancing energy market over the long term.”<sup>27</sup>

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<sup>21</sup> ERCOT’s Reply to Order No. 18 at 2 (Apr. 3, 2003). ERCOT reported that it procured the entire BES bid stack for 0.9% of the 58,080 market intervals from the start of the market through March 27, 2003.

<sup>22</sup> See Reply Comments to Order No. 18 of TXU Merchant Energy Companies (TXU); CenterPoint Energy Houston, LLC, and Texas Genco Holdings, Inc. (CenterPoint); Reliant Resources, Inc. (RRI); and Competitive Power Advocates (CPA) (Apr. 3, 2003).

<sup>23</sup> See *Id.*; see also Technical Conference Tr. at 69-71 (May 14, 2003).

<sup>24</sup> See remarks at the May 14, 2003 technical conference of LCRA’s Shams Siddiqi (Tr. at 61-62) and San Antonio’s Dan Jones (Tr. at 101-103). See also Tr. at 135-138 and 156.

<sup>25</sup> See Technical Conference Tr. at 106-109 (May 14, 2003).

<sup>26</sup> See Reply Comments to Order No. 18 of TXU, CenterPoint, and CPA.

<sup>27</sup> Technical Conference Tr. at 108-109 (May 14, 2003).

RRI and San Antonio proposed alternatives to the MCSM. RRI's proposal involved a narrow definition of a hockey-stick bid, which would not be allowed to set the MCPE. A hockey-stick bid would be one in which a Qualified Scheduling Entity's (QSE's) last volume/price pair submitted represented less than 3% of the QSE's total volume in that bid curve, and was more than three times the price of the QSE's immediately preceding volume/price pair. The definition would also exclude bids during an ERCOT-declared emergency event and bids considered after more than one bid had already been declared a hockey-stick bid. If a bid were determined to be a hockey-stick bid, the next lower bid would set the MCPE, if it were not a hockey-stick bid itself.<sup>28</sup> San Antonio's proposed method would set an MCPE equal to the price of the highest bid below some threshold (*e.g.*, 95% of the bid stack), and pay higher-priced bids on an as-bid basis (*i.e.*, at their own specific offer prices).<sup>29</sup> At the May 14, 2003 technical conference, however, San Antonio announced that it preferred RRI's alternative to its own.<sup>30</sup>

Staff strongly criticized RRI's proposal. Staff's witness, Dr. Oren, argued that by trying to define precisely what constitutes unacceptable behavior, the hockey-stick definition would "provide a prescription of how to stay under the radar screen, and this would be like the IRS publishing the triggers for an audit."<sup>31</sup> In addition, by limiting the definition to the two highest bidders in an interval, the proposal would invite collusion "because it says, 'Come on, guys, don't let me stay alone there. Submit a few hockey sticks so that we will have a club'. . . ."<sup>32</sup> Staff also faulted the proposal for not applying the definition during an emergency, when the opportunity to price-gouge is greatest.<sup>33</sup> Deleting the latter two provisions and making one

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<sup>28</sup> RRI's Response to Order No. 18 at 6 (Apr. 3, 2003).

<sup>29</sup> San Antonio's Response to Order No. 18 at 4-5 (Apr. 3, 2003).

<sup>30</sup> Technical Conference Tr. at 79-81 (May 14, 2003).

<sup>31</sup> *Id.* at 11.

<sup>32</sup> *Id.* at 12.

<sup>33</sup> *See Id.* at 13-14.



additional change in the definition of a hockey-stick bid, Staff argued, would make the RRI proposal more acceptable.<sup>34</sup>

Staff also disputed the suggestion that permitting hockey-stick bids to set the MCPE would stimulate investment. Dr. Oren stated that no bank would lend money to an entrant to build a new power plant “relying on the fact that every once in a blue moon the hockey stick is going to kick in, and they’re going to have a windfall profit.”<sup>35</sup> Claiming that hockey-stick prices are signals for new investment is ludicrous, he asserted. On the contrary, hockey-stick pricing provides “an incentive for people to maintain the scarcity because only then can you capture that price.”<sup>36</sup>

Just before and shortly after the May 14, 2003 technical conference, Staff recommended three revisions to the MCSM. The first was to raise the price mitigation level to the price corresponding to 95%, rather than 90%, of the market bid stack. Staff proposed this revision after it analyzed aggregated BES bid data for the first quarter of 2003 and concluded that mitigating price at the 95% level would still prevent a hockey-stick bid from setting the MCPE when ERCOT deploys all available BES.<sup>37</sup> The second revision was to raise the mitigated price to the lower of the unmitigated MCPE, or 1.5 times the 95% level.<sup>38</sup> Based on its empirical analysis, Staff recommended the 1.5 multiplier to allow for legitimate scarcity rents and lessen the need to accept bids above the mitigated MCPE. With the 1.5 multiplier, 99.2% of the typical first quarter 2003 bid stack would have received more than its offer price.<sup>39</sup> The third revision was to limit the application of the revised MCSM to those cases involving no zonal congestion,

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<sup>34</sup> See *Id.* The further modification would be to define the bid as being more than three times the QSE’s average stack price, rather than three times the price of the QSE’s immediately preceding volume/price pair.

<sup>35</sup> *Id.* at 8.

<sup>36</sup> *Id.* at 75.

<sup>37</sup> See Commission Staff’s Amendment to Modified Competitive Solution Method (May 13, 2003) and Technical Conference Tr. at 24-25 (May 14, 2003).

<sup>38</sup> See David Hurlbut’s Memo to Commissioners at 3, fn. 1 (May 20, 2003).

<sup>39</sup> See Technical Conference Tr. at 25 (May 14, 2003).

thus allowing the application of the MCSM on an ERCOT-wide basis. Staff recommended this limitation to permit speedy implementation of the MCSM.<sup>40</sup>

Additionally, in the process of considering the MCSM, Staff proposed adopting a “sunshine policy” to provide a further deterrent to hockey-stick bidding and other types of gaming.<sup>41</sup> Under this policy, the Commission could, at its discretion, identify an entity whose bid sets the MCPE or, alternatively, require the automatic identification of entities who bid over \$900 whenever the MCPE exceeds \$900. Based on the favorable results in bidding patterns observed after the Commission required the identification of bidders that submit BES bids above \$300 (or under -\$300), Staff contended that the additional sunshine measure likely would produce favorable results in restraining BES prices.<sup>42</sup>

## 2. Commission Decision

### *DPL Issue No. 4: Should the Commission approve Staff’s Competitive Solution Method?*

The Commission concludes that ERCOT’s current protocols preclude it from reducing its procurements in response to even extreme price increases, causing a completely inelastic demand for BES and other ancillary services. Hockey-stick bidding in the BES market by generation resources attempts to take advantage of this inflexibility in the protocols when supply is limited. Under such circumstances, a hockey-stick bid can sometimes set the market clearing price far above any other offers and the bidder’s apparent marginal cost. Consequently, it is appropriate to adopt measures to safeguard against hockey-stick bidding.

With respect to the CSM originally proposed by Staff, the Commission determines that it is appropriate to defer further consideration of the CSM to a subsequent rulemaking project dealing more broadly with market power mitigation. The issues surrounding the CSM require further study and consideration in a forum separate from that of a contested-case proceeding.

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<sup>40</sup> David Hurlbut’s Memo to Commissioners at 3, fn. 1.

<sup>41</sup> See Technical Conference Tr. at 40-45 (May 14, 2003).

<sup>42</sup> *Id.* at 41-43.

With respect to the MCSM, the Commission finds that it is appropriate to adopt the Staff's most recently revised form of the MCSM, proposed at the May 14, 2003 technical conference, with one additional change: bids exceeding the mitigated MCPE will be paid as bid, rather than as the higher of their verifiable costs or the mitigated MCPE. This revision will allay concerns about mitigating non-hockey-stick bids,<sup>43</sup> accurately estimating participants' verifiable costs, and deterring loads acting as resources from bidding in the BES market, as such concerns were rooted in the fear that the legitimate costs of some bidders would be under-recovered because of the verifiable-cost standard.<sup>44</sup>

This revised MCSM will properly restrain prices in the BES market by preventing generators from successfully "ambushing" the BES market.<sup>45</sup> The MCSM will be used to mitigate market failure in the BES market by restraining the market-clearing price of energy (MCPE) when two criteria are met: (1) there is no zonal congestion, so that the entire ERCOT area can be treated as a single zone and the MCSM can be applied on an ERCOT-wide basis, and (2) the entire BES market bid stack is deployed by ERCOT.<sup>46</sup> Consequently, the MCSM can be implemented quickly and will be relatively easy for ERCOT to administer.

As adopted, the MCSM is further characterized as follows:

- The mitigated MCPE will be set at the lower of the unmitigated MCPE or 1.5 times the price corresponding to 95% of the BES market bid-stack quantity. (The BES market bid stack is the aggregation of all BES bid curves submitted by all QSEs for a particular interval.)
- Bids with prices above the mitigated MCPE will be paid as bid.

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<sup>43</sup> Mark Dreyfus of Austin Energy discussed this and related concerns at the May 14, 2003 technical conference. *See* Technical Conference Tr. at 144-146.

<sup>44</sup> Shams Siddiqi of LCRA and Dan Jones of San Antonio discussed these concerns at the May 14, 2003 technical conference. *See* Technical Conference Tr. at 61-62, 101-103, 135-138, and 156.

<sup>45</sup> As stated by Dr. Oren at the May 14, 2003 technical conference, "[A] hockey stick bid is...essentially a market ambush strategy where you lay an ambush and wait for the market to fall into it...." (Tr. at 117).

<sup>46</sup> *See* Staff's Memo to Commissioners at 2, fn. 7 (Mar. 18, 2003).

- Payments for the price excess (of bid price over the mitigated MCPE) for bids above the mitigated MCPE will be uplifted to market participants.

The Commission finds that in addition to adopting the revised MCSM, it is appropriate to adopt the “sunshine policy” proposed by Staff. Under the sunshine policy, ERCOT shall automatically identify all QSEs submitting BES bids exceeding \$900 whenever the MCPE exceeds \$900. The Commission finds that such identification will inhibit hockey-stick bidding.

Both the sunshine policy and the MCSM outlined above will continue in effect until such time as the Commission replaces them with a permanent market failure mitigation solution. Accordingly, the Commission directs ERCOT to develop and adopt, on an expedited basis, the protocol revisions needed to implement the interim measures described above.

## **B. Market Solution Test**

### **1. Background**

In its Order on Rehearing in Docket No. 23220, the Commission directed ERCOT to report on and consider “expanding the definition of market solution to apply to all circumstances in which ERCOT procures ancillary services.”<sup>47</sup>

Although the ERCOT Board did not approve a report for this issue, the TAC STF declined to recommend extending the definition of “market solution” to apply to all ancillary-service procurements. The TAC STF did, however, endorse extending the definition to apply to all cases of *local* reliability service procurements. Accordingly, it recommended adding the phrase “or other reliability need” to the “market solution” definition, which would read as follows: “A Market Solution exists when at least three unaffiliated Resources, with capacity available, submit bids to ERCOT that can solve circumstances of local congestion, or other reliability need, and no one bidder is essential to solving the Congestion.”<sup>48</sup> Staff also endorsed this extension, observing that voltage support is another local-reliability issue that ERCOT

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<sup>47</sup> Docket No. 23220, Order on Rehearing at 11.

<sup>48</sup> Report of the Electric Reliability Council of Texas to the PUCT Regarding Implementation of the ERCOT Protocols, Attachment A, at 26 (Oct. 1, 2001).

sometimes must address through the use of balancing energy and replacement reserve services.<sup>49</sup> No party specifically opposed the proposal.

## 2. Commission Decision

***DPL Issue No. 5: Should the application of the existing market solution test be extended to all local reliability service procurements?***

The Commission finds that application of the existing market solution test should be extended to all local reliability service procurements. Congestion is not the only local-reliability issue that ERCOT must address through the use of ancillary services. Accordingly, ERCOT should revise its protocols to extend the test to apply to any local-reliability need, except as necessary to correct flaws in service selection and pricing.<sup>50</sup>

### C. Bid Caps for Ancillary Services

#### 1. Background

In Docket No. 23220, the Commission imposed a bid cap of \$1,000 per MWh<sup>51</sup> for balancing-energy service (BES), a type of ancillary service.<sup>52</sup> The bid cap applied to generation resources for energy that ERCOT procures on a daily basis. The Commission also adopted an expiration date for the bid cap of July 4, 2003, “because the Commission expects by that time

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<sup>49</sup> See Report at 22, Attachment A. See also Commission Staff’s Initial Brief at 20-21. (Jan. 25, 2003).

<sup>50</sup> On July 31, 2003, the ERCOT Board of Directors voted to adopt Protocol Revision Request 440, removing the consideration of a Market Solution for energy payments for local-congestion management from August 1, 2003 through December 31, 2003. This action was consistent with the Commission’s July 25, 2003 open-meeting discussion of the extremely high local balancing energy service payments in June 2003.

<sup>51</sup> This bid cap was calculated by estimating the cost of a new simple cycle gas turbine and a high price for natural gas: a fixed annual cost of \$70,000/megawatt (MW)-year divided by 75 hours/year of operation plus a 12,000 heat rate multiplied by an \$8/million British Thermal Units (MMBtu) natural-gas price.

<sup>52</sup> Docket No. 23220, Order on Rehearing at 13. Ancillary Services required by ERCOT include: (1) Balancing Energy Service Up and Down; (2) Regulation Service Up and Down; (3) Responsive Reserve Service; (4) Non-Spinning Reserve Service; (5) Replacement Reserve Service; (6) Voltage Support; (7) Black Start Service; (8) Reliability Must-Run Service; and (9) Out-of Merit Capacity Service and Energy Service. The ancillary services subject to bids (or offers) and under consideration in the present docket include the first five services.

any generation entity market power issues will have been better addressed through other means.”<sup>53</sup>

Consequently, in the Order on Rehearing, the Commission sought a wider inquiry into the competitiveness and pricing of ancillary services and to broaden the use of market power mitigation measures.<sup>54</sup> First, the Order on Rehearing stated that “ERCOT shall develop and submit to the Commission for possible approval a bid cap on capacity bids for generation resources offering to provide replacement reserve service (RPRS).”<sup>55</sup> The Commission’s specific directives regarding BES and RPRS were based on the fact that these two ancillary services cannot be self-arranged, but must be procured by ERCOT. Second, the Commission ordered ERCOT to consider expansion of the use of the market solution test to all ERCOT-procured ancillary services.

In its Report, ERCOT made the following recommendation: “The RPRS offer cap, applicable to generating resources, should be set equal to \$1,000/MW per hour, and would sunset on the same day as the offer cap for Balancing Energy Service.”<sup>56</sup>

## **2. Discussion**

### **a. Additional Bid Caps**

Expanding the application of the bid caps to all ancillary services was proposed in Staff’s Initial Brief, filed on January 25, 2002. Responding to the Commission’s directive for a broader inquiry into the competitiveness and pricing of ancillary services and related market mitigation measures, Staff suggested that “bid caps should be imposed as part of Staff’s competitive-solution method as backstops for both day-ahead procurements as well as the adjustment period procurements of ancillary-services capacity.”<sup>57</sup> In addition, Staff suggested that to harmonize

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<sup>53</sup> *Id.*

<sup>54</sup> Commission Staff’s Initial Brief at 22.

<sup>55</sup> Docket No. 23220, Order on Rehearing at 13.

<sup>56</sup> Report at 10.

<sup>57</sup> Staff’s Initial Brief at 23.

with the existing BES bid cap, the same level of generation resource bid caps should be applied to each of the “daily” ancillary services (regulation up and down, responsive reserve, non-spinning reserve, and replacement reserve services). Staff also proposed that load resources for the same services be capped at \$2,000/MW per hour.

In the stakeholder comments submitted on these issues, the RPRS bid cap was generally supported by municipally owned utilities and electric cooperatives, and opposed by the AEP ERCOT Companies, TXU, and RRI. Most parties, including ERCOT, opposed creating a different level of bid caps for load resources. AEP, specifically, objected to the continued implementation of the bid caps because “these price mitigation measures may lessen incentives to participate in these markets and may add to the supply problem that a less constrained market could prevent.”<sup>58</sup>

The bid caps were also extensively discussed within the context of anti-competitive behavior, market failure, and market mitigation measures during the July 19, 2002 technical conference.<sup>59</sup> At the conference, most parties expressed agreement with the introduction of bid caps for the other ancillary services for generation and load, but at the same level for both, as expert witnesses reiterated a continued need for some market mitigation measures in the Texas market.

**b. Expiration Date for BES Bid Cap**

As noted above, when the BES bid cap was adopted in October 2001, the measure was considered a temporary one, with Commission imposing an expiration date of July 4, 2003. A year later, however, no new market power mitigation measures had been implemented. As a result, Staff, at the August 23, 2002 open meeting, proposed that the expiration date on the BES bid cap be lifted. In response, the Commission decided to gather additional information and market experience, and delayed ruling on the Staff proposal for six months.

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<sup>58</sup> Initial Comments/Briefs of AEP ERCOT Companies at 2 (Jan. 25, 2002).

<sup>59</sup> During the July 19, 2002 technical conference, these issues were extensively discussed. *See* Tr. at 5-20. It was also noted at the conference that a price cap of \$1,000 was self-imposed by the market participants in ERCOT. *See* Tr. at 9-10.

On March 3, 2003, Staff filed a report on the state of ERCOT's balancing-energy market during the ice storm of February 24-26, 2003.<sup>60</sup> The report noted several instances of hockey-stick bidding, which led to higher prices. In Staff's estimate, "had these instances of hockey-stick bidding been mitigated, Up-Balancing Energy Service costs to load would have been reduced by at least \$17 million."<sup>61</sup>

In April 2003, the Commission again addressed the issue of the expiration date for the BES bid cap. In comments filed on April 3, 2003, most parties supported lifting the date, although some also urged periodic review of all bid caps to assess their continued necessity. AEP ERCOT Companies disagreed with the level of the bid caps and also with lifting the expiration date.

### 3. Commission Decision

*DPL Issue No. 6: Should the Commission approve a \$1,000/MW per hour generator bid cap for replacement reserve service?*

*DPL Issue No. 7: Should the Commission approve the Staff's proposed bid caps?*

After a thorough review of the bid cap issue in light of the substantial empirical evidence regarding the functioning of the electric market in Texas,<sup>62</sup> the Commission finds that bid caps are still a much-needed tool to help prevent market abuse by participants or potential market failure caused by anti-competitive behavior. The Commission further finds that, because of their inelastic demand, ancillary-services markets are particularly vulnerable to instances of anti-competitive behavior and that some market power mitigation measures are necessary, at least until the electric markets in ERCOT mature and stabilize.

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<sup>60</sup> See Staff's Memo to Commissioners, Attachment at 1-2 (March 17, 2003).

<sup>61</sup> *Id.* at 2.

<sup>62</sup> See Commission Staff's Memorandum, Report on February 24-26, 2002, Balancing Energy Price Spikes.



The Commission, therefore, concludes that bid caps (*i.e.*, offer caps<sup>63</sup>) of \$1,000/MW per hour for the five ancillary services (regulation up and down, responsive reserve, non-spinning reserve, and replacement reserve services) are a reasonable and necessary market power mitigation measure. The bid caps apply to energy and capacity payments to both load and generation resources for the specified ancillary services procured by ERCOT.<sup>64</sup>

Additionally, after considering the parties' comments and the afore-mentioned ice-storm report, the Commission finds that it is premature to let the BES bid cap expire. The Commission, therefore, concludes that neither the BES bid cap, nor bid caps for other ancillary services procured by ERCOT, shall have an expiration date.<sup>65</sup> The Commission further finds that a periodic review of the bid caps would be useful. The Commission will establish a process to review the need for the bid caps periodically, until such time when the bid caps are no longer necessary and are abolished.

#### **D. Transmission Congestion Rights**

In its Order on Rehearing in Docket No. 23220, the Commission found that the concept of pre-assigned transmission congestion rights (PCRs) for municipally owned utilities (MOUs) and electric cooperatives appeared reasonable and approved Protocol §7.5.4.4, which reflected this finding. The Commission, however, also found that ERCOT and the other parties provided inadequate support for the specific provisions in Protocols §7.5.4.4<sup>66</sup> in light of the fact that PCRs reduce the amount of transmission congestion rights (TCRs) that are available to other market participants through the TCR auctions and, given the low price specified for the PCRs,

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<sup>63</sup> Technically, sellers make offers, while buyers make bids. Therefore, the correct term for what the Commission ordered is an offer cap. The Protocols, however, use the common term "bids" as being made by sellers. Therefore, the Order refers to a bid cap, rather than the technically correct term, offer cap.

<sup>64</sup> On August 23, 2002, the Commission issued an interim order (Order No. 14) stating: "Effective immediately, the offer price for ancillary services provided to the ERCOT system shall not exceed \$1,000/MWh for energy and \$1,000/MW per hour for capacity." The Order further clarified that the bid caps applied to all resources providing ancillary services to the ERCOT system.

<sup>65</sup> On April 23, 2003, the Commission issued an interim order (Order No. 20), which lifted the expiration date on the bid caps for generation resources, established in Docket No. 23220, and stated that the Commission would consider establishing a schedule for a periodic review of the bid caps.

<sup>66</sup> Docket No. 23220, Order on Rehearing at 17-18

increase the congestion costs borne by other market participants.<sup>67</sup> Consequently, ERCOT was ordered to revise §7.5.4.4 to state that PCRs are subject to change or elimination at any time, upon ERCOT Board's approval or Commission order.<sup>68</sup> In addition, the Commission ordered ERCOT to submit the following:

- A complete justification for each of the terms and conditions of the PCRs;
- A list of market participants who will receive PCRs, along with the specific rights that each will receive and the cost that each will pay;
- A complete justification for not having all PCRs expire after a specified term (e.g., ten years), and for extending the grandfathered TCRs beyond the date a cooperative or MOU institutes customer choice; and
- A complete justification for the quantification of the cost of the PCRs, including a complete justification for why the cost of the PCRs should not escalate over time, given that they could potentially be held for many years.<sup>69</sup>

In its Report, ERCOT strongly supported the pre-assignment of PCRs and made several recommendations regarding PCRs based on stakeholder input. ERCOT also noted that Protocol §7.5.4.4 was negotiated through extensive discussion by parties participating in a process that was defined, formed, and endorsed by the Commission. Therefore, ERCOT supported leaving the terms and conditions for the PCRs as they were originally submitted to the Commission in Docket No. 23220. In addition, ERCOT objected to the Commission's instruction to revise Protocol §7.5.4.4 to make PCRs subject to change or elimination at any time, upon ERCOT Board's approval or Commission order.<sup>70</sup>

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<sup>67</sup> *Id.* at 18.

<sup>68</sup> *Id.*

<sup>69</sup> Docket No. 23220, Order on Rehearing at 17-18.

<sup>70</sup> Report at 14.

ERCOT stressed that PCRs are assigned according to all of the ownership and long-term (greater than five years) contractual commitments for annual capacity and energy from a specific remote location entered into before September 1, 1999. The PCRs will extend three years after an MOU or electric cooperative opts-in to customer choice or the removal of the Federal Private Use Act restrictions. Basing the costs of PCRs on the three-year average (1997-99) of actual costs to these entities for re-dispatch (rather than some auction method) maintains parity in the terms and conditions for use of the transmission system under the 1995 legislative revisions to PURA. In addition, ERCOT stated that PCRs should be a separate class from the TCRs in that they are not tradable and should have a “use-it-or-lose-it” provision. Generally, the justification provided for this position was that the non-opt-in entities (NOIEs) with long-term commitments, based on power supply decisions made before September 1, 1999, should be protected from changes in the use of the transmission system made to accommodate retail competition that put their utility systems, customer load, and financial and tax status at risk.<sup>71</sup>

Staff opposed the use of PCRs because PCRs reduce the number of TCRs available for auction and are made available at a fraction of the real cost of congestion, and because PCRs shift costs from the PCR holder to other market participants, including those who must serve customers at the price to beat.<sup>72</sup> As such, according to Staff, PCRs constitute an illegal subsidy. Staff asserted that ERCOT’s proposed PCR cost allocation methodology understates real congestion costs, and may actually encourage inefficient use of generation and transmission resources.<sup>73</sup> In addition, Staff also opposed the “use-it-or-lose-it” provision of the PCRs, because it also provides an incentive for inefficient use of generation and transmission resources. Finally, Staff argued that PCRs violate PURA §§ 39.151(a)(1) and 35.004(e) by providing

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<sup>71</sup> *Id.* at 16-20.

<sup>72</sup> See Staff’s Initial Brief at 36, 40 (Jan. 15, 2002).

<sup>73</sup> Allowing NOIEs to use lower priced PCRs would potentially lead them to opt for the lower-priced remote generation, rather than higher priced close generation, which would have been at lower cost if the true cost of congestion was added. This is the same argument for eliminating the “use-it-or-lose-it” provision. See Report at 31-32.

preferential access to transmission and distribution systems and BES necessary to clear congestion.<sup>74</sup>

Staff proposed an alternative under which PCRs would end at the earlier of three years after an MOU or electric cooperative opts-in to customer choice or December 31, 2005.<sup>75</sup> The proposal would eliminate the “use-it-or-lose-it” restriction and set the price for PCRs to no less than 80% of the auction price of annual TCRs that cover the same period as the PCRs. This would result in a subsidy of as much as 20% to the MOUs and electric cooperatives. Ownership of PCRs, or of a combination of TCRs and PCRs, would not be allowed to exceed 25% of the capacity of a commercially significant constraint (CSC). Staff also requested that a separate proceeding be initiated to resolve all PCR issues, including setting of a firm deadline for MOUs and electric cooperatives to apply for PCR eligibility, setting of an absolute termination date of December 31, 2005, for PCR eligibility, and determining the cost of the PCR subsidy at 20% to other market participants.

Unlike the recommendations set forth in the Report, Staff argued that market-based congestion management is not a result of the legislative revisions to PURA in 1999, relating to retail customer choice, but is an element of a competitive wholesale market, originating from legislative revisions to PURA in 1995. Nor is additional congestion the result of the creation of a single control area; rather, it is the result of the natural growth in load and generation. Staff contended that regardless of how many stakeholders support the proposal, the proposal must be found to be in the public interest. The PCR proposal does not meet this test, Staff asserted.<sup>76</sup>

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<sup>74</sup> See Staff's Initial Brief at 31-40 (Jan. 25, 2002).

<sup>75</sup> In the ERCOT Report, Staff proposed a settlement of PCR issues, which would terminate the PCRs at the earlier of three years after the LSE opts-in to customer choice or December 31, 2006. The cost of the PCRs would be equal to the full load ratio allocation of an amount equal to the previous year's congestion management costs (rather than 80%). PCRs would not be allowed to exceed 20% of the capacity of a CSC. In the alternative, Staff proposed to settle all the PCR issues, resulting in the termination PCRs at the earlier of three years after the LSE opts-in to customer choice or December 31, 2011. See Report at 32.

<sup>76</sup> See Staff's Reply Brief at 7-13 (Feb. 15, 2002).

The MOUs and electric cooperatives strongly supported ERCOT's position.<sup>77</sup> STEC supported the concept of PCRs and supported Staff's recommendation that PCRs should have the same characteristics as TCRs, including elimination of the "use-it-or-lose-it" provision. STEC stated that PCR holding limits should, however, be examined in a separate proceeding.

The affiliated retail electric providers (REPs) argued that if PCRs are not eliminated, they should also be given to similarly situated entities, such as the affiliated REPs, with significant load obligations at the price to beat.<sup>78</sup>

The Independent Marketers (competitive REPs) stated that if this docket had marked the first instance in which the PCRs had been raised, they would have opposed the concept. However, given the history, they did not directly challenge the concept. The Independent Marketers did, however, express concern over the potential of a disproportionate allocation of PCRs.<sup>79</sup>

## **2. Commission Decision**

On July 19, 2002, the Commission conducted a technical conference during which the parties provided expert testimony regarding the PCRs. On September 12, 2002, the Commissioners considered DPL Issues 9-15. Order No. 15 memorialized the Commission's decisions on each of these issues, and the Commission re-affirms those decisions in this Order.

### ***DPL Issue No. 9: Should PCRs be eliminated?***

The Commission finds that PCRs should not be eliminated, but should be subject to a transitional mechanism. A transitional mechanism, as outlined in the Commission decisions regarding DPL Issues Nos. 10-15, would limit the duration of PCRs, set the price for PCRs closer to the real cost of congestion management, and have the PCRs operate like TCRs (i.e., eliminate the "use-it-or-lose-it" provision). In addition, like TCR holders, holders of PCRs, or

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<sup>77</sup> See Reply Brief of City of Austin and Tex-La (Feb. 15, 2002); ERCOT Market Participant's Brief (Jan. 25, 2002) and Reply Brief (Feb. 15, 2002).

<sup>78</sup> See AEP's Initial Brief at 5 (Jan. 25, 2002).

<sup>79</sup> See Independent Marketers' Reply Brief at 1-8 (Feb. 15, 2002).

combination of PCRs and TCRs, may only hold up to 25% of the available congestion rights for a particular CSC.

Unlike other participants who must purchase TCRs at an auction, the electric cooperatives and MOUs are guaranteed allocation of PCRs based on their pre-existing contractual obligations. In allowing PCRs to continue, subject to modification and limited duration, the Commission recognizes that congestion management is the product of the development of both competitive wholesale and retail markets.

***DPL Issue No. 10: Should REPs subject to PTB requirements be eligible for PCRs on the same basis as municipal utilities and electric cooperatives?***

The Commission finds that the affiliated REPs subject to the PTB requirements should not be eligible for PCRs because affiliated REPs are not similarly situated as NOIEs.

***DPL Issue No. 11: Should PCRs, once issued, be defined to have the same characteristics as regular TCRs, including no use-it-or-lose-it restrictions?***

The Commission finds that PCRs should have the same characteristics as TCRs. As explained by Staff witness Dr. Oren, the use-it-or-lose-it restriction distorts the economics of the dispatch of existing resources and of future resource investment decisions.<sup>80</sup> This finding is also consistent with the Commission's decision in Docket No. 23220, which ordered the elimination of the use-it-or-lose-it restriction on the TCRs because it distorts the market place.<sup>81</sup>

***DPL Issue No. 12: Should PCR and combination PCR-TCR holdings be subject to the same limits as TCR holdings?***

The Commission finds that PCRs should be subject to the same holding limits as TCRs. There is a limit of 25% on the total amount of TCRs available on each CSC/directional zonal interface that a market participant may own and control. The cap is intended to limit the adverse effects of the exercise of market power that could result from a market participant having large

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<sup>80</sup> See Technical Conference Tr. at 165-170 (Jul. 19, 2002).

<sup>81</sup> Order on Rehearing at 16.

TCR holdings. The Commission agrees with Staff witness Dr. Oren that potential PCR recipients are not exempt from the possibility that they may also exercise market power.<sup>82</sup> Therefore, the Commission finds that the 25% limit on TCR holdings, and any TCR limit that supercedes it, should apply equally to PCRs and combinations of PCRs and TCRs. Having a limit on the total percentage of PCRs and TCRs that a market participant can hold not only mitigates the effects of market power, but also ensures that multiple entities will have the ability to hedge congestion costs.

***DPL Issue No. 13: Should the Commission change the termination dates for PCRs?***

The Commission finds that NOIEs should no longer be able to use or acquire PCRs after they opt into competition, with the exception of STEC. Under the settlement agreement approved in this Order, STEC may acquire PCRs up to the three years after the date it enters into competition.<sup>83</sup>

***DPL Issue No. 14: Should the Commission change the pricing for PCRs?***

In Order No. 15, the Commissioners agreed that sound policy reasons existed to support changing the way in which PCRs are priced.<sup>84</sup> Pursuant to the Commission's directive, on October 2, 2002, the parties filed a revised non-unanimous stipulation (Stipulation) regarding PCR pricing. Tex-La Electric Cooperative of Texas, Inc., (Tex-La) challenged the stipulation and requested a hearing. On December 5, 2002, Tex-La's motion for a hearing was denied and the Stipulation was approved.<sup>85</sup>

Under the terms of the Stipulation, for each PCR that takes effect on or after January 1, 2003, NOIEs will pay ERCOT 15% of the market-clearing price from the ERCOT auction of annual TCRs applicable to the same year for the applicable PCR and applicable to the same

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<sup>82</sup> See Technical Conference Tr. at 165-170 at 170-172 (Jul. 19, 2002).

<sup>83</sup> See Open Meeting Tr. at 64 (Sept. 12, 2002).

<sup>84</sup> See Order No. 15, at 2 (Sept. 23, 2002)

<sup>85</sup> Order No. 18 Memorializing the Denial of Tex-La's Request for a Hearing and the Approval of the Non-Unanimous Stipulation (Dec. 20, 2002).

CSC. Under the Stipulation, the NOIEs also agree to submit to ERCOT, within 45 days of the end of the year and on a non-confidential basis, certain prescribed data relating to any transaction involving the PCRs. Staff retains the right to seek additional information concerning PCRs, and any signatory may seek changes to the matters addressed in the stipulation for PCRs that take effect after 2003.

The Commission finds that the terms of the stipulation represent a reasonable resolution of the pricing of the PCRs and adopts the Stipulation in this Order.

***DPL Issue No. 15: Should the Commission establish a separate docket to resolve additional PCR issues?***

The Commission determines that a separate docket to resolve additional PCR issues is not needed at this time.

**III. Findings of Fact and Conclusion of Law**

The Commission adopts the following findings of fact and conclusions of law.

**A. Findings of Fact**

**Procedural History**

1. On October 1, 2001, ERCOT filed its report to the Commission regarding the implementation of the ERCOT Protocols.
2. On October 11, 2001, the Commission issued Order No. 1, approving proposed notice, setting an intervention deadline, and severing the demand-side report.
3. On October 30, 2001, ERCOT filed proof that, on October 17, 2001, ERCOT served a copy of Order No.1 on the retail users group (RUG) through the RUG e-mail exploder ([isonp@ercot.com](mailto:isonp@ercot.com)) and posted a copy of Order No. 1 and its Report under the Protocols section on the ERCOT website. In addition, ERCOT served a copy of Order No.1 on parties in Project No. 23220, *Petition of the Electric Reliability Council of Texas for*



*Approval of the ERCOT Protocols*, by fax where available and first-class mail where a fax number was not available.

4. On November 15, 2001, the ALJ issued Order No. 3, granting motions to intervene and setting dates to request a hearing, and to file briefs and reply briefs. Order No. 3 memorialized the parties' agreement that the issues could best be addressed through briefs, and not through a factual hearing.
5. The following parties filed motions to intervene and were granted intervenor status:  
  
AES Deepwater, Inc.; City Of Denton; City Of Garland; Nucor Steel; Public Utilities Board Of The City Of Brownsville; Central Power & Light Company and West Texas Utilities Company (AEP ERCOT Companies); Reliant Resources, Inc., Occidental Chemical Company; Brazos Electric Cooperative; San Antonio City Public Service Board; Independent Marketers (AES New Energy, Green Mountain Energy, New Power Company, Strategic Energy); Constellation Power Source; CenterPoint Energy Houston, Electric, LLC, and Texas Genco, L.P., (f/k/a Reliant Energy, Inc.); City Of Austin D/B/A Austin Energy; Lower Colorado River Authority; Texas-New Mexico Power Company; First Choice Power, Inc.; South Texas Electric Cooperative; TXU Merchant Energy Companies; Mirant Texas, LP & Mirant Americas Energy Marketing, LP; Texas Industrial Energy Consumers; Tex-La Electric Cooperative of Texas, Inc. (Tex-La); Deep East Texas Electric Cooperative, Inc.; Cherokee County Electric Cooperative Association; Houston County Electric Cooperative, Inc.; East Texas Electric Cooperative, Inc.; the Office of Public Utility Counsel; and Tractebel North America, Inc.
6. On November 30, 2001, parties filed statements of position regarding issues raised in the Report.
7. Also on November 30, 2001, Austin Energy and City Public Service of San Antonio filed requests for hearing related to the pre-assigned congestion rights pricing issue. On January 18, 2002, those requests were withdrawn.
8. On January 18, 2002, the parties filed a joint stipulation of facts.

9. On January 25, 2002, parties filed briefs on the contested issues. On February 15, 2002, parties filed reply briefs.
10. On April 9, 2002, a joint decision point list (DPL) was filed containing 15 separately identified issues.
11. On July 19, 2002, the Commission held a technical conference to obtain information about various proposals related to the consideration of recommendations in the Report. The witnesses that participated in this technical conference were sworn-in under oath.
12. On July 26, 2002, the ALJ issued Order No. 13, establishing price caps on ancillary services and requesting comments on the effect of imposing caps on load acting as resource.
13. On August 23, 2002, the ALJ issued Order No. 14, clarifying order No. 13 by stating that the offer price for ancillary services provided to the ERCOT system shall not exceed \$1,000/MWh for energy and \$1000/MW per hour for capacity.
14. On September 23, 2002, the ALJ issued Order No. 15, memorializing Commissioners' decisions reached during the September 12, 2002 open meeting. This Order addressed DPL issues 9-15.
15. On October 11, 2002, the parties filed a non-unanimous stipulation regarding the pre-assigned congestion rights pricing issue.
16. On December 20, 2002, the Commission issued Order No. 18, memorializing the denial of Tex-La's request for a hearing and the approval of the Non-Unanimous Stipulation.
17. On April 23, 2003, the ALJ issued Order No. 20, lifting the July 4, 2003 expiration date for the generation resource bid cap for balancing-energy service.
18. May 14, 2003, the Commission held a technical conference to further discuss Staff's modified competitive-solution method. The witnesses that participated in this technical conference were sworn-in under oath.

19. On May 29, 2003, the Commission issued Order No. 22, adopting a sunshine policy and a revised form of the modified competitive solution method.

**Modified Competitive Solution Method**

20. It is appropriate to defer further consideration of the CSM to a subsequent rulemaking project dealing more broadly with market-failure mitigation.
21. On February 24-25, 2003, prices for UBES reached \$990/MWh for 28 fifteen-minute intervals. These price spikes resulted from a single market participant's offering a single MWh at \$990, several hundreds of dollars above what that entity or any others offered for any of the remaining bid quantities, which totaled between 4,100 and 4,900 MWh per interval.
22. ERCOT's current protocols preclude it from reducing its procurements in response to even extreme price increases, causing a completely inelastic demand for BES and other ancillary services.
23. Hockey-stick bidding in the BES market by generation resources attempts to take advantage of this inflexibility in the protocols when supply is limited. Therefore, it is reasonable to adopt safeguards against hockey-stick bidding.
24. Staff's recommended MCSM contained three revisions: (1) raising the price mitigation level to the price corresponding to 95%, rather than 90%, of the market bid stack; (2) setting the mitigated price to the lower of the unmitigated MCPE, or 1.5 times the 95% level; and (3) limiting the application of the revised MCSM to cases involving no zonal congestion, thus allowing the application of the MCSM on an ERCOT-wide basis.
25. It is reasonable to adopt the Staff's most recently revised form of the MCSM, with one additional change: bids exceeding the mitigated MCPE will be paid as bid, rather than the higher of their verifiable costs or the mitigated MCPE. This revision will allay concerns about mitigating non-hockey-stick bids, accurately estimating participants' verifiable costs, and deterring loads acting as resources from bidding in the BES market.

26. Because this revised MCSM will be implemented only when ERCOT deploys the entire BES bid stack and when there is no zonal congestion, it can be implemented quickly and will be relatively easy for ERCOT to administer.
27. To provide a further deterrent to hockey-stick bidding and other types of gaming, it is reasonable to adopt a “sunshine policy” requiring the automatic identification of QSEs submitting BES bids of over \$900 whenever the MCPE exceeds \$900 to be automatically identified.
28. It is reasonable to apply the existing market solution test to all local reliability service procurements, except as necessary to correct flaws in service selection and pricing.

### **Bid Caps**

29. Markets occasionally experience conditions that make them non-competitive and can result in market failure.
30. To ensure efficient functioning of the electric markets, it is reasonable to employ market power mitigation measures.
31. The Order on Rehearing in Docket No. 23220 adopted a generation bid cap of \$1,000 per MWh for balancing-energy markets operated by ERCOT, including an expiration date for the bid cap of July 4, 2003.
32. During the ice storm of February 24-26, 2003, the Commission Staff noted several instances of hockey-stick bidding, a practice that added substantial extra cost to load.
33. Implementing bid caps of \$1,000/MW per hour for certain ancillary services is a reasonable market mitigation measure to prevent non-competitive behavior by market participants. The adopted bid caps apply to energy and capacity payments for both load and generation for the following ancillary services procured by ERCOT: regulation up and down, responsive reserve, non-spinning reserve, and replacement reserve services.
34. It is reasonable to lift the initial bid cap expiration date of July 4, 2003. Instead, the Commission will periodically review the continued need for the bid caps.

**PCRs**

35. In Docket No. 23220, the Commission found that the concept of PCRs appeared reasonable. The Commission also, however, found that PCRs reduce the amount of TCRs available to other market participants and increase the cost of congestion to other market participants.
36. In its Report, ERCOT recommended leaving the terms and conditions for the PCRs as submitted in Docket No. 23220.
37. Currently, PCRs are assigned according to ownership and long-term (greater than five years) contractual commitments for annual capacity and energy from a specific remote location entered into before September 1, 1999.
38. Under the original ERCOT protocols, existing PCRs would have extended for three years after an MOU or electric cooperative opted into customer choice or the removal of the Federal Private Use Act restrictions.
39. It is appropriate to retain PCRs for NOIEs with the addition of a transitional mechanism. This mechanism includes: limiting the duration of PCRs; setting the PCRs' price closer to the real cost of congestion management; and eliminating the use-it-or-lose-it provision.
40. Affiliated REPs are not similarly situated as NOIEs. It is, therefore, not appropriate for the affiliated REPs to be eligible for PCRs.
41. It is reasonable for PCRs to have the same characteristics as TCRs, including being tradable and transferable.
42. It is reasonable that the PCRs be subjected to the same holding limits as the TCRs. The 25% limit on TCRs holdings, and any TCRs limit that supercedes it, will apply equally to PCRs and combinations of PCRs and TCRs.
43. After opting into competition, it is reasonable that NOIEs lose their ability to acquire new PCRs.

44. It is also reasonable to exempt STEC from this requirement and allow it to acquire new PCRs for up to three years after the date when it enters into competition.
45. The Non-Unanimous Stipulation filed by the parties on October 11, 2002 is reasonable and should be approved.
46. A separate docket at this time to resolve additional PCRs issues is not necessary.

#### **B. Conclusions of Law**

1. The Commission has jurisdiction over the ongoing oversight and review of the ERCOT Protocols pursuant to PURA §§ 35.004(e), 39.001, and 39.151.
2. ERCOT provided adequate notice of its application, as required by the administrative law judge, pursuant to P.U.C. PROC. R. 22.55.
3. Pursuant to PURA § 39.151(i), the Commission may delegate authority to ERCOT to enforce operating standards and establish and oversee transaction-settlement procedures within the ERCOT power region.
4. Pursuant to PURA § 35.004(e), the Commission must ensure that ancillary services necessary to facilitate the transmission of electric energy are available at reasonable prices with terms and conditions that are not unreasonably preferential, prejudicial, discriminatory, predatory, or anticompetitive.

#### **IV. Ordering Paragraphs**

In accordance with these findings of fact and conclusions of law, the Commission issues the following order:

1. ERCOT shall adopt protocols to implement the MCSM, as discussed in this Order, on an expedited basis.
2. ERCOT shall adopt protocols to implement the “sunshine policy,” as discussed in this Order, on an expedited basis.

3. ERCOT shall adopt protocols to implement bid caps of \$1,000/MWh for energy and \$1,000 MW for each hour of capacity for payments to both load and generation for the daily ancillary services it procures.
4. ERCOT shall adopt protocols to apply the existing market solution test to all local reliability service procurements, except as necessary to correct flaws in service selection and pricing.
5. The Commission will open a project to review the continued need for the bid caps on a periodic basis.
6. ERCOT shall revise its protocols in accordance with the following determinations:
  - PCRs for NOIEs shall not be eliminated.
  - The affiliated REPs subject to the price-to-beat requirements shall not be eligible for PCRs.
  - The PCRs shall have the same characteristics as TCRs. The “use it or lose it” restriction applied to PCRs shall be eliminated and PCRs shall be tradable and transferable.
  - PCRs shall be subject to the same holding limits as TCRs. The 25% limit on TCRs holdings, and any TCRs limit that supercedes it, will apply equally to PCRs and combinations of PCRs and TCRs.
7. The Non-Unanimous Stipulation filed by the parties on October 11, 2002 is approved.
8. All motions, applications, and requests for entry of specific findings of fact and conclusions of law, and other requests for relief, general and specific, if not expressly granted herein, are denied.

SIGNED AT AUSTIN, TEXAS, the 20th day of August 2003.


PUBLIC UTILITY COMMISSION OF TEXAS



REBECCA KLEIN, CHAIRMAN



BRETT A. PERLMAN, COMMISSIONER



JULIE PARSLEY, COMMISSIONER