Control Number: 24770

Item Number: 137

Addendum StartPage: 0

DOCKET NO. 24770

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

RECEIVED
02 AUG -7 PM 1:08
FILING CLERK

COMMISSION STAFF'S RESPONSE TO, AND MOTION TO CLARIFY, ORDER NO. 13[1]

MOTION TO CLARIFY ORDER NO. 13

The first paragraph of Order No. 13 states:

> During the Open Meeting of the Public Utility Commission of Texas on July 25, 2002, the Commissioners considered imposing caps on the prices of ancillary services provided to the ERCOT system. This Order memorializes the Commission's determination that, effective immediately the prices for ancillary services provided to the ERCOT system shall not exceed $1,000/MWh for energy and $1000/MW per hour for capacity. This limitation shall apply to all resources providing ancillary services to the ERCOT system.

A review of the transcript of the Commission's July 25, 2002 Open Meeting shows that the Commission ordered the implementation of the bid caps proposed by Staff in its initial brief, with the exception that the Commission set the load resource bid caps at $1,000/MW per hour for capacity and $1,000/MWh for energy, rather than the $2,000/MW per hour and $1,000/MWh caps proposed by Staff in its initial brief.[2]

---

[1] This pleading uses the following abbreviations: Commission – Public Utility Commission of Texas; ERCOT - Electric Reliability Council of Texas; FERC – Federal Energy Regulatory Commission; fn. – footnote; ISO – independent system operator; l. – line; MCP – market clearing price; MW – megawatt; MWh – megawatt-hour; NARUC – National Association of Regulatory Utility Commissioners; p. – page; QSE – qualified scheduling entity; RTO – regional transmission operator; Staff – staff of the Public Utility Commission of Texas.

[2] 7/25/2002 Open Meeting transcript, p. 121, l. 5 – p. 155, l. 6. *See also* Commission Staff's Initial Brief (1/23/02), p. 22 – p. 24, first paragraph; ERCOT's filing, Requested Reports: Comparison of TCRs to PCRs and Implementation of Bid Caps (7/23/02).

137

A price cap limits the amount that will be paid for a service, whereas a bid cap limits the price that can be bid by a supplier of a service.[3] Thus, the bid caps approved by the Commission at the July 25, 2002 Open Meeting prohibit the bid prices that QSEs submit to ERCOT from exceeding $1,000/MW per hour or $1,000/MWh and, effectively, limit the prices paid for the ancillary services to those amounts. Staff requests that the order be clarified to specify bid caps, rather than price caps, so that it is clear that the order limits bids to be equal to or less than $1,000/MW per hour or $1,000/MWh.[4]

RESPONSE TO ORDER NO. 13

Order No. 13 seeks comments on three questions, which are repeated below along with Staff's responses.

1. Are price caps on load appropriate? If so, are the specific caps established by this order reasonable? Any party advocating that load and generation receive different treatment should explain the policy reasons supporting its position and provide a reasoned justification for any proposed alternative price cap.

As explained further below, Staff urges the Commission to approve on a permanent basis the $1,000 bid caps that it has already approved on an interim basis in this docket.

The Commission first considered the issue of bid caps in the docket approving the initial Protocols, Docket No. 23220. In its final order in that docket, the Commission stated:

---

[3] Technically, sellers make offers, while buyers make bids. Therefore, the correct term for what the Commission is ordering is an offer cap. However, the Protocols use the common usage of bids as being made by sellers. As a result, in the Docket No. 23220 Order on Rehearing, the Commission chose to use the term bid cap instead of offer cap. Docket No. 23220, Order on Rehearing, p. 13, fn. 47.

[4] Had the Commission fully adopted Staff's proposal in its initial brief, then generation resources could bid $1,000, whereas load resources could bid $2,000. If the quantity needed exceeded the amount bid by generation, then the MCP could be set by load up to $2,000, which would be paid to all resources providing the service, including generation resources that were prohibited from bidding more than $1,000. *See* 7/25/2002 Open Meeting transcript, p. 138, l. 14 – p. 139, l. 5.

> During the transition to a fully competitive ERCOT market, the Commission finds that bid caps are a necessary "circuit breaker" or backstop against the possible exercise of market power by generation entities, for the short-term ancillary services markets operated by ERCOT. ERCOT shall therefore amend the Protocols to include a generation resource bid cap of $1,000 per megawatt-hour (MWh) for energy that it procures, so that it will not accept bids of more than $1,000 per MWh from generation resources. The bid cap does not apply to load resources; they may bid higher than $1,000 per MWh. 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 a $8/million British Thermal Units (mmBtu) gas price. This bid cap shall expire on July 4, 2003, because the Commission expects by that time any generation entity market power issues will have been better addressed through other means.
>
> In addition, 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. ERCOT shall also consider and report to the Commission measures to avoid excessive capacity payments to load resources that are procured for replacement reserve service.[5]

The Commission also recognized the problems that could result from the inelastic demand for ancillary services by ordering that ERCOT "consider and report to the Commission whether a day-ahead period demand function for each ancillary service based on price should be developed, such that ERCOT would adjust the amount of A/S service procured day-ahead (as a percentage of forecasted need) as a function of price."[6]

The Commission's imposition of the $1,000/MWh balancing energy generator bid cap has proven very wise; the balancing energy MCP has hit the $1,000/MWh cap numerous times. In addition, in February of this year, during a FERC workshop on market design, Dr. Joe Bowring, the head of the PJM market monitoring unit, stated that the $1,000/MWh cap used in PJM and other Northeastern markets had been confirmed as appropriate. This statement adds support to the use of a $1,000/MWh cap in ERCOT, where generation costs are lower than in the

---

[5] Docket No. 23220, Order on Rehearing, p. 13 (footnotes omitted).

[6] Docket No. 23220, Order on Rehearing, p. 9, second paragraph, last sentence, citing Oren Report, p. 27. ERCOT's response to this Commission request was included in its report in this docket. In response to the Commission request, along with the Commission's anticipation that means other than bid caps could be used to address market power, Staff has proposed its Competitive Solution Method, which includes the use of backstop bid caps.

Northeast.[7] Last week, FERC included in its standard market design proposed rules a "safety-net bid cap" that would apply to all energy and capacity markets operated by the RTO, citing the $1,000/MWh caps currently in effect in the Northeast and Texas as examples.[8] Since the Commission's imposition of the $1,000/MWh balancing energy generator bid cap last year, safety-net bid caps have become a well established safety net/backstop/circuit breaker protection against temporary market failure.

In its first step in the establishment of safety-net bid caps, in Docket No. 23220, the Commission limited the $1,000/MWh balancing energy bid cap to generators. The rationale was that the Commission not only wanted to control market power, but also wanted to encourage load participation in the ancillary service markets and, if a load resource sets an MCP above $1,000/MWh, it reflects a shortage, and therefore it is appropriate to allow the MCP to rise above $1,000/MWh to send a strong price signal for increased supply.[9] In light of the Commission's decision in Docket No. 23220 and because of Staff's strong support for encouraging load participation in the competitive markets, Staff proposed in its January initial brief in the current docket load resource bid caps that would be double the generator bid caps. Because value of lost load is typically assumed to be between $1,000 and $1,500 per MWh,[10] Staff felt that a $2,000 load resource bid cap would provide protection against astronomical clearing prices/scarcity rents while still liberally encouraging load resource participation in the ERCOT ancillary service markets.

ERCOT's recently expressed concerns about implementing two-tiered bid caps in the portfolio-bidding context and the resulting system impacts and gaming potential have prompted

---

[7] Commission Staff's Reply Brief (2/15/02), p. 22, first paragraph.
[8] FERC Docket No. RM01- 12-000, Notice of Proposed Rulemaking (7/31/02), p. 229-230 and Appendix B, p. 158.
[9] 2/22/01 Commission Open Meeting transcript, p. 227, l. 21 – p. 244, l. 15.

Staff to reevaluate its two-tiered bid cap proposal made in January, in light of its growing experience and expertise in the ERCOT competitive markets and in identifying gaming opportunities and potential gaming occurrences. As a result, Staff no longer supports approval of two-tiered bid caps in this docket, but instead now supports an across-the-board $1,000 bid cap.

Establishing different bid caps for generation and load resources would provide potential opportunities for arbitrage and gaming. It would provide an incentive for generators to engage in physical withholding in an effort to raise the MCP above $1,000. In addition, it would provide an incentive for a generator and the load resource to which it sells power to collude to raise the MCP above $1,000 by the generator engaging in physical withholding and the load resource bidding above $1,000. Although collusion is illegal, it can be very hard to prove. It is best to establish rules that reward those who engage in conduct that benefits the market (i.e., incentive compatible rules) and to avoid rules that create potential gaming opportunities.

OxyChem, a major load resource participating in ERCOT, has stated that it does not oppose a $1,000 load resource bid cap. In addition, other markets have had significant load response when the MCP has reached the $350-500/MWh range.[11] Thus, it does not appear necessary to raise the bid cap above $1,000 to get substantial load participation. Furthermore, ERCOT currently enjoys a substantial amount of generation capacity in excess of peak load and ancillary service needs, and the MCPs have generally been well below $50. Thus, in the near

---

[10] Docket No. 23220, Oren Report (2/9/01), p. 9.

[11] The real-time pricing programs operated by Georgia Power and Duke Power indicate significant demand response when prices hit or exceed the $350-$500/MWh level. S. Braithwait and M. O'Sheasy, "Customer Response to Market Prices – How Much Can You Get when You Need It Most?" EPRI International Pricing Conference 2000, Washington DC, July 2000. The New York ISO has a demand response program that pays loads the market price or $500/MWh, whichever is higher. This program was the most successful of all ISO programs last summer, with an average participation of 425 MW. The program is described in NARUC's Draft Report, "Policy and Technical Issues Associated with ISO Demand Response Programs", prepared by ICF Consulting, May 23, 2002, pages 11-13.

term at least, a separate load resource bid cap above $1,000 seems unlikely to be a factor in substantially increasing load participation in the ERCOT ancillary service markets.

In a well-developed competitive electricity market – one that does not yet exist anywhere in the world – there would be substantial load response to prices such that bid caps on energy would be largely superfluous.[12] However, in the infancy of competitive electricity markets, when load response is limited, safety-net bid caps are essential to provide protection against short-term market failure due, for example, to unexpected spikes in demand, unexpectedly high resource forced outages, or collusion or other gaming. Safety-net bid caps should apply to all resources, because all resources have the potential to set the MCP.

Given the low energy prices in ERCOT today and the substantial cost barriers for even passive load participation, it is not clear how quickly load response in ERCOT will increase.[13] Staff urges the Commission to maintain the $1,000 bid caps that it has already approved on an interim basis in this docket, and include them in the final order in this docket. In Docket No. 23220, the Commission established a July 4, 2003 expiration date for the $1,000/MWh balancing energy generator bid cap, "because the Commission expects by that time any generation entity market power issues will have been better addressed through other means."[14] In the current docket, Staff has proposed the Competitive Solution Method as a better means to address market power and other market failure. Nevertheless, the Competitive Solution Method includes safety-net bid caps, because experience has shown that they are essential for the foreseeable future. As a result, Staff requests that the Commission remove the expiration date on the balancing energy

[12] Currently, the same potential for load participation does not exist for the ancillary service capacity markets, because of the limitations and costs of existing technology and the performance requirements necessary to provide these services. In addition, ERCOT currently limits load resources to providing no more than 25% of the total responsive reserve service requirement, although this limit is under review by ERCOT for possible increase.

[13] *See* Docket No. 23220, Order on Rehearing, p. 21, last paragraph – p. 23.

generator bid cap as part of the final order in this docket. The Commission could initiate a separate proceeding after the conclusion of the current docket to review in more detail the appropriate level for the bid caps.[15] However, given all the many other more pressing issues, Staff requests that such a proceeding not be initiated this year. The Commission and ERCOT have a number of initiatives designed to increase load participation in the markets. These initiatives are more important to increasing load participation in the markets than the already high $1,000 bid cap.

2. Does the proposal to allow a QSE that represents only load resources to offer prices in excess of the price caps established in this order adequately address the gaming concerns posed by QSEs that represent both generation and load resources expressed by ERCOT in Exhibit B of its July 23, 2002 filing? What are the potential benefits and problems associated with this proposal? With respect to the load-only QSE solution, specifically address anticipated systems related ERCOT implementation issues. Under this proposal, would load resources be able to establish a market clearing price in excess of the price caps applicable to generation resources and, if so, discuss the effect on the operation of the otherwise applicable price caps.

The gaming concern expressed by ERCOT in Exhibit B of its July 23, 2002 filing was that: "there could be a potential gaming problem with large QSEs that represent both Generation and Load Resources, in that these QSEs could bid in their Load Services above $1000 to set the price, but never have the intention of utilizing the Load Resource to provide energy." It appears

---

[14] Docket No. 23220, Order on Rehearing, p. 13, second paragraph, last sentence.

[15] FERC has solicited comments on this question in its standard market design rulemaking. FERC Docket No. RM01- 12-000, Notice of Proposed Rulemaking (7/31/02), p. 230-231.

to Staff that allowing only QSEs that have load resources but no generation resources to bid above the $1,000/MW per hour and $1,000/MWh bid caps that apply to all other QSEs, would largely resolve the gaming concern identified by ERCOT. However, the proposal unfortunately does not resolve the gaming concerns described above in response to question 1. In addition, Staff does not know whether the potential cost of operating as a separate QSE would be outweighed by the currently small chance of setting the MCP above $1,000, such that load resources would actually avail themselves of this option if it were available. Staff defers to ERCOT to initially address the anticipated systems-related ERCOT implementation issues of the proposal. For each ancillary service that ERCOT procures, there is a single market clearing price per settlement interval.[16] If the quantity procured by ERCOT exceeded the quantity bid by non-load-resource-only QSEs, then the load-resource-only QSEs could set the clearing price, which could be above $1,000. Under Staff's Competitive Solution Method, the resulting unmitigated MCP would still be subject to possible mitigation, to avoid the MCP being set by a hockey stick bid submitted by a load-resource-only QSE or by a load-resource-only QSE that is a pivotal bidder, either alone or due to its affiliation with one or more other QSEs.[17]

3. What other proposals would encourage the participation of load in the ancillary services market? Describe each proposal in detail and state whether it is intended to supplement or supplant the load-only QSE proposal set forth above. Compare the benefits and problems associated with each proposed alternative. With respect

---

[16] The use of a market clearing price provides an incentive for resources to bid down towards their short-run marginal costs and, even where all bids are submitted at marginal cost, allows all bid quantities selected other than the marginal bid to recover some portion of associated fixed costs. Allowing a load-resource-only QSE to set the single market clearing price above $1,000 would provide a strong price signal for the addition of more supply, and would also ensure that load resources in non-load-resource-only QSEs could receive compensation above $1,000. *See* 7/25/02 Open Meeting transcript, p. 138, l. 14 – p. 139, l. 5.

[17] Commission Staff's Initial Brief, p. 15, second paragraph – p. 20, first paragraph.

to each such proposal, specifically address anticipated systems related ERCOT implementation issues.

This docket came about because of the requirement in the Order on Rehearing in Docket No. 23220 that ERCOT report to the Commission on certain matters, including: "Develop additional measures and refine existing measures, to enable load resources a greater opportunity to participate in the ERCOT markets."[18] As a result, in its report that initiated the current docket, ERCOT included as Attachment C a status report from the ERCOT Task Force on Demand-Side Resources and Demand Responsiveness.[19] Order No. 1 in the current docket severed the status report and transferred it to Project No. 24333, *PUC Activities Promoting Price-Responsive Demand for Electricity*. Thus, issue 3 in Order No. 13 is outside the scope of the current docket, except to the extent that the issue is addressed in addressing issues 2 and 5 in the ERCOT Report.[20] Since ERCOT filed its Report on October 1, 2001 in the current docket, the task force has been converted to a standing ERCOT working group that meets on an ongoing basis and works to encourage the participation of load resources in the ancillary service markets. Staff is an active participant in this working group. In addition, as indicated at the July 25, 2002 Open Meeting, the Commission has retained a consultant, Laurits R. Christensen Associates, Inc., to prepare a report, due August 31, 2002, on ways to encourage load participation in ERCOT

---

[18] Docket No. 23220, Order on Rehearing, page 53.

[19] ERCOT Report (10/1/01), p. 33-55.

[20] These issues are: 2. Report whether Day-Ahead period demand function for each ancillary service based on price should be developed (price elasticity for ancillary services); 5. Report to the Commission measures to avoid excessive capacity payments to load resources that are procured for replacement reserve service. In response to issue 2 in the ERCOT Report, Staff proposed, among other things, load resource bid caps. Commission Staff's Initial Brief (1/25/02), p. 22 – p. 24, first paragraph.

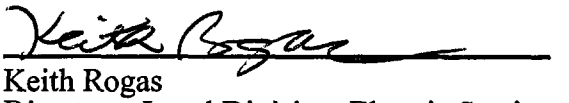
markets.[21] Thus, issue 3 in Order No. 13 should be addressed in Project No. 24333 after the Christensen report is issued.

[21] 7/25/02 Open Meeting, transcript, p. 139, l. 12-24.

Dated: August 7, 2002

Respectfully Submitted,

Thomas S. Hunter
Division Director - Legal Division

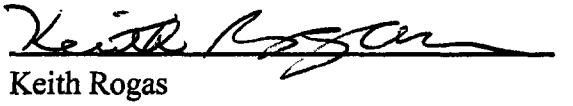


Keith Rogas
Director – Legal Division, Electric Section
State Bar No. 00784867
(512) 936-7277 telephone
(512) 936-7268 fax
keith.rogas@puc.state.tx.us

Public Utility Commission of Texas
1701 North Congress Avenue
P.O. Box 13326
Austin, Texas 78711-3326

CERTIFICATE OF SERVICE

I, Keith Rogas, certify that copies of this document will be served on all parties on August 7, 2002, in accordance with Public Utility Commission of Texas Procedural Rule 22.74.



Keith Rogas