



Control Number: 24770



Item Number: 128

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**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  
OF TEXAS**

02 AUG 2002 PM 4:47

FILED CLERK

**COMMISSION STAFF'S RESPONSE TO POST-CONFERENCE FILING  
OF SAN ANTONIO CITY PUBLIC SERVICE<sup>1</sup>**

TO THE HONORABLE CHAIRMAN KLEIN AND COMMISSIONER PERLMAN:

In its July 23, 2002 filing, San Antonio suggests that the type of use-it-or-lose-it restriction on PCRs does not impair economic efficiency. As explained below, San Antonio is incorrect.

San Antonio's efficiency argument is premised on ERCOT engaging in economic dispatch through deployment of balancing energy and on a "schedule-it-or-lose-it" type of use-it-or-lose-it restriction, rather than a "dispatch-it-or-lose-it" type restriction. Under schedule-it-or-lose-it, the PCR holder receives the value of the PCR so long as it schedules the resource associated with the PCR. In contrast, under dispatch-it-or-lose-it, the PCR holder receives the value of the PCR only if the PCR resource actually is dispatched and providing energy during the period of congestion. As San Antonio points out, in his report in Docket No. 23220, Dr. Oren

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<sup>1</sup> This pleading uses the following abbreviations: BENA – balancing energy neutrality adjustment; Commission – Public Utility Commission of Texas; coop – electric cooperative; DEC – decrement, to reduce the output; ERCOT – Electric Reliability Council of Texas; FERC – Federal Energy Regulatory Commission; LSE – load serving entity; muni – municipally owned utility; MW – megawatt; MWh – megawatt-hour; PCR – preassigned transmission congestion right; QSE – qualified scheduling entity; San Antonio – City Public Service of San Antonio; Staff – staff of the Public Utility Commission of Texas.

explained the flaws in the dispatch-it-or-lose-it type of restriction. Nevertheless, as explained below, the schedule-it-or-lose-it restriction is flawed as well.<sup>2</sup>

Tying the realization of a financial right to operational practices creates perverse incentives and verification burdens.<sup>3</sup> The schedule-it-or-lose-it restriction provides PCR holders the incentive to schedule a PCR resource even when it would clearly not make economic sense to dispatch it, in order to capture the value of the PCRs.<sup>4</sup> San Antonio is correct that the schedule-it-or-lose-it restriction, coupled with economic dispatch by ERCOT, should avoid the incentive for uneconomic dispatch that results from a dispatch-it-or-lose-it restriction. However, the schedule-it-or-lose-it restriction provides a disincentive for PCR holders to enter into efficient forward contracts that would eliminate the need to schedule PCR resources. As explained further

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<sup>2</sup> Staff is not aware of any Protocol provision that contemplates that ERCOT will engage in economic dispatch apart from clearing congestion and meeting energy needs not covered by scheduled resources. However, Staff understands that ERCOT does engage in such economic dispatch, and from an efficiency perspective Staff strongly supports this practice. In addition, Staff is not aware of any Protocol provision that addresses which type of use-it-or-lose-it restriction that applies to PCRs.

<sup>3</sup> The schedule-it-or-lose-it restriction may also cloud the exercise of market power by a PCR holder. Market power can be exercised by an entity with market power intentionally creating congestion in order to raise the costs of others or to get paid to relieve the congestion. By providing an additional incentive to overschedule, the schedule-it-or-lose-it restriction may therefore cloud the identification of this type of market power abuse.

<sup>4</sup> To demonstrate that possibility, suppose that a QSE holds 50 MW of PCRs between zone A where the QSE has its PCR resource and zone B where its load is located, and assume that the MCPE in zone A is \$20/MWh and the MCPE in Zone B is \$30/MWh. Further suppose that the QSE needs to schedule only 30 MW from the PCR resource across the congested zone A - zone B interface (for example due to low load or availability of power at a price below the PCR resource's incremental cost). If the PCRs were defined as financial instruments with no schedule-it-or-lose-it restriction, then the QSE could schedule the 30 MW from the PCR resource and collect \$10/MW per hour for the 20 MW of unused PCRs totaling \$200 per hour. (In this simplified example, the zone A to zone B shift factor is assumed to be 1, which means that the zone A - zone B MCPE differential of \$10/MW is equal to the shadow price, which equals the TCR payment and the financial value of a PCR when fully utilized.) With the schedule-it-or-use-it restriction, the QSE can attain the same financial outcome, but in order to achieve that it will have to schedule 50 MW from the PCR resource across the congested interface and then, through ERCOT balancing energy redispatch, have negative resource and load imbalances of 20 MW. That will result in a BENA resource imbalance charge in Zone A of \$20/MWh x 20 MW = \$400/h and a BENA load imbalance credit in Zone B of \$30/MWh x 20 MW = \$600/h, yielding a net gain of \$200/h.

PCR holders have apparently not yet generally adopted this strategy. According to ERCOT, during the period of February 15 through June 30, 2002, the PCR use-it-or-lose it restriction resulted in a \$1,046,380.50 reduction in PCR credits out of a total PCR potential financial value of \$3,626,938.85 (an average of 113 PCRs or 29% of the available PCRs were not scheduled during this period). This means that, had the PCR holders fully exploited the gaming opportunity created by the schedule-it-or-lose-it restriction, there would have been another \$1 million of socialized zonal congestion costs during this period.

below, the restriction also provides the PCR holder an incentive to misrepresent the availability, operating limits, and forecasted output of the PCR resource, in order to maximize the financial benefit of the PCR. As a result, the schedule-it-or-lose-it restriction is not incentive compatible and consequently places on ERCOT a significant verification burden to ensure that the restrictions on the realization of the financial benefits of the PCRs are not violated.

Under the ERCOT zonal model, QSEs do not submit separate schedules for each of their resources. Instead, they submit portfolio/aggregate schedules by zone, as well as resource plans that include resource availability, operating limits, and forecasted output. The resource plans are not binding, and ERCOT has encountered operational problems because of inaccurate and stale resource plans. PCRs are relatively new, with the first ones taking effect on February 15, 2002, the day that direct assignment of zonal congestion began. ERCOT, with the plethora of other issues that it must address, must settle PCRs with the tools available to it at this time. At this time, ERCOT settles PCRs using a manual process wherein it determines whether the PCR resource is included as available in the resource plan. If it is, its output is assumed to be high enough to cover all of the PCRs. Staff understands that it would be a substantial undertaking for ERCOT to compare the forecasted output levels to the PCR amounts to determine whether the forecasted output levels are below the PCR amounts, in order to determine whether the PCR holder may not be entitled to the full potential financial value of its PCR holdings. As discussed at the technical conference, some of the PCR resources use inefficient gas-fired, steam turbine technology. As a result, Staff believes that it is a virtual certainty that many times these resources are operating below their associated PCR levels, meaning that the PCR holders are likely being over-paid during some times of congestion.

Staff understands from ERCOT that it would require a major system change to settle PCRs using actual PCR resource output, adjusted for ERCOT dispatch instructions (e.g., a balancing energy DEC instruction). It does not appear that even this major system change would eliminate all of the PCR gaming opportunities. Remaining gaming opportunities appear to include a PCR holder that misrepresents in its resource plan the availability or maximum operating limit of a PCR resource, submits a high zonal portfolio DEC bid to ensure that it will be DECed, and claims that it met the DEC instruction using the PCR resource.

The schedule-it-or-lose-it restriction, coupled with the non-tradeability restriction, impair the social value of the transmission capacity associated with the PCRs. TCRs, which do not have these restrictions, can be purchased by any type of entity, for example a speculating financial firm that does not buy, sell, or schedule power in ERCOT. As a result, free trading of TCRs is permitted, which provides for efficient risk management; market participants can trade TCRs at any time after they are issued, for any period of time in order to hedge the zonal congestion cost risk of bilateral power sales. The non-tradeability PCR restriction prohibits such trades. Furthermore, even if the non-tradeability PCR restriction was eliminated but the schedule-it-or-lose-it PCR restriction was maintained, social value would still be impaired because PCR holders would be at risk of engaging in fire sale PCR trades in circumstances where they were unable to schedule resources to gain the financial value of the PCRs.

Undoubtedly because of the lack of need for, and the inefficiencies resulting from, use-it-or-lose-it restrictions and non-tradeability restrictions, Staff is unaware of any operational or planned ISO or RTO, *other than ERCOT*, that issues, or plans to issue, congestion rights that have lose-it-or-lose-it or non-tradeability restrictions. Furthermore, FERC's recently released proposed rules for standard market design would require congestion rights, called congestion

revenue rights, without such restrictions. Indeed, Staff is not aware of any significant controversy over this issue, and it therefore appears that, unless the Commission orders elimination of these restrictions in this docket, ERCOT will be the only system operator in the continental United States, if not the world, that impairs financial congestion rights with these restrictions.

Essentially, PCRs, given the trivial price paid for them, maintain for PCR holders the socialization of congestion costs associated with PCR resources that existed prior to the implementation of direct assignment of zonal congestion costs in February of this year. The Commission is painfully aware of the harm that resulted from the socialization of zonal congestion costs. Staff and a number of stakeholders have devoted a substantial amount of resources to attempt to settle concerns over gaming and unjust enrichment resulting from the large load imbalance payments accrued during the period of zonal congestion cost socialization.<sup>5</sup> Direct assignment of zonal congestion costs closed the door on such gaming potential. Likewise, Staff urges the Commission to eliminate PCRs and, absent elimination, to close the door on the gaming potential associated with PCRs by eliminating the use-it-or-lose-it restriction.

In Docket No. 23220, the Commission wisely eliminated the use-it-or-lose-it restriction on both TCRs and PCRs.<sup>6</sup> TCRs as issued by ERCOT already do not have the use-it-or-lose-it restriction. In the current docket, the Commission should reiterate that ERCOT must eliminate the use-it-or-lose-it restriction on PCRs as well.

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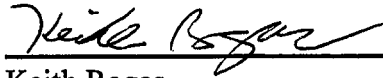
<sup>5</sup> See Project No. 25755, *PUC Investigations of Overscheduling in ERCOT in August, 2001*.

<sup>6</sup> Staff initial brief (1/25/02), p. 34, first paragraph.

Dated: August 1, 2002

Respectfully Submitted,

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### **CERTIFICATE OF SERVICE**

I, Keith Rogas, certify that copies of this document will be served on all parties on August 1, 2002, in accordance with Public Utility Commission of Texas Procedural Rule 22.74.



Keith Rogas