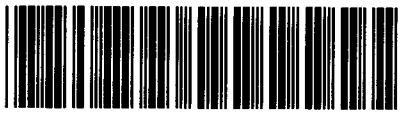

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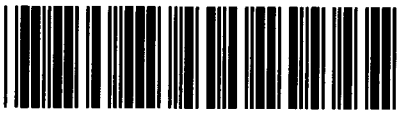

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PROJECT NO. 40480

PROCEEDING REGARDING POLICY OPTIONS ON RESOURCE ADEQUACY	§ § §	**PUBLIC UTILITY COMMISSION OF TEXAS**

INITIAL COMMENTS OF CALPINE CORPORATION FOR THE JULY 27, 2012 COMMISSION WORKSHOP

The Public Utility Commission of Texas ("Commission") has scheduled a resource adequacy workshop for July 27, 2012 to discuss the long-term reliability objectives for ERCOT. The Commission notice seeks comments on this topic and encourages market participants to submit policy questions for The Brattle Group. Calpine appreciates the opportunity to provide comments.

WHAT SHOULD BE THE LONG-TERM RELIABILITY OBJECTIVES FOR ERCOT?

Much of the interest in the Brattle Report has focused on the five policy options that could be implemented to meet the Commission's long-term reliability objectives for ERCOT.[1] As noted in the Brattle Report, however:

> "Before pursuing any major market redesign efforts, we recommend that the PUCT and ERCOT first clarify the fundamental design objectives of ERCOT's resource adequacy construct." [2]

Calpine agrees and supports dedicating separate workshops to consider long-term reliability objectives and any major market redesign to implement those objectives.

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[1] "ERCOT Investment Incentives and Resource Adequacy", The Brattle Group, June 1, 2012, hereinafter "Brattle Report", pp. 103-119. ((1) Energy-only with market-based reserve margin, (2) energy-only with adders to support a target reserve margin, (3) energy-only with backstop procurement at minimum acceptable reliability, (4) mandatory resource adequacy requirement for LSEs and (5) resource adequacy requirement with centralized forward capacity market).

[2] Brattle Report, p. 100.

The Brattle Report recommends the Commission consider three questions:

- Should regulators determine the reliability target, or should the reliability level be determined solely by market forces?
- Is the current 1-in-10 reliability standard yielding the appropriate and efficient resource adequacy target around which to design the ERCOT wholesale power market?
- Even if the target reliability level is to be determined by markets forces rather than an administrative determination, do regulators wish to impose a backstop constraint preventing very low reliability outcomes?[3]

Each question should be addressed during this proceeding, but Calpine suggests only the first two questions are relevant for this first workshop. For that reason, in these comments Calpine focuses on the first question while briefly addressing the second question. Calpine believes the last question would be more appropriately addressed in subsequent comments when it will explain in detail why a backstop constraint would completely undermine ERCOT's competitive markets and should not be entertained.

Should regulators determine the reliability target, or should the reliability level be determined solely by market forces?

Calpine believes the Commission must take two actions:

1) Determine a centralized reliability target and

2) Adopt decentralized market solutions designed to allow the market to hit and maintain the target.

If the Commission does not take these two steps, Calpine believes ERCOT will continue its current trajectory towards growing capacity shortages.

The benefit of administratively setting a reliability target for ERCOT and then embracing a market design construct that relies on competition to achieve that target is that it will result in efficient levels of new investment. First, by mandating a reliability target, the Commission will send clear signals to the market on the level of capacity required over the longer term. This

[3] Id.

would allow investors to have a much clearer picture of future market dynamics, including supply, demand and resulting longer-term price levels. Second, by implementing decentralized markets needed to hit and maintain the target, the Commission will be able to continue to rely on competition to bring forward the most efficient and best resources for the ERCOT market.

Calpine notes that ERCOT currently has a "theoretical" reliability target of 13.75% but does not have the ability to ensure that target is actually met over the longer-term.[4] Instead, ERCOT relies on an "energy-only" construct to create investment incentives based on energy market prices during different system conditions. During periods of excess capacity, prices are low, causing old, inefficient generation to mothball. When capacity is tight and nearly all generation is needed, prices should begin to rise, eventually getting to levels that allow the highest marginal cost generators to recover their fixed investment. As capacity gets tighter, prices should remain high for longer periods of time, eventually reaching the point where new generation enters the market because it will be profitable over its operating life and Load Serving Entities ("LSE") presumably will enter into longer-term contracts with suppliers to hedge their exposure to the expected higher prices.

The current problem in ERCOT is that as capacity margins continue to shrink, prices are not rising to levels that incentivize new investment and, for the most part, LSE's (specifically Retail Electric Providers or "REPs") do not enter into long-term contracts that would help to support financing. This is consistent with several findings in the Brattle report, including the following comments:

> "Overall, it appears that there is a substantial gap between market expectations about future energy prices and the prices needed to attract new combined-cycle

[4] Brattle Report, p. 11. ERCOT does have limited authority to contract with owners of moth-balled units to meet short-term capacity needs. Calpine believes this is an out-of-market solution which is counter to a classic energy-only market, but understands the Commission's need to meet immediate short-term reliability concerns without disrupting market driven price formation.

> power plants. At these levels, we would not expect market participants to invest in generic combined-cycle capacity in ERCOT at least through 2014."[5]
>
> "However, in the restructured retail space covering 75% of ERCOT load represented by approximately 179 REPs, customers are no longer bound to a specific REP and may switch suppliers at any time, subject to contractual terms...Without captive load, REPs in Texas similarly limit most of their procurement to less than 3 years, and only to the extent they have promised fixed rates to their customers (as opposed to index rates)...Consequently, most new generation developments in ERCOT will not be able to obtain the revenue certainty of a long-term PPA...Developers, therefore, must absorb more of the investment risk."[6]

Calpine believes that the Commission and ERCOT are at a crossroads. Unless significant design changes are made, the market will continue to suffer from a capacity shortfall that may soon turn from a chronic problem to an emergency situation due to a lack of new investment. Relying solely on a "market determined" reliability level only makes sense if it can be done in a way that avoids involuntary, potentially uncontrolled load shedding (i.e., avoiding "blackouts"). Avoiding "blackouts" when the system is already running out of capacity can only be achieved if there are enough customers bidding prices at which they no longer want to buy power and will voluntarily reduce their consumption. Furthermore, the "energy only" construct can work only if these presumably high prices are used to set the market clearing price for all generators. ERCOT is nowhere near these levels, nor is it likely to be so in the near future. Brattle estimates that ERCOT only has a demand response penetration of "approximately 4% of peak load"[7] and that the demand response is "largely unable to contribute to efficient price formation."[8]

Brattle notes that other regions, namely PJM, have achieved a 10% demand response penetration rate since implementation of its capacity market over the last 10 years. However, Calpine urges to Commission to carefully look behind the 10% rate. First, the vast majority of

[5] Brattle Report, p. 52.
[6] Brattle Report, pp. 43-44.
[7] Brattle Report, p. 90.
[8] Brattle Report, p. 88.

PJM's "demand response" resources has extremely limited operating hours and can only be called upon during "system emergencies". Second, although PJM has not published specific numbers, a significant portion (possibly 25-30%) of the "demand response" is not really demand response at all, but is instead backup generation claiming to be demand response. Finally, there is growing evidence that 1/3 or more of the demand response that PJM was counting on for meeting its reliability needs in certain regions is simply not showing up.

As a result, because the ERCOT energy-only market does not produce market prices that consistently rise to levels that incentivize new investment, lacks a retail structure that offers the availability of longer-term contracts that facilitate new generation financing and has a dearth of price sensitive demand, the problem of shrinking reserve margins requires Commission action. Calpine believes the Commission has no choice but to mandate a reserve margin and to quickly adopt decentralized market mechanisms to hit and maintain that goal. Calpine does not believe the current market design is effective at delivering the promised level of reliability. In fact, current reserve margin forecasts predict a significant shortfall and there has been no rush of investment to substantially meet the future gap.

In response to the Commission's request that parties provide questions for the Brattle Group to address during the workshop on July 27 Calpine proposes the following questions on this issue:

- What is the significance of setting the target if the Commission makes no market design changes to ensure it is met?
- Where has a "market based" reliability target worked? What are the specific market rules and conditions that make it work, including: level of real demand response penetration,

supplier bid mitigation and price caps, levels of bilateral hedging amongst counterparties? If ERCOT were to adopt this approach, how should it handle the transition?

Is the current 1-in-10 reliability standard yielding the appropriate and efficient resource adequacy target around which to design the ERCOT wholesale power market?

Calpine does not have a specific recommendation or value for ERCOT's reliability target. Calpine instead offers several observations for the Commission's consideration.

The Brattle Report suggests ERCOT's current 13.75% reserve margin could be a reasonable target but encourages "ERCOT, the PUCT and stakeholders to evaluate the target in terms of its overall value, policy objectives, risk, and cost effectiveness" before embarking on a major market redesign.[9] Calpine agrees with this recommendation and supports using 13.75% as a starting point for the discussions.

The Brattle Report reviewed several expected reserve margin outcomes based on the level of the ERCOT offer cap. It is no surprise the current energy-only market mechanism and $3,000 offer cap is proving insufficient to meet the reliability target over the long-term. As noted in the Brattle Report, the current energy-only, market-driven mechanism even when combined with an offer cap of $9,000 (twice as much as the offer cap that becomes effective on August 1, 2012) would be expected to produce a reserve margin of approximately 10%, well short of the current 13.75% target.[10] This difference signals a possible disconnect between the economic outcomes provided by the ERCOT market rules and the Commission's desire to ensure a predictable long-term level of reliability that must be addressed by the Commission.

[9] Brattle Report, p. 102.
[10] Brattle Report, p. 3.

SUMMARY

The current energy-only structure does not produce market prices that consistently rise to levels that incentivize new investment, lacks a retail structure that offers the availability of longer-term contracts that facilitate new generation financing and lacks significant penetration of price sensitive demand. The result is that reserve margins will continue to shrink unless the Commission takes action.

Calpine believes that the Commission should set a centralized reliability target and adopt decentralized market solutions designed to allow the market to hit and maintain the target. Brattle has identified several policy options for addressing these issues, including the use of capacity markets. Calpine will fully address those in its next set of comments in this proceeding.

Respectfully submitted,

By: William J. Taylor III, by gl with permission

William J. Taylor III
Vice President, Calpine Corporation
717 Texas Street, Suite 1000
Houston, Texas 77002
William.TaylorIII@calpine.com
Telephone: 713.830.8821
Telecopier: 713.315.9530