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PROCEEDING RELATING TO	§	PUBLIC UTILITY COMMISSION
RESOURCE ADEQUACY IN THE	§	
ERCOT POWER REGION	§	OF TEXAS

TEXAS INDUSTRIAL ENERGY CONSUMERS' RESPONSE TO GDF SUEZ COMMENTS

Pursuant to the Commission's request for comments, Texas Industrial Energy Consumers (TIEC) submits this response to the October 18, 2013 comments from GDF Suez.

I.   DISCUSSION

TIEC appreciates GDF Suez's attempts to refine and improve the current energy market and shares GDF Suez's goal of ensuring efficient scarcity pricing to incentivize new entry. It is critical, however, that any market reforms be based on sound economic principles and thorough analysis. If properly designed, the Operating Reserve Demand Curve (ORDC) developed by Dr. Hogan, which was originally submitted by GDF Suez, should be an improvement to the current market design. However, as noted in previous comments, TIEC has concerns about modifying the ORDC in a result-oriented manner and abandoning the principles on which the ORDC concept is based.

As outlined by Dr. Hogan, the ORDC should value reserves at the Value of Lost Load (VOLL) multiplied by the probability of firm load shed at a given level of reserves.[1] TIEC, the IMM, CPS Energy, Austin Energy and others have previously noted that, based on NERC requirements and ERCOT's operational practices, this formulation of the ORDC would require a Minimum Contingency Level (MCL) no higher than 1375 MW.[2] However, the Commission adopted a 2000 MW MCL, which has the effect of overvaluing reserves at each point on the ORDC. GDF Suez's recent comments would increase the VOLL used for the ORDC to $25,000/MWh. Combining this with the existing 2000 MW MCL will create additional market inefficiencies, and will inject scarcity premiums where they should not exist. At the October 8 workshop on resource adequacy, the IMM opined that setting the MCL at 2000 MW had the effect of estimating the

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[1] *Commission Proceeding to Ensure Resource Adequacy in Texas*, Project No. 40000, Supplemental Comments of IPR-GDF Suez Energy North America at 8 (Nov. 14, 2012) (white paper by William W. Hogan, "Electricity Scarcity Pricing Through Operating Reserves: An ERCOT Window of Opportunity," at 6).

[2] *See, e.g.,* Comments of Potomac Economics at 1 (Jul. 25, 2013); TIEC's Comments in Response to Discussion at the July 19 Open Meeting at 1-2 (Jul. 29, 2013); and Supplemental Comments of CPS Energy and Austin Energy at 2 (July 29, 2013).

VOLL at 1375 MW at approximately $20,000 - $25,000 per MWh. Thus, the Suez request to set the VOLL at a 2000 MW MCL at $25,000 per MWh effectively makes the true VOLL at 1375 MW two – three times higher, e.g., it assumes the real VOLL is $50,000 - $75,000 per MWh. These are extraordinarily high numbers and are inconsistent with the information available to date on the likely VOLL range within ERCOT.

While the Commission chose not to complete the VOLL study, preliminary analysis indicated that even the existing $9,000/MWh VOLL might be too high.[3] An appropriately determined VOLL is an important piece of the energy market design. TIEC would not object to setting a higher VOLL if that value were based on quantitative analysis of actual customer values in the ERCOT market. However, GDF Suez's proposal does not provide this type of analysis, and instead appears to be based almost exclusively on Peaker Net Margin (PNM) backcasts. GDF Suez's proposal would artificially increase the "area under the ORDC," which equates to additional generator revenues, by applying a much higher VOLL assumption.

Although maximum prices would still be truncated at $9,000/MWh, this modification would substantially change the *shape* of the ORDC (and increase the adder payments in an inefficient manner) at all reserve levels above the MCL. This would make the ORDC closer to a linear function than the cumulative distribution function previously adopted by the Commission, or the "actual" curve, as the IMM has termed it. Implementing the "actual" curve versus a linear or piecewise linear curve is consistent with the established relationship between reserves and reliability. All approaches to measuring reliability at a given reserve level, including ERCOT's reserve margin studies, show that the probability of load shed decreases exponentially with additional reserves, not linearly (or piecewise linearly). TIEC supports appropriate scarcity pricing in the energy market and under the ORDC, but the Commission should avoid creating scarcity pricing where scarcity does not exist, or at levels that are not economically justified. The Commission should avoid modifying the ORDC without strong quantitative analysis demonstrating that the proposed change is consistent with efficient market design principles.[4]

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[3] ERCOT Comments, Value of Lost Load Literature Review and Macroeconomic Analysis Prepared for ERCOT by London Economics International LLC at 66 (June 18, 2013).

[4] The Commission should also avoid setting parameters for the ORDC that are inconsistent with other assumptions in the current market design. In particular, the current System-Wide Offer Cap (SWOC) is $9,000/MWh. As noted in previous recommendations from the Brattle Group, the SWOC should approximate the VOLL. Brattle Report at 77. The Commission should use the same VOLL for all purposes to avoid creating market inefficiencies and unintended consequences.

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Finally, GDF Suez's reasons for increasing the VOLL are not sufficient or compelling. To support the proposed VOLL increases, GDF Suez relies primarily on (a) forward price trends following prior Commission decisions, and (b) PNM backcasts. Both of these reasons are flawed. First, forward price trends are impacted by a myriad of factors at any given time, and there is no way to tell what events contribute to forward price fluctuations. For instance, recent natural gas forward price movements could explain changes in electricity forward prices without any reference to the Commission's actions. Instead of focusing on short-term changes to forward prices, which may not be related to Commission actions, the Commission should base its decisions on sound analysis and economic principles. The market will appropriately value these changes over time.

Second, as TIEC, the IMM, CPS, Austin Energy, and others have previously noted, the Commission should be skeptical of PNM backcasts. While PNM backcasts can be a useful tool to determine whether a proposed change will have significant unintended consequences, market behavior will necessarily change in response to a new set of incentives, making these backcasts of questionable value for predicting future results. In addition, the Commission should not try to reverse engineer a specific level of PNM in any particular prior year. It appears that GDF Suez's proposal for a $25,000/MWh VOLL is based on achieving the cost of new entry (CONE) during 2012 ($105/kW-year per the Brattle Report)[5]. According to GDF Suez's comments, the sum of existing PNM and the additional PNM from a $25,000/MWh VOLL is approximately $112/kW-year—which slightly exceeds Brattle's CONE estimate. Setting aside that Brattle's CONE estimate is likely overstated, the market should not be designed to provide CONE every year. In some years, like 2012, there is plenty of capacity available to meet demand and the market should not be expected to provide revenues equal to CONE. The question is whether new entry is supported *when it is actually needed.* New entry was not needed for 2012 conditions—particularly given the load forecast issues that the Commission and ERCOT are currently correcting.[6] Therefore, presuming that PNM should have exceeded $105/kW-year in 2012 is not an appropriate or justified assumption.

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[5] Brattle Report at 62 (CONE for a combustion turbine plant, calculated using ERCOT's assumptions regarding financing costs).

[6] ERCOT, Load Forecasting Process Review for Discussion at October 8, 2013 Workshop (Oct. 7, 2013) (presentation by Calvin Opheim).

II. CONCLUSION

TIEC supports refining the existing market design, including implementing a properly designed ORDC that is consistent with sound economic principles and supported by thorough analysis. The Commission should not make changes to the ORDC at this time without additional information supporting those changes, and should not pursue result-oriented proposals that deviate from first principles based on PNM backcasts or transient changes in forward prices.

Respectfully submitted,

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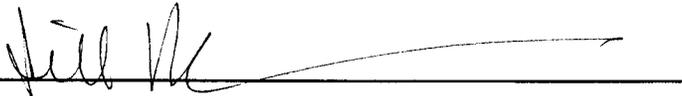
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