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PUBLIC UTILITY COMMISSION
PUBLIC HEARING CLERK

COMMISSION PROCEEDING TO
ENSURE RESOURCE ADEQUACY
IN TEXAS

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PUBLIC UTILITY COMMISSION
OF TEXAS

**REPLY COMMENTS OF ENVIRONMENTAL DEFENSE FUND, INC.
TO COMMENTS FILED IN RESPONSE TO QUESTIONS
POSED BY THE COMMISSION
IN THE NOVEMBER 15TH OPEN MEETING**

COMES NOW Environmental Defense Fund, Inc. (EDF) and files these reply comments to comments filed in response to questions the Commission posed during its November 15th Open Meeting.

SUMMARY OF EDF REPLY COMMENTS

In its initial comments, EDF discussed how the increased utilization of voluntary demand response is the most cost-effective way the Commission and ERCOT could ensure that ERCOT achieves resource adequacy and satisfies a mandatory reserve margin. EDF also suggested that, if the Commission determined that it should implement a Texas version of a forward capacity market, the Commission should implement a refined capacity market construct that would enable ERCOT to buy the capabilities that it needs rather than treating all resources as having the same value to the electric grid.

A variety of participants in this proceeding filed comments recognizing the important role that demand response should have in ERCOT, regardless of their perspective on the form of wholesale market structure the Commission should adopt. EDF agrees that, regardless of the wholesale market structure the Commission determines to pursue as a result of this and subsequent proceedings, the Commission should ensure that price-responsive and reliability-based demand response is able to increase the extent to which each already participates in the

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ERCOT market. This increased participation will allow the ERCOT market to become more efficient and able to optimize the utilization of existing and future resources for the benefit of all customers.

In their comments, several participants filed comments regarding their perspective on how demand response should be limited when participating as a resource to the market. EDF respectfully submits that limiting the participation of demand response in any market structure the Commission may choose will undermine the efficiency of that market and force customers to pay more for their electric service.

Finally, several participants filed comments in support of a refined capacity market as EDF described. EDF respectfully recommends that, if the Commission determines that it will implement some form of a central capacity market, the Commission consider this approach as a means to ensure that funds that ERCOT market participants expend to procure capacity enables ERCOT to have the resources it needs on the grid to efficiently ensure reliable operations at an economic price.

REPLY COMMENTS

EDF appreciates the opportunity to provide these comments in response to comments other participants filed in response to the additional questions the Commission presented. For clarity, EDF will organize its reply comments in the same manner as its original comments.

Demand Response as a Cost-Effective Solution

In their comments, the Texas Industrial Energy Consumers (TIEC) observed that demand response could be a more cost-effective solution to addressing concerns about resource adequacy in ERCOT, a problem that only persists for less than two percent of all intervals each year.¹ The

¹ TIEC's Response to Commission Questions (Dec. 17, 2013) at 2, 10, and 14-15 (hereinafter TIEC Comments).

ERCOT Steel Mills also suggested this,² and Frontier Associates also recognized that demand response resources are less costly than generation resources.³ EDF agrees on these points.⁴ As TIEC observed, and EDF agrees, demand response has several advantages as a targeted solution to resource adequacy concerns in ERCOT:

1. Demand response resources would be more cost effective than developing a new generation facility;⁵
2. Demand response resources may be procured closer to the time they will be needed;⁶
3. The use of demand response resources avoids concerns about investing in a generation resource – whether owned by the state or owned by a private firm - and then holding it out of the market.⁷
4. The use of demand response will help the development of this resource in ERCOT.⁸

The expanded use of ERS as EDF recommended in its comments also satisfies several recommendations TIEC offered regarding how a targeted solution to resource adequacy concerns should be structured:

1. Reserves should be procured to match the forecast need;
2. Payments should be made to the resources providing the service rather than every resource in the market; and
3. Resources should be deployed and priced to preserve existing market signals to build new generation.⁹

EDF concurs with these suggestions and respectfully suggests that they would all be met with EDF's suggested approach for expanding ERCOT's current ERS service. TIEC also

² Joint Comments by the ERCOT Steel Mills Regarding Market Structure Questions Posed by Commissioners Nelson and Anderson (Dec. 17, 2013) (hereinafter ERCOT Steel Mills Comments) at 14.

³ See Comments of Frontier Associates LLC on Certain Commissioner Questions for January 29, 2014 Workshop (hereinafter Frontier Associates Comments) at 3 (“Indeed, the costs of ERCOT’s existing demand-side resources are considerably below the cost of traditional supply-side alternatives.”).

⁴ Comments of Environmental Defense Fund, Inc. in Response to Questions Posed by the Commission in the November 15th Open Meeting (Dec. 17, 2013) at 1 and 9-10 (hereinafter EDF Comments).

⁵ TIEC Comments at 15; *see also* EDF Comments at 9-10.

⁶ TIEC Comments at 15.

⁷ TIEC Comments at 15.

⁸ TIEC Comments at 14-15.

⁹ TIEC Comments at 13.

recommended several additional aspects relevant to the procurement and deployment of load response:

- The Commission and ERCOT should define the requirements for providing the service and all eligible resources should compete to provide the service.¹⁰
- The deployment of demand response should avoid causing any price reversals in the energy market.¹¹

Since ERCOT would deploy ERS only at a time of system emergency when available capacity already had been depleted, the wholesale market already would be trading at or near the system wide offer cap (SWOC). Holding the wholesale price at the SWOC while ERS is deployed – which would be during the time of a system emergency – would avoid undermining the price signals from the competitive market that additional generation is needed. This approach also has the benefit of allowing the competitive energy market to continue to work until it is depleted, at which time ERCOT could deploy the emergency resource.

As with all services ERCOT procures, ensuring performance of demand response resources that voluntarily commit to participating in ERS is important so that ERCOT and the entire grid receive the benefit of the service they have procured.¹² For example, demand response resources participating in ERS should understand clearly that they will be penalized if they fail to stay online until they are deployed.¹³ As EDF discussed in its comments, ERCOT should police this carefully, especially as the SWOC increases.¹⁴

¹⁰ *Id.* In their comments, the ERCOT Steel Mills noted the importance of setting clear performance requirements so that potential demand response participants can assess the operational risk and economic benefit from participation. ERCOT Steel Mills Comments at 3-4.

¹¹ TIEC Comments at 16-17; *see also* ERCOT Steel Mills Comments at 16 and Comments of Shell Energy North America (US), LP (hereinafter Shell Comments) at 10-11.

¹² *See* TIEC Comments at 16; *see also*, America's Natural Gas Alliance Response to Commissioner's Questions at 6; ERCOT Steel Mills Comments at 5.

¹³ TIEC Comments at 22.

¹⁴ EDF Comments at 9.

In their comments, TIEC also suggested that the cost of this targeted approach to addressing resource adequacy should be allocated to load serving entities based on peak demand.¹⁵ EDF agrees. This approach also is consistent with the recommendation of Frontier Associates.¹⁶ Cost allocation in this manner would ensure not only that the loads causing the systems peaks and the need for the emergency service were paying for their use of the service, but also encourage loads to minimize their peak demand,¹⁷ such as through increased energy efficiency or price responsive demand response, which in turn would reduce the need for this emergency service.

As TIEC observed in their comments, and EDF agrees, there is a legitimate policy reason to focus on demand response as a targeted solution to the Commission's current resource adequacy concerns. Demand response is still a developing component of the ERCOT market, especially demand response provided by smaller customers.¹⁸ While the impact of demand response is starting to be felt in the market, it is not yet fully established in the market.

EDF does not agree with TIEC's suggestion that only new demand response resources should be allowed to participate in an emergency service to support resource adequacy.¹⁹ To date, the opportunity for loads to participate in ERS has not precluded the continued growth of price responsive demand response, and EDF doubts that an expansion of ERS would stop its growth.²⁰ Why? First, loads that participate in price responsive demand response have more flexibility to determine whether to reduce their load and, if so, when. Loads that participate in

¹⁵ TIEC Comments at 17. ERCOT Steel Mills also supported this approach. ERCOT Steel Mills Comments at 9-10.

¹⁶ Frontier Associates Comments at 4-6.

¹⁷ Frontier Associates at 6.

¹⁸ TIEC Comments at 14-15; Brattle Group Report at 5, Table 1.

¹⁹ TIEC Comments at 22.

²⁰ Luminant raised this concern in its comments. Luminant's Response to Request for Comments Regarding Potential Market Design Changes to Address Resource Adequacy in ERCOT (hereinafter Luminant Comments) at 38.

ERS relinquish this freedom and may be penalized if they fail to follow ERCOT instructions. In addition, loads that participate in price responsive demand response have the opportunity (especially if they are working with their retail electric provider) to realize a profit on the sale of power previously procured to serve their load even if there is not a system emergency. Loads participating in ERS do not have this same opportunity because they have an obligation to stay online until deployed by ERCOT. Further, price responsive loads, if they are paying for electric service on a price structure that is sensitive to real-time wholesale power prices, retain their ability to reduce their load if their VOLL is less than the SWOC or whatever the wholesale price is at the time ERCOT deploys ERS. Loads that participate in ERS are obligated to stay online until deployed by ERCOT and may be penalized if they reduce their load prior to being deployed by ERCOT. Moreover the load's QSE faces the potential for reduced compensation and enforcement action depending on the performance of the loads they bid into ERS.

The current rate of demand response participation in ERCOT is significantly lower than the rate of demand response in other regional transmission organizations. As a result of the differences between loads participating in price responsive demand response versus loads participating in reliability-based demand response, and due to the current low participation of demand response in ERCOT, there is no need to impose an arbitrary time limitation on the ability of loads to participate in the service procured to address resource adequacy concerns.

Demand Response as a Critical Part of Any Solution

In several instances, participants in this proceeding indicated ways in which demand response should be limited in its ability to participate in the electric market. EDF respectfully submits that limiting the participation of demand response in any market structure will undermine the efficiency of that market and force customers to pay more for their electric service.

In its comments, Equipower Resources Corp. suggests that demand response resources participating in a market “must be treated on a comparable basis with equivalent obligations and penalties.”²¹ EDF agrees that demand response resources should be required (1) to perform in a manner that reliably delivers their value to the grid when they are deployed, and (2) to be subject to penalties if they fail to perform as committed. As EDF discussed in its opening comments, generation and demand response are different resources, and, just as ERCOT differentiates the obligations imposed upon generators depending on their functionality, so too should it take into account the difference in functionality of demand response resources from generation resources.²² When demand response is deployed, the MW those resources shed are equivalent to if the same resources had added the same number of MW on the grid at the same time of their deployment. The difference in functionality of demand response versus generation resources can be addressed in product definitions.

A view that suggests that demand response should behave in an identical manner as generation reinforces, rather than removes, a barrier to a more fully competitive market. Identical does not represent fair market value. Markets function optimally when producers and consumers are uninhibited by distortions or inefficient incentives. Subjecting all market participants to standards originally formulated to govern centralized generation produces an irrational signal that fails to recognize the value of the operational characteristics that demand response brings to the market.

In his comments sponsored by the ERCOT Reliability Advocates,²³ Roy Shanker similarly opines that “DR should be required to match generation requirements as closely as

²¹ Comments of Equipower Resources Corp. in Response to Questions Posed by the PUCT (Dec. 17, 2013) at 2.

²² EDF comments at 6.

²³ Calpine Corporation, Exelon Generation Company, LLC, and NextEra Energy Resources, LLC.

possible. The notion of limited occasional obligations, for any resource, is anathema to any reasonable planning process and directly at odds with the associated derived adequacy comments.”²⁴ EDF respectfully disagrees with Mr. Shanker’s position. Taken literally, Mr. Shanker’s position would not allow *any* resource to be considered eligible to meet resource adequacy needs since no resource is available 100% of the time. In the context of demand response, though, Mr. Shanker’s position would eliminate demand response as a resource the Commission and ERCOT could consider to supporting resource adequacy – despite its proven effectiveness to meeting that very objective.²⁵ This extreme position also is contrary to the opinion of the Brattle Group which has recognized the importance of demand response in electricity markets and to supporting resource adequacy.²⁶ Contrary to Mr. Shanker’s assertions,²⁷ demand response is an important element to assuring resource adequacy in ERCOT regardless of the market structure the Commission adopts, and, just as ERCOT is able to take into account the different operational characteristics of thermal generators in managing the grid, ERCOT also is able to take into account the different operational characteristics of load resources in managing the grid.

²⁴ Comments Provided on Behalf of the ERCOT Reliability Advocates in Response to the Commission’s Questions on Resource Adequacy (hereinafter ERCOT Advocates Comments) at 29 (Bates).

²⁵ See EDF Comments at 9.

²⁶ The Brattle Group, *ERCOT Investment Incentives and Resource Adequacy* (June 1, 2012) (hereinafter June 2012 Brattle Report) at 99 (For example, at higher reserve margins, DR can provide the same resource adequacy value as generation even if the number of calls is low.”).

²⁷ Mr. Shanker’s other assertions regarding demand response, such as his opinion that only remotely deployable demand response is desirable (ERCOT Advocates Comments at 27-28) and that demand response that is available only a limited number of hours per year is an “inferior” product (*Id.* at 32 n.26) also are contrary to the Brattle Group’s analysis and ERCOT’s and other markets’ actual experience. Similarly, Luminant’s position that, if the Commission implements a capacity market, the Commission should treat demand response resources as being of lesser value than generation resources also should be rejected – the value of demand response to reduce demand at a system peak is no less valuable than the ability of a peaking thermal unit to add generation capacity at a system peak. See Luminant’s Response to Request for Comments Regarding Potential Market Design Changes to Address Resource Adequacy in ERCOT (hereinafter Luminant Comments) at 20 n.56.

The Operational Capabilities Market: A Refined Forward Capacity Market

In its initial comments, EDF recommended that, if the Commission decides to adopt a Texas version of a forward capacity market, the Commission should implement it in a manner that would enable ERCOT to take electric grid operational needs into account when procuring resources.²⁸ In addition to a discussion by the Regulatory Assistance Project (RAP) in support of this approach,²⁹ GDF Suez North America, Inc. (GDF Suez) also supported Commission adoption of this approach.³⁰ As GDF Suez observed, a capacity market could incorporate the use of tranches to procure capacity with different capabilities, and each tranche could receive different payment levels. EDF continues to support the implementation of an Operational Reliability Market as a more refined forward capacity market that also should yield a more cost effective result.

²⁸ EDF Comments at 10-13.

²⁹ Comments of Regulatory Assistance Project (Dec. 16, 2013) at 4.

³⁰ GDF Suez Energy North America, Inc. Responses to Questions from Commission Questions Regarding Resource Adequacy (hereinafter GDF Suez Comments) at 5-6.

CONCLUSION

EDF appreciates the opportunity to provide these additional comments on these important issues and welcomes the opportunity to continue working with the Commission and interested parties in developing an appropriate solution for Texas.

Respectfully submitted,



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