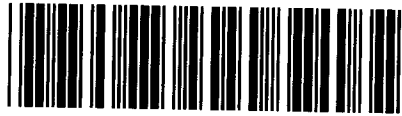




Control Number: 40000



Item Number: 576

Addendum StartPage: 0

PROCEEDING RELATING TO  
RESOURCE ADEQUACY IN THE  
ERCOT POWER REGION

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PUBLIC UTILITY COMMISSION  
OF TEXAS  
DEC 16 2013 10:01 AM  
FILING CLERK

**BRAZOS ELECTRIC'S INITIAL COMMENTS  
TO THE PUBLIC NOTICE OF WORKSHOP AND  
REQUEST FOR COMMENTS**

**TO THE HONORABLE PUBLIC UTILITY COMMISSION OF TEXAS:**

NOW COMES Brazos Electric Power Cooperative, Inc. ("**Brazos Electric**"), and files these initial comments in response to the Public Utility Commission of Texas' ("**PUCT**" or "**Commission**") Public Notice of Workshop and Request for Comments filed in Project No. 40000, *Proceeding Relating to the Resource Adequacy Rulemaking ERCOT Power Region*. The Commission is seeking comments to a series of questions submitted by Chairman Nelson and Commissioner Anderson on October 25, 2013, and November 15, 2013, respectively.

Brazos Electric's initial comments focus on some of the questions submitted by Commissioner Anderson. No conclusions should be drawn regarding Brazos Electric's positions on any other matters because Brazos Electric chose not to comment on each and every question provided by either Chairman Nelson or Commissioner Anderson.

**I. Executive Summary**

While the resource adequacy construct will result in a change in the market, no significant changes should be necessary in market participant entity structure or market power mitigation to implement the new construct. Brazos Electric anticipates that the ultimate design of the ERCOT resource adequacy construct will be unique to Texas so that it will accommodate features and needs specific to the ERCOT region and markets. As explained in the responses below, the ERCOT region is prepared for the eventuality of a resource adequacy capacity construct, and the PUCT already has the tools in place to monitor and address any market power concerns.

## **II. Specific Responses to Commissioner Anderson's Questions**

### **A. Questions of General Applicability**

- **Does the PUCT have the authority to require municipal utilities and electric cooperatives to share the cost of any resource adequacy construct?**

#### **Brazos Electric Response:**

Brazos Electric has always participated in all facets of the ERCOT wholesale market and expects that it would participate in the anticipated resource adequacy construct. Brazos Electric, however, reserves the right to review and comment on any formally proposed resource adequacy construct regarding whether the proposal would be within the scope of the PUCT's authority.<sup>1</sup>

### **B. Reserve Margin Obligation on Load Serving Entities (LSEs)**

- **How could a mandatory reserve margin be imposed on LSEs?**

#### **Brazos Electric Response:**

There are several options for imposing a mandatory reserve margin on LSEs. This could be accomplished, for example, via a capacity service market managed by ERCOT, as discussed in the responses below.

- **How do you ensure sufficient transparency so as to prevent affiliated generation and LSEs from exercising undue price influence in the market?**

#### **Brazos Electric Response:**

There are mechanisms already in place in the ERCOT region that would ensure sufficient transparency. A capacity market would likely be operated by ERCOT, and ERCOT market

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<sup>1</sup> For example, Brazos Electric would object to a construct that required cooperatives to divest their generation, as discussed later in this response document.

transaction data is available for the ERCOT Independent Market Monitor (“IMM”) to review at any time. Additionally, bilateral transactions (which are likely to occur in conjunction with an ERCOT-run market) are typically settled via the ERCOT market. Therefore, the ERCOT system would have evidence of bilateral transactions, and the IMM could review this data. Brazos Electric envisions that the establishment of the resource adequacy capacity service would happen as follows:

- (1) ERCOT and the PUCT would first establish the requirements for a resource adequacy capacity market via the Protocols and PUCT rules. The ERCOT Protocols would detail the specifics of the provision of the resource adequacy capacity service (time frame, availability requirements, etc.).
  - (2) The PUCT would determine any associated penalties for those who exercise market power or violate applicable PUCT rules relating to the resource adequacy capacity service. As happens with respect to current market participation, the IMM would review relevant data to determine if there are any violations and report findings to the PUCT.
  - (3) All qualified resources including demand response, renewable energy resources, and thermal generation resources, new and old, should be able to participate which would lead to greater competition and a least cost solution.
  - (4) A bilateral capacity market would naturally develop. LSEs could enter into contracts with generators or self-supply in order to hedge risk in the market for capacity.
- **What additional measures should be imposed to prevent market power abuse by large generators and independent power producer (IPP) generators that are affiliated with LSEs?**
  - **How should the market be designed so as to avoid the problem of large incumbent IPPs keeping out small generators? Should the PUCT market power abuse rules be modified to lower the generation ownership limit to less than 10% of installed capacity?**

### **Brazos Electric Response:**

Brazos Electric responds to these two questions together. The current mechanisms for mitigating market power should be sufficient for preventing market power abuse with respect to a resource adequacy capacity service. Current provisions (which include market power mitigation plan requirements for twenty percent generation ownership,<sup>2</sup> market monitoring,<sup>3</sup> and open access to transmission for all generation<sup>4</sup>) all serve to help level the playing field and would allow competition to occur in a capacity market. Given that a resource adequacy capacity market is likely to be structured on an ERCOT-wide basis, there is even less potential for market abuse than in the energy-only market because constrained areas will not exist for resource adequacy market purposes and cannot lead to higher prices in certain areas like they do in energy-only markets. Current generation ownership percentages in the ERCOT region do not demonstrate a need for changes in rules regarding generation ownership at this time. In Exhibit A, as an example of how capacity market power can be monitored and mitigated, Brazos Electric provides an analysis of ERCOT generation ownership utilizing market monitoring methodologies employed in PJM.<sup>5</sup>

- **(1) To minimize market power abuse concerns, should generators be required to divest themselves of any LSE? (2) Should non opt-in entities (NOIEs) be exempt from this obligation? (3) Alternatively, is it sufficient to require non-NOIE generators to prove that they offer non-affiliated retail electric providers (REPs) bilateral contracts that are no less favorable than the terms that they offer their affiliated LSEs? (4) Should they be required to offer more favorable terms to avoid market concentration problems?**

### **Brazos Electric Response:**

The question has several parts and the text has been slightly revised to show the subparts as (1), (2), (3), and (4). Brazos Electric responds to each subpart as follows:

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<sup>2</sup> P.U.C. SUBST. R. §25.90(a)

<sup>3</sup> See generally, P.U.C. SUBST. R. §25.503

<sup>4</sup> P.U.C. SUBST. R. §25.191

<sup>5</sup> Note: Brazos Electric is not recommending adoption of a PJM-style capacity market.

- (1) No. As noted above, the PUCT and the IMM already possess requisite authority to protect non-affiliated LSEs and consumers from the exercise of market power by IPPs/affiliated LSEs. Generation is a natural hedge for participation in the market as an LSE. To separate and require divestiture would create undue inefficiency and reduce the hedging capabilities of LSEs. Brazos Electric cautions against requiring such a divestiture without first implementing the new resource adequacy market and giving it a chance to work in the current regulatory framework.
- (2) As stated above, Brazos Electric does not support any form of divestiture for any entities. If, however, divestiture were required for some entities, electric cooperatives must be exempt from such a requirement. Forcing cooperatives to divest their generation assets would be a direct violation of PURA. PURA specifically states that a cooperative's board of directors has exclusive jurisdiction to: "Manage and operate the electric cooperative's utility systems, *including exercise of control over resource acquisition* and any related expansion programs; to establish and enforce service quality standards, reliability standards, and . . . determine any other utility matters that the board of directors believes should be included."<sup>6</sup> (emphasis added). A divestiture requirement would deprive a cooperative board of capability to procure resources as provided by the statute. A divestiture requirement would also interfere with cooperatives' contracts (*e.g.*, loan agreements, construction agreements, plant operating agreements, member agreements, etc.) and would, therefore, be prohibited by PURA §41.101 and §41.103. Additionally, NOIEs have a natural incentive to minimize the cost of serving the long term electricity requirements of their customers, so if their planning shows that generation ownership provides the least cost long term solution then there should be no artificial rule to require separation of generation and load. Finally, cooperatives, pursuant to P.U.C. SUBST. R. §25.275, are subject to adequate standards which are designed to prevent anticompetitive practices such as allowing preferential access to transmission or transmission-related information or providing competitive advantages to affiliates.<sup>7</sup>

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<sup>6</sup> PURA §41.055

<sup>7</sup> P.U.C. SUBST. R. §25.275.

(3) There is no need to require special proof that generators are offering the same terms to all LSEs. Transparency in the market (discussed above) and typical market motivation should result in comparability of offers. Generators have an incentive to maximize revenues, and LSEs have an incentive to minimize cost. Should a generator determine that it could receive more revenue from a non-affiliated LSE for a bilateral capacity contract or via a capacity auction, it would naturally take that alternative. Conversely, should an LSE determine that it could get a lower cost of capacity via a bilateral capacity contract or through a capacity auction from an unaffiliated generator, it would naturally do so. Entities, regardless of their affiliation, would have the ability to contract forward bilateral capacity in the market place based on their own judgment and tolerance of risk. Bilateral contracting of capacity is a hedging tool available in all US markets to avoid unfavorable capacity auction outcomes, so LSEs would have the capability of managing capacity costs in two ways, through the bilateral market or a capacity auction.

(4) No. No preferences for any LSE should be required. Market prices move constantly and entities determine when to lock in prices based on their specific risk tolerance, market views, and sales/load expectations. Requiring generators to offer bilateral contracts at terms more favorable than to affiliates is unduly burdensome and inefficient. Demonstrating compliance with the mandate would be cost prohibitive. The IMM oversees and enforces market power abuses and would continue to do so under a potential ERCOT capacity market auction construct. Therefore, market concentration would be addressed via IMM oversight of capacity and energy market protocols and mechanisms at ERCOT and the PUCT.

**C. Centralized Forward Capacity Market**

- **How would the costs of a mandatory capacity market be allocated?**

**Brazos Electric Response:**

There will doubtless be many various alternatives proposed by numerous parties as to how costs could be allocated. Brazos Electric believes all of these alternatives will need to be

reviewed and considered by the market participants. Brazos Electric offers the following description as one example of how costs could be allocated.

The capacity auction could be held for the designated period with the amount to be procured based upon ERCOT load forecasts. ERCOT would procure the necessary capacity via auction, establishing the cost of the capacity service for the period in question. That cost could then be allocated on a demand ratio share or other basis to each Qualified Scheduling Entity representing an LSE, as a capacity charge. The allocation will need to take into account the fact that some LSEs' load shares can change over time; however, the total capacity procured and allocated to each LSE, would be based upon a predetermined methodology. A bilateral market would naturally emerge as LSEs would seek to enter into transactions with generators or other market participants to hedge price risk that results from the introduction of a capacity market. LSEs that hedge through generation ownership or qualified demand response resources would be subject to the capacity charge for their entire load; however, due to revenues received for their generation and demand response resource offers accepted in the capacity auction, they would effectively only be responsible for the residual amount of capacity that exceeds the sum of their self-supply generation and demand response.

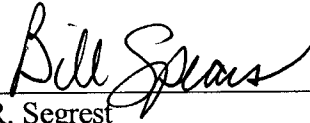


### III. PRAYER

Brazos Electric appreciates the opportunity to provide these Initial Comments. Brazos Electric respectfully requests that the Commission consider the foregoing comments in its deliberations on these important issues.

Respectfully submitted,

**SEGREST & SEGREST, P. C.**



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Date: December 13, 2013

## Exhibit A

### Analysis of Market Power in ERCOT Capacity Market

P.U.C. SUBST. R. §25.90 is similar to the Federal Energy Regulatory Commission's ("FERC") order in *AEP Power Marketing, Inc., et al* ("*AEP*").<sup>8</sup> *AEP* defines the market structure characteristics that must be met for a market participant to be granted market-based rates, and provides that a seller's market share in excess of 20% and a Herfindahl-Hirschman Index ("HHI") of 2500 is an indicator of market power. A seller is deemed to have market power if: (i) the supplier is pivotal, (ii) the seller has a market share in excess of 20%, or (iii) if the HHI exceeds 2500.<sup>9</sup>

In the PJM regional transmission organization ("RTO"), the PJM IMM, for each Reliability Pricing Model capacity auction, conducts basic market power tests including market share, HHI and the Three Pivotal Supplier Test ("TPS").<sup>10</sup> In effect, the PJM IMM implements a market power test consistent with *AEP*. The TPS test assumes that in a market with multiple suppliers, three suppliers, operating in collusion, have the ability to raise prices above the competitive level, *i.e.*, to exert market power by withholding capacity, when at least some of the output of one of the three is needed to meet market demand. A supplier would fail the test if its capacity, in combination with the capacity of the two largest suppliers in the market, exceeds the surplus of total capacity. A supplier that fails this test would be deemed to have the ability to withhold capacity and would be subject to mitigation.

Until recently, the PJM IMM applied a preliminary market power screen for the PJM capacity market, with the following three market power screens applied to PJM regions and sub-regions: (1) a test to determine if the market share of any capacity resource owner exceeded 20%; (2) a test to determine if the HHI for all capacity resource owners was 1800 or higher; and (3) a test to determine whether there were not more than three jointly pivotal suppliers. A failure of any of these screens subjects capacity sellers to an offer cap for sales in the PJM capacity

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<sup>8</sup> *AEP Power Marketing, Inc., et al.*, 107 FERC ¶ 61,018 (2004), available at: <https://www.ferc.gov/whats-new/comm-meet/041404/E-1.pdf> (last visited Dec. 4, 2013).

<sup>9</sup> See also, Comments of the IMM for PJM, *Exelon Corporation*, 138 FERC ¶ 61,167, at 10 (2012), available at: [http://www.monitoringanalytics.com/reports/Reports/2011/IMM\\_Comments\\_and\\_Motion\\_to\\_File\\_Comment\\_Three\\_Days\\_Out\\_of\\_Time\\_EC11-83-000\\_20110721.pdf](http://www.monitoringanalytics.com/reports/Reports/2011/IMM_Comments_and_Motion_to_File_Comment_Three_Days_Out_of_Time_EC11-83-000_20110721.pdf) (last visited Dec. 11, 2013).

<sup>10</sup> See generally, *PJM Interconnection, L.L.C.*, 125 FERC ¶ 61,231 (2008) (fn 4) (containing a description of TPS as applied to the PJM regulation capacity market).

market.<sup>11</sup> While the IMM no longer uses the preliminary market power screen because of the persistent failure of the PJM capacity market of market power screens, there is no exercise of market power in the PJM capacity market because the PJM IMM mitigates capacity market bids. That is, explicit PJM market power mitigation rules offset underlying structural issues in the PJM capacity market. As a result of this mitigation, the PJM capacity market results are competitive.<sup>12</sup>

To consider how a market power screen comporting with the PJM IMM's screen for the ERCOT generation market would appear, see Table 1 below which computes HHI and market share using generation ownership data provided in the 2012 Brattle Group Report.<sup>13</sup> The table shows the ERCOT generation market would pass two of the three identified metrics used by the PJM IMM. In general, the ERCOT market does not appear to be concentrated to the degree that would require divestiture to lower the generation ownership limit to less than 10% of installed capacity. Even if it were the case that market power tests determined that the ERCOT market, or certain locationally constrained areas within ERCOT, were beset with market power issues, the IMM for ERCOT should be able to implement a mitigation plan so as to ensure a competitive ERCOT resource adequacy price in these areas such that lowering the generation ownership limit to less than 10% of installed capacity would not be required.

Toward this end, it would appear that the ERCOT IMM has the ability to perform pivotal supplier tests, given that, in the Annual ERCOT State of the Market report<sup>14</sup>, the IMM computes several pivotal analyses to determine the competitiveness of the market.<sup>15</sup> The ERCOT IMM appears to have broad leeway to “[c]onduct...market power tests and other analyses related to market power determination”, and such tests would be applicable to any market design” and,

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<sup>11</sup> See generally, MONITORING ANALYTICS, PRELIMINARY MARKET STRUCTURE SCREEN (2012), available at: [http://www.monitoringanalytics.com/reports/Reports/2012/PMSS\\_Results\\_20152016\\_20120207.pdf](http://www.monitoringanalytics.com/reports/Reports/2012/PMSS_Results_20152016_20120207.pdf) (last visited Dec. 11, 2013).

<sup>12</sup> *Id.*

<sup>13</sup> See Brattle Group Report,

[http://www.ercot.com/content/gridinfo/resource/2013/mktanalysis/Brattle\\_ERCOT%20Resource%20Adequacy%20Review\\_2012-06-01.pdf](http://www.ercot.com/content/gridinfo/resource/2013/mktanalysis/Brattle_ERCOT%20Resource%20Adequacy%20Review_2012-06-01.pdf) (last visited Dec. 11, 2013) at page 34.

<sup>14</sup> POTOMAC ECONOMICS, LTD., 2012 STATE OF THE MARKET REPORT FOR THE ERCOT WHOLESALE ELECTRICITY MARKETS (Jun. 2013) (describing the tests used by the ERCOT IMM), available at: [http://www.potomaceconomics.com/uploads/ercot\\_reports/2012\\_ERCOT\\_SOM\\_REPORT.pdf](http://www.potomaceconomics.com/uploads/ercot_reports/2012_ERCOT_SOM_REPORT.pdf) (last visited Dec. 11, 2013).

<sup>15</sup> *Id.* at xxv (stating that “[t]he Residual Demand Index (“RDI”) is used to as the primary indicator of potential structural market power. The RDI measures the percentage of load that cannot be served without the resources of the largest supplier, assuming that the market could call upon all committed and quick-start capacity owned by other suppliers. When the RDI is greater than zero the largest supplier is pivotal; that is, its resources are needed to satisfy the market demand”).

indeed, P.U.C. SUBST. R. §25.365 states that a responsibility of the ERCOT IMM is “Monitoring all markets in the power region for energy, capacity services, and congestion revenue rights, and the ERCOT protocols and related procedures and practices that affect supply, demand, and the efficient functioning of such markets.”

**Table 1: Computation of HHI and Market Share – ERCOT Region<sup>16</sup>**

| Company                     | Market Share |                      | Market Share Squared |
|-----------------------------|--------------|----------------------|----------------------|
| Luminant                    | 17.0%        | 17                   | 289                  |
| Tenaska                     | 4.0%         | 4                    | 16                   |
| Topaz                       | 2.0%         | 2                    | 4                    |
| NRG Energy                  | 14.0%        | 14                   | 196                  |
| Calpine                     | 6.0%         | 6                    | 36                   |
| NextEra                     | 7.0%         | 7                    | 49                   |
| GDF Suez                    | 5.0%         | 5                    | 25                   |
| Exelon                      | 4.0%         | 4                    | 16                   |
| CPS Energy                  | 7.0%         | 7                    | 49                   |
| LCRA                        | 4.0%         | 4                    | 16                   |
| Austin Energy               | 3.0%         | 3                    | 9                    |
| Brazos Electric Cooperative | 2.0%         | 2                    | 4                    |
| Direct Energy               | 2.0%         | 2                    | 4                    |
| AEP                         | 1.0%         | 1                    | 1                    |
| Dow Chemical                | 1.0%         | 1                    | 1                    |
| Formosa Plastics            | 1.0%         | 1                    | 1                    |
| Others                      | 5.0%         | 5                    | 25                   |
| Others                      | 5.0%         | 5                    | 25                   |
| Others                      | 5.0%         | 5                    | 25                   |
| Others                      | 5.0%         | 5                    | 25                   |
|                             |              | <b>Computed HHI:</b> | <b>816</b>           |

<sup>16</sup> The ERCOT Generation market shares in Table 1 are based on nameplate ratings. Additionally, the Brattle Group report only provides ownership shares for 80% of the capacity in ERCOT and did not provide the ownership shares of smaller entities; for the purposes of this table it is assumed that there are 4 additional entities that own the remaining 20% of the generating capacity. In practice, the ownership of the remaining 20% of capacity is likely to be spread over many smaller owners, lowering the computed HHI in Table 1.