

PROJECT NO. 52373

**REVIEW OF WHOLESALE
ELECTRIC MARKET DESIGN**

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**PUBLIC UTILITY COMMISSION
OF TEXAS**

TCPA COMMENTS ON COMMISSION QUESTIONS ISSUED

Texas Competitive Power Advocates (TCPA) is a trade association representing power generation companies and wholesale power marketers with investments in Texas and the Electric Reliability Council of Texas (ERCOT) wholesale electric market. TCPA members¹ and their affiliates provide a wide range of important market functions and services in ERCOT, including development, operation, and management of power generation assets, power scheduling and marketing, energy management services and sales of competitive electric service to consumers. TCPA members provide almost ninety percent (90%) of the non-wind electric generating capacity in ERCOT. TCPA members have invested billions of dollars in the state and employ thousands of Texans.

TCPA appreciates the opportunity to respond to the Public Utility Commission of Texas' (Commission's) questions and will provide answers specifically to the questions regarding the operating reserve demand curve (ORDC), modifications to ancillary services, and the fuel reliability product contained in questions one through three. The remaining questions applicable to a load-serving entity (LSE) obligation or some alternative to that will be answered separately in one response following the first few questions. Because the LSE obligation and alternative options require substantial thought, modeling, and vetting to provide meaningful and thoughtful solutions, TCPA does not believe this can be accomplished in the six days allotted for responses to the questions. As such, TCPA recommends the Commission set out a general policy path with the direction that revenues must be sufficient to support said path. Additionally, TCPA supports the Commission taking the following actions within the timeframe outlined by Commissioners before the end of 2021:

¹ TCPA member companies participating in these comments include: Calpine, Cogentrix, EDF Trading North America, Exelon, Luminant, NRG, Shell Energy North America, Talen Energy, Tenaska, TexGen Power, and WattBridge.

1. Establish a mandatory reliability standard (or standards) in ERCOT.
2. Direct ERCOT to develop a fuel resiliency product.
3. Direct ERCOT to implement ORDC changes that include adjusting the probability of reserves falling below minimum contingency level (PBMCL) to account for reserves ERCOT deems necessary for reliability and any additional modifications to the curve necessary to address the new ERCOT requirement to have 6,500-7,500MW in reserves and to incentivize investment.
4. Direct Commission Staff to open a project to determine the best avenue to create financial incentives to meet the reliability standard(s) established by the Commission.

Reliability Standard

TCPA strongly recommends the Commission adopt a required reliability standard. Providing this clarity, for the first time in ERCOT's history, to the market about what level of reliability this Commission expects is one of the foundations necessary to restore confidence in the reliability of the market. Clearly defining the level of reliability Texas requires, along with the types of resource characteristics needed to achieve that reliability, is a clear signal to investors and capital markets what the ERCOT market will offer sufficient compensation to achieve that standard.

The reliability standard may require variation by season—reflecting material differences in demand and resource availability. Consequently, a single reliability requirement may not incentivize the types of resources ERCOT needs for grid reliability needs across the year and in various weather conditions. For instance, the market signal in the spring or fall should incentivize sufficient thermal generation to meet demand, while recognizing that much of the dispatchable fleet will be offline for planned outages. This is critical to manage any deficiency in intermittent generation output or unexpectedly high demand.

Similarly, the Commission should consider multiple reliability metrics as part of the reliability standard. While some metrics, such as loss of load expectation, project the frequency of a single loss of load event, others such as loss of load hours or expected unserved energy, project the duration and depth of lost load events. There may be other perspectives that the Commission finds reasonable to consider as well – for example, potential loss of load relative to the ability to rotate firm load shed equitably. Whether the Commission establishes seasonal reliability standards

or one single reliability standard using one or many metrics, it is crucial to the future success of this market that the Commission mandate a reliability standard(s).

Once the reliability standard(s) is established, any number of obligations to ensure firming or availability can be developed around that requirement. TCPA appreciates the policy issues that need to be vetted. However, TCPA believes all of the concerns expressed by Commissioners during the October 14, 2021 work session, and in filed memos throughout the market design project, are solvable through the stakeholder processes at the Commission as well as ERCOT. Those processes are designed to yield technical solutions to the Commission’s policy directions.

Importantly, without a mandatory reliability standard, the ERCOT market will continue to face commercial and regulatory uncertainty about the scale of the problem the Commission wants the market to solve, and investors will invest hesitantly in the face of regulatory uncertainty. In fact, much of the work the Commission is directed to undertake in Senate Bill (SB) 3 is premised on “reliability standards adopted by the Commission.” Therefore, the first action to reform the ERCOT market to provide reliable power under SB 3’s directives is for the Commission to establish a mandatory reliability standard.

Fuel Resiliency Product

TCPA also recommends the Commission direct ERCOT to build a fuel resiliency product that meets the requirements of Section 18 in SB 3. The direction in SB 3 is to develop a winter resiliency product to “include on-site fuel storage, dual fuel capability, *or* fuel supply arrangements to ensure winter performance for several days.”² While some on-site fuel storage exists in the market today, it may be cost-prohibitive for resources to develop incremental fuel resiliency, particularly for resources fueled by natural gas. The Legislature recognized that one size does not fit all, and TCPA recommends the Commission either direct ERCOT or Commission Staff to design a fuel resiliency product that properly values the benefits that different resource types and fuel sources provide in ensuring fuel resiliency. Some resources may find that dual fuel technologies are the most effective and economic avenue while others may find that firm fuel and transport contracts or locationally advantageous siting in relation to offsite fuel storage in

² PURA §39.159(c)(2), emphasis added.

conjunction with firm contracts are the best option. The commission should direct the creation of a fuel resiliency product allowing for a variety of solutions, and let the market respond in the most economically and efficient way.

ORDC Modifications

TCPA has provided detailed comments related to ORDC in its filings under Project 52631³ and applauds the Commissioners' recognition that lowering the HCAP and simultaneously adjusting the PBMCL is one key step toward achieving self-commitment of resources to meet the operating reserve level ERCOT has deemed necessary. Directing ERCOT to take those actions regarding ORDC, as part of an overall market design order, and to implement those changes at one time is another key signal to the market that ERCOT intends to achieve reliability through market forces rather than out-of-market actions. Aside from ensuring simultaneous implementation of ORDC changes to ensure "no harm" is done, TCPA reiterates that the HCAP reduction, PBMCL shift, and any additional modifications to the ORDC must also address the new ERCOT requirement to have 6,500-7,500MW in reserves. In this way, the ORDC modifications will not only help drive investment in the market, but also ensure that online reserves are obtained through the market with self-commitments and not through the Reliability Unit Commitment (RUC) process, which is a control room-determined out-of-market action.

New Rulemaking to Vet LSE Obligation and Alternatives

Finally, TCPA recommends the Commissioners direct Staff to open a separate project that fully vets the different options for designing a successful LSE obligation as well as alternatives to achieving the requisite financial incentives to meet what will be the Commission's newly-adopted reliability standard. While it is unrealistic to fully vet such a product in less than a week, the market would materially benefit by seeing the Commission's commitment to reliability through a new project specific to a comprehensive solution for market redesign. Investors will positively view the pro-market commitment and will appreciate the Commission's thoughtful plan for ensuring the right changes are made for ERCOT's market and consumers.

³ Project 52631, Review of 25.505, TCPA Comments on ORDC Cap Reduction, September 30, 2021. [52631_11_1156605.PDF \(texas.gov\)](#)

There are many different avenues to achieve the standard, including the LSE obligation. Additionally, a centralized procurement of firming capacity may also achieve the desired reliability as could a hybrid in which a certain amount is procured by LSEs and a remainder is procured by ERCOT through a CRR-styled residual auction. TCPA believes that requiring all generation to meet a certain reliability requirement through firming would have unintended consequences and would not be enough, it must solve for the lack of adequate dispatchable resources and insufficient revenues needed to maintain existing resources much less build new ones. Just requiring firming, without a corresponding source of investment incentive, will likely result in additional retirements rather than creating the needed incentives for maintaining the existing fleet and providing revenues needed for new investment. If the Commission opens a new project to flesh out these and other options over the next few months, stakeholders will have the ability to provide meaningful input on how to achieve the required reliability standard(s).

COMMISSION QUESTIONS 1-3

- 1. The ORDC is currently a "blended curve" based on prior Commission action. Should the ORDC be separated into separate seasonal curves again? How would this change affect operational and financial outcomes?*

The ORDC's purpose has changed from its original intent. Originally the ORDC was intended to align prices with scarcity. However, the broad policy departure from a scarcity model is changing the purpose of the ORDC from a scarcity pricing mechanism to a tool designed to motivate self-commitment of online reserves needed to operate the system more conservatively. This new application of the ORDC means the use of seasonal curves is inconsistent with the purpose. While the current ORDC looks quite different than it did when seasonal curves were part of it, TCPA anticipates the future ORDC will be even more differentiated from the original version and unlikely to be a construct that lends itself to seasonal curves. Furthermore, the ORDC will be retired with the implementation of real-time co-optimization and replaced with individual Ancillary Service Demand Curves (ASDCs) that, collectively, should mirror the ORDC. Effectively translating the ORDC into ASDCs requires more stability in the ORDC and returning to many disaggregated ORDCs would be a step in the opposite direction.

2. *What modifications could be made to existing ancillary services to better reflect seasonal variability?*

ERCOT is already procuring ancillary services on a seasonal basis through quantities that vary monthly and hourly to mitigate the variability of wind and solar. ERCOT should continue to study and refine its ancillary service procurements. If the desire is to use existing resources to target ramping speed, then ECRS and Non-Spin could be used to accomplish that.

3. *Should ERCOT develop a discrete fuel-specific reliability product for winter? If so, please describe the attributes of such a product, including procurement and verification processes.*

Yes, TCPA recommends that ERCOT develop a discrete fuel-specific reliability product for winter. In compliance with the requirements of SB 3 for a fuel resiliency winter product, the following are options for attributes that should qualify to provide such a product: firm fuel and transport contracts for gas, dual fuel capability, onsite nuclear fuel, firm offsite fuel storage for gas coupled with firm transport for those reserves, and a minimum of specified days to be maintained onsite for coal.

A request for proposal (RFP) process could be used to procure the resources 2-3 years in advance of when they will be used and to provide a one-year advanced notice that ensures sufficient time for an entity to fully implement the contracts, procurements or installation to satisfy the standard for which they have been procured. Providing a two-year contract time-period will provide sufficient revenue consistency to justify the investment costs. ERCOT can use the processes in existence under 16 TAC §25.503(g)(3) and (j) regarding the ability to audit the resources as well as the verifiable costs process regarding maintenance and operations costs.

- a. *How long would it take to develop such a product?*

A fuel resiliency product should not require EMS or system changes at ERCOT. The PUC can direct ERCOT to procure the product through the RFP process with awards granted within a few months. TCPA anticipates some resources are likely able to qualify currently and others may need some additional investment before they are operational for this product. Those needing additional investment should be operational within a 6-12 month timeframe.

b. Could a similar fuel-based capability be captured by modifying existing ancillary services in the ERCOT market?

No.

COMMISSION QUESTIONS 4-16

TCPA does not have answers to all of the questions posed, as these are complex questions that require a more thoroughly vetted response than can be assembled in the response timeline. Consequently, TCPA's recommendation outlined in its introductory comments above is for the Commission to direct Staff to open a separate project that can specifically evaluate the LSE obligation and the corresponding design choices regarding its implementation as well as alternatives to the LSE obligation that can be centrally procured or accomplished through a potential hybrid of LSE-procured and centrally-procured reliability. As long as the Commission is clear that this new project is charged with determining the best avenue for accomplishing the reliability standard or standards mandated by the Commission through the current project's order, the path and the outcome will be clear to market participants, investors, policy makers, and consumers.

In addition to the recommendations outlined above, signaling to the market that the Commission intends to adopt a market design that meets their established reliability standard through the competitive market is a significant move forward that is important. Doing nothing and remaining stagnant on whether to implement any market design change to meet reliability is one of the worst things the Commission could do. Inaction would inject additional uncertainty into the ERCOT market and decrease investor confidence.

Following are some bullet points that address the scope of questions regarding the LSE obligation and potential alternatives that TCPA can address at this time:

- Direction, through a new project, to design a system that ensures revenues meet a reliability standard(s) sends a strong, positive market signal while allowing for additional input on the LSE obligation concepts, alternative concepts, and vetting to minimize unintended consequences that may result from a short but less thorough analysis.

- The resource reliability accreditation or certification framework can be determined in the recommended new project.
- Mitigation processes to protect against market power abuse should be included in whatever design is adopted. TCPA does not believe these concerns should be a deterrent from pursuing this path as solutions can be developed through a project designed to do so.
- Reliability should be a responsibility of all market participants, regardless of market participant size. Hedging should not be a barrier to entering this market, but if it's a small barrier that protects customers by requiring market participants to appropriately cover their risk, then it's an appropriate requirement to maintain reliability.
- Resource adequacy can be met through an LSE obligation or any permutation of alternatives. Ancillary Services are available to meet operational needs.
- The cost for an LSE obligation or any other path to deliver reliability depends on the level of reliability the Commission sets as the standard and how the design parameters are set. None of these proposals can properly be evaluated for cost until the Commission establishes a mandatory reliability standard or the seasonal reliability standards it requires.
- The timing to implement a reliability construct should take approximately 12-24 months to fully and correctly implement. The bulk of these designs are policy driven and should not require significant system changes.
- Making the necessary changes to the ORDC and signaling this policy path will send positive market signals. Taking steps forward toward a more reliable system are important. Doing nothing and remaining stagnant carries forward uncertainty, challenging investments in dispatchable capacity.

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TCPA appreciates the opportunity to provide this feedback for moving forward to achieve reliability in ERCOT through competitive market mechanisms and to signal some positive steps toward regulatory certainty and revenue stabilization. We look forward to continuing to participate in work sessions and other discussions on both market design changes and achieving reliability.

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Respectfully submitted,

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EXECUTIVE SUMMARY OF TCPA COMMENTS ON COMMISSION QUESTIONS

TCPA recommends the Commission set out a general policy path with the direction that revenues will be sufficient to support the policy path set out, establish a mandatory reliability standard, adopt holistic ORDC changes, direct ERCOT to design a fuel resiliency product, and direct staff to open a separate project specifically to vet the LSE obligation and alternative constructs to ensure revenues in the market will yield resources to meet the newly-established reliability standard.

- Doing nothing and remaining stagnant on whether to implement any market design change to meet reliability is one of the worst things the Commission could do.
- Resource adequacy can be met through an LSE obligation or any permutation of alternatives. Ancillary Services are available to meet operational needs.
- Without establishing a mandatory reliability standard in ERCOT, the ERCOT market will continue to lack a clearly defined requirement for which the Commission wants the market to solve, and investors will continue to experience uncertainty about what exactly the Commission wants and is willing to buy.
- TCPA recommends the commission either direct ERCOT or commission staff to design a fuel resiliency product that also recognizes that different resource types will have different, yet very effective, options for ensuring fuel resiliency. Some resources may find that dual fuel technologies are the most effective and economic avenue while others may find that firm fuel and transport contracts or locationally advantageous siting in relation to fuel reserves in conjunction with firm contracts are the best option.
- Reliability should be a responsibility of all market participants, regardless of market participant size.

- The timing to implement whatever type of reliability obligation structure the Commission decides should take approximately 12-24 months to fully and correctly implement. The bulk of these designs is policy driven and should not require massive system changes.
- TCPA does not have answers to all of the questions posed, as these are complex and thoughtful questions that require a more thoroughly vetted response than can be achieved in six days.
- Making the necessary changes to ORDC and signaling this policy path will send out positive market signals.