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PROJECT NO. 54584

RELIABILITY STANDARD FOR THE § PUBLIC UTILITY COMMISSION
ERCOT MARKET § OF TEXAS

SOUTH TEXAS ELECTRIC COOPERATIVE, INC.'S REPLY COMMENTS

TO THE HONORABLE PUBLIC UTILITY COMMISSION OF TEXAS:

COMES NOW, South Texas Electric Cooperative, Inc. ("STEC") and submits its Reply Comments in the above-styled proceeding. The deadline for the filing of Reply Comments to be considered in the above-styled proceeding is April 5, 2023, therefore these comments are timely filed. A bulleted, executive summary of STEC's recommendations is included as **Attachment A**.

I. INTRODUCTION

STEC appreciates the opportunity to provide comments to the Public Utility Commission of Texas ("PUCT" or "Commission") on the reliability standard for the Electric Reliability Council of Texas, Inc. ("ERCOT") market. The essential first step to any ERCOT market reform proposal is the adoption of a reliability standard and mandated reserve margin for the ERCOT market and SB 3 requires that a reliability standard be established for the ERCOT power region.¹

As a generation and transmission cooperative that serves nine distribution cooperative members in ERCOT, STEC is responsible for meeting the needs of its member distribution cooperatives and their retail, end-use consumer members. STEC takes a conservative approach to calculating its load forecast and procuring a forward supply of generation in accordance with a self-imposed reserve margin. STEC maintains its own reserve supply of capacity in order to try to protect its members from the financial consequences of load shedding in times of scarcity, but

¹ Tex. S.B. 3, 87th Leg., R.S. (2021).

cannot protect them from being subject to load shed even though STEC carries the capacity necessary to serve them. Currently, not many entities carry reserves because the ERCOT market does not incentivize carrying reserves. Entities that do carry reserves are penalized for carrying reserves. During scarcity conditions, that power is taken to serve other customers across the market because their load-serving entities are not taking the necessary action to carry sufficient reserves. When STEC's reserves are taken and used to serve others, STEC's Members' loads are left in the dark because STEC's Members and their retail consumer members are subject to rotating outages. If all market participants carried their share of reserves, all consumers would be protected, both financially and from rotating outages. It is imperative that the Commission establish a reliability standard that results in all customers being served and that enables consumers of entities like STEC to physically make use of the capacity reserved for those customers. The free rider problem results in those that are willing to pay for reserves and reliability subsidizing those that ride the market and fail to provide the reserves necessary for reliability.

A reliability standard that establishes a reserve margin is crucial because it will ensure that needed capacity is available to the public. Customers are not willing to accept outages, and both expect, and are dependent on, a continuous, reliable supply of electricity. As observed during Winter Storm Uri, the loss of dispatchable generation presents the greatest risk to residential customers because residential customers are not in a position to prevent or mitigate the effects of outages. The adoption of a defined reliability standard and mandated reserve margin will ensure that a specific reserve level is maintained to prevent prolonged rotating outages in the ERCOT. Further, STEC supports the Commission's decision to further study and determine the Value of Lost Load ("VOLL"). The VOLL previously and currently used in ERCOT has never been a realistic estimate of the true value of lost load in the ERCOT market. Indeed, events like Winter

Storm Uri, have demonstrated that the true overall VOLL, which is the value that consumers place on having uninterrupted power supply on a day-to-day basis, is significantly higher than the Commission's administratively set VOLL.

II. STEC's REPLY COMMENTS

- 1. The Commission has previously considered various reliability metrics, such as Loss of Load Expectation (LOLE), Loss of Load Hours (LOLH), and Expected Unserved Energy (EUE).**

(A) Which reliability metrics, including those not previously studied, should the Commission consider in establishing a reliability standard for the ERCOT power region?

STEC continues to recommend that the Commission adopt and implement a mandatory reliability standard and reserve margin designed to incent investment in dispatchable generation resources. STEC reiterates that the Commission adopt the 1-in-10 Year Loss of Load Event ("LOLE") standard because it is the standard used in several markets and is identifiable, predictable, readily available and easily understood. As suggested by the Texas Oil & Gas Association in its Initial Comments, the Commission should "keep it simple" when selecting its reliability standard for the ERCOT market.² However, a mandatory reserve standard is necessary to protect residential customers. A lesser standard than the 1-in-10 Year LOLE would result in ERCOT falling further behind in reliability when compared with other regions, with residential customers carrying the brunt of the negative impacts including load shed.

² Texas Oil and Gas Association's Comments at 2 (Mar. 29, 2023).

STEC's agrees with the comments made by the Steering Committee of Cities Served by Oncor ("OCSC") and Texas Coalition for Affordable Power ("TCAP") that urge the Commission to exercise caution before moving away from the 1-in-10 LOLE standard. STEC agrees that the Commission should only move away from the 1-in-10 Year LOLE based on firm empirical data.³ STEC recommends that such data be derived through a comprehensive, study-based approach and with meaningful opportunity for stakeholder input. Upon the completion of a study and an opportunity for robust stakeholder input, the Commission can then choose whether to continue with the current 1-in-10 Year LOLE or another reliability metric that will result in improved reliability, with the same or greater level of reliability as would be obtained through the 1-in-10 Year LOLE, and that works in tandem with the goal to increase dispatchable generation in the ERCOT market.

STEC disagrees with the comments made by Shell Energy North America (US), L.P. that Senate Bill 3 only requires the Commission to establish a "*targeted* minimum reserve margin reliability standard" and not a "*mandated* minimum reserve margin reliability standard" because the ERCOT market is not a capacity market.⁴ Though Shell is correct that Senate Bill 3 requires the Commission to "establish requirements to meet the reliability needs of the power region", Senate Bill 3 also requires the Commission to "*ensure* appropriate reliability during extreme heat and extreme cold weather conditions and during times of low non-dispatchable power production in the power region."⁵ The Texas Legislature's use of the word "ensure" clarifies that the Commission *must* establish a mandated reliability standard, not a targeted one, to *guarantee* that

³ Steering Committee of Cities Served by Oncor and Texas Coalition for Affordable Power's Comments at 2 (Mar. 29, 2023).

⁴ Shell Energy North America's Comments at 2 (Mar. 29, 2023).

⁵ Tex. S.B. 3, 87th Leg., R.S. (2021).

the ERCOT system remains reliable and is able to withstand extreme weather events and peak net load events. STEC also disagrees with the comments made by Texas Industrial Energy Consumers (“TIEC”) that “a reserve margin mandate . . . is a precursor to a capacity market.”⁶ The plain language of Senate Bill 3 states Commission’s reliability standard must be a standard that “*ensures*” reliability, which requires that a defined reserve margin be maintained. In addition, a defined, mandated reliability standard and reserve margin both establishes a specific, minimum reserve level that must be met to prevent prolonged rotating outages in the ERCOT power region and enables the Commission to determine whether the reliability objectives of the ERCOT power region are being achieved. The reliability standard best suited to ERCOT is not a “target”, but an effective mandated reliability standard providing reliability equivalent to the 1-in-10 Year LOLE standard.

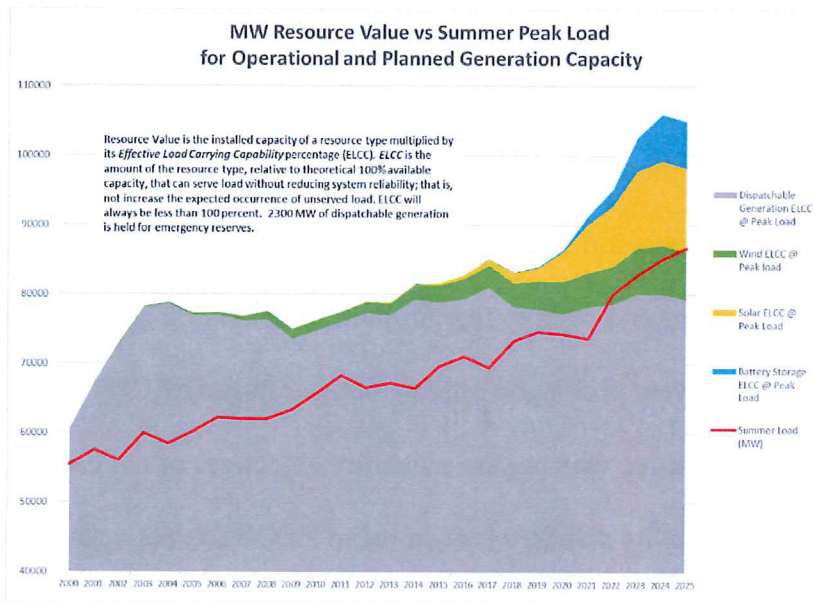
STEC disagrees with TIEC’s statement that “all load shed events have been driven by extreme weather and extreme generator forced outages, which is a performance issue not a resource adequacy issue.”⁷ The three-day load shed event during Winter Storm Uri did not occur because of operational or performance issues. Rather, the significant loss of generation during Winter Storm Uri highlights the fact that the dispatchable generation capacity in ERCOT is wholly inadequate. Indeed, as illustrated in ERCOT’s chart below, over the last ten years, the ERCOT market has observed a steady decline in existing dispatchable generation that is not being replaced, and which has greatly undermined the reliability of the ERCOT system.⁸

⁶ Texas Industrial Energy Consumers Comments at 1 (Mar. 29, 2023).

⁷ *Id.* at 7.

⁸ See CEO Update – Revised at 7, Agenda Item 6, ERCOT Board of Directors Meeting (Feb. 28, 2023).

Illustration of Long-Term Resource Adequacy Issue



Key Takeaways:

(2000-2008) more than 20,000 MW of net new dispatchable thermal generation added to ERCOT grid.

(2008-2022) only 1,500 MW of net new dispatchable thermal generation added.

More than 48,000 MW of net new solar and wind added during this same time period.

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Just yesterday, on a spring day, ERCOT issued an Operating Condition Notion for reserve capacity deficiency. It is critical that the Commission adopt and implement a mandatory reliability standard and reserve margin designed to incent investment in dispatchable generation resources.

STEC would also urge the Commission to exercise caution before adopting the Conditional Value at Risk (“CVaR”) framework proposed by London Economics International and Vistra Corp.⁹ The Commission should conduct extensive studies to analyze the CVaR framework, and provide an opportunity for stakeholders to comment on the results of such studies, before it is considered a viable option by the Commission. Too little is known about the CVaR framework and how it would apply to, and mesh with, an electric power market like the ERCOT market.

(B) Which reliability metric, or combination of reliability metrics, should the Commission adopt for the reliability standard in ERCOT?

⁹ LEI’s Response to Staff Request (Mar. 29, 2023); Vistra Corp.’s Comments at 2 (Mar. 29, 2023).

Though STEC supports the continued use of the 1-in-10 Year LOLE standard, STEC is not opposed to the adoption of an Expected Unserved Energy (“EUE”) standard if the EUE standard results in the same level of reliability as the 1-in-10 Year LOLE. On this point, STEC agrees with comments made by Constellation Energy Generation, LLC that the EUE standard be set “at an equivalent level of reliability” to the 1-in-10 Year LOLE standard.¹⁰

STEC continues to maintain that any standard chosen by the Commission be set at the same level of reliability as the 1-in-10 Year LOLE because it minimizes the occurrences of firm load shed and at a reasonable cost to the market. Keeping with a 1-in-10 Year LOLE equivalent standard also ensures that the ERCOT market continues to have at least the same level of reliability as the majority of other domestic markets that use the 1-in-10 Year LOLE standard. A move to an EUE standard, or other standard chosen by the Commission, that does not set at a 1-in-10 Year LOLE equivalent would signal that ERCOT customers are willing to accept a lower level of reliability, and a higher tolerance for rotating outages, than other markets with the 1-in-10 Year LOLE standard. As a result, any standard adopted by the Commission must ensure that the same level of reliability that is provided by the 1-in-10 Year LOLE standard is achieved.

2. What is the most effective way that the Commission can include deliverability in the reliability standard?

STEC agrees with ERCOT’s recommendation that the Commission refrain from incorporating deliverability into the reliability standard.¹¹ As noted by ERCOT, the ERCOT Board of Directors’ approval and adoption of Planning Guide Revision Request 095 already addresses the deliverability issue and ensures that generation unit output is fully deliverable to the ERCOT

¹⁰ Constellation Energy Generation, LLC’s Comments at 1 (Mar. 29, 2023).

¹¹ Comments of Electric Reliability Council of Texas, Inc. at 3 (Mar. 29, 2023).

system when needed.¹² In addition, ERCOT's transmission planning process already incorporates requirements to identify the need for additional transmission expansions necessary to maintain system reliability and that existing process can be used to ensure that adequate transmission is available to the ERCOT system to meet the 1-in-10 Year LOLE reliability standard.

3. Additional considerations in establishing the reliability standard in the ERCOT power region. Should the reliability standard include a locational requirement? Should the reliability standard include a seasonal component? How can extreme events be captured in a reliability standard? How can the value of distributed energy and load resources be captured in a reliability standard?

STEC agrees with the comments made by ERCOT and other commenters that a location requirement is not needed as part of the reliability standard.¹³ The reliability standard is, and should be, used to address system-wide needs as opposed to specific locational considerations. STEC opposes this recommendation because localized constraints would have a limited number of suppliers behind the constraint, and therefore those suppliers would have market power.

STEC also recommends that a seasonality requirement not be included in the reliability standard analysis because resource adequacy is a system-wide consideration that covers all time periods and all seasons. The reliability standard adopted by the Commission should be designed to meet the needs of the entire ERCOT system regardless of season.

¹² *Id.*

¹³ *Id.* at 4.

4. How frequently should the Commission update the calculation of the requirement necessary to meet the reliability standard? What criteria should help determine the frequency of the update?

STEC again recommends that the Commission update the calculation of the requirement necessary to meet the reliability standard no less than once per year. STEC agrees with ERCOT that an annual review best aligns with the requirements of Senate Bill 3, which requires ERCOT to determine the services necessary to ensure reliability during extreme weather events and during times of low non-dispatchable power “at least annually”.¹⁴

III. CONCLUSION

STEC appreciates the Commission’s review of these important issues and looks forward to continuing to work with the Commission to establish a reliability standard and reserve margin for the ERCOT market.

¹⁴ Tex. S.B. 3, 87th Leg., R.S. (2021).

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Diana Liebmann", written in a cursive style.

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SOUTH TEXAS ELECTRIC COOPERATIVE, INC.'S EXECUTIVE SUMMARY

- The first step to any ERCOT market reform proposal is the adoption of a reliability standard and mandated reserve margin for the ERCOT market, which will ensure that a specific reserve level be maintained to prevent prolonged rotating outages in the ERCOT.
- STEC continues to support the continued use of the 1-in-10 Year LOLE standard and agrees with the comments urging the Commission to exercise caution before moving away from the 1-in-10 LOLE standard.
- STEC disagrees with the comments made by Shell Energy North America (US), L.P. that Senate Bill 3 only requires the Commission to establish a “*targeted*” minimum reserve margin reliability standard” and not a “*mandated*” minimum reserve margin reliability standard” because the ERCOT market is not a capacity market.
- Senate Bill 3 requires the Commission to “*ensure* appropriate reliability” during certain conditions, which clarifies that the Commission *must* establish a mandated reliability standard, not a targeted one, to *guarantee* that the ERCOT system remains reliable.
- STEC also disagrees with TIEC’s statement that all load shed events have been caused by performance issues and not resource adequacy issues. The loss of over 50,000 MW of generation during Winter Storm Uri highlights the fact that the dispatchable generation capacity in ERCOT is wholly inadequate.
- STEC is not opposed to the adoption of an EUE if the EUE standard results in the same level of reliability as the 1-in-10 Year LOLE. Keeping with a 1-in-10 Year LOLE equivalent standard ensures that the ERCOT market continues to have at least the same level of reliability as other markets that employ the 1-in-10 Year LOLE standard.
- STEC agrees with ERCOT that deliverability and locational requirements not be included in the reliability standard. STEC recommends that the Commission refrain from including a seasonality requirement because the reliability standard adopted by the Commission should be designed to meet the needs of the entire ERCOT system regardless of season.
- The Commission should update the calculation necessary to meet the reliability standard annually in accordance with the requirements of Senate Bill 3.
- The Commission should conduct extensive studies to analyze the Conditional Value at Risk (“CVaR”) framework before it is considered a viable option by the Commission. Too little is known about the CVaR framework and how it would apply to, and mesh with, an electric power market like the ERCOT market.