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PROJECT NO. 54584

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

**SOUTH TEXAS ELECTRIC COOPERATIVE, INC.'S INITIAL COMMENTS TO
COMMISSION QUESTIONS ON THE RELIABILITY STANDARD FOR THE ERCOT
MARKET**

TO THE HONORABLE PUBLIC UTILITY COMMISSION OF TEXAS:

COMES NOW, South Texas Electric Cooperative, Inc. ("STEC") and submits its Initial Comments in the above-styled proceeding. The deadline for the filing of Initial Comments to be considered in the above-styled proceeding is March 29, 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 ("PUC" or "Commission") on the Reliability Standard for the Electric Reliability Council of Texas, Inc. ("ERCOT") Market. Establishing a Reliability Standard will assist the Commission and stakeholders in determining the policies necessary to produce the desired outcome. Without a clear Reliability Standard, the Commission will not have a benchmark by which to measure the success or failure of its market design reforms.

II. 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 believes that the 1-in-10 Year Loss of Load Event (“LOLE”) standard, which is the standard used by nearly all domestic Regional Transmission Organizations and Independent System Operators, is the correct standard for ERCOT since it seeks to minimize load shed events over a longer time horizon, which is necessary to incent investment in dispatchable capacity that will also have to be recovered over a longer time horizon. The 1-in-10 Year LOLE Reliability Standard minimizes the frequency of firm load shed events while providing a reasonable tradeoff in the cost of doing so. This standard is not new; it has been used for many years in ERCOT, and serves as the planning reserve basis for many regions of the country as identified in ERCOT’s presentation titled *ERCOT’s Proposed Reliability Standard Study Framework* (“ERCOT Report”).¹

The 1-in-10 Year LOLE standard has proven to be an effective planning standard and would result in ERCOT having at a minimum, the same level of reliability as other markets. It is also a value that the PUCT and ERCOT are familiar with because it has been regularly calculated by an independent consultant for ERCOT. Because the 1-in-10 Year LOLE is updated annually in ERCOT, it is identifiable, predictable, readily available and easily understood. In addition, because the Commission and ERCOT have collected years’ worth of data tied to the 1-in-10 Year LOLE standard, the continued use of this standard will allow the Commission to track the success of its efforts to sustain and encourage new dispatchable generation by using this data to benchmark

¹ See Docket No. 54584, Reliability Standard for the ERCOT Market, ERCOT’s Letter Regarding the Proposed Reliability Standard Framework, Attachment A, (Mar. 20, 2023).

the success of its market design reforms. This will enable the Commission and stakeholders to quickly evaluate the results of the Commission's market design efforts and determine whether the Commission's reforms are being achieved and, if so, to what extent.

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

The best reliability metric for ERCOT is one that is triggered by a load shed event and that does not establish an acceptable level of "Expected Unserved Energy" ("EUE"). The term itself implies that there is a general acceptance of a certain level of load shed. A 1-in-10 Year LOLE standard establishes a very low tolerance for load shed events. Following Winter Storm Uri, the tremendous toll in loss of human life and property damage demonstrates that having a Reliability Standard that only looks to the short-term, like the EUE standard, is not acceptable and does not provide the necessary reliability. The adoption of EUE as the sole reliability metric could result in more loss of load events than the 1-in-10 Year LOLE standard, because EUE is more focused on the near-term, with annual, seasonal, or hourly time horizons. This shorter-term focus may undermine the market signals needed to incent the development of new dispatchable generation for long-term resource adequacy.

It is possible to establish an EUE that correlates with a 1-in-10 Year LOLE standard to provide the same level of reliability. This would be the only EUE standard that would provide ERCOT with comparable reliability when compared to other markets. Any standard adopted by the Commission must be tailored to ensure that the same threshold and level of reliability that is provided by the 1-in-10 Year LOLE standard is achieved. ERCOT has not had a true, effective Reliability Standard since the reserve margins that were mandated in the regulated market. During that time the Commission required Integrated Resource Planning to be sure that reliability was

achieved. Even with tremendous weather events that were lengthy and included wintry mix weather conditions, the reserve requirement prevented the kind of damage seen in Winter Storm Uri. As a result, the reliability standard best suited to ERCOT is not a “target”, but an effective Reliability Standard, and one that is equivalent to the 1-in-10 Year LOLE standard that served ERCOT consumers well under the regulation. The competitive market will be able to meet the same challenge and will do so in the most efficient manner.

The Reliability Standard must be a standard that requires that a defined reserve margin be maintained. A defined reserve margin serves dual purposes. First, it establishes a specific, minimum reserve level that must be met to prevent prolonged rotating outages in the ERCOT power region. Second it must provide an accurate benchmarking tool to allow the PUCT, in accordance with legislative directives, to determine whether the reliability objectives of the ERCOT power region are being achieved.

(C) What are the advantages of your chosen reliability metrics, and what are the disadvantages of alternative approaches?

The benefit of the 1-in-10 Year LOLE standard, which is a true Reliability Standard rather than a target, is that customers in ERCOT will not have less reliable service than customers in other states with true Reliability Standards. As set forth above, the 1-in-10 Year LOLE standard is a readily understood standard that will allow the Commission to track its success in achieving the level of reliability necessary to keep ERCOT as reliable, if not more reliable, than other power regions.

Although there are other standards like EUE, such as Loss of Load Hours or Economically Optimal Reserve Margin (“EORM”), each of these metrics assumes a level of acceptable firm load

shed and result in higher incidences of firm load shed than the 1-in-10 Year LOLE. These types of standards are inconsistent with the legislative mandate to achieve reliability and avoid the outcomes experienced in Winter Storm Uri for the next polar vortex or wintry mix storm.

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

The Commission should continue to direct ERCOT to perform an analysis of the transmission system under different demand and generation assumptions to identify the need for additional transmission expansion necessary to meet the 1-in-10 Year LOLE reliability standard. The analysis should be performed consistent with North American Electric Reliability Corporation (“NERC”) Standard TPL-001-5.1 and measure system performance under normal conditions, single contingency conditions, and multiple contingency conditions involving the loss of a generator, a transmission circuit, or a transformer. A similar process is currently incorporated into the ERCOT Long-Term System Assessment (“LTSA”), and on a shorter-term basis, the Regional Transmission Plan (“RTP”). It is important that this analysis includes a structured format for stakeholders to participate in the development of assumptions and the selection of scenarios that will be included in the analysis.

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?

Distributed Energy Resources (“DERs”) and Load Resources should be allowed to participate in meeting the Reliability Standard to the extent that DERs and Load Resources also meet the requirements of dispatchable generation. These would include long-term, continuous dispatch for a period of 72 hours. Both DERs and Load Resources should be able to perform in accordance with these metrics, which would allow them to be used, to the extent they are participating in the market, to count toward the Reliability Standard.

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 recommends that the Commission update the calculation of the requirement necessary to meet the reliability standard no less than once per year.

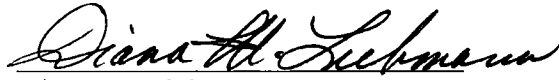
5. If you have any industry or academic papers on the topic and best practices that you believe the Commission should review while establishing the reliability standard for the ERCOT power region, please provide them.

Not applicable.

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 target level of reliability for the ERCOT market.

Respectfully submitted,

A handwritten signature in cursive script, reading "Diana M. Liebmann".

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SOUTH TEXAS ELECTRIC COOPERATIVE, INC.'S EXECUTIVE SUMMARY

- The 1-in-10 Year LOLE standard, which is the standard used by nearly all domestic Regional Transmission Organizations and Independent System Operators, is the correct standard for ERCOT. The 1-in-10 Year LOLE seeks to minimize load shed events over a longer time horizon and minimizes the frequency of firm load shed while providing a reasonable tradeoff in the cost of doing so.
- The PUCT and ERCOT are familiar with the 1-in-10 Year LOLE standard because it has been regularly calculated by an independent consultant for ERCOT. The 1-in-10 Year LOLE is identifiable, predictable, readily available and easily understood and it is updated annually in ERCOT.
- Other standards such as Loss of Load Hours, EUE, or EORM assume a level of acceptable firm load shed and result in higher incidences of firm load shed than the 1-in-10 Year LOLE. These types of standards are inconsistent with the legislative mandate to achieve reliability with the necessary quantities of dispatchable generation and to avoid the outcomes experienced in Winter Storm Uri.
- Any standard adopted by the Commission must be tailored to ensure that the same threshold and level of reliability that is provided by the 1-in-10 Year LOLE standard is achieved. It is possible to establish an EUE that correlates with a 1-in-10 Year LOLE standard to provide the same level of reliability. This would be the only EUE standard that would provide ERCOT with comparable reliability when compared to other markets.
- The Commission should continue to direct ERCOT to perform an analysis of the transmission system under different demand and generation assumptions to identify the need for additional transmission expansion necessary to meet the 1-in-10 Year LOLE reliability standard, consistent with NERC Standard TPL-001-5.1.
- DERs and Load Resources should be allowed to participate in meeting the Reliability Standard to the extent that DERs and Load Resources also meet the requirements of dispatchable generation.
- The Commission should update the calculation necessary to meet the reliability standard no less than once per year.