



Filing Receipt

Received - 2023-04-05 02:18:50 PM
Control Number - 54584
ItemNumber - 31

PROJECT NO. 54584

**RELIABILITY STANDARD FOR
THE ERCOT MARKET**

**§
§**

**PUBLIC UTILITY COMMISSION
OF TEXAS**

**JOINT REPLY COMMENTS OF TEXAS SOLAR POWER ASSOCIATION AND
SOLAR ENERGY INDUSTRIES ASSOCIATION ON STAFF QUESTIONS**

COMES NOW the Texas Solar Power Association (TSPA) and the Solar Energy Industries Association (SEIA) (collectively, Solar Associations) and file these Reply Comments in response to comments filed in the above-referenced Project. TSPA and SEIA are not affiliates but have combined our comments for this filing to assist the Commission.

I. REPLY COMMENTS

Solar Associations reply to the comments of the South Texas Electric Cooperative (STEC), Hunt Energy Network (HEN), Texas Oil & Gas Association, Lower Colorado River Authority, NRG Energy, Form Energy, Texas Industrial Energy Consumers, Texas Advanced Energy Business Alliance, and Constellation Energy. Solar Associations disagree with STEC's comments that the Commission should retain the 1-in-10 year Loss of Load Expectation (LOLE) Standard.¹ STEC's comments are in contrast with the vast majority of commenters that support the use of metrics that capture frequency, magnitude, and duration, with some commenters expressing a particular preference for one or more specific standards (in addition to or as a replacement for LOLE) such as Loss of Load Hours (LOLH), Expected Unserved Energy (EUE) Normalized Expected

¹ STEC Comments at 2.

Unserved Energy (NEUE), Value of Loss of Load (VOLL) and Conditional Value at Risk (CVaR).²

As noted in our original comments, Solar Associations support the use of multiple metrics and standards (including EUE and VOLL) and we agree with the Hunt Energy Network (HEN), Texas Oil & Gas Association, Lower Colorado River Authority, NRG Energy, Form Energy, Texas Industrial Energy Consumers, Texas Advanced Energy Business Alliance, and Constellation Energy³ that the Commission should consider use of EUE. Solar Associations also agree with HEN that the Commission should also consider correlated common mode failures.⁴

STEC's recommendation is rooted in history whereas proponents of EUE recognize more modern and sophisticated approaches to solving complex reliability problems. While it is true that 1-in-10 LOLE is the current industry standard,⁵ STEC's position does not recognize the technology and other changes that have occurred which requires a new approach. STEC states that "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

² See, CPS Energy at 2-4; Texas Public Power Association at 3; Hunt Energy Network at 2-4; NextEra Energy Resources, LLC at 2; London Economics International at 4; Texas Oil & Gas Association at 2; Rocky Mountain Institute at 2; Lower Colorado River Authority at 2-3; NRG Energy at 2-3, Form Energy at 3-4; TIEC at 2; Texas Advanced Energy Business Alliance at 2; Vistra at 1-2, OPUC at 4-5; Advanced Power Alliance and American Clean Power Association at 3; and Constellation Energy Generation, LLC at 1-2.

³ HEN at 2-4; Texas Oil & Gas Association at 2; Lower Colorado River Authority at 2-3; NRG Energy at 2-3; Form Energy at 3-4; TIEC at 2; Texas Advanced Energy Business Alliance at 2; and Constellation Energy at 1-2.

⁴ HEN Comments at 2.

⁵ STEC Comments at 2.

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.”⁶

STEC articulates several benefits of retaining the 0.1 LOLE including that it is “identifiable, predictable, readily available, and easily understood.”⁷ In addition, STEC states that the 0.1 LOLE standard has “proven to be an effective planning standard” and “customers in ERCOT will not have less reliable service than customers in other states...”⁸ While Solar Associations do agree that the 0.1 LOLE standard is well known and easily understood, we respectfully disagree that it would be an effective planning standard (on its own) because it is one-dimensional (considers only frequency). Furthermore, the benchmark for reliability in Texas should not be whether our standards are similar to other regions (which could be adequate or inadequate), the reliability standard in ERCOT should be evaluated in multi-dimensions and under different scenarios that meets the unique needs of our system.

Solar Associations agree with HEN and others that the Commission should consider a different standard than the traditional LOLE because “it does not capture the significance or magnitude of a load loss event.”⁹ Solar Associations also agree with HEN that use of the EUE in conjunction with an analysis of common mode failures would appropriately capture the multi-dimensionality necessary in setting a standard.¹⁰ After discussing ERCOT’s proposed three metrics (magnitude, frequency, and duration), HEN

⁶ STEC Comments at 5.

⁷ STEC Comments at 2.

⁸ STEC Comments at 4.

⁹ See e.g., HEN Comments at 2.

¹⁰ HEN Comments at 2.

describes why each of these metrics is important for policymakers and the public to consider:

The EUE measure takes into account all three of these metrics and forms a boundary for possible combinations of these three metrics. For example, the grid experiencing 1 loss of load event every 10 years (Frequency) losing 10,000 MW (Magnitude) for 10 hours (Duration) would have an $EUE = 0.1 \times 10,000 \times 10 = 10,000 \text{ MWh}$. Similarly, the grid experiencing 10 loss of load events every 10 years (Frequency) losing 100 MW (Magnitude) for 10 hours (Duration) would have an $EUE = 1 \times 1,000 \times 10 = 10,000 \text{ MWh}$. Although the grid would meet an LOLE reliability standard of 0.1 day/year for the first example, it would fail the LOLE standard for the second example, even though the second scenario may be much less impactful to grid operations and easily managed by ERCOT (ERCOT maintains 1,000 MW of reserves even when shedding firm load). This example shows the shortcomings of the LOLE standard while demonstrating how the EUE standard creates a boundary that these three metrics must meet in combination.¹¹

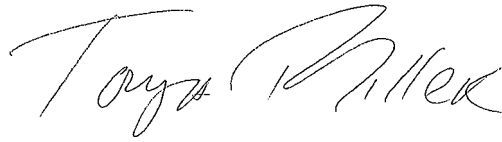
Solar Associations agree that the EUE captures the multi-dimensionality required to determine reliability needs (especially when used with other standards and VOLL). The use of the multi-dimensional EUE, which is rooted in an understanding of magnitude, frequency, and duration can help Texas prepare for a wide array of outcomes. In contrast, the use of LOLE considers the loss of 100 megawatts and 10,000 MW on an equal basis (i.e., it only considers frequency). For this reason, we disagree with comments that the traditional 0.1 LOLE is sufficient and urge the Commission to consider the use of a multi-dimensional standard.

II. CONCLUSION

TSPA and SEIA appreciate the opportunity to provide these Reply Comments and look forward to working with the Commission and other interested parties on these issues.

¹¹ HEN Comments at 3.

Respectfully submitted,



Tonya Miller
Executive Director
Texas Solar Power Association
www.txsolarpower.com
State Bar No. 24026771
tonya@txsolarpower.org
(512) 560-9735



Michael J. Jewell
Jewell & Associates, PLLC
State Bar No. 10665175
8404 Lakewood Ridge Cove
Austin, TX 78738
(512) 423-4065
(512) 236-5170 (FAX)
michael@jewellandassociates.com
ATTORNEY FOR SOLAR ENERGY
INDUSTRIES ASSOCIATION

PROJECT NO. 54584

**RELIABILITY STANDARD FOR
THE ERCOT MARKET**

**§
§**

**PUBLIC UTILITY COMMISSION
OF TEXAS**

**JOINT REPLY COMMENTS OF TEXAS SOLAR POWER ASSOCIATION AND
SOLAR ENERGY INDUSTRIES ASSOCIATION ON STAFF QUESTIONS**

EXECUTIVE SUMMARY

- The Commission should not retain the 1-in-10 year Loss of Load Expectation (LOLE) Standard.
- The 0.1 LOLE does not capture the significance or duration of a load loss event.
- The Commission should evaluate reliability requirements in multiple dimensions and under different scenarios.
- Expected Unserved Energy (EUE) considers the metrics of magnitude, frequency, and duration.
- The Commission should consider use of Expected Unserved Energy (EUE) (in conjunction with VOLL, other standards, and an analysis of common mode failures) to appropriately capture the multi-dimensionality necessary in setting a standard.