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PROJECT NO. 53401

RULEMAKING TO ESTABLISH ELECTRIC	§	PUBLIC UTILITY COMMISSION
WEATHER PREPAREDNESS STANDARDS-	§	
PHASE II	§	OF TEXAS

THE ADVANCED POWER ALLIANCE AND AMERICAN CLEAN POWER ASSOCIATION COMMENTS

The Advanced Power Alliance (APA) and the American Clean Power Association (ACP) appreciate the opportunity to respond to the request for comments relating to the Proposal for Publication (PFP) filed by the Public Utility Commission of Texas (Commission) that repeals 16 Texas Administrative Code (TAC) § 25.55 and adds a new 16 TAC § 25.55 in Project 53401: *Rulemaking to Establish Weatherization Standards*. The comments submitted do not reflect the opinions of any individual member company.

I. INTRODUCTION

The Advanced Power Alliance (APA) and the American Clean Power Association (ACP) serve as the voice of more than 800 member companies that represent a diverse cross-section of the world's leading energy companies, energy investors, energy consumers, and power generation manufacturers from across the clean power sector that are driving high-tech innovation through the development of generation assets including wind, solar, and energy storage, spurring massive investment in the U.S. economy while creating jobs for American workers.

Projects developed by our member companies and investors generate local tax revenue for schools, services, and infrastructure, as well multi-generational income for Texas landowners, mainly in rural Texas. Our members' projects help to create cleaner air, water, and improved human health.

II. COMMENTS ON THE PROPOSAL FOR PUBLICATION OF THE NEW 16 TEXAS
ADMINISTRATIVE CODE (TAC) § 25.55 RELATING TO WEATHER EMERGENCY
PREPAREDNESS STANDARDS

The members of APA and ACP appreciate the opportunity to provide comments on this very important proposed rule. Our member companies support meaningful weatherization standards for generation owners in alignment with the 87th Texas Legislature's mandate in Senate Bill ("SB") 3. We take our compliance obligations seriously and share the goal of policymakers and regulators to secure improved performance from the power generation fleet during extreme weather events in Texas.

Like all industrial machines, generation assets are designed and built to standards that allow them to operate reliably and safely under a specific range of conditions. The operating characteristics of renewable generation equipment vary from one manufacturer to another and from geographic region-to-region within Texas. Renewable generation asset owners and operators have little to no ability to change capabilities, specifications, or characteristics without voiding Original Equipment Manufacturer (OEM) warranties. Therefore, it is important that the electric weather preparedness standards adopted do not impose an obligation to alter facilities

in a manner that would void OEM warranties or force equipment to be operated under conditions that exceed design criteria or degrade unit performance as doing so could negatively impact generation availability.

Wind turbine and solar generators and battery energy storage units are engineered and constructed to operate under a specific range of conditions depending on the OEM design specifications. When ice accumulation levels and/or ambient temperatures exceed design parameters, generation components are designed to cease operations. Wind turbines that shut down when ice accumulation levels exceed design parameters are operating as intended to protect personnel from life threatening ice shedding events and to prevent damage to turbine blades. Currently, there are no commercially viable anti-icing or de-icing solutions for wind turbine blades.¹ Additionally, while some solar facilities may be capable of tilting to promote removal of ice or snow, not all solar facilities have this capability, and requiring retrofits would push significant costs onto resource owners who made investment decisions based on existing rules.

Operating generation components beyond OEM design tolerances would contravene Good Utility Practice, void manufacturer warranties, threaten personnel safety, and increase the risk of catastrophic equipment failure thereby risking the long-term resource adequacy and reliability of the ERCOT Region which is contrary to the objectives of SB 3. APA and ACP urge the Commission to clarify that its proposed regulations in 16 TAC § 25.55 will not require generation owners or operators to operate beyond OEM design tolerances during severe weather events.

¹ Please see the 7/14/2021 Siemens Gamesa Renewable Energy comments and the 7/15/2021 Vestas American Wind Technology comments filed in Public Utility Commission of Texas Project 51840.

III. SUGGESTED CLARIFICATIONS

APA and ACP believe that the weather emergency preparedness standards should more clearly require generation resources to take reasonable measures to ensure operational availability to generate according to OEM specifications and ERCOT dispatch instructions. We recommend including language in the weatherization rule that sets forth requirements for generators to plan for extreme weather events and that penalties for non-compliance will not be assessed based solely upon the failure of a generation unit to produce electricity provided that such generator complied with the preparation requirements set forth in the rule.

APA and ACP offer the following suggested edits to the proposed rule to clarify applicable provisions as follows:

16 TAC § 25.55 (b)(5) Major weather-related forced interruption of service -- The loss of 7,500 megawatt-hours of generation service or transmission capability occurring as a result of a weather emergency causing an outage or derate attributable to equipment failures that could have feasibly been prevented by following commonly accepted Good Utility Practices.

16 TAC § 25.55 (b)(6) Repeated weather-related forced interruption of service – Three or more of any combination of the following occurrences, attributable to equipment failures that could have feasibly been prevented by following commonly accepted Good Utility Practices, as a result of a weather emergency within any three year period: a failure to start, a forced outage, or a deration of more than fifty percent of the expected capability ~~nameplate-capacity~~ of a generation resource or a transmission facility.

16 TAC § 25.55 (b)(11) Weather emergency -- A situation resulting from weather conditions that produces significant risk for a TSP that firm load must be shed or a situation resulting from weather conditions that causes ERCOT to declare an Energy Emergency Alert Level 3 in accordance with the ERCOT Protocols. ~~for which ERCOT provides advance notice to market participants involving weather-related risks to the ERCOT power region.~~

16 TAC § 25.55 (c)(1)(A)(vi) Maintenance of freeze protection equipment for all cold weather critical components, including fuel delivery systems controlled by the generation entity, and testing freeze protection equipment on a monthly, or OEM-specified basis from November 1 through March 31 or through remote testing when applicable; and

16 TAC § 25.55 (c)(1)(B) Beginning in 2023, implement weather emergency preparation measures, in addition to the weather emergency preparation measures required by paragraph (A) of this subsection, reasonably expected to ensure sustained operation of the resource during the lesser of the minimum ambient temperature at which the resource has experienced sustained operations or the 95th percentile minimum average 72-hour temperature reported in ERCOT's historical weather study, required under subsection (i) of this section, for the weather zone in which the resource is located unless the lesser of the minimum ambient temperature at which the resource has experienced sustained operations or the 95th percentile minimum average 72-hour temperature reported in ERCOT's Historical Weather Study exceeds OEM design criteria.

16 TAC § 25.55 (c)(2)(A)(v) Maintenance of all hot weather critical components, including air flow or cooling systems, and testing of all components on a monthly, or OEM-specified basis from May 1 through September 30 or through remote testing when applicable;

16 TAC § 25.55 (c)(2)(B) Beginning in 2023, implement weather emergency preparation measures, in addition to the weather emergency preparation measures required by paragraph (A) of this subsection, reasonably expected to ensure sustained operation of the resource during the greater of the maximum ambient temperature at which the resource has experienced sustained operations or the 95th percentile maximum average 72-hour temperature reported in ERCOT's historical weather study, required under subsection (i) of this section, for the weather zone in which the resource is located unless the greater of the maximum ambient temperature at which the resource has experienced sustained operations or the 95th percentile maximum average 72-hour temperature reported in ERCOT's Historical Weather Study exceeds OEM design criteria.

APA and ACP recommend that a weather emergency be tied to actual reliability risks that occur while ERCOT manages the electrical grid, as opposed to whether ERCOT provides advance notice about weather-related risks. ERCOT communicates grid condition information to the public on a regular basis, and at times, communicated weather-related risks do not materialize. ERCOT declares Energy Emergency Alerts (EEAs) during electric grid emergencies to maximize the

use of available resources and to maintain system integrity. EEA declarations caused by weather-related risks more accurately identify the severity of weather conditions and actual system reliability risk. APA and ACP also request that the Commission clarify the process for determining and communicating that a weather emergency has occurred so that market participants know when an outage or derate could qualify as a major or repeated weather-related forced interruption of service.

APA and ACP recommend that the Commission update major and repeated weather-related forced interruption of service definitions to target outages and derates attributable to equipment failures that could have feasibly been prevented by following commonly accepted Good Utility Practices, as opposed to equipment limitations that are outside the reasonable control of the resource owner. To provide further clarity to market participants and ERCOT staff, APA and ACP recommend that the Commission define a duration threshold so that outages and derates of sufficient impact qualify as repeated weather-related forced interruptions of service. Finally, repeated weather-related forced interruptions of service should more clearly apply to energy storage resources.

Designation of forced outages or derates as a major weather-related forced interruption of service will require analysis of equipment unavailability and expected resource dispatch. Resource owners may be capable of conducting such analysis; however, lack of access to quality data and varying assumptions underlying calculation methodologies may at times lead to inaccurate or inconsistent results. Moreover, given that the overall process is unclear, APA and

ACP request that the Commission clarify how the required analysis to calculate expected lost electricity production will be completed consistently and accurately.

The Commission also requested comments on whether the proposed § 25.55 (e) appropriately defines “repeated or major weather-related forced interruptions of service.” While there is no definition contained in § 25.55 (e), we have expressed our concerns with the definition of “repeated weather-related forced interruption of service” as proposed in 16 TAC § 25.55 (b)(6) as described in our comments above.

Currently, the proposed rule requires weather emergency preparation measures beginning in 2023. APA and ACP request that the Commission clarify when the standard will become effective. It is unclear if the proposed effective date is January 1, 2023, or June 1, 2023 (for summer operations) and December 1, 2023 (for winter operations).

Under § 25.55(d)(1)(B), ERCOT or Commission staff may take photographs or video recordings of any part of the facility and conduct interviews with facility personnel. APA and ACP recommend that the Commission add confidentiality protection for information obtained in such site visits to protect Resource Owners’ commercially sensitive information and respect facility personnel’s privacy interests.

Compliance requirements should be explicit to the resources required to comply. It is important to note that data is missing from ERCOT’s Historical Weather Study (December 2021) as described below:

- The 95th percentile maximum average 72-hour temperature is missing from the study.
- ERCOT’s Historical Weather Study does not include the sustained heat or sustained cold temperature data for the Panhandle.

- The proposed language in 25.55(c)(1)(B) and (c)(2)(B) uses the 72-hour sustained cold and 72-hour sustained heat temperatures as the standard, but ERCOT's Historical Weather Study does not include the 72-hour sustained heat temperatures. For sustained heat, the Study only includes the historical maximum average 168-hour temperatures.
- In the proposed language in 25.55 (c)(3)(A)(iii) and (C)(3)(B)(iii), there is no timeframe established for determining the lowest and highest ambient temperatures at which a resource has achieved sustained operations. While the explicit standard referenced in the bullet above uses the 72-hour standard, the requirement in this section does not explicitly state a time duration. The lack of a stated time duration could be interpreted as a significantly shorter duration of time.
- The performance standard for sustained operations should only be tied to ERCOT's Historical Weather Study results, not the historical maximum and minimum. In certain conditions, a resource may sustain operations at a lower or higher limit than the stated design range, however, these rogue events should not raise expectations for consistent performance at those levels

IV. CONCLUSION

The Advanced Power Alliance and American Clean Power Association appreciate the opportunity to provide comments in this project. Our member companies have invested more than \$70 billion on generation resources in the ERCOT Market and we strongly support the Commission's weather emergency preparedness objectives.

Weatherization standards adopted by the Commission should balance the objectives of SB 3 with the goal of retaining existing generation, incenting new investment, and recognizing that generation owners are required to operate their assets in accordance with OEM design criteria and site safety procedures. In proposing and implementing final rules in this project, the Commission should focus on ensuring that generator owners and generator operators operate each asset suitably for its environment, and the Commission should only require specific

operating parameters to the extent that those parameters are consistent with industry standard, commercially available technologies.

It is important that any weatherization standards adopted by the Commission allow generator owners and generator operators to maintain applicable warranty coverage and to comply with OEM ratings for temperature, icing, wind speeds, and other operating conditions. We appreciate the opportunity to participate in this project and look forward to continuing to work with the Commission as this rulemaking progresses.

Respectfully submitted,

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**EXECUTIVE SUMMARY OF THE ADVANCED POWER ALLIANCE AND AMERICAN CLEAN POWER
ASSOCIATION COMMENTS**

- The proposed rule should be revised to clarify that generation resource owners and operators are not required to operate equipment beyond Original Equipment Manufacturer (OEM) design tolerances as doing so would contravene Good Utility Practice, void manufacturer warranties, threaten personnel safety, and increase the risk of catastrophic equipment failure thereby risking the long-term resource adequacy and reliability of the ERCOT Region which is contrary to the objectives of SB 3.
- Language in the rule should set forth requirements for generators to plan for extreme weather events and clarify that penalties for non-compliance will not be assessed based solely upon the failure of a generation unit to produce electricity provided that such generator complied with the preparation requirements set forth in the rule.
- The definition of Weather Emergency should be tied to actual reliability risks that occur while ERCOT manages the electrical grid, as opposed to whether ERCOT provides advance notice about potential weather-related risks that may not materialize. Moreover, an ERCOT declaration of an Energy Emergency Alert (EEA) Level 3 caused by weather-related risks more accurately identifies the severity of weather conditions and actual system reliability risk and the definition should be revised accordingly.
- The Commission should clarify the process for determining and communicating that a weather emergency has occurred so that market participants know when an outage or derate could qualify as a major or repeated weather-related forced interruption of service.
- The Commission should revise major and repeated weather-related forced interruption of service definitions to target outages and derates attributable to equipment failures that could have feasibly been prevented by following commonly accepted Good Utility Practices, as opposed to equipment limitations that are outside the reasonable control of the resource owner.
- The Commission should define a duration threshold so that outages and derates of sufficient impact qualify as repeated weather-related forced interruptions of service.