PROJECT NO. 53401

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

COMMENTS OF TEXAS COMPETITVE POWER ADVOCATES

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 members[1] 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 Commission's prioritization of electric generation weatherization measures, focusing first on those that most immediately solve for known issues, including making the recommendations contained in the Quanta Report like new mandates for generation entities in Phase I. With the modifications discussed below, the proposed Phase II rule will provide for economically rational requirements, within time frames that are consistent with good utility practice, and which meet system needs under good engineering practice.

TCPA respectfully files these Comments with the Public Utility Commission of Texas ("Commission" or "PUCT") addressing the proposed repeal and replacement of 16 Texas

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

Administrative Code ("TAC") § 25.55, as it applies to generation entities. TCPA has attached a draft comparison of the proposed rule reflecting its changes to specific rule language. Where TCPA has made other recommendations herein without proposing specific language, such proposals are not encompassed in Exhibit A.

BACKGROUND AND INTRODUCTION

On May 19, 2022, the Commission Staff ("Staff") filed a Proposal for Publication ("PfP") to repeal and replace 16 TAC § 25.55 which, "implements § 13 and § 16 of Senate Bill 3 from the 87th Regular Session of the Texas Legislature…", and "will require generation entities and transmission service providers (TSPs) in the ERCOT power region to maintain preparation standards for both Winter and Summer seasons … and require the Electric Reliability Council of Texas, Inc. (ERCOT) to conduct on-site inspections of every generation resource and transmission facility in the ERCOT region."[2] SB 3 includes the following relevant excerpt:

> Sec. 35.0021. WEATHER EMERGENCY PREPAREDNESS.
> (a) This section applies only to a municipally owned utility, electric cooperative, power generation company, or exempt wholesale generator that sells electric energy at wholesale in the ERCOT power region.
> (b) The commission by rule shall require each provider of electric generation service described by Subsection (a) ***to implement measures to prepare the provider's generation assets*** to provide adequate electric generation service during a weather emergency according to reliability standards adopted by the commission. In adopting the rules, the commission shall take into consideration weather predictions produced by the office of the state climatologist. (Emphasis added).

[2] Staff Proposal for Publication, p. 1.

The Commission also requested comment from interested persons on two questions, with the following relating to generators: "Does proposed 25.55(e) and 25.55(h) appropriately define "repeated or major weather-related forced interruptions of service"?[3]

TCPA's comments are limited to that portion of the proposed rule pertaining to generators. TCPA offers the below recommendations to improve generators' ability to withstand weather emergencies while conforming with the law and the stated intent of the rule.

GENERAL COMMENTS

TCPA provides some general comments regarding critical issues for independent generators which are not addressed in the PfP. These issues include allocation of certain weatherization-related costs, Notification of Suspension of Operations ("NSOs"), and the need for good cause exceptions in the rule.

Costs associated with weatherization inspections should be socialized through the ERCOT system administration fee, and not borne solely by the generation entities whose facilities are subject to inspection. The purpose of both the weatherization requirements and the related compliance inspections is to increase the reliability of the overall ERCOT fleet and to minimize the occurrence of forced outages. Both of these goals are in the public interest and are consistent with ERCOT's core function to "ensure the reliability and adequacy of the regional electrical network.".[4] Since the benefit accrues to all consumers in Texas and not solely generation entities, it is appropriate to recover inspection costs through ERCOT's system administration fee. Through discussion, stakeholders stipulated to the existing allocation of inspection costs associated with Phase I weatherization as a temporary approach that was implemented: (a) solely for ease of

[3] *Id.* at 2.
[4] See PURA 39.151(a)(2)

administration due to the short timeline between adoption of the rule and commencement of inspections, and (b) to satisfy statutory implementation requirements. With the benefit of a longer implementation lead time for Phase II and Commission oversight of the ERCOT budget, the appropriate funding mechanism for Phase II inspections and implementation costs and weatherization compliance costs going forward is the ERCOT system administration fee. PURA § 35.0021(c) requires ERCOT, as part of its duties, to inspect generation assets. As such, the recovery of the costs should be handled in the same manner as any of ERCOT's other prescribed duties, meaning cost recovery should be equitable and competitively neutral.

As TCPA raised in its Phase I comments, and many other times during legislative testimony on weatherization during the 87th Regular Session, independent merchant generators are the only entities subject to weatherization requirements that receive no cost recovery of these expenditures. TCPA members spent more than $120 million in weatherization upgrades on Phase I weatherization. Those costs remain uncompensated through the existing market design, which as described below, results in a disparate treatment in the market between independent generators and entities with captive rate bases. TCPA is hopeful the Commission will adopt a Phase II market design that will provide compensation for the resilience upgrades that are required by Phase II weatherization *and* provide a stable revenue stream that incentivizes investment in existing and new plants. Unfortunately, there is currently no mechanism to provide generation entities cost recovery for any additional investment that will be required upon adoption of this rule. TSPs, municipally-owned utilities ("MOUs") and electric cooperatives receive cost recovery through rates charged to a captive rate base; therefore these entities have their expenditures for weatherization upgrades fully covered by the customers they serve. Independent generators, like

TCPA's members, do not receive compensation to achieve mandates that require investment in weatherization measures.

One partial solution would be for the Commission to request funds to address this issue from the Legislature as contemplated by recently proposed federal legislation. The U.S. Department of Energy ("DOE") has issued a draft allocation of funds for preventing outages and enhancing the resilience of the electric grid as part of its implementation of the Infrastructure and Jobs Act[5] which proposes to allocate $30.3 million to Texas.[6] Electric generators are included in the entities eligible to receive the funds and "weatherization technologies and equipment" are in the list of resilience investments included. The funds will require a fifteen percent (15%) match from the state; accordingly, TCPA requests that the Commission include a request for state matching funds in its Legislative Appropriations Request ("LAR"), as well as a special appropriation to access the funds during the current fiscal year for which these federal funds will be available to the state.[7]

TCPA additionally requests that the good cause exception included in Phase I weatherization be retained as part of this rulemaking. Following the Commission's ratification of NPRR 1108, as passed by the ERCOT Board, no minimum amount of capacity is required for generation planned outages. Throughout the Spring under ERCOT's conservative operations, ERCOT has exercised its authority to request the cancellation of or rescheduling of approved generator outages. This adversely impacts a resource owner's ability to conduct needed maintenance, including taking a resource offline to complete required weatherization. Resource owners who are unable to comply with these weatherization standards because ERCOT has

[5] 42 U.S.C. 18711(d))
[6] Microsoft Word - 40101d Formula Grant Draft Distribution of Funding.docx (doe.gov)
[7] Microsoft Word - 40101d Formula Grant NOI-Mod 1.docx (doe.gov)

shortened, delayed, or rejected necessary requested outages, should not be penalized. Instead, they should be able to communicate with the appropriate ERCOT and Commission Staff to advise of the issue, and should be able to obtain a good cause exception deeming the resource owner to be in compliance with weatherization measures given ERCOT's delay or cancellation of outages needed to complete their weatherization efforts. Similarly, ERCOT should grant a good-cause exception for older resources that are physically unable to meet certain of these standards in an effort to prevent their mothball or retirement. This is important because these resources' retirement would jeopardize ERCOT's resource adequacy and reliability (especially under the current practice of conservative operations). While the good cause exception concept was not included in the PfP, TCPA respectfully requests it be added in any Phase II weatherization requirements that the Commission ultimately adopts. In addition, under §§ 25.55(c)(1)B) & (c)(2)(B), it is stated that generation entities must implement the weather emergency preparedness measures beginning in 2023. Constraints with outage availability and supply chain issues may prevent the ability for generators to complete implementation by this time frame.

TCPA also urges the Commission to limit required weatherization measures to those that are reasonably possible in consideration of particular plants' existing design limitations, recognizing not all facilities are the same. This is particularly relevant to the proposed Phase II requirements that address resource hardening to accommodate increasingly hot temperatures. Whereas heat tracing can be added to address increasingly cold temperatures in Winter months, there is a limit to how much heat stress a generator can handle, regardless of hardening measures. The weatherization requirements that the Commission adopts should not have the effect of requiring generation owners to effectively rebuild generators so that they can withstand all possible heat stress scenarios beyond existing plant capabilities.

ADDITIONAL RECOMMENDATIONS AND DISCUSSION

A. Notification of Suspension of Operations ("NSOs") are not Approved by ERCOT.

The PfP appropriately provides an exemption from compliance with weather emergency preparedness for a generation resource with "an ERCOT-approved" notice of suspension of operations "for the Summer or Winter season." ERCOT Nodal Protocol 3.14.1.1 governs NSOs and specifies that a resource owner's notice is required if the resource will be taken out of operation for more than 180 days, if it is being seasonally mothballed, or is the result of a forced outage lasting longer than 180 days. ERCOT must evaluate whether there is a resulting reliability need if the NSO is for more than 180 days to determine whether a Reliability Must Run ("RMR") contract should be offered. However, there is no requirement for ERCOT to approve the NSO. Competitive market resource owners bear all the market risk and, therefore, determine whether continued resource operation (at market or under an RMR contract), mothballing, or retirement is appropriate for their resources. Similarly, NSOs occur outside of certain seasons, so specifying that NSOs for Summer or Winter are exempt is inconsistent with the realities of how NSOs occur in the ERCOT market. As such, TCPA makes the following recommended change to the proposed language:

§25.55. Weather Emergency Preparedness.

(a) Application. This section applies to the Electric Reliability Council of Texas, Inc. (ERCOT) and to generation entities and transmission service providers (TSPs) in the ERCOT power region.

(1) A generation resource with ~~an ERCOT-approved~~ a notification of suspension of operations ~~for the Summer season or Winter season~~ is not required to comply with this section unless the generation resource returns to service for the applicable season, in which case the generation resource is not required to comply with this section until the return to service date identified in its notice of change of generation resource designation required under the ERCOT protocols or until after the start date of an applicable reliability must run agreement or on the start date of a seasonal operation period.

B. Better Definitions are Needed of 'Major Weather-related Forced Interruption of Service" and "Repeated Weather-related Forced Interruption of Service", as well as "Weather emergency".

Staff inquired: "Does proposed 25.55(e) and 25.55(h) appropriately define 'repeated or major weather-related forced interruptions of service'?"[8] As discussed below, TCPA proposes modifications to § 25.55(e) of the PfP in response to this inquiry. However, it is even more important to ensure that the definitions of these terms are correct in §§ 25.55(b)(5) and 25.55(b)(6); accordingly, TCPA addresses those provisions first.

First, the definitions of "Major Weather-related Forced Interruption of Service" and "Repeated Weather-related Forced Interruption of Service" should be limited to the Summer and Winter seasons. The attestations that weather preparedness measures have been fulfilled are required immediately in advance of the Summer and Winter seasons. It only makes sense that the sufficiency of those preparedness measures be evaluated based on forced interruptions limited to the designated seasons.

Proposed § 25.55(b)(5) defines a "Major weather-related forced interruption of service" as "[t]he loss of 7,500 megawatt-hours of generation service or transmission capability occurring as a result of a weather emergency." There is no explanation provided for the 7,500 MWh number, nor is it clear whether this is a system-wide or unit-specific measure. If unit-specific, then this definition creates a discriminatory standard that penalizes large resources over smaller resources. A "major weather-related forced interruption of service" should be one that is tied to a coincident risk and not one in occurring in isolation without a system-wide issue. Loss of one plant cannot be a major weather-related outage impacting the grid as a whole, unless ERCOT is in an emergency situation. However, the current definition for this level of service interruption would result in

[8] Staff Proposal for Publication at 2.

disparate treatment for generation resources of varying sizes which possess different numbers of units. Larger resources with more units could trigger the threshold in a relatively short period of time, while smaller resources with fewer units could conceivably never trigger the threshold. The larger units would be subject to engineering studies, additional weatherization requirements and potential penalties disproportionately to smaller resources. This could put additional pressure on larger dispatchable baseload units.

Additionally, if the triggering threshold is based on a system-wide loss of generation as TCPA proposes, using a specific MW "loss" amount is only tenable assuming the current amount of available installed generation capacity in ERCOT remains stagnant. Inevitably, additional generation will come on and offline over time; accordingly, TCPA proposes that threshold for determining that a "major weather-related forced interruption of service" has occurred should be a percentage value rather than a whole number. TCPA proposes modifying the 7,500 MW figure to reflect "greater than 50% of available lost capacity for a period of 48 or more consecutive hours."

Modifying the definition to specify that the relevant threshold is measured on a system-wide basis will provide objective standards for what constitutes a "major" forced interruption of service. Additionally, changing the triggering threshold amount to a percentage rather than a set amount of MWs will more appropriately account for the fluctuation in ERCOT's available installed capacity over time. TCPA proposes the following modification to § 25.55(b)(5):

> **Major weather-related forced interruption of service** – On an ERCOT-wide basis, the loss of ~~7,500 megawatts~~ of more than 25% of available lost generation capacity ~~service~~ in ERCOT or in transmission capability for a period of 48 or more consecutive hours, occurring as a result of a weather emergency during the Summer or Winter season.

Even if the Commission's intent is that the definition apply on a unit-specific basis, TCPA also recommends that the definition be more equitably applied across generating units so as not to

unfairly penalize larger units and advantage smaller units. In that case, TCPA suggests a uniform scaling approach that is agnostic to the unit size but consistent in its application across the fleet by applying a uniform threshold for capacity loss (e.g., 50%) over a standard timeframe (e.g., 48 consecutive hours):

> **Major weather-related forced interruption of service** -- The loss of ~~7,500 megawatt-hours~~ at least 50 percent of a generation resource's or transmission facility's operating capacity ~~capability~~ for a period of at least 48 consecutive hours directly occurring as a result of a weather emergency during the Summer or Winter season.

"Repeated weather-related forced interruption of service" likewise requires modification. Proposed §25.55(b)(6) defines "Repeated weather-related forced interruption of service" as "[t]hree or more of any combination of the following occurrences 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 nameplate capacity of a generation resource or a transmission facility." This concept should be focused on whether the interruptions are the result of repeated failures of the same critical components or, at most, the same system. There are so many individual components that must work in harmony in a generator, that scrutinizing interruptions at the resource level does not necessarily indicate that an issue is "repeated." If the same component continues to fail under the same weather-related conditions, that may be indicative of a continuing problem. "Three strikes," particularly for a failure to start, is unrealistic. If a resource has 100 starts in a year and fails to start three times, a reasonable conclusion is that an audit is unwarranted. Such is not the case for a resource with five starts that fails three times. However, the current PfP language would treat both instances as constituting "repeated weather-related forced interruptions of service".

The standard in statute is a preparation standard, not a performance standard. Failure must be caused by a repeated weather-related failure of the same component. This means items that

commonly break should not be a trigger. For example, the NERC standard is specific that "freezing of water" should be the cause of the outage or derate. [9] Additionally, TCPA recommends a requirement that a failure to start must result in an outage that goes twelve or more hours before the resource's scheduled online time. Similarly, a forced outage should not be declared for a "trip" if the resource can actually return to service. A "forced outage" should have criteria including a threshold of time and direct weather-related causation. It is important to draw a distinction between what is a weather-related outage, and another kind of outage that happens to occur during cold or hot weather but is not truly "weather-related." Simply stated, the mere occurrence of an outage during hot or cold weather does not make it weather-related. Additionally, a repeated weather-related forced interruption of service should only be deemed to exist if ERCOT has provided notice to a resource owner following each of the weather-related incidents counted toward the three that may trigger an audit. TCPA proposes the following revision to § 25.55(b)(6), accordingly:

> **Repeated weather-related forced interruption of service** - Three or more of any combination of the following occurrences ~~as a result of~~ due to a system-wide grid emergency resulting from a weather emergency in the Summer or Winter season within any three year period, caused by a failure of the same component at the same unit: a failure to start that results in an outage continuing for twelve or more hours before a resource's communicated online time, a forced outage lasting at least twelve hours, or a deration of more than fifty percent of the nameplate capacity of a generation resource or a transmission facility lasting at least twelve hours. Only those occurrences that have been noticed by ERCOT to a generator owner may be counted toward inclusion in a repeated weather-related forced interruption of service.

At the core of both "Major weather-related forced interruption of service" and "Repeated weather-related forced interruption of service" is the concept of the "weather emergency", which itself requires modification. "Weather emergency" is currently defined as "[a] situation resulting from weather conditions that produces significant risk for a TSP that firm load must be shed or a

[9] Results-based Standard (nerc.com)

situation for which ERCOT provides advance notice to market participants involving weather-related risks to the ERCOT power region." There is no indication of what type of notice is required, or any urgency of the notification. In practicing under conservative operations following Winter Storm Uri, ERCOT has provided more notices than ever before of various weather conditions, which can cover a week or more. Just in the month of May 2022, ERCOT issued OCNs covering May 6-12, May 13-18, May 13- 20, and May 28-May 30, totaling 18 out of 31 days in the month, which is not even in the peak Summer period. Additionally, ERCOT indicated in May that its threshold for an Advanced Action Notice ("AAN") is 94 degrees. That threshold is not considered an extreme temperature in ERCOT and should not constitute a weather emergency. Mere notice of weather conditions should not be considered indicative of a weather emergency; rather, an Energy Emergency Alert ("EEA") or other Emergency Notice should be required.

Additionally, the definition of "weather emergency" should exclude extreme weather events during which a generator would not reasonably be expected to operate given the design capabilities of the resource. For example, no generation resource should be expected to operate if directly impacted by a Category 5 hurricane, a tornado, or a lightning strike. Failure to operate in such hazardous scenarios should not be considered an outage counted against a generator under § 25.55(b)(6). TCPA proposes the following modification to § 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 for which ERCOT issues an Energy Emergency Alert or otherwise declares an emergency during the Summer or Winter season ~~provides advance notice to market participants involving weather-related risks to the ERCOT power region~~. A weather emergency does not include a situation in which severe weather conditions exceed the design capabilities of a generator's units rendering them unsafe or unable to operate.

A direct causal link between the weather emergency and the forced interruption of service is crucial to rational, reasonable implementation of the rule. The definitions of both "Major weather-related forced interruption of service" and "Repeated weather-related forced interruption

of service" include the phrase "occurring as a result of a weather emergency." As prefaced before, it is important to note that a forced interruption occurring **during** a weather emergency is not the same thing as a forced interruption occurring **as a result of** a weather emergency. If, in practice, the proposed rule is treating any failure occurring during a "weather emergency" (which, as currently drafted, is overly broad) as being weather-related, the rule is imposing a strict liability standard. Such a standard is both inconsistent with the law and sends the wrong signals to current and prospective generator owners that any resource failure whatsoever occurring during a "weather emergency" will subject them to potentially costly measures that, if not completed when dictated, can lead to substantial penalties (which compound daily under the Commission's existing administrative penalty rules).

Weather conditions included in a "Weather Emergency" should be limited to those occurring during the Summer and Winter seasons, as contemplated in SB 3. The seasons should be tied to ERCOT's defined seasons, which exclude March from the "winter season"; accordingly, March should be omitted from the PfP's definition of "winter season". Having consistent seasons across statute, rule, and protocols is important to ensure that Market Participants are not forced with the impossible task of complying with rules related to multiple conflicting seasons. The standard for a weather emergency should be one that indicates extraordinary weather conditions. TCPA proposes amending the definition of "winter season" in § 25.55(b)(13) as follows:

(13) **Winter season** -- December 1 to ~~March 31~~ February 28 each year.

C. The Proposed Rule Should be Modified to Include Good Cause Exceptions.

There are several circumstances in which weather-related forced interruptions should not be counted as a "major" or "repeated" forced interruption-triggering event. As mentioned in TCPA's general comments above, the Phase I weatherization rule included a process for generators

to claim good cause existed for lack of compliance with the rule and for ERCOT and the Commission to evaluate those claims. The process was successfully implemented following adoption of Phase I and should be carried over into Phase II of the rule. Additionally, a provision should be added to proposed § 25.55(c)(1) to exempt from the update requirement any resource that has a good cause exception or that has nothing to update.

D. Adjust the Language in (c)(1)(A), (B) and (c)(2)(A), (B) to Reflect the Preparedness Standard

The statutory language in SB 3 clearly sets a preparedness standard based on a historical weather study, and a "preparedness" standard is what the proposed new § 25.55 purports to be. However, the precise phrasing used in §§(c)(1) and (c)(2), namely, "reasonably expected to ensure sustained operations" departs from the stated objectives in two important respects. First, the proposed rule requires that generators prepare for "sustained operations" based on certain historical temperatures at which the resource has experienced sustained operations, or the 95th percentile minimum/maximum average 72-hour temperature reported in ERCOT's historical weather study. However, "sustained operations" is not defined. The expectation for the preparedness standard should be consistent with the historical "sustained operations" or 72-hour temperatures. TCPA proposes the following modification to §25.55(c)(1)(A):

> (A) Implement weather emergency preparation measures reasonably expected to ensure the sustained operation of all cold weather critical components during normal winter weather conditions. Such measures include, as appropriate for the resource:

E. Modify Requirements under (c)(1)(A) To Better Reflect Measures Appropriate For the Resource

Subsection (c)(1)(A) requires the implementation of weather emergency preparation measures for the sustained operation of cold weather critical components during Winter weather conditions. The proposed rule identifies particular measures to be adopted, "as appropriate for the resource." TCPA commends Staff for recognizing that the identified measures may not be appropriate for a particular resource, and in some cases may be counter-productive. For example, the proposed rule requires "[i]nstallation of adequate wind breaks and other structural preparations as needed for resources susceptible to outage or derates caused by wind." Installing the wind break skeleton and having other resources on hand is appropriate preparation to provide a head start if there is notice of a potential cold weather system emergency. However, TCPA appreciates Staff's recognition of Phase I comments that installing the actual wind breaks themselves is not only expensive and resource-intensive, but installation can raise the temperature of the unit unnecessarily and create greater stress on the unit, potentially making it unable to perform when needed most during Summer weather conditions. The modified language requires generators to implement freeze protection preparations that allow a generation unit to run efficiently and enable quick execution of freeze protection measures if extreme weather conditions are anticipated.

Although certain language recognizes that what is appropriate for a resource is determined on a case-by-case basis, the subsection elsewhere contains language that is inconsistent with that approach, instead imposing a one-size-fits-all standard. For example, the proposed § 25.55(c)(1)(A)(ii) identifies one of the measures as "[i]nstallation of insulation and enclosures for all cold weather critical components." This requirement fails to take into account the associated necessity, feasibility, and costs, which should be considered. Although insulation and enclosures for some cold weather critical components may be warranted, insulation and physical enclosures may not be necessary for all components, and would add costs that do not add reliability benefits.

Similarly, requirements for monitoring systems that address critical components in cold weather events is prescriptive, and there are a variety of ways to monitor equipment without the installation of monitoring systems. Rather than requiring installation of monitoring systems, it would be more practical to instead require that cold weather systems be monitored and provide the full spectrum of options for resource owners to choose from, as indicated by their weatherization experts. TCPA suggests flexibility regarding what protection may be appropriate. Additionally, including the word "all" negates the preamble that measures are to be appropriate for the resource. That provision should be modified as follows:

> (ii) Installation of ~~insulation and enclosures~~ protection for ~~all~~ cold weather critical components;

Similarly, the monthly testing requirement should be confined to the ERCOT-defined Winter season which is December 1 through February 28. Testing does not make sense outside of the season and is ineffective.

> (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 basis from ~~November~~ December 1 through ~~March 31~~ February 28; and

Relatedly, although TCPA agrees that monitoring of cold weather critical components should occur, monitoring can take many forms. Installation of monitoring systems for some components may not be necessary, and would only add unnecessary costs. TCPA proposes modifying §25.55(c)(1)(A)(vii) as follows:

> (vii) ~~Installation of~~ Establish monitoring ~~systems~~, as practicable, for all cold weather critical components, including circuitry that provides freeze protection or prevents instrument air moisture;

F. Adjust the Language in §25.55(c)(1)(A) to Reflect the Preparedness Standard

In §25.55(c)(1)(A), the use of the term "assurance" is problematic in two important respects. First, that term is overly broad, essentially requiring a guarantee from generator owners. That is simply not possible, given the number of variables outside the control of a generator. Second, the term converts the rule to a performance standard, rather than a preparedness standard as required under the law and acknowledged by Staff be the objective of the proposed rule.

TCPA agrees that generators should be required to take steps intended to prevent the reoccurrence of cold weather critical component failures that occurred during the Winter Storm. However, no matter what efforts are taken, there is no guarantee that supply chain or operations issues will never arise. The rule should not and may not impose a performance standard. The focus should be on actions that are reasonably expected to prevent a reoccurrence of a failure. TCPA recommends the following additional modifications to §25.55(c)(1)(A):

> (iv) ~~Assurance of the availability~~ Arrange for, and provide appropriate safekeeping of, sufficient chemicals, auxiliary fuels, and other materials necessary for sustained operations during a Winter weather emergency;
>
> (v) ~~Assurance of~~ Plan for the operability of instrument air moisture prevention systems;
> …

G. Adjust the Language in (c)(1)(B) to Use Statistical Basis

The intent of SB3 was for *some* statistical basis to be used in determining the weather preparation standard that Resources should prepare to implement in 2023. Retaining the term "experienced sustained operations" renders ERCOT statistical analysis unnecessary, which is contrary to the legislative intent. TCPA proposes modifying §25.55(c)(1)(B) as follows:

(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.

H. Conforming Changes to Language in (c)(2) for Summer and Addressing Design Limitations

Similar to the recommendation for proposed § 25.55(c)(1) to exempt from the update requirement any resource that has a good cause exception or that has nothing to update, TCPA recommends the same provision be included in § 25.55(c)(2) for Summer preparedness.

Just as the Winter season should be defined consistently with the ERCOT definition, "Summer" should also be defined consistently. Testing should be done during the actual defined seasons; otherwise it is not effective. Additionally, not all equipment for Summer preparedness has monitoring. For example, there may not be monitoring available for AC equipment for Summer (such as portable air conditioners or evaporative cooling treatments) like there is for heating equipment for the Winter (such as heat tracing and enclosure temperature monitoring).

Further, and as mentioned in TCPA's general comments above, there is only so much weatherization that any particular generator can undertake to address heat stress; at a certain hot temperature, regardless of the level of system hardening, a unit simply will not be able to operate (even if others of a different make or technology might be able to continue operating). Accordingly, the weatherization measures required in the rule to address heat stress should be limited to those available given the existing design and capabilities of a resource. Similarly, the requirement to ensure adequate water supplies should be limited to a generator's reasonable capability to obtain and store water, assuming non-drought conditions. It is not reasonable to

expect generators to preemptively obtain scarce water supplies far exceeding normal capacity needs.

As such, TCPA proposes the following recommended changes to § 25.55(c)(2):

> (A) Implement weather emergency preparation measures within the capability and design parameters of existing resources, which are reasonably expected to ensure the sustained operation of all hot weather critical components during Summer weather conditions. Such measures include, as appropriate for the resource:
>
> > (ii) ~~Assurance of~~ Arrange for adequate water supplies, as reasonably practicable given current drought conditions and on-site storage capacity, for cooling towers, reservoirs, heat exchanges, and adequate cooling capacity of the water supplies used in the cooling towers, reservoirs, and heat exchanges;
> >
> > (v) Maintenance of all hot weather critical components, including air flow or cooling systems, and testing of all components on a monthly basis from ~~May~~ June 1 through September 30;
> >
> > (vi) Installation of monitoring systems, as practicable, for all hot weather critical components.

Currently, the ERCOT weather study does not include for Summer the average 72-hour maximum temperature; therefore, TCPA presumes that the study will be updated to align with the rule. As mentioned in the section for Winter, the intent was to use a statistical basis to determine the 2023 preparation standard. Retaining the phrase "experienced sustained operations" renders the point of having ERCOT statistical analysis unnecessary. Accordingly, TCPA recommends the following change to §25.55(c)(2)(B):

> (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.

I. Modify Declaration of Preparedness Requirement

The attestation requirement in the ERCOT Protocols regarding submission of Generation Resource Summer and Winter Weatherization Preparations is a good one and should be the model. Therefore, TCPA recommends removal in § 25.55(c)(3) of the requirement for the highest ranking official to make the attestation for Winter and Summer preparedness.

J. Inspection of Resources

An ERCOT inspection under this rule should be limited to weather related issues since the purpose of this rule is to determine a specific standard of extreme weather preparation. Additionally, "other vulnerabilities" as included in subsection (d) is very broad and subjective. A resource with fuel issues beyond its control should not be subject to inspection. Establishment of checklists should be developed through the stakeholder process and established in protocols to provide the best comprehensive checklists. The protocol process ensures all segments of industry experts provide input based on current technology and operational information and results in a more thought-out and complete process. Developing checklists outside of the protocol process typically results in a less-informed product and provides no transparency of process.

> (1) ERCOT must conduct inspections of resources and may prioritize inspections based on factors such as whether a resource is critical for electric grid reliability; has experienced a forced outage, forced derate, or failure to start related to weather emergency conditions~~; or has other vulnerabilities related to weather emergency conditions~~. ERCOT must determine, in consultation with commission staff, the number, extent, and content of inspections, provided that every resource interconnected to the ERCOT power region must be inspected at least once every three years. ERCOT must ~~develop~~ establish in protocols, in consultation with commission staff, a Winter weather inspection checklist and a Summer weather inspection checklist for use during resource inspections. Inspections may be conducted by ERCOT's employees or contractors.

The standard for notice of inspection in Phase I was forty-eight (48) hours because of the short implementation timeline and accelerated inspection schedule. However, two weeks constitutes a "good business practice" standard of notice for the inspection given the longer lead time for continued enforcement of weatherization requirements and inspections. Forty-eight hours does not provide ERCOT or generator owners with enough time to coordinate personnel and materials to support an inspection and will result in lower-quality reviews of resource's preparations. This reasonable notice period provides time to prepare materials, ensuring more effective inspections, without impairing ERCOT's ability to confirm seasonal preparedness ahead of time. TCPA recommends the following changes accordingly:

(A) ERCOT must provide each generation entity at least ~~48 hours'~~ two weeks' notice of an inspection unless otherwise agreed by the generation entity and ERCOT. Upon provision of the required notice, a generation entity must grant access to its facility to ERCOT and to commission staff, including an employee of a contractor designated by ERCOT or the commission.

Resources have longstanding security policies in place, which includes areas in which photography and video recordings are prohibited. Control rooms are one such area. TCPA recommends modifying § 25.55(d)(1)(B) accordingly:

(B) During the inspection, a generation entity must provide ERCOT and commission staff access to any part of the facility upon request, provided ERCOT and commission staff comply with all facility safety protocols. A generation entity may restrict access to portions of its facility for safety reasons. A generation entity must provide access to inspection, maintenance, and other records associated with weather emergency preparation measures and must make the generation entity's staff available to answer questions. A generation entity may escort ERCOT and commission staff at all times during an inspection. During the inspection, ERCOT or commission staff may take photographs or video recordings of any part of the facility, except control rooms, provided they comply with all facility safety protocols, and may conduct interviews of facility personnel designated by the generation entity. Documents, photographs, or

video recordings collected or generated by commission staff during or related to an inspection are confidential and exempt from disclosure under the Texas Public Information Act, Tex. Gov't. Code Chapter 552.

Following the Phase I inspections, many TCPA members' experience was that inspection reports tended to lack information that could be useful to generator owners. TCPA appreciates that this may have been due to the rapid implementation of the Phase I rule, and that ERCOT inspectors had a very short window in which to complete inspections. However, for the long-term implementation of the inspection requirements, the reports should be detailed and provide meaningful information regarding how the resource has been assessed. TCPA therefore proposes the following modification to § 25.55(d)(2):

(2) ERCOT inspection report.

(A) ERCOT must provide a detailed report on its inspection of a resource to the generation entity. The inspection report must address whether the generation entity has complied with the requirements in subsection (c)(1) or (c)(2) of this section. It must also provide meaningful information on which a resource has been assessed.

The section on repeated weather-related failures by a generation resource to provide service should include a requirement for ERCOT to provide notice to a resource owner after each weather-related incident that is counted toward the three in which an audit is required. ERCOT may deem an incident as weather-related, while the resource owner may find that the incident is a result of some other issue, such as wear-and-tear. An appeal process should exist to allow resource owners the opportunity to provide data if an incident is deemed weather-related by ERCOT but a broader factual context shows otherwise. Similarly, ERCOT should be required to send a notice to a resource owner when an audit is triggered to let them know they have reached this threshold, which incidences were triggering events, and outlining the process by which a resource owner may appeal such a finding if it disagrees with the triggering events.

K. Modify Requirements For Professional Engineer Assessment

TCPA recommends that an engineer that has performed an assessment of a generation entity not be excluded from performing future assessments. Outages may occur for any number of reasons, and a potentially limited pool of skilled engineers exists. The fact that an engineer provided an assessment and the generating unit subsequently suffered a failure does not indicate a bias on the part of the engineer that should exclude him or her from providing a subsequent assessment.

> (e) A generation entity with a resource that experiences repeated or major weather-related forced interruptions of service must contract with a qualified professional engineer to assess its weather emergency preparation measures, plans, procedures, and operations. The qualified professional engineer must not be an employee of the generation entity or its affiliate. ~~The qualified professional engineer must not have participated in previous assessments for the resource for at least five years, unless the generation entity provides documentation that no other qualified professional engineers are reasonably available for engagement.~~ The qualified professional engineer must conduct a root cause analysis of the failure and develop a corrective action plan to address any weather-related causes of the failure. The generation entity must submit the qualified professional engineer's assessment to the commission and ERCOT. A generation entity to which this subsection applies may be subject to additional inspections by ERCOT. ERCOT must refer to commission staff for investigation any generation entity that does not comply with a provision of this subsection.

CONCLUSION

For the foregoing reasons, TCPA respectfully requests that the Commission modify the proposed rule, consistent with the above.

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Respectfully submitted,

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PROJECT NO. 53401

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

EXECUTIVE SUMMARY OF TEXAS COMPETITIVE POWER ADVOCATES' COMMENTS AND RECOMMENDATIONS

General: The proposed rule should provide a means to reimburse generation owners for the costs reasonably incurred to comply with these standards, to align with utilities' ability to obtain such reimbursement. Limit application of the standards to those reasonably possible and appropriate for the resource given its design limitations and features.

Specific Sections:

(a)(1): Modify the provisions exempting the standards' applicability during a notice of suspension of operations, no matter when the suspension occurs during the year.

(b)(5) and (b)(6): Clarify the terms "Major Weather Related Forced Interruption of Service" and "Repeated Weather-related Forced Interruption of Service" in several ways that reflect a more reasonable application.

(b)(11): Clarify the term "Weather Emergency" does not include extreme weather events that it would be unreasonable to expect the resource to operate under, given its particular design specifications.

(c)(1): The rule should implement a good cause exception process similar to that applicable to the Phase I standards.

(c)(1)(A), (B): Adjust the preparedness standard to reflect that the sustained operations should occur during normal winter conditions, eliminate those requirements involving "assurance" type standards.

(c)(1)(B): Eliminate the reference to sustained operations during the minimum temperature at which the resource has experience sustained operations, relying only on the 95th percentile requirement.

(c)(2): Make harmonizing changes to Summer performance standards as for Winter.

(c)(3): The resource entity attestation requirements should follow those for the ERCOT Generation Resource Summer and Winter Weather Preparation reports. They should not require attestation from the entity's highest ranking official.

(d)(1): Limit the inspections only to operation during weather emergency conditions and not those that might somehow be related. Also revise the notice requirement from 48 hours to two weeks. Provide for procedures applicable during such inspections.

(d)(2): Require the inspection report to contain additional information.

(e): Eliminate the requirement that a registered professional engineer perform these inspections.