

PROJECT NO. 51840

**RULEMAKING TO ESTABLISH
ELECTRIC WEATHERIZATION
STANDARDS**

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**PUBLIC UTILITY COMMISSION

OF TEXAS**

**TCPA COMMENTS ON COMMISSION STAFF'S DISCUSSION DRAFT AND
QUESTIONS FOR COMMENT**

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 members¹ 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 participating in this filing provide nearly fifty percent (50%) of the total net operable electric generating capacity in ERCOT, representing billions of dollars of investment in the state, and employing thousands of Texans.

TCPA appreciates the opportunity to reply to Commission Staff's question regarding market-based cost recovery mechanisms and to provide comments on the discussion draft. While we have suggestions to improve the discussion draft, we appreciate Staff's recognition that there are many resources complying with new requirements at the same time, vying for the same contractors and supplies, and anticipate a staggered compliance schedule. TCPA suggests revising the compliance schedule to provide for a larger number of resources to be compliant sooner while accounting for the reality that older resources will need more work than newer resources and some of the smaller resources have fewer components to weatherize, meaning those can be completed sooner than larger resources with many complex components. TCPA member companies, as a normal prudent course of business, have been reviewing weatherization plans and areas of improvement from Winter Storm Uri and have already begun the task of working with engineers

¹ TCPA member companies participating in these comments include: Calpine, EDF Trading North America, Exelon, NRG, Shell Energy North America, Talen Energy, Tenaska, and TexGen Power. Luminant is filing individual comments and not participating in this filing.

and outside expert consultants to identify updates and additions that must be made to promote greater reliability in the future. Our companies completed evaluations and implemented improvements following the February 2011 storm and continue to do so on an annual basis. TCPA looks forward to working with the Commission and Staff to implement the weatherization standards and provides the subsequent comments in an effort to ensure timely standards and efficient and effective compliance timelines.

EXECUTIVE SUMMARY

- No guaranteed market-based recovery mechanism currently exists for competitive wholesale generators. However, transmission and distribution utilities (TDUs), electric cooperatives, and municipally owned utilities (MOUs) have guaranteed cost recovery mechanisms.
- Lack of information on study methodology and variables to be inputted make it impossible to determine appropriate percentiles for standards setting. TCPA recommends deferring a decision on standards until the critical information is available and stakeholders have sufficient information and context on which to comment.
- A final order, following presentation of the study and modifications, should be entered before new standards become effective.
- The compliance study following a significant change is complex and generators will be competing for the same firms to conduct the study, making 60-days an unrealistic and unreasonable timeframe to require study completion.
- A professional engineer (PE) should only be required for repeated violations or patterns of issues. The PUC should consider requiring a qualified third party to complete the compliance study and may provide guidance as to what the contractor should assess for common weatherization measures.
- Zonal information can skew study findings and could result in improper weatherization requirements being imposed on a plant. Zones have the likelihood of subjecting a plant to assumed weather conditions that may be a significant distance from the physical location of the facility. TCPA recommends using individual plant sites.

- Indefinitely mothballed or winter mothballed resources should not be subject to new winterization standards as these are not generating resources during the winter season. Such mandates may facilitate complete retirement of such resources.
- Black Start resource preparation standard apply only to the equipment used to provide those Black Start services.
- TCPA recommends a compliance timeline that accounts for the ages of resources as opposed to their sizes. TCPA's proposal results in more megawatts being weatherized sooner.
- The term "resource" can mean an entire plant or individual units within a plant and should be clarified to specify which reference is intended.

STAFF QUESTION

2. Do existing market-based mechanisms provide sufficient opportunity for cost recovery to meet the weather reliability standards proposed in the discussion draft? If not, what cost recovery mechanisms should be included in the proposed rule?

No. Transmission and distribution utilities (TDUs), cooperatives and municipally owned utilities (MOUs) can recover approved weatherization-related costs. Competitive wholesale generators cannot.

Under the current ERCOT market structure transmission and distribution utilities (TDUs) are rate-regulated with a captive ratepayer base from which to recover PUC-approved expenses, plus earn a rate-of-return on those investments following a contested case proceeding at the PUC. Electric cooperatives and municipally owned utilities (MOUs) also have captive customer bases from which to recover their weatherization-related costs and to recoup any investments they make to comply with Commission standards. There are no guaranteed cost recovery mechanisms available to competitive wholesale generators, only market revenues, which clearly have not yielded a level of weatherization sufficient to withstand a storm such as Winter Storm Uri.

Without market changes or cost-recovery to support compliance with an unfunded weatherization mandate, competitive generators are unfairly placed at a competitive

disadvantage with generation owned by electric cooperatives and MOUs. The Legislature mandated weatherization across the entire ERCOT generating fleet, and as noted in TCPA comments on June 23, 2021, Governor Abbott's declaration of weatherization as an emergency item included the funding for enacted mandates. Since all other entities subject these new mandates have existing cost recovery mechanisms in place, and competitive generators in ERCOT do not, TCPA believes Governor Abbott's direction to the Commission contained in the July 6, 2021 letter requires the Commission to establish a cost recovery mechanism for competitive generators that ensures they are not at a competitive disadvantage to electric cooperatives and MOUs.

Whether costs may be recovered in the energy-only market largely depends on the PUC's final standard and the results of the proposed weather studies, and other market design changes. If the standard and weather study require plants to make substantial retrofits and upgrades, it is highly uncertain that the commodity margins achievable in ERCOT's energy-only market, as currently designed, could support the necessary investment required to comply with the unfunded mandate. Generators faced with the prospect of incurring unrecoverable incremental costs to comply with extensive weatherization standards would likely have no choice but to evaluate suspension of operations.

COMMENTS ON DISCUSSION DRAFT

TCPA comments focus on several areas of the discussion draft; however, additional information on the study methodology and other components of the discussion draft is needed for TCPA to provide more meaningful comment. TCPA anticipates that there will be another opportunity to provide comment and will provide additional feedback to the Commission and Staff at that time.

TCPA's initial comments are primarily related to the ERCOT weather study, related standard and the compliance timeline. In addition to the comments below, TCPA is providing a redline of the discussion draft Exhibit 2 following the comments.

Weather Study & Standards

It is difficult to comment on the standards since the weather study is not expected to be completed until January 1, 2022, with an “opportunity for modifications through the PUC review and approval process.” A final order related to the study must be entered by the Commission before the standards become effective. Without further information on the study methodology and inputs, it is not possible to assess whether the 95th percentile or some other percentile is appropriate. The percentile is one aspect of a very complex set of inputs, and market participants need to understand what study methodology and variables will be used to provide meaningful feedback on which percentile is appropriate. Consequently, TCPA respectfully request the Commission defer a decision on standards until the information is available and stakeholders have sufficient information and context on which to comment.

Requiring a compliance study within 60 days of a significant change is unrealistic and TCPA recommends extending this timeframe to allow sufficient time to hire a firm, complete the assessment and prepare the report.

TCPA also recommends eliminating the requirement that a professional engineer (PE) perform the compliance study. Many winterization measures, such as hanging tarps, adding portable heaters or bringing in additional staff, do not require mathematical analysis. In addition, a PE is not needed to properly assess OEM measures or lube oil heaters or to identify the point where a CTG inlet filter could clog with snow, for example. A PE evaluation should only be required for repeat violations or a pattern of issues. As an alternative to the PE requirement for a Compliance Study, the PUC should consider requiring a qualified third party to complete the study and should provide guidance as to what the evaluator should assess for common weatherization measures.

In addition to the request for additional information concerning the weather study, TCPA recommends using individual plant sites, rather than zones, to collect data for weather study purposes. Zonal information can skew study findings and could result in improper weatherization requirements being imposed on a plant. Zones have the likelihood of subjecting a plant to assumed weather conditions that may be a significant distance from the physical location of the facility. For example, a plant that is may be located in a coastal area zone, but its operations could be significantly impacted based on weather conditions related to may have weather conditions

impacting the plant's operations based on its distance from the water, presence of hills, and whether the plant is located on top of a hill versus on one side of a hill or another.

Additionally, resources that have been either indefinitely mothballed or indefinitely mothballed for the winter season should be exempted from winterization mandates since the resources do not operate during winter. Requiring those facilities to meet winter weatherization requirements could be a financial deterrent to the resource being available for summer demand or from being returned to service if needed in the future. Resources seasonally mothballed should be allowed to return to service in accordance with ERCOT's existing timeline with a presumption of compliance of weatherization standards upon provision of a compliance study until ERCOT can complete their inspection in order to not delay operation.

TCPA would also like to ensure that weather preparation standards for Black Start weather reliability are applicable only to Black Start equipment. For example, a Black Start resource with a preparation standard of 99.7 percentile should have that standard apply only to the equipment used to provide those Black Start services. As such, a combined cycle plant should not be required to prepare the steam turbine to 99.7 percentile conditions if only the gas turbines are used to provide Black Start service. In contrast, a diesel generator and its associated equipment that is used for Black Start service but not for normal operations, should be prepared to meet the 99.7 percentile conditions.

The final adopted weatherization rules should clearly explain what is meant by "weather-related failures to provide service," as the phrase is unspecific and refers generically to "weather-related" interruptions rather than referring to extreme weather conditions. There also does not appear to be any consideration for a situation in which weather conditions exceed statistical values, such as a plant damaged by a hurricane. Therefore, TCPA recommends the rules focus only on extreme weather conditions. Finally, the discussion draft's provisions in this section regarding referral to the PUC and administrative penalties are already addressed in other parts to of the proposed standard and should be removed.

Timeline for Compliance

TCPA recommends modifying the compliance timeline. The discussion draft prescribes the following:

1. Units greater than 650 MW have one year to comply;
2. Units between 250MW and 650MW have two years to comply; and,
3. Units less than 250MW have three years to comply.

The apparent goal is to ensure that larger units comply sooner, so that more “weatherized” megawatts are available to ERCOT sooner. However, the timeline fails to consider that the age of the unit is likely directly correlated to the time and expense associated with weatherization retrofits. A modern unit built within the past five years is likely easier to winterize than one built 50 years ago. Therefore, TCPA believes age is a better proxy for a weatherization timeline than unit size. Specifically, TCPA recommends:

1. Units that began operation after December 31, 2010 have one year to comply;
2. Units that began operation between January 1, 2000 and December 31, 2010 have two years to comply; and,
3. Units that began operations before January 1, 2000 have three years to comply.

Exhibit 1 below analyzes the impacts of the proposed timelines in the discussion draft versus TCPA’s proposal. Importantly, the revised approach accomplishes the weatherization of more megawatts in by 2023 than the discussion draft proposal (see the bar chart in Exhibit 1).

Finally, it is necessary to clarify what the term “resource” references. Sometimes “resource” can be interpreted as meaning a plant and at other times it can be interpreted as meaning each turbine or operating unit within a plant. Clarification of the definition of “resource” is needed to understand the sizes contemplated in referenced megawatts. For example, as shown in Figure 1, there are only 18 ERCOT resources with capacities that exceed 650 MW.

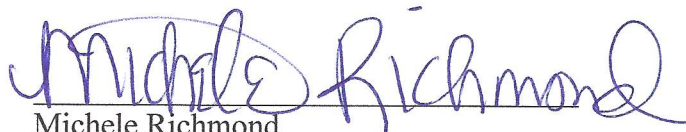
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TCPA appreciates the opportunity to comment on the discussion draft and will provide additional comments following clarification of the issues raised in this document. We look forward

to working with the Commission, Commission Staff, and other stakeholder as weatherization rules are implemented.

Dated: July 30, 2021

Respectfully submitted,

A handwritten signature in blue ink that reads "Michele Richmond". The signature is fluid and cursive, with the first name "Michele" and last name "Richmond" clearly distinguishable.

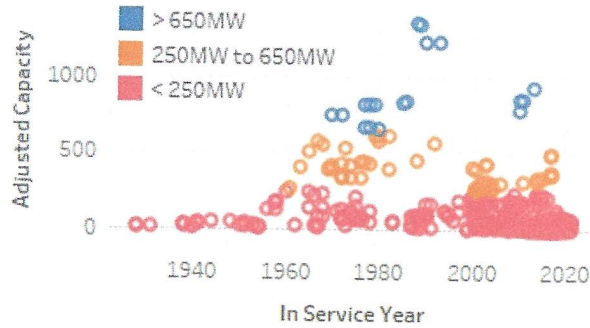
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Exhibit 1 - Comparison of Compliance Deadlines

Discussion Draft

Capacity vs. Year



Compliance Year

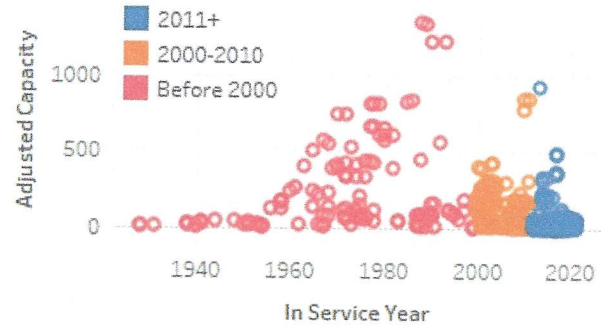


Details

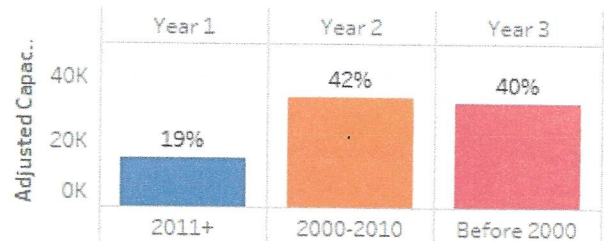
		Count	Cap (MW)	% Total Cap
Year 1	COAL	12	9,525	11.8%
	GAS-ST	2	1,494	1.9%
	NUCLEAR	4	5,153	6.4%
	Total	18	16,172	20.0%
Year 2	COAL	7	3,795	4.7%
	GAS-CC	33	10,682	13.2%
	GAS-ST	16	6,790	8.4%
	OTHER	2	900	1.1%
	Total	58	22,167	27.5%
Year 3	BIOMASS	10	58	0.1%
	COAL	2	310	0.4%
	GAS-CC	152	23,334	28.9%
	GAS-GT	93	5,637	7.0%
	GAS-IC	24	932	1.2%
	GAS-ST	21	2,851	3.5%
	HYDRO	29	556	0.7%
	OTHER	2	320	0.4%
	SOLAR	80	1,471	1.8%
	STORAGE	25	235	0.3%
	WIND-C	27	1,686	2.1%
	WIND-O	157	3,444	4.3%
	WIND-P	37	1,499	1.9%
	Total	659	42,331	52.5%

Revised Proposal

Capacity vs. Year



Compliance Year



Details

		Count	Cap (MW)	% Total Cap
Year 1	BIOMASS	2	8	0.0%
	COAL	1	933	1.2%
	GAS-CC	19	5,444	6.7%
	GAS-GT	27	1,546	1.9%
	GAS-IC	21	907	1.1%
	HYDRO	1	1	0.0%
	SOLAR	77	1,457	1.8%
	STORAGE	25	235	0.3%
	WIND-C	20	1,184	1.5%
	WIND-O	80	1,835	2.3%
	WIND-P	35	1,428	1.8%
	Total	308	14,978	18.6%
Year 2	BIOMASS	7	43	0.1%
	COAL	3	2,495	3.1%
	GAS-CC	140	26,229	32.5%
	GAS-GT	28	1,438	1.8%
	GAS-IC	3	25	0.0%
	HYDRO	1	10	0.0%
	OTHER	4	1,220	1.5%
	SOLAR	3	14	0.0%
	WIND-C	7	501	0.6%
	WIND-O	75	1,602	2.0%
	WIND-P	2	70	0.1%
	Total	273	33,648	41.7%
Year 3	BIOMASS	1	6	0.0%
	COAL	17	10,202	12.6%
	GAS-CC	26	2,343	2.9%
	GAS-GT	38	2,653	3.3%
	GAS-ST	39	11,135	13.8%
	HYDRO	27	545	0.7%
	NUCLEAR	4	5,153	6.4%
	WIND-O	2	7	0.0%
	Total	154	32,044	39.7%

Exhibit 2. TCPA-Recommended Redlines

§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 in the ERCOT power region.
- (b) **Definitions.** In this section, the following definitions apply unless the context indicates otherwise.
- (1) **Generation entity** – Any ERCOT-registered Resource Entity with one or more ERCOT-registered Generation Resource or Energy Storage Resource, as those terms are defined in the ERCOT Protocols.
- (2) **Inspection** – The activities that ERCOT engages in to determine whether a generation entity is in compliance with subsection (d) of this section or whether a transmission service provider is in compliance with subsection (i) of this section. An inspection may include site visits; assessments of procedures; interviews; and information provided by a generation entity or transmission service provider, including the results of inspections conducted by the generation entity or transmission service provider or its contractor. ERCOT may conduct inspections using both employees and contractors.
- (3) **Resource** – A Generation Resource or Energy Storage Resource as defined in the ERCOT Protocols.
- (4) **Weather preparation measures** – Measures that a generation entity or transmission service provider may take to ~~improve~~ support the function of a facility in extreme weather

conditions, including weatherization, fuel security, staffing plans, operational readiness, and structural preparations.

(c) **Weather study.** ERCOT, in consultation with the Office of the Texas State Climatologist, must prepare a weather study that includes statistical probabilities of a range of extreme weather scenarios for the weather zones that ERCOT establishes for this study.

(1) Weather study criteria. The weather study must include statistical probabilities for ~~a range of weather scenarios in~~ the 95th, 98th, and 99.7th percentile probabilities for the established weather zones. The weather study must address a comprehensive range of weather event scenarios that may impact transmission and generation performance in the ERCOT power region. These scenarios must include, at a minimum, parameters for high and low temperatures, wind, humidity, precipitation, ~~location-specific considerations,~~ and duration.

(2) Filing and approval. ERCOT must file with the commission the first weather study consistent with this subsection no later than January 1, 2022 and then file with the commission a new weather study each five years thereafter. ERCOT must review data relevant to the weather study at least annually to determine whether. ~~If~~ changes to weather ~~occur that could~~ materially affect the ability of generation entities and transmission service providers to meet the weather reliability standards in this section ~~and ERCOT~~ must promptly ~~prepare and file with the~~ file a new application with the Commission. ~~before the otherwise applicable five-year deadline. A weather study must be approved by the commission with or without modifications for it to affect compliance with the requirements of this section.~~ The commission will approve compliance deadlines as part of its approval of any study filed after the initial weather study.

(d) **Weather reliability standard for a resource.** A generation entity must comply with the following standards.

- (1) Basic weather reliability standard. A generation entity must maintain weather preparation measures for critical components that reasonably ensure that its resource can provide service at the resource's applicable rated capability as defined by ERCOT under the 95th percentile ~~of each of the extreme weather scenarios~~ specified in the weather study approved by the commission under subsection (c) of this section.
- (2) Enhanced weather reliability service standard. A generation entity may elect to maintain weather preparation measures for critical components that reasonably ensure its resource can provide service at the resource's applicable rated capability as defined by ERCOT under the 98th ~~percentile of each of the extreme weather scenarios~~ specified in the weather study approved by the commission under subsection (c) of this section. AERCOT may require a resource that to meets this standard may in order to qualify to provide ~~an enhanced weather-certain ancillary or~~ reliability services procured by ERCOT.
- (3) Black Start Service (BSS) weather reliability standard. For a resource that provides BSS, a generation entity must maintain weather preparation measures for critical components that reasonably ensure the resource can provide black start service ~~provide service at the resource's applicable rated capability~~ under the 99.7th percentile ~~of the extreme weather scenarios~~ specified in the weather study approved by the commission under subsection (c) of this section.
- (4) New resource. A generation entity must maintain weather preparation measures that reasonably ensure that its new resource can meet the basic weather reliability standard

under paragraph (1) of this subsection before it commences commercial operations. ~~The generation entity must submit to ERCOT a compliance study as described in paragraph (f)(1) of this section by a deadline specified by ERCOT.~~

(e) Implementation of weather reliability standards for a generation entity.

(1) Implementation of basic weather reliability standard. A generation entity must meet the basic weather reliability standard under subsection (d) of this section by the following deadlines:

(A) For each resource that (i) began commercial operation after December 31, 2010, ~~with more than 650 megawatts (MW) of nameplate capacity in operation on January 1, 2022,~~ no later than November 30, 2022;

(B) For each resource that (i) began commercial operation between (and including) January 1, 2000 and December 31, 2010, ~~with at least 250 MW and no more than 650 MW of nameplate capacity in operation on January 1, 2022,~~ no later than November 30, 2023; and

(C) For each resource that began commercial operation prior to January 1, 2000, ~~with less than 250 of nameplate capacity in operation on January 1, 2022,~~ no later than November 30, 2024.

(2) Implementation of enhanced weather reliability service standard. A generation entity electing to meet the enhanced weather reliability service standard under subsection (d) of this section must meet the standard before providing a service requiring the standard and by a specific deadline specified by ERCOT.

(3) Implementation of BSS weather reliability standard. A resource that is contracted to provide BSS in the ERCOT power region must comply with the applicable weather reliability standard under subsection (d) of this section no later than November 30, 2023.

(4) Extension of deadline. A generation entity may petition the commission to extend the implementation deadline for a generation resource. The commission may approve the petition with or without conditions if the generation entity demonstrates that it used best efforts to meet the deadline.

(5) Indefinitely mothballed resources or resource that are indefinitely mothballed for the winter are exempt from the weatherization standards. Seasonally mothballed resources should be allowed to return to service in accordance with ERCOT's existing timeline with a presumption of compliance upon provision of a compliance study until ERCOT can complete their inspection in order to not delay operation.

(f) Compliance with weather reliability standards for a generation entity.

(1) Compliance study. Each generation entity must submit to ERCOT a study that confirms compliance with the applicable weather reliability standard in subsection (d) for each resource in its control. ~~The study must be conducted by a qualified professional engineer who is not an employee of the generation entity or affiliate.~~

(A) The study must contain the information that ERCOT determines by rule should be required and be submitted to ERCOT no later than the applicable implementation deadline in subsection (e) of this section.

~~(B) A generation entity must submit a new analysis no later than 60 days after any significant change affecting the ability of a resource to meet the applicable weather reliability standard in subsection (d) of this section.~~

- (2) Annual report. Each generation entity must submit an annual report to ERCOT no later than November 1 of each year that provides a detailed explanation of why the generation entity believes it is in ~~addresses~~ compliance with subsection (d) of this section. The report must include the name of the generation entity, a list of the generation entity's resources, a summary of activities related to compliance, and all other information prescribed by ERCOT in its market rules. The annual report must also include a notarized affidavit sworn to by ~~the chief executive~~ an officer of the generation entity, attesting that each of the generation entity's resources is in compliance with subsection (d) of this section.

(g) Inspections for a Generation Entity.

- (1) ERCOT inspections. ERCOT must implement an inspection program of the weather preparation measures for ~~that reasonably determines whether~~ the resources in the ERCOT power region ~~are in compliance with subsection (d) of this section.~~ ERCOT must implement an inspection schedule that ensures that each resource is inspected at least once every three years for compliance with subsection (d) of this section. ERCOT may conduct inspections more frequently than every three years and must prioritize in its inspection schedule any generation resource it determines is critical for electric grid reliability. ERCOT may also prioritize inspections of other resources, including a generation resource that has experienced a weather-related forced outage, forced derate, or failure to start during extreme weather conditions, or that has exhibited other vulnerabilities to weather

conditions or deficiencies in weather emergency preparedness. ERCOT has the discretion to determine the extent and content of particular inspections.

- (2) ERCOT inspection report. ERCOT must provide a report on its inspection of a resource to the generation entity. The inspection report must address whether ERCOT believes that the resource's weather preparation measures are sufficient to comply ~~was in compliance~~ with subsection (d) of this section and, if ~~it was~~ not, provide the generation entity list of recommendations regarding compliance and a reasonable period to appeal the determination or to cure the identified deficiencies. The cure period ~~determined by ERCOT must consider what weather preparation measures the generation entity may be reasonably expected to have taken before ERCOT's inspection, the reliability risk of the resource's noncompliance, and the complexity of the weather preparation measures needed to cure the deficiency~~ will be tolled during the period in which the generation entity is appealing ERCOT's determination or is following the process described in Section 25.502(e) to mothball or retire the resource.

(h) Violations of weather reliability standards by a generation entity.

- (1) Administrative penalty. The commission will impose an administrative penalty on a generation entity that has violated subsection (d) of this section and does not cure the violation within a reasonable period of time.
- (2) Limitations on provision of ~~BSS or any enhanced weather~~ancillary or reliability services under new standards. A generation entity ~~must~~ may not use a resource to provide BSS or ~~an enhanced weather other ancillary or~~ reliability services ~~implemented~~ qualified under subsection (d) of this section if the resource has been found by ERCOT or the commission

to have violated compliance with subsection (d) of this section until ERCOT has determined that the violation has been cured. However, ERCOT ~~may~~ shall allow the continued use of the resource for the service ~~if it determines that the resource is needed for reliability reasons and must direct the generation entity to use best efforts to expeditiously cure the violation during the pendency of an appeal.~~

~~(3)~~ Weather-related failures to provide service. ~~If~~ For a resource ~~that~~ experiences repeated or major weather-related forced interruptions of service, including non-fuel-related forced outages, or derates, ~~or maintenance-related outages,~~ and such interruptions reasonably suggest that the resource has failed to ~~that result in a failure to~~ comply with subsection (d) of this section, the associated generation entity must contract with a qualified professional engineer who is not an employee of the generation entity or its affiliate to assess its weather preparation measures, plans, procedures, and operations and submit the assessment to the commission and ERCOT. ~~ERCOT must adopt rules that specify the circumstances for which this requirement applies and specify the scope and contents of the assessment. A generation entity may be subject to additional inspections by ERCOT and referral to the commission for enforcement of any violation of the commission's rules and failure to cure the identified deficiencies within a reasonable period of time.~~

(4) Defenses. An ERCOT inspection finding no violations, an inspection by another entity with authority over electric reliability, or a compliance study under paragraph (f)(1) is an absolute defense against allegations of violations for 24 months from the date of the inspection report.

~~(3)(5)~~ _____

(i) **Weather reliability standards for a transmission service provider.** A transmission service provider must maintain weather preparation measures that reasonably ensure that its transmission system can provide service at the system's applicable rated capabilities as defined by ERCOT under the 98th percentile of each of the extreme weather scenarios specified in the weather study approved by the commission under subsection (c) of this section and must, at a minimum, be in conformance with good utility practice.

(j) **Implementation of weather reliability standards for transmission facilities.** A transmission service provider's transmission system must meet subsection (i) of this section no later than November 30, 2023, except for transmission facilities outside of a substation or switching substation that were designed in conformance with good utility practice but are insufficient to meet the standard. The provider must submit to the commission and ERCOT by November 30, 2023 a report that details any facilities that were designed in conformance with good utility practice but are insufficient to meet the standard and a detailed description of any plan with cost estimates to rebuild the facilities to bring them into compliance with the standard. ERCOT may recommend and the commission may order the rebuilding of facilities to bring them into compliance with the standard.

(k) **Compliance with weather reliability standards by a transmission service provider.** A transmission service provider must submit an annual report to ERCOT no later than November 1 of each year that addresses compliance with subsection (i) of this section. The report must include the name of the provider, a summary of activities related to compliance, and all other information prescribed by ERCOT in its market rules. The annual report must also include a

notarized affidavit sworn to by the chief executive officer of the provider that its transmission system is in compliance with the weather reliability standard in subsection (i) of this section.

(l) Inspections for a transmission service provider.

(1) ERCOT inspections. ERCOT must implement an inspection program that reasonably determines whether the transmission systems in the ERCOT power region are in compliance with subsection (i) of this section. ERCOT must implement an inspection schedule that ensures that each transmission system is inspected at least once every three years for compliance with subsection (i) of this section. ERCOT may conduct inspections more frequently than every three years and must prioritize in its inspection schedule any transmission facility it determines is critical for reliability. ERCOT may also prioritize other transmission facilities for inspection, including a transmission facility that has experienced a forced outage or other failures during extreme weather conditions, or has otherwise exhibited other vulnerabilities to weather conditions or deficiencies in weather emergency preparedness. ERCOT has the discretion to determine the extent and content of particular inspections.

(2) ERCOT inspection report. ERCOT must provide a report on its inspection of transmission facilities to the transmission service provider. The inspection report must address whether the facilities were in compliance with subsection (i) of this section and, if they were not, provide the transmission service provider a reasonable period to cure the identified deficiencies. The cure period determined by ERCOT must consider what weather preparation measures the provider may be reasonably expected to have taken before

ERCOT's inspection, the reliability risk of a forced outage of the facilities, and the complexity of the weather preparation measures needed to cure the deficiencies.

(m) Violations of reliability standards for a transmission service provider.

- (1) Administrative penalty. The commission will impose an administrative penalty on a transmission service provider that has violated a weather reliability standard in subsection (i) of this section and does not cure the violation within a reasonable period of time.
- (2) Operation during cure period. A transmission service provider may continue to operate its transmission facility during the cure period unless otherwise determined by ERCOT.
- (3) Weather-related failures to provide service. For a transmission system that experiences repeated or major weather-related forced interruptions of service, including forced outages, derates, or maintenance-related outages that result in a failure to comply with subsection (d) of this section, the transmission service provider must have a qualified professional engineer assess its weather preparation measures, plans, procedures, and operations and submit the assessment to the commission and ERCOT. ERCOT must adopt rules that specify the circumstances for which this requirement applies and specify the scope and contents of the assessment. A provider may be subject to additional inspections by ERCOT and referral to the commission for enforcement of any violation of the commission's rules and failure to cure the identified deficiencies within a reasonable period of time.