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OPEN MEETING COVER SHEET

MEMORANDUM AND PROPOSAL FOR PUBLICATION

MEETING DATE:	May 26, 2022
DATE DELIVERED:	May 19, 2022
AGENDA ITEM NO.:	29
CAPTION:	Project No. 53401 – Electric Weather Preparedness Standards-Phase II
DESCRIPTION:	Memo and Proposal for Publication

Public Utility Commission of Texas

Memorandum

TO: Chairman Peter Lake
Commissioner Will McAdams
Commissioner Lori Cobos
Commissioner Jimmy Glotfelty

FROM: David Smeltzer, Director of Rules and Projects

DATE: May 19, 2022

RE: May 26, 2022 Open Meeting – Agenda Item No. #29
Project No. 53401, *Electric Weather Preparedness Standards-Phase II*

Please find attached to this memorandum Commission Staff's proposal for publication in the above-referenced project for consideration at the May 26, 2022 open meeting.

Commission Staff's proposal repeals existing §25.55 relating to Weather Emergency Preparedness and proposes new §25.55 relating to Weather Emergency Preparedness. Proposed 16 TAC §25.55 implements phase II of weatherization standards for winter and summer seasons. Proposed 16 TAC §25.55 implements §13 and §16 of Senate Bill 3 from the 87th Regular Session of the Texas Legislature, which amended Public Utility Authority Act §35.0021 relating to Emergency Weather Preparedness and §38.075 relating to Emergency Weather Preparedness.

Commission Staff recommends the Commission approve this proposal for publication in the *Texas Register*.

PROJECT NO. 53401

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

(STAFF RECOMMENDATION)

PROPOSAL FOR PUBLICATION OF REPEAL OF 16 TAC §25.55 AND REPLACEMENT WITH PROPOSED NEW 16 TAC §25.55, AS APPROVED AT THE MAY 26, 2022, OPEN MEETING

The Public Utility Commission of Texas (commission) proposes the repeal of 16 Texas Administrative Code (TAC) §25.55 relating to Weather Emergency Preparedness and proposes new 16 TAC §25.55 relating to Weather Emergency Preparedness. New 16 TAC §25.55 will require generation entities and transmission service providers (TSPs) in the ERCOT power region to maintain preparation standards for both winter and summer seasons. The new rule will also 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.

New 16 TAC §25.55 implements §13 and §16 of Senate Bill 3 from the 87th Regular Session of the Texas Legislature, which amended Public Utility Authority Act (PURA) §35.0021 relating to Emergency Weather Preparedness and §38.075 relating to Emergency Weather Preparedness.

The commission also requests comment from interested persons on the following areas:

1. For Transmission Service Providers (TSPs) that provide comment on proposed §25.55, provide information related to wind-loading design criteria for the 345 kV network.

2. Does proposed 25.55(e) and proposed 25.55(h) appropriately define "repeated or major weather-related forced interruptions of service"?

Comments responding to these questions should be filed in accordance with the instructions below under ***"Public Comments."***

Growth Impact Statement

The agency provides the following governmental growth impact statement for the proposed rule, as required by Texas Government Code §2001.0221. The agency has determined that for each year of the first five years that the proposed rule is in effect, the following statements will apply:

(1) the proposed rule will not create a government program and will not eliminate a government program;

(2) implementation of the proposed rule will not require the creation of new employee positions and will not require the elimination of existing employee positions;

(3) implementation of the proposed rule will not require an increase and will not require a decrease in future legislative appropriations to the agency;

(4) the proposed rule will not require an increase and will not require a decrease in fees paid to the agency;

(5) the proposed rule will not, in effect, create a new regulation, because it is replacing a similar regulation;

(6) the proposed rule will repeal an existing regulation, but it will replace that regulation with a similar regulation;

(7) the same number of individuals will be subject to the proposed rule's applicability as were subject to the applicability of the rule it is being proposed to replace; and

(8) the proposed rule will not affect this state's economy.

Fiscal Impact on Small and Micro-Businesses and Rural Communities

There is no adverse economic effect anticipated for small businesses, micro-businesses, or rural communities as a result of implementing the proposed rule. Accordingly, no economic impact statement or regulatory flexibility analysis is required under Texas Government Code §2006.002(c).

Takings Impact Analysis

The commission has determined that the proposed rule will not be a taking of private property as defined in chapter 2007 of the Texas Government Code.

Fiscal Impact on State and Local Government

Ramya Ramaswamy, senior engineering specialist with the market analysis division, has determined that for the first five-year period the proposed rule is in effect, there will be no fiscal implications for the state or for units of local government under Texas Government Code §2001.024(a)(4) as a result of enforcing or administering the section.

Public Benefits

Ms. Ramaswamy has determined that for each year of the first five years the proposed section is in effect the public benefit anticipated as a result of enforcing the section will be the improved ability of the electric grid to withstand extreme winter and summer weather events in the future. There will be no adverse economic effect on small businesses or micro-businesses as a result of enforcing this section.

Local Employment Impact Statement

For each year of the first five years the proposed section is in effect, there should be no effect on a local economy; therefore, no local employment impact statement is required under Texas Government Code §2001.022.

Costs to Regulated Persons

Texas Government Code §2001.0045(b) does not apply to this rulemaking because the commission is expressly excluded under subsection §2001.0045(c)(7).

Public Hearing

The commission staff will conduct a public hearing on this rulemaking on July 1, 2022, at 9:00 A.M. in the Commissioners' Hearing Room, 7th floor, William B. Travis Building if requested in accordance with Texas Government Code §2001.029. The request for a public hearing must be received by June 23th, 2022. If no request for public hearing is received and the commission staff

cancels the hearing, it will file in this project a notification of the cancellation of the hearing prior to the scheduled date for the hearing.

Public Comments

Interested persons may file comments electronically through the interchange on the commission's website. Comments must be filed by June 23th, 2022. Comments should be organized in a manner consistent with the organization of the proposed rules. The commission invites specific comments regarding the costs associated with, and benefits that will be gained by, implementation of the proposed rule. The commission will consider the costs and benefits in deciding whether to modify the proposed rules on adoption. All comments should refer to Project Number 53401.

Each set of comments should include a standalone executive summary as the last page of the filing. This executive summary must be clearly labeled with the submitting entity's name and should include a bulleted list covering each substantive recommendation made in the comments.

Statutory Authority

The rule is proposed under the following provisions of PURA: §14.001, which provides the commission the general power to regulate and supervise the business of each public utility within its jurisdiction and to do anything specifically designated or implied by PURA that is necessary and convenient to the exercise of that power and jurisdiction; §14.002, which provides the Public Utility Commission with the authority to make adopt and enforce rules reasonably required in the exercise of its powers and jurisdiction. The rule is also proposed under §35.0021, which requires

the commission to adopt rules that require each provider of electric generation service in the ERCOT power region to implement measures to prepare the provider's generation assets to provide adequate electric generation service during a weather emergency; and §38.075, which requires the commission to adopt rules to require each electric cooperative, municipally owned utility, and transmission and distribution utility providing transmission service in the ERCOT power region to implement measures to prepare its facilities to maintain service quality and reliability during a weather emergency.

Cross Reference to Statute: Public Utility Regulatory Act §14.001, §14.002, §35.0021, and §38.075.

§25.55. Weather Emergency Preparedness.

[repeal]

§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 notice of suspension of operations for the summer season or winter season 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.

(2) A new generation resource or transmission facility that is scheduled to begin commercial operations during the summer season or winter season must meet the requirements of this section prior to either the commercial operations date established in the ERCOT interconnection process_for generation resources or initial energization for transmission facilities, as applicable.

(b) Definitions. In this section, the following definitions apply unless the context indicates otherwise.

(1) **Energy storage resource** -- An energy storage system registered with ERCOT as an energy storage resource for the purpose of providing energy or ancillary services to the ERCOT grid and associated facilities controlled by the generation entity that are behind the system's point of interconnection, necessary for the operation of the

system, and not part of a manufacturing process that is separate from the generation of electricity.

(2) **Generation entity** -- An ERCOT-registered resource entity acting on behalf of an ERCOT-registered generation resource or energy storage resource.

(3) **Generation resource** -- A generator registered with ERCOT as a generation resource and capable of providing energy or ancillary services to the ERCOT grid, as well as associated facilities controlled by the generation entity that are behind the generator's point of interconnection, necessary for the operation of the generator, and not part of a manufacturing process that is separate from the generation of electricity.

(4) **Inspection** -- Activities that ERCOT or its agents engage in to determine whether a generation entity is in compliance with all or parts of subsection (c) of this section or whether a TSP is in compliance with all or parts of subsection (f) of this section. An inspection may include site visits, assessments of procedures, interviews, and review of information provided by a generation entity or TSP in response to a request by ERCOT, including review of evaluations conducted by the generation entity or TSP or its contractor.

(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.

(6) **Repeated weather-related forced interruption of service** -- Three 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.

(7) **Resource** -- A generation resource or energy storage resource.

(8) **Summer season** -- June 1 to September 30 each year.

(9) **Transmission facility** -- A transmission-voltage element inside the fence surrounding a TSP's high-voltage switching station or substation.

(10) **Weather critical component** -- Any component of a resource or transmission facility that is susceptible to fail during a weather emergency, the occurrence of which failure is likely to significantly hinder the ability of the resource or transmission facility to function as intended or, for a resource, is likely to lead to a trip, derate, or failure to start.

(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 provides advance notice to market participants involving weather-related risks to the ERCOT power region.

(12) **Weather emergency preparation measures** -- Measures that a generation entity or TSP takes to support the function of a resource or transmission facility during a weather emergency.

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

(c) Weather emergency preparedness reliability standards for a generation entity.

(1) **Winter season preparations.** By December 1 each year, a generation entity must complete the following winter weather emergency preparation measures for each

resource under its control. A generation entity must maintain these measures throughout the winter season. A generation entity must update its winter weather emergency preparation measures no later than one year after ERCOT files a historical weather study report under subsection (i) of this section.

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

(i) Installation of adequate wind breaks and other structural preparations as needed for resources susceptible to outages or derates caused by wind;

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

(iii) Inspection of existing thermal insulation and associated forms of water-proofing for damage or degradation, and repair of damaged or degraded insulation and associated forms of water-proofing;

(iv) Assurance of the availability and appropriate safekeeping of sufficient chemicals, auxiliary fuels, and other materials necessary for sustained operations during a winter weather emergency;

(v) Assurance of the operability of instrument air moisture prevention systems;

(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 1 through March 31; and

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

(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.

(C) Review the adequacy of staffing plans to be used during a winter weather emergency and revise the staffing plans, as appropriate.

(D) Train relevant operational personnel on winter weather preparations and operations.

(2) **Summer season preparations.** By June 1 each year, a generation entity must complete the following summer weather emergency preparation measures for each resource under its control. A generation entity must maintain these measures throughout the summer season. A generation entity must update its summer weather emergency preparation measures no later than one year after ERCOT files a historical weather study report under subsection (i) of this section.

(A) Implement weather emergency preparation measures 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:

(i) Identification of regulatory and legal limitations of cooling capacity, water withdrawal, maximum discharge temperatures, and rights for additional water supply;

(ii) Assurance of adequate water supplies for cooling towers, reservoirs, heat exchangers, and adequate cooling capacity of the water supplies used in the cooling towers, reservoirs, and heat exchangers;

(iii) Assurance of availability and appropriate safekeeping of adequate equipment to remove heat and moisture from all hot weather critical components;

(iv) Assurance of the availability of sufficient chemicals, coolants, auxiliary fuels, and other materials necessary for sustained operations during a summer weather emergency;

(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 1 through September 30; and

(vi) Installation of monitoring systems for all hot weather critical components.

(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.

(C) Review the adequacy of staffing plans to be used during a summer weather emergency and revise the staffing plans, as appropriate.

(D) Train relevant operational personnel on summer weather preparations and operations.

(3) **Declaration of preparedness.** A generation entity must submit to ERCOT, on a form prescribed by ERCOT, the following declarations of weather preparedness:

(A) No earlier than November 1 and no later than December 1 of each year, a generation entity must submit a declaration of winter weather preparedness that:

(i) Identifies every resource under the entity's control for which the declaration is being submitted;

(ii) Summarizes all activities engaged in by the generation entity to complete the requirements of paragraph (1) of this subsection;

(iii) Provides the minimum ambient temperature at which each resource has experienced sustained operations, as measured at the resource site or the weather station nearest to the resource site;

(iv) Includes any additional information required by the ERCOT protocols; and

(v) Includes a notarized attestation sworn to by the generation entity's highest-ranking representative, official, or officer with binding authority over the generation entity attesting to the completion of all applicable activities described in paragraph (1) of this subsection, and to the accuracy and veracity of the information described in subparagraph (3)(A) of this paragraph.

(B) No earlier than May 1 and no later than June 1 of each year, a generation entity must submit a declaration of summer weather preparedness that at a minimum:

(i) Identifies every resource under the entity's control for which the declaration is being submitted;

(ii) Summarizes all activities engaged in by the generation entity to complete the requirements of paragraph (2) of this subsection;

(iii) Provides the maximum ambient temperature at which each resource has experienced sustained operations, as measured at the resource site or the weather station nearest to the resource site;

(iv) Includes any additional information required by the ERCOT protocols; and

(v) Includes a notarized attestation sworn to by the generation entity's highest-ranking representative, official, or officer with binding authority over the generation entity attesting to the completion of all

applicable activities described in paragraph (2) of this subsection, and to the accuracy and veracity of the information described in subparagraph (3)(B) of this paragraph.

(C) A generation entity must submit the appropriate declaration of preparedness to ERCOT prior to returning a mothballed or decommissioned resource to service during the winter or summer season.

(4) No later than December 20 of each year, ERCOT must file with the commission a compliance report that addresses whether each generation entity has submitted the declaration of winter weather preparedness required by subparagraph (3)(A) of this subsection for each resource under the generation entity's control.

(5) No later than June 20 of each year, ERCOT must file with the commission a compliance report that addresses whether each generation entity has submitted the declaration of summer weather preparedness required by subparagraph (3)(B) of this subsection for each resource under the generation entity's control.

(d) ERCOT inspection of resources.

(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, 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.

(A) ERCOT must provide each generation entity at least 48 hours' 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.

(B) During the inspection, a generation entity must provide ERCOT and commission staff access to any part of the facility upon request. 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 and may conduct interviews of facility personnel designated by the generation entity.

(2) ERCOT inspection report.

(A) ERCOT must provide a 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.

(B) If the generation entity has not complied with a requirement in subsection (c)(1) or (c)(2) of this section, ERCOT must provide the generation entity a reasonable period to cure the identified deficiencies.

(i) The cure period determined by ERCOT must consider what weather emergency 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 measures needed to cure the deficiency.

(ii) The generation entity may request ERCOT provide a longer period to cure the identified deficiencies. The request must be accompanied by documentation that supports the request.

(iii) ERCOT, in consultation with commission staff, will determine the final cure period after considering a request for a longer period to cure the identified deficiencies.

(C) ERCOT must report to commission staff any generation entity that does not remedy the deficiencies identified under subparagraph (A) of this paragraph within the cure period determined by ERCOT under subparagraph (B) of this paragraph.

(D) A generation entity reported by ERCOT to commission staff under subparagraph (C) of this paragraph will be subject to enforcement investigation under §22.246 (relating to Administrative Penalties) of this

title. A violation of this section is a Class A violation under §25.8(b)(3)(A) (relating to Classification System for Violations of Statutes, Rules, and Orders Applicable to Electric Service Providers) and may be subject to a penalty not to exceed $1,000,000 per violation per day.

(e) Weather-related failures by a generation entity to provide service. 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.

(f) Weather emergency preparedness reliability standards for a TSP.

(1) **Winter season preparations.** By December 1 each year, a TSP must complete the following winter weather preparation measures for its transmission facilities. A

TSP must maintain these measures throughout the winter season. A TSP must update its winter weather preparation measures no later than one year after ERCOT files a historical weather study report under subjection (i) of this section.

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

(i) Confirmation of the operability of all systems and subsystems containing all cold weather critical components;

(ii) Confirmation that the sulfur hexafluoride gas in breakers and metering and other electrical equipment is at the correct pressure and temperature to operate safely during winter weather emergencies, and perform annual maintenance that tests sulfur hexafluoride breaker heaters and supporting circuitry to assure that they are functional; and

(iii) Confirmation of the operability of power transformers and auto transformers in winter weather emergencies by:

(a) Inspecting heaters in the control cabinets;

(b) Verification that main tank oil levels are appropriate for actual oil temperature;

(c) Inspecting bushing oil levels;

(d) Inspecting the nitrogen pressure, if necessary; and

(e) Verification of proper oil quality such that moisture and dissolved gases are within acceptable ranges for winter weather conditions.

(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 the sustained operation of the TSP's transmission facilities during the lesser of the minimum ambient temperature at which the facility 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 facility is located.

(C) Review the adequacy of staffing plans to be used during a winter weather emergency and revise the staffing plans, as appropriate.

(D) Train relevant operational personnel on winter weather preparations and operations.

(2) **Summer season preparations.** By June 1 each year, a TSP must complete the following summer weather preparation measures for its transmission facilities. A TSP must maintain these measures throughout the summer season. A TSP must update its summer weather preparation measures no later than one year after ERCOT files a historical weather study report under subsection (i) of this section.

(A) Implement weather emergency preparation measures reasonably expected to ensure the sustained operation of all hot weather critical components during summer weather conditions. Such measures include, as appropriate for the facility:

(i) Inspecting transformer coolers on a monthly basis between May 1 and September 30;

(ii) Cleaning transformer coolers on a regular basis during the summer season;

(iii) Verifying proper cooling fan and pump control capabilities and settings;

(iv) Confirmation of the availability of sufficient chemicals, coolants, and other materials necessary for sustained operations during a summer weather emergency; and

(v) Confirmation that sufficient chemicals, coolants, and other materials necessary for sustained operations during a summer weather emergency are protected from heat and drought.

(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 the sustained operation of the TSP's transmission facilities during the greater of the maximum ambient temperature at which the facility 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 facility is located.

(C) Review the adequacy of staffing plans to be used during a summer weather emergency and revise the staffing plans, as appropriate.

(D) Train relevant operational personnel on summer weather preparations and operations.

(3) **Declaration of preparedness.** A TSP must submit to ERCOT, on a form prescribed by ERCOT, the following declarations of weather preparedness:

(A) No earlier than November 1 and no later than December 1 of each year, a TSP must submit a declaration of winter weather preparedness that:

(i) Identifies each transmission substation or switchyard under the TSP's control for which the declaration is being submitted;

(ii) Summarizes all activities engaged in by the TSP to complete the requirements of paragraph (1) of this subsection,

(iii) Provides the minimum ambient temperature at which each substation or switchyard has experienced sustained operations, as measured at the transmission facility or the weather station nearest to the transmission facility;

(iv) Includes any additional information required by the ERCOT protocols; and

(v) Includes a notarized attestation sworn to by the TSP's highest-ranking representative, official, or officer with binding authority

over the TSP, attesting to the completion of all activities described in paragraph (1) of this subsection, and to the accuracy and veracity of the information described in subparagraph (3)(A) of this paragraph.

(B) No earlier than May 1 and no later than June 1 of each year, a TSP must submit a declaration of summer weather preparedness that at a minimum:

(i) Identifies each transmission substations or switchyard under the TSP's control for which the declaration is being submitted;

(ii) Summarizes all activities engaged in by the TSP to complete the requirements of paragraph (2) of this subsection;

(iii) Provides maximum ambient temperature at which each substation or switchyard has experienced sustained operations, as measured at the transmission facility or the weather station nearest to the transmission facility;

(iii) Includes any additional information required by the ERCOT protocols; and

(iv) Includes a notarized attestation sworn to by the TSP's highest-ranking representative, official, or officer with binding authority over the generation entity attesting to the completion of all activities described in paragraph (2) of this subsection, and to the accuracy and veracity of the information described in subparagraph (3)(B) of this paragraph.

(4) No later than December 20 of each year, ERCOT must file with the commission a compliance report that addresses whether each TSP has submitted the declaration of winter weather preparedness required by subparagraph (3)(A) of this subsection for all transmission facilities under the TSP's control.

(5) No later than June 20 of each year, ERCOT must file with the commission a compliance report that addresses whether each TSP has submitted the declaration of summer weather preparedness required by subparagraph (3)(B) of this subsection for all transmission facilities under the TSP's control.

(g) **ERCOT inspections of transmission facilities.**

(1) ERCOT must conduct inspections of transmission facilities and may prioritize inspections based on factors such as whether a transmission facility is critical for electric grid reliability; has experienced a forced outage or other failure 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, as well as develop a risk-based methodology for selecting at least ten percent of substations or switchyards providing transmission service to be inspected at least once every three years. ERCOT must develop, in consultation with commission staff, a winter weather inspection checklist and a summer weather inspection checklist for use during facility inspections. Inspections may be conducted by ERCOT's employees or contractors.

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

(B) During the inspection, a TSP must provide ERCOT and commission staff access to any part of the facility upon request. A TSP must provide access to inspection, maintenance, and other records associated with weather preparation measures, and must make the TSP's staff available to answer questions. A TSP may escort ERCOT and commission staff at all times during an inspection. During the inspection, ERCOT and commission staff may take photographs and video recordings of any part of the facility and may conduct interviews of facility personnel designated by the TSP.

(2) ERCOT inspection report.

(A) ERCOT must provide a report on its inspection of a transmission system or facility to the TSP. The inspection report must address whether the TSP has complied with the requirements in paragraph (f)(1) or (f)(2) of this subsection.

(B) If the TSP has not complied with a requirement in subsection (f)(1) or (f)(2) of this section, ERCOT must provide the TSP a reasonable period to cure the identified deficiencies.

(i) The cure period determined by ERCOT must consider what weather emergency preparation measures the TSP may be

reasonably expected to have taken before ERCOT's inspection, the reliability risk of the TSP's noncompliance, and the complexity of the measures needed to cure the deficiency.

(ii) The TSP may request ERCOT provide a longer period to cure the identified deficiencies. The request must be accompanied by documentation that supports the request.

(iii) ERCOT, in consultation with commission staff, will determine the final cure period after considering a request for a longer period to cure the identified deficiencies.

(C) ERCOT must report to commission staff any TSP that does not remedy the deficiencies identified under subparagraph (A) of this paragraph within the cure period determined by ERCOT under subparagraph (B) of this paragraph.

(D) A TSP reported by ERCOT to commission staff under subparagraph (C) of this paragraph will be subject to enforcement investigation under §22.246 (relating to Administrative Penalties) of this title. A violation of this section is a Class A violation under §25.8(b)(3)(A) and may be subject to a penalty not to exceed $1,000,000 per violation per day.

(h) **Weather-related failures by a TSP to provide service**. A TSP with a transmission facility 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 TSP or its affiliate. The qualified professional engineer must not have participated in previous assessments for this facility for at least five years, unless the TSP 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 TSP must submit the qualified professional engineer's assessment to the commission and ERCOT. A TSP to which this subsection applies may be subject to additional inspections by ERCOT. ERCOT must refer to commission staff for investigation any TSP that violates this subsection.

(i) **ERCOT historical weather study.** ERCOT must study historical weather data across each weather zone classified in the ERCOT protocols. ERCOT must file with the commission a report summarizing the results of the historical weather study at least once every five years, beginning no later than November 1, 2026.

(1) At a minimum, ERCOT must calculate the 90th, 95th, and 99th percentiles of:

(A) the daily minimum temperature in each weather zone;

(B) the daily maximum temperature in each weather zone;

(C) the maximum sustained wind speed in each weather zone;

(D) the minimum average 72-hour temperature in each weather zone;

(E) the maximum average 72-hour temperature in each weather zone; and

(F) the minimum average wind chill in each weather zone.

(2) ERCOT may add additional parameters to the historical weather study.

(3) ERCOT must take into consideration weather predictions produced by the office of the state climatologist when preparing the historical weather study.

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be within the agency's legal authority to adopt.

ISSUED IN AUSTIN, TEXAS ON THE ___ DAY OF MAY 2022 BY THE PUBLIC UTILITY COMMISSION OF TEXAS
ANDREA GONZALEZ

§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. ~~A generation resource with an ERCOT-approved notice of suspension of operations for the 2021-2022 winter weather season is not required to be in compliance under this section until it is returned to service.~~

(1) A generation resource with an ERCOT-approved notice of suspension of operations for the summer season or winter season 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.

(2) A new generation resource or transmission facility that is scheduled to begin commercial operations during the summer season or winter season must meet the requirements of this section prior to either the commercial operations date established in the ERCOT interconnection process for generation resources or initial energization for transmission facilities, as applicable.

(b) Definitions. In this section, the following definitions apply unless the context indicates otherwise.

~~(1) **Cold weather critical component** - Any component that is susceptible to freezing or icing, the occurrence of which is likely to significantly hinder the ability of a resource or transmission system to function as intended and, for a generation entity, to lead to a trip, derate, or failure to start of a resource. For a TSP, cold weather critical component is limited to any transmission-voltage component within the fence surrounding a TSP's high-voltage switching station or substation.~~

~~(2)~~(1) **Energy storage resource** –~~-~~ An energy storage system registered with ERCOT as an energy storage resource for the purpose of providing energy or ancillary services to the ERCOT grid and associated facilities controlled by the generation entity that are behind the system's point of interconnection, necessary for the operation of the system, and not part of a manufacturing process that is separate from the generation of electricity.

~~(3)~~(2) **Generation entity** ~~--~~ An ERCOT-registered resource entity acting on behalf of an ERCOT-registered generation resource or energy storage resource.

~~(4)~~(3) **Generation resource** ~~--~~ A generator registered with ERCOT as a generation resource and capable of providing energy or ancillary services to the ERCOT grid ~~and that is registered with ERCOT as a generation resource~~, as well as associated facilities controlled by the generation entity that are behind the generator's point of interconnection, necessary for the operation of the generator, and not part of a manufacturing process that is separate from the generation of electricity.

~~(5)~~(4) **Inspection** ~~--~~ Activities that ERCOT ~~engages~~or its agents engage in to determine whether a generation entity is in compliance with all or parts of subsection (c~~)~~(1) of this section or whether a TSP is in compliance with all or parts of subsection (f~~)~~(1) of this section. An inspection may include site visits~~;~~, assessments of procedures~~;~~, interviews~~;~~, and review of information provided by a generation entity or TSP in response to a request by ERCOT, including review of evaluations conducted by the generation entity or TSP or its contractor.

(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.

(6) **Repeated weather-related forced interruption of service** -- Three 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.

(7) **Resource** --- A generation resource or energy storage resource.

~~(7)~~(8) **Summer season** -- June 1 to September 30 each year.

(9) **Transmission facility** -- A transmission-voltage element inside the fence surrounding a TSP's high-voltage switching station or substation.

(10) **Weather critical component** -- Any component of a resource or transmission facility that is susceptible to fail during a weather emergency, the occurrence of which failure is likely to significantly hinder the ability of the resource or transmission facility to function as intended or, for a resource, is likely to lead to a trip, derate, or failure to start.

(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 provides advance notice to market participants involving weather-related risks to the ERCOT power region.

~~(8)~~(12) **Weather emergency preparation measures** -- Measures that a generation entity or TSP takes to support the function of a resource or transmission facility during a weather emergency.

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

(c) Weather emergency preparedness reliability standards for a generation entity.

(1) **Winter season preparations.** By December 1~~, 2021~~ each year, a generation entity must complete the following winter weather emergency preparation measures for each resource under its control. A generation entity must maintain these measures throughout the winter season. A generation entity must update its winter weather emergency preparation measures no later than one year after ERCOT files a historical weather study report under subsection (i) of this section.

(A) ~~Use best efforts to implement~~Implement weather emergency preparation measures ~~intended~~reasonably expected to ensure the sustained operation of all cold weather critical components during winter weather conditions~~,~~ ~~including weatherization, onsite fuel security, staffing plans, operational readiness, and structural preparations; secure sufficient chemicals, auxiliary fuels, and other materials; and personnel required to operate~~. Such measures include, as appropriate for the resource~~:~~;

~~(B)~~(i) ~~Install~~Installation of adequate wind breaks and other structural preparations as needed for resources susceptible to outages or derates caused by wind; ~~enclose sensors for~~

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

(iii) Inspection of existing ~~confirm~~ thermal insulation and associated forms of water-proofing for damage or degradation, and repair of damaged or degraded insulation ~~;~~ and associated forms of water-proofing;

(iv) Assurance of the availability and appropriate safekeeping of sufficient chemicals, auxiliary fuels, and other materials necessary for sustained operations during a winter weather emergency;

(v) Assurance of the operability of instrument air moisture prevention systems; ~~conduct maintenance~~

(vi) Maintenance of freeze protection ~~components for all applicable~~ equipment for all cold weather critical components, including fuel delivery systems controlled by the generation entity, ~~the failure of which could cause an outage or derate, and establish a schedule for~~ and testing ~~of such~~ freeze protection ~~components~~equipment on a monthly basis from November 1 through March 31; and ~~install~~

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

~~(C) Use best efforts to address cold weather critical component failures that occurred because of winter weather conditions in the period between November 30, 2020, and March 1, 2021;~~

~~(D)~~ (B) ~~Provide training~~ 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.

(C) Review the adequacy of staffing plans to be used during a winter weather emergency and revise the staffing plans, as appropriate.

(D) Train relevant operational personnel on winter weather preparations and operations ~~to relevant operational personnel; and~~

~~(E) Determine minimum design temperature or minimum experienced operating temperature, and other operating limitations based on temperature, precipitation, humidity, wind speed, and wind direction.~~.

(2) **Summer season preparations.** By ~~December~~June 1~~, 2021~~ each year, a generation entity must complete the following summer weather emergency preparation measures for each resource under its control. A generation entity must maintain these measures throughout the summer season. A generation entity must update its summer weather emergency preparation measures no later than one year after ERCOT files a historical weather study report under subsection (i) of this section.

(A) Implement weather emergency preparation measures 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:

(i) Identification of regulatory and legal limitations of cooling capacity, water withdrawal, maximum discharge temperatures, and rights for additional water supply;

(ii) Assurance of adequate water supplies for cooling towers, reservoirs, heat exchangers, and adequate cooling capacity of the water supplies used in the cooling towers, reservoirs, and heat exchangers;

(iii) Assurance of availability and appropriate safekeeping of adequate equipment to remove heat and moisture from all hot weather critical components;

(iv) Assurance of the availability of sufficient chemicals, coolants, auxiliary fuels, and other materials necessary for sustained operations during a summer weather emergency;

(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 1 through September 30; and

(vi) Installation of monitoring systems for all hot weather critical components.

(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.

(C) Review the adequacy of staffing plans to be used during a summer weather emergency and revise the staffing plans, as appropriate.

(D) Train relevant operational personnel on summer weather preparations and operations.

(3) **Declaration of preparedness.** A generation entity must submit to ~~the commission and~~ ERCOT, on a form prescribed by ERCOT, the following declarations of weather preparedness:

(A) No earlier than November 1 and ~~developed in consultation with commission staff~~no later than December 1 of each year, a generation entity must submit a declaration of winter weather ~~readiness report~~preparedness that:

~~(A)~~(i) ~~Describes~~ Identifies every resource under the entity's control for which the declaration is being submitted;

(ii) Summarizes all activities engaged in by the generation entity to complete the requirements of paragraph (1) of this subsection~~,~~ ~~including any assertions of good cause for noncompliance submitted under paragraph (6) of this subsection; and~~ ;

~~(B)~~(iii) Provides the minimum ambient temperature at which each resource has experienced sustained operations, as measured at the resource site or the weather station nearest to the resource site;

(iv) Includes any additional information required by the ERCOT protocols; and

(v) Includes a notarized attestation sworn to by the generation entity's highest-ranking representative, official, or officer with binding authority over the generation entity attesting to the completion of all applicable activities described in paragraph (1~~) of this subsection, subject to any notice of or request for good cause exception submitted under paragraph (6~~) of this subsection, and to the accuracy and veracity of the information described in subparagraph (3)(A) of this paragraph.

~~(3)~~(B) No earlier than May 1 and no later than ~~December 10, 2021, ERCOT~~ June 1 of each year, a generation entity must ~~file with the commission comprehensive checklist forms based on~~submit a declaration of summer weather preparedness that at a minimum:

(i) Identifies every resource under the entity's control for which the declaration is being submitted;

(ii) Summarizes all activities engaged in by the generation entity to complete the requirements of paragraph (~~1) of this subsection that include checking systems and subsystems containing cold weather critical components. ERCOT must use a generation entity's winter~~

~~weather readiness report submitted under paragraph (~~2) of this subsection~~ to adapt the checklist~~;

(iii) Provides the maximum ambient temperature at which each resource has experienced sustained operations, as measured at the resource site or the weather station nearest to the ~~inspections of the generation entity's resources.~~resource site;

~~(4) No later than December 10, 2021, ERCOT must file with the commission a compliance report that addresses whether each generation entity has submitted the winter weather readiness report required by paragraph (2) of this subsection for each resource under the generation entity's control and whether the generation entity submitted an assertion of good cause for noncompliance under paragraph (6) of this subsection.~~

~~(5) A generation entity that timely submits to ERCOT the winter weather readiness report required by paragraph (2) of this subsection is exempt, for the 2021 calendar year, from the requirement in Section 3.21(3) of the ERCOT Protocols that requires a generation entity to submit the Declaration of Completion of Generation Resource Winter Weatherization Preparations no earlier than November 1 and no later than December 1 of each year.~~

~~(6) Good cause exception. A generation entity may submit by December 1, 2021 a notice to the commission asserting good cause for noncompliance with specific requirements listed in paragraph (1) of this subsection. The notice must be submitted as part of the generation entity's winter readiness report under paragraph (2) of this subsection.~~

~~(A) A generation entity's notice must include:~~

~~(i) A succinct explanation and supporting documentation of the generation entity's inability to comply with a specific requirement of paragraph (1) of this subsection;~~

~~(ii) A succinct description and supporting documentation of the generation entity's efforts that have been made to comply with the paragraph (1) of this subsection;~~

~~(iii) A plan, with supporting documentation, to comply with each specific requirement of paragraph (1) of this subsection for which good cause is being asserted, unless good cause exists not to comply with the requirement on a permanent basis. A plan under this subparagraph must include a proposed compliance deadline for each requirement of paragraph (1) of this subsection for which the good cause for noncompliance is being asserted and proposed filing deadlines for the generation entity to provide the commission with updates on its compliance status.~~

~~(B) Commission staff will work with ERCOT to expeditiously review notices asserting good cause for noncompliance. Commission staff may notify a generation entity that it disagrees with the generation entity's assertion of good cause and will file the notification in the project in which the winter weather readiness reports are filed. In addition, ERCOT may evaluate the generation entity's assertion of good cause as part of an inspection of the generation entity's resources.~~

~~(C) To preserve a good cause exception, a generation entity must submit to the commission a request for approval of a good cause exception within seven days of receipt of commission staff's notice of disagreement with the generation entity's assertion.~~

~~(D) The commission may order a generation entity to submit a request for approval of good cause exception.~~

~~(E) A request for approval of good cause exception must contain the following:~~

~~(i) A detailed explanation and supporting documentation of the inability of the generation entity to comply with a specific requirement of paragraph (1) of this subsection;~~

~~(ii) A detailed description and supporting documentation of the efforts that have been made to comply with paragraph (1) of this subsection;~~

~~(iii) A plan, with supporting documentation, to comply with each specific requirement of paragraph (1) of this subsection for which the good cause exception is being requested, unless the generation entity is seeking a permanent exception to the requirement. A plan under this subparagraph must include a proposed compliance deadline for each requirement of paragraph (1) of this subsection for which the good cause exception is being requested and proposed filing deadlines for the generation entity to provide the commission with updates on its compliance status.~~

~~(iv) Proof that notice of the request has been provided to ERCOT; and~~

(iv) Includes any additional information required by the ERCOT protocols; and

(v) ~~A~~Includes a notarized attestation sworn to by the generation entity's highest-ranking representative, official, or officer with binding authority over the generation entity attesting to the completion of all applicable activities described in paragraph (2) of this subsection, and to the accuracy and veracity of the information ~~in the request.~~ described in subparagraph (3)(B) of this paragraph.

(~~F~~) (C) A generation entity must submit the appropriate declaration of preparedness to ERCOT ~~is~~prior to returning a mothballed or decommissioned resource to service during the winter or summer season.

(4) No later than December 20 of each year, ERCOT must file with the commission a compliance report that addresses whether each generation entity has submitted the declaration of winter weather preparedness required ~~party in a proceeding initiated under~~ by subparagraph (~~E~~3)(A) of this ~~paragraph.~~ subsection for each resource under the generation entity's control.

(5) No later than June 20 of each year, ERCOT must ~~make~~file with the commission a ~~recommendation to the commission on the request by the deadline set forth~~compliance report that addresses whether each generation entity has submitted the declaration of summer weather preparedness required by ~~the presiding officer in the proceeding~~subparagraph (3)(B) of this subsection for each resource under the generation entity's control.

(d) ERCOT inspection of ~~generation~~ resources.

(1) ERCOT~~ conducted inspections. ERCOT~~ must conduct inspections of resources ~~for the 2021–2022 winter weather season and must prioritize its inspection schedule based on risk level. ERCOT~~and may prioritize inspections based on factors such as whether a ~~generation~~ 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 ~~and may conduct inspections using both employees and~~, provided that every resource interconnected to the ERCOT power region must be inspected at least once every three years. ERCOT must develop, 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.

(A) ERCOT must provide each generation entity at least 48 hours' 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 ~~personnel~~staff, including an employee of a contractor designated by ERCOT or the commission ~~to conduct, oversee, or observe the inspection.~~.

(B) During the inspection, a generation entity must provide ERCOT and commission ~~personnel~~staff access to any part of the facility upon request. 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 ~~personnel~~staff at all times during an inspection. During the inspection, ERCOT or commission ~~personnel~~staff may take photographs ~~and~~or video recordings of any part of the facility and may conduct interviews of facility personnel designated by the generation entity.

(2) ERCOT inspection report.

(A) ERCOT must provide a 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.

(B) If the generation entity has not complied with a requirement in subsection (c)(1) or (c)(2) of this section, ERCOT must provide the generation entity a reasonable period to cure the identified deficiencies.

(i) The cure period determined by ERCOT must consider what weather emergency 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 measures needed to cure the deficiency.

(ii) The generation entity may request ERCOT ~~determine~~provide a ~~different amount of time~~longer period to ~~remedy~~cure the identified

deficiencies. The request must be accompanied by documentation that supports the request ~~for a different amount of time~~.

(iii) ERCOT, in consultation with commission staff, will determine the final cure period after considering a request for a ~~different amount of time~~longer period to cure the identified deficiencies.

(C) ERCOT must report to commission staff any generation entity that does not remedy the deficiencies identified under subparagraph (A) of this paragraph within the cure period determined by ERCOT under subparagraph (B~~)(iii~~) of this paragraph.

(D) A generation entity reported by ERCOT to commission staff under subparagraph (C) of this paragraph will be subject to enforcement investigation under §22.246 (relating to Administrative Penalties) of this title. A violation of this section is a Class A violation under §25.8(b)(3)(A) (relating to Classification System for Violations of Statutes, Rules, and Orders Applicable to Electric Service Providers) and may be subject to a penalty not to exceed $1,000,000 per violation per day.

(e) Weather-related failures by a generation entity to provide service. A generation entity with a resource that experiences repeated or major weather-related forced interruptions of service~~, such as forced outages, derates, or maintenance-related outages~~ 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 ~~and~~. The

qualified professional engineer must not have participated in previous assessments for the resource for at least five years, unless the generation entity ~~can document~~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. ~~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 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 ~~violates this rule.~~does not comply with a provision of this subsection.

(f) Weather emergency preparedness reliability standards for a TSP.

(1) **Winter season preparations.** By December 1~~, 2021~~ each year, a TSP must complete the following winter weather ~~preparations~~ preparation measures for its transmission ~~system and~~ facilities.

~~(~~A~~)~~ ~~Use best efforts to implement~~ TSP must maintain these measures throughout the winter season. A TSP must update its winter weather preparation measures no later than one year after ERCOT files a historical weather study report under subjection (i) of this section.

(A) Implement weather emergency preparation measures ~~intended~~reasonably expected to ensure the sustained operation of all cold weather critical

components during winter weather conditions~~, including weatherization, staffing plans, operational readiness, and structural preparations; secure sufficient chemicals, auxiliary fuels, and other materials; and personnel required to operate the transmission system and facilities;~~. Such measures include, as appropriate for the facility:

(~~B~~)(i) ~~Confirm~~ Confirmation of the ~~ability~~operability of all systems and subsystems containing all cold weather critical components ~~required to ensure operation of each of the TSP's substations within the design and operating limitations addressed in subparagraph (G) of this paragraph~~;

~~(C) Use best efforts to address cold weather critical component failures that occurred because of winter weather conditions in the period between November 30, 2020 and March 1, 2021;~~

~~(D) Provide training on winter weather preparations and operations to relevant operational personnel;~~

~~(E)~~(ii) ~~Confirm~~ Confirmation that the sulfur hexafluoride gas in breakers and metering and other electrical equipment is at the correct pressure and temperature to operate safely during winter weather emergencies, and perform annual maintenance that tests sulfur hexafluoride breaker heaters and supporting circuitry to assure that they are functional; and

~~(F)~~ (iii) ~~Confirm~~ Confirmation of the operability of power transformers and auto transformers in winter weather emergencies by:

~~(i)~~(a) ~~Checking~~ Inspecting heaters in the control cabinets;

(~~ii~~)(b) ~~Verifying~~Verification that main tank oil levels are appropriate for actual oil temperature;

~~(iii)~~ (c) ~~Checking~~ Inspecting bushing oil levels; ~~and~~

~~(iv)~~ (d) ~~Checking~~ Inspecting the nitrogen pressure, if necessary~~.~~; and

(e) Verification of proper oil quality such that moisture and dissolved gases are within acceptable ranges for winter weather conditions.

(B) ~~(G) Determine~~ 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 the sustained operation of the TSP's transmission facilities during the lesser of the minimum ~~design~~ambient temperature ~~or minimum~~ at which the facility has experienced ~~operating~~sustained operations or the 95th percentile minimum average 72-hour temperature~~, and other operating limitations based on temperature, precipitation, humidity, wind speed~~, reported in ERCOT's historical weather study,

required under subsection (i) of this section, for the weather zone in which the facility is located.

(C) Review the adequacy of staffing plans to be used during a winter weather emergency and ~~wind direction for facilities containing cold~~revise the staffing plans, as appropriate.

(D) Train relevant operational personnel on winter weather preparations and operations.

(2) **Summer season preparations.** By June 1 each year, a TSP must complete the following summer weather preparation measures for its transmission facilities. A TSP must maintain these measures throughout the summer season. A TSP must update its summer weather preparation measures no later than one year after ERCOT files a historical weather study report under subsection (i) of this section.

(A) Implement weather emergency preparation measures reasonably expected to ensure the sustained operation of all hot weather critical components~~.~~ during summer weather conditions. Such measures include, as appropriate for the facility:

(~~2~~)(i) ~~By December 1, 2021,~~Inspecting transformer coolers on a monthly basis between May 1 and September 30;

(ii) Cleaning transformer coolers on a regular basis during the summer season;

(iii) Verifying proper cooling fan and pump control capabilities and settings;

(iv) Confirmation of the availability of sufficient chemicals, coolants, and other materials necessary for sustained operations during a summer weather emergency; and

(v) Confirmation that sufficient chemicals, coolants, and other materials necessary for sustained operations during a summer weather emergency are protected from heat and drought.

(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 the sustained operation of the TSP's transmission facilities during the greater of the maximum ambient temperature at which the facility 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 facility is located.

(C) Review the adequacy of staffing plans to be used during a summer weather emergency and revise the staffing plans, as appropriate.

(D) Train relevant operational personnel on summer weather preparations and operations.

(3) **Declaration of preparedness.** A TSP must submit to ~~the commission and~~ ERCOT, on a form prescribed by ERCOT ~~and developed in consultation with commission~~

~~staff, a winter weather readiness report that:~~, the following declarations of weather preparedness:

(A) ~~Describes~~ No earlier than November 1 and no later than December 1 of each year, a TSP must submit a declaration of winter weather preparedness that:

(i) Identifies each transmission substation or switchyard under the TSP's control for which the declaration is being submitted;

(ii) Summarizes all activities engaged in by the TSP to complete the requirements of paragraph (1) of this subsection, ~~including any assertions of good cause for noncompliance submitted under paragraph (4) of this subsection; and~~

~~(B)~~(iii) Provides the minimum ambient temperature at which each substation or switchyard has experienced sustained operations, as measured at the transmission facility or the weather station nearest to the transmission facility;

(iv) Includes any additional information required by the ERCOT protocols; and

(v) Includes a notarized attestation sworn to by the TSP's highest-ranking representative, official, or officer with binding authority over the TSP, attesting to the completion of all activities described in paragraph (1) of this subsection, ~~subject to any notice of or request for good cause exception submitted under paragraph (4) of this subsection,~~ and to the accuracy and veracity of the information described in subparagraph (3)(A) of this paragraph.

~~(3)~~(B) ~~No later than December 10, 2021~~No earlier than May 1 and no later than June 1 of each year, a TSP must submit a declaration of summer weather preparedness that at a minimum:

(i) Identifies each transmission substations or switchyard under the TSP's control for which the declaration is being submitted;

(ii) Summarizes all activities engaged in by the TSP to complete the requirements of paragraph (2) of this subsection~~,~~

(iii) Provides maximum ambient temperature at which each substation or switchyard has experienced sustained operations, as measured at the transmission facility or the weather station nearest to the transmission facility;

(iii) Includes any additional information required by the ERCOT protocols; and

(iv) Includes a notarized attestation sworn to by the TSP's highest-ranking representative, official, or officer with binding authority over the generation entity attesting to the completion of all activities described in paragraph (2) of this subsection, and to the accuracy and veracity of the information described in subparagraph (3)(B) of this paragraph.

(4) No later than December 20 of each year, ERCOT must file with the commission a compliance report that addresses whether each TSP has submitted the declaration of winter weather preparedness required by subparagraph (3)(A) of this subsection for all transmission facilities under the TSP's control.

(5) No later than June 20 of each year, ERCOT must file with the commission a compliance report that addresses whether each TSP has submitted the ~~winter~~declaration of summer weather ~~readiness report~~preparedness required by ~~paragraph (2~~subparagraph (3)(B) of this subsection for ~~its~~all transmission ~~system and~~ facilities ~~and whether the TSP submitted an assertion of good cause for noncompliance~~ under ~~paragraph (4) of this subsection~~the TSP's control.

~~(4) Good cause exception. A TSP may submit to the commission by December 1, 2021 a notice asserting good cause for noncompliance with specific requirements listed in paragraph (1) of this subsection. The notice must be submitted as part of the TSP's winter weather readiness report under paragraph (2) of this subsection.~~

~~(A) A TSP's notice must include:~~

~~(i) A succinct explanation and supporting documentation of the TSP's inability to comply with a specific requirement of paragraph (1) of this subsection;~~

~~(ii) A succinct description and supporting documentation of the efforts that have been made to comply with the requirement; and~~

~~(iii) A plan, with supporting documentation, to comply with each specific requirement of paragraph (1) of this subsection for which good cause is being asserted, unless good cause exists not to comply with the requirement on a permanent basis. A plan under this subparagraph must include a proposed compliance deadline for each requirement of paragraph (1) of this subsection for which good cause for noncompliance is being asserted and~~

proposed filing deadlines for the TSP to provide the commission with updates on the TSP's compliance status.

(B) Commission staff will work with ERCOT to expeditiously review notices asserting good cause for noncompliance. Commission staff may notify a TSP that it disagrees with the TSP's assertion of good cause and will file the notification in the project in which the winter weather readiness reports are filed. In addition, ERCOT may evaluate the TSP's assertion of good cause as part of an inspection of the transmission facility.

(C) To preserve a good cause exception, a TSP must submit to the commission a request for approval of a good cause exception within seven days of receipt of commission staff's notice of staff's disagreement with the TSP's assertion.

(D) The commission may order a TSP to submit a request for approval of good cause exception.

(E) A request for approval of good cause exception must contain the following:

(i) A detailed explanation and supporting documentation of the inability of the TSP to comply with the specific requirement of paragraph (1) of this subsection;

(ii) A detailed description and supporting documentation of the efforts that have been made to comply with paragraph (1) of this subsection;

(iii) A plan, with supporting documentation, to comply with each specific requirement of paragraph (1) of this subsection for which the good cause exception is being requested, unless the TSP is

~~seeking a permanent exception to the requirement. A plan under this subparagraph must include a proposed compliance deadline for each requirement of paragraph (1) of this subsection for which the good cause exception is being requested and proposed filing deadlines for the TSP to provide the commission with updates on its compliance status.~~

~~(iv) Proof that notice of the request has been provided to ERCOT; and~~

~~(v) A notarized attestation sworn to by the TSP's highest-ranking representative, official, or officer with binding authority over the TSP attesting to the accuracy and veracity of the information in the request.~~

~~(F) ERCOT is a required party to the proceeding under subparagraph (E) of this paragraph. ERCOT must make a recommendation to the commission on the request by the deadline set forth by the presiding officer in the proceeding.~~

(g) **ERCOT inspections of transmission ~~systems and~~ facilities.**

(1) ~~ERCOT-conducted inspections.~~ ERCOT must conduct inspections of transmission facilities ~~within the fence surrounding a TSP's high-voltage switching station or substation for the 2021-2022 winter weather season and must prioritize its inspection schedule based on risk level. ERCOT~~ may prioritize inspections based on factors such as whether a transmission facility is critical for electric grid reliability; has experienced a forced outage or other failure 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 ~~and may conduct inspections using both employees and~~, as well as develop a risk-based methodology for selecting at least ten percent of substations or switchyards providing transmission service to be inspected at least once every three years. ERCOT must develop, in consultation with commission staff, a winter weather inspection checklist and a summer weather inspection checklist for use during facility inspections. Inspections may be conducted by ERCOT's employees or contractors.

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

(B) During the inspection, a TSP must provide ERCOT and commission ~~personnel~~staff access to any part of the facility upon request. A TSP must provide access to inspection, maintenance, and other records associated with weather preparation measures, and must make the TSP's staff available to answer questions. A TSP may escort ERCOT and commission ~~personnel~~staff at all times during an inspection. During the inspection, ERCOT and commission ~~personnel~~staff may take photographs and video

recordings of any part of the facility and may conduct interviews of facility personnel designated by the TSP.

(2) - ERCOT inspection report.

(A) ERCOT must provide a report on its inspection of a transmission system or facility to the TSP. The inspection report must address whether the TSP has complied with the requirements in ~~subsection~~paragraph (f)(1) or (f)(2) of this ~~section~~subsection.

(B) If the TSP has not complied with a requirement in subsection (f)(1) or (f)(2) of this section, ERCOT must provide the TSP a reasonable period to cure the identified deficiencies.

(i) The cure period determined by ERCOT must consider what weather emergency preparation measures the TSP may be reasonably expected to have taken before ERCOT's inspection, the reliability risk of the TSP's noncompliance, and the complexity of the measures needed to cure the deficiency.

(ii) The TSP may request ERCOT ~~determine~~provide a ~~different amount of time~~ longer period to ~~remedy~~cure the identified deficiencies. The request must be accompanied by documentation that supports the request ~~for a different amount of time~~.

(iii) ERCOT, in consultation with commission staff, will determine the final cure period after considering a request for a ~~different amount of time.~~longer period to cure the identified deficiencies.

(C) ERCOT must report to commission staff any TSP that does not remedy the deficiencies identified under subparagraph (A) of this paragraph within the cure period determined by ERCOT under subparagraph (B~~)(iii~~) of this paragraph.

(D) A TSP reported by ERCOT to commission staff under subparagraph (C) of this paragraph will be subject to enforcement investigation under §22.246 (relating to Administrative Penalties) of this title. A violation of this section is a Class A violation under §25.8(b)(3)(A) and may be subject to a penalty not to exceed $1,000,000 per violation per day.

(h) **Weather-related failures by a TSP to provide service**. A TSP with a transmission ~~system or~~ facility 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 TSP or its affiliate~~ and~~. The qualified professional engineer must not have participated in previous assessments for this ~~system or~~ facility for at least five years, unless the TSP ~~can document~~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 TSP must submit the qualified professional engineer's 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 TSP to which

this subsection applies may be subject to additional inspections by ERCOT. ERCOT must refer to commission staff for investigation any TSP that violates this ~~rule.~~ subsection.

(i) **ERCOT historical weather study.** ERCOT must study historical weather data across each weather zone classified in the ERCOT protocols. ERCOT must file with the commission a report summarizing the results of the historical weather study at least once every five years, beginning no later than November 1, 2026.

(1) At a minimum, ERCOT must calculate the 90th, 95th, and 99th percentiles of:

(A) the daily minimum temperature in each weather zone;

(B) the daily maximum temperature in each weather zone;

(C) the maximum sustained wind speed in each weather zone;

(D) the minimum average 72-hour temperature in each weather zone;

(E) the maximum average 72-hour temperature in each weather zone; and

(F) the minimum average wind chill in each weather zone.

(2) ERCOT may add additional parameters to the historical weather study.

(3) ERCOT must take into consideration weather predictions produced by the office of the state climatologist when preparing the historical weather study.