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OPEN MEETING COVER SHEET

MEMORANDUM AND PROPOSAL FOR ADOPTION

MEETING DATE:	October 21, 2021
DATE DELIVERED:	October 18, 2021
AGENDA ITEM NO.:	1
CAPTION:	Project No. 51840 – Rulemaking to Etablish Electric Weatherization Standards
DESCRIPTION:	Memo and Proposal for Adoption

Public Utility Commission of Texas

Memorandum

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

FROM: Barksdale English, Director, Division of Compliance and Enforcement

DATE: October 18, 2021

RE: October 21, 2021 Open Meeting – Agenda Item No. 1
Project No. 51840, *Rulemaking to Establish Electric Weatherization Standards*

Please find attached to this memorandum Commission Staff's proposal for adoption (PFA) in the above-referenced project for consideration at the October 21, 2021 Open Meeting.

This PFA establishes new §25.55, relating to weather emergency preparedness. Specifically, the rule requires generators to implement winter weather readiness recommendations identified in the 2012 Quanta Technology Report on Extreme Weather Preparedness Best Practices (2012 Quanta Report) and to fix any known, acute issues that arose from winter weather conditions during the 2020–2021 winter weather season. Similarly, this rule requires transmission service providers to implement key recommendations contained in the 2011 Report on Outages and Curtailments During the Southwest Cold Weather Event on February 1-5, 2011, jointly prepared by the Federal Energy Regulatory Commission and the North American Electric Reliability Corporation, and to fix any known, acute issues that arose during the 2020-2021 winter weather season. Further, this rule requires a notarized attestation from the highest-ranking representative, official, or officer with binding authority over each of the above entities attesting to the completion of all required actions.

This project represents the first of two phases in the commission's development of robust weather emergency preparedness reliability standards and will help ensure that the electric industry is prepared to provide continuous reliable electric service throughout this upcoming winter weather season. The commission will develop phase two of its weather emergency preparedness reliability standards in a future project. The phase-two weather emergency preparedness reliability standards will consist of a more comprehensive, year-round set of weather emergency preparedness reliability standards that will be informed by a robust weather study that is currently being conducted by ERCOT in consultation with the Office of the Texas State Climatologist.

PROJECT NO. 51840

RULEMAKING TO ESTABLISH ELECTRIC WEATHERIZATION STANDARDS	**§ § §**	**PUBLIC UTILITY COMMISSION OF TEXAS**

(STAFF RECOMMENDATION)

PROPOSAL FOR ADOPTION FOR NEW 16 TAC § 25.55

The Public Utility Commission of Texas (commission) adopts new 16 Texas Administrative Code (TAC) §25.55, relating to weather emergency preparedness, to implement weather emergency preparation measures for generation entities and transmission service providers (TSPs) in the Electric Reliability Council of Texas (ERCOT) power region, as required by Senate Bill 3 (SB 3), 87th Legislature Regular Session (Regular Session).

New §25.55 represents the first of two phases in the commission's development of robust weather emergency preparedness reliability standards and will help ensure that the electric industry is prepared to provide continuous reliable electric service throughout this upcoming winter weather season. Specifically, the rule requires generators to implement winter weather readiness recommendations identified in the 2012 Quanta Technology Report on Extreme Weather Preparedness Best Practices (2012 Quanta Report) and to fix any known, acute issues that arose from winter weather conditions during the 2020–2021 winter weather season. Similarly, this rule requires TSPs to implement key recommendations contained in the 2011 Report on Outages and Curtailments During the Southwest Cold Weather Event on February 1-5, 2011, jointly prepared by the Federal Energy Regulatory Commission and the North American Electric Reliability Corporation (2011 FERC/NERC Report), and to fix any known, acute issues that arose during the 2020-2021 winter weather season. Further, this rule requires

a notarized attestation from the highest-ranking representative, official, or officer with binding authority over each of the above entities attesting to the completion of all required actions.

The commission will develop phase two of its weather emergency preparedness reliability standards in a future project. The phase-two weather emergency preparedness reliability standards will consist of a more comprehensive, year-round set of weather emergency preparedness reliability standards that will be informed by a robust weather study that is currently being conducted by ERCOT in consultation with the Office of the Texas State Climatologist.

The commission received comments on the proposed rule from AARP; Advanced Power Alliance and American Clean Power Association (APA and ACP); AEP Texas Inc. and Electric Transmission Texas LLC (AEP Companies); Calpine Corporation (Calpine); Capital Power Corporation (Capital Power); CenterPoint Energy Houston Electric, LLC (CenterPoint); City of Houston; Conservative Texans for Energy Innovation; Enbridge, Inc. (Enbridge); Enel North America (Enel); Exelon Generation Company, LLC (Exelon); Lower Colorado River Authority (LCRA); Lower Colorado River Authority Transmission Services Corporation (LCRA TSC); NextEra Energy Resources, LLC (NextEra); Oncor Electric Delivery Company, LLC (Oncor); Office of Public Utility Counsel (OPUC); Public Citizen; RWE Renewables America, LLC (RWE); Savion, LLC (Savion); Sharyland Utilities, LLC (Sharyland); Solar Energy Industries Association (SEIA); Steering Committee of Cities Served by Oncor (Oncor Cities); Texas Competitive Power Advocates (TCPA); Texas Advanced Energy Business Alliance (TAEBA); Texas Electric Cooperatives, Inc. (TEC); Texas Public Power Association (TPPA); Texas Solar

Power Association (TSPA); Texas-New Mexico Power Company (TNMP); Texas Industrial Energy Consumers (TIEC); and Vistra Corporation (Vistra).

General Comments

Two-Phase Approach

OPUC, TPPA, and Conservative Texans for Energy Innovation supported the two-phase approach. OPUC stated that the two-phase approach will allow standards to be in place for the upcoming winter while still allowing time to develop more robust standards in the coming months. Oncor Cities stated that the rule should include summer preparedness. Oncor Cities also requested an explanation of the scope of the ERCOT weather study and how the ERCOT weather study will be used as an input to the weatherization standard. Oncor Cities requested an explanation of the scope of the second phase of this legislative implementation. Oncor Cities suggested that generation entities and TSPs will be able to plan more effectively if these concepts are more fully developed now.

Commission Response

This rule is focused on establishing weather emergency preparedness reliability standards for the 2021-2022 winter weather season. The commission will develop phase two weather emergency preparedness reliability standards in a future project that will consist of a more comprehensive, year-round set of weather emergency preparedness reliability standards that will be informed by a robust weather study that is currently being conducted by ERCOT in consultation with the Office of the Texas State Climatologist. The commission disagrees

with Oncor Cities that including summer preparedness standards in phase one of this project is required to comply with SB 3.

2012 Quanta Report and 2011 FERC/NERC Report

Oncor Cities stated that the rule should reference both the specific winter readiness actions identified in the 2012 Quanta Report and the key recommendations contained in the 2011 FERC/NERC Report the commission requires entities to implement through this rule. Oncor and Vistra supported the commission's goal of implementing key recommendations from the 2011 FERC/NERC Report for the 2021-2022 winter weather season as the first phase of this rulemaking.

Commission Response

The commission declines to make changes in response to the comments of Oncor Cities. The rule requires generators to implement certain winter weather readiness recommendations identified in the 2012 Quanta Report and to fix any known, acute issues that arose from winter weather conditions during the 2020–2021 winter weather season. The commission also requires TSPs to implement key recommendations contained in the 2011 FERC/NERC Report. Adding general references to those reports to the language of the rule would introduce ambiguity without improving the rule's clarity.

RWE stated that the best practices from the 2012 Quanta Report may be outdated because the generation resource mix in the ERCOT power region includes higher percentages of wind, solar, and energy storage resources than ten years ago.

Commission Response

The requirements in the rule are based only in part on the 2012 Quanta Report and the associated requirements in the rule remain appropriate. The requirement to fix any known, acute issues that arose from winter weather conditions during the 2020–2021 winter weather season addresses RWE's concerns with the changed resource mix in the ERCOT power region.

Gas Supply

Oncor Cities recommended that the commission require a generation entity to demonstrate that its gas supply is weatherized to a set of specific and definable standards and should coordinate with the Railroad Commission of Texas (RRC) on any aspect of the rulemaking concerning weatherization for gas facilities.

Commission Response

The commission declines to adopt Oncor Cities's recommendation to require a generation entity to demonstrate that its gas supply is weatherized. Neither the commission nor a generation entity can compel weatherization compliance from its gas supplier. Moreover, many generation entities do not have a choice of gas fuel suppliers for electric generation. Finally, in Section 5 of SB 3, which amended §86.044 of the Natural Resources Code, the Legislature directed the RRC to develop weatherization standards for gas fuel suppliers. The commission is working closely with the RRC to develop a weatherization framework that covers the electric-gas supply chain that is critical for electric generation.

Critical Natural Gas Facilities

In addition to weather emergency preparedness reliability standards, the Legislature passed legislation requiring the commission and the RRC to collaborate on developing a process to identify certain natural gas facilities and entities that are critical to the electric supply chain and designate those facilities as critical load during energy emergencies. Once designated critical, these natural gas facilities will be required to provide electric utilities with certain information to assist in establishing load shed and power restoration priorities. Public Citizen expressed concern that the RRC's proposed rules related to critical natural gas facilities do not require enough information about those facilities to be shared with electric utilities to be able to appropriately designate the facilities as critical to electric generation and to prioritize their needs. Public Citizen stated that this will prevent the commission from meeting the goals it sets for itself in this rulemaking. Public Citizen stated that the commission should recommend that the RRC establish a better process for designating critical gas suppliers.

Commission Response

The commission has no authority to direct rulemaking projects taken by the RRC. The two state agencies are collaborating on rulemaking efforts to direct what information natural gas facilities must provide to the commission, RRC, and ERCOT. The commission will continue to collaborate with the RRC on the issue of critical load designations of natural gas facilities, but this issue is beyond the scope of this rulemaking.

Distributed Energy Resources

TAEBA recommended the commission modify existing rules to ensure that distributed energy resources can deliver and be compensated for the range of grid services they can provide. According to TAEBA, a near-term focus on augmenting demand-side resources' ability to meet reliability needs is squarely consistent with PURA §38.075 and would complement the commission's efforts to enhance both supply-side reliability and reliability of the transmission and distribution utility infrastructure relied upon to deliver power to Texans under all weather conditions. TAEBA stated that the commission could exercise its authority conferred in PURA to initiate and implement a range of policies and regulations that recognize distributed energy resources' ability to contribute to resource adequacy in a manner that mitigates catastrophic grid disruptions, shields customers and utilities from extreme financial risk, increases resource diversity, and enhances system flexibility.

Commission Response

The commission disagrees with TAEBA's interpretation of PURA §38.075. The statute requires the preparation of transmission facilities to be able to provide service in weather emergencies. TAEBA's proposals are beyond the scope of this rulemaking and are more properly addressed as a part of the commission's market design efforts.

Confidentiality

Calpine and TCPA requested modifications to subsections (a) and (b) to address the commercial and operational sensitive nature of the winter weather readiness reports to be submitted to the commission and ERCOT. Similarly, TPPA requested the commission confirm that entities would be permitted to submit information confidentially. TEC also recommended adding a new, wholly

different subsection (h) pertaining to the confidential critical energy infrastructure information that may be provided in the reports. Conversely, Oncor Cities requested that the winter weather readiness reports submitted by generation entities and TSPs be made publicly available.

Commission Response

The commission makes no revisions to the rule in response to these comments. An entity required to submit information to the commission may assert the confidentiality of that information in accordance with §22.71 of this title (relating to Filing of Pleadings, Documents, and Other Materials). ERCOT also has procedures to address information that is submitted as confidential in its Protocols.

The commission declines to explicitly require that winter weather readiness reports be made publicly available because these reports may contain confidential critical energy infrastructure information or competitively sensitive information.

Subsection (a), Application

The proposed subsection would make the rule applicable to the ERCOT and to generation entities and TSPs in the ERCOT power region.

Calpine recommended that the commission provide a good cause exception to the rule for resources that are mothballed or are in a period of extended outage through the winter weather season. Similarly, TCPA offered language that would directly exempt these units from being subject to the rule. TCPA also suggested that ERCOT consider whether a resource has been

seasonally mothballed or is scheduled to be retired when determining an appropriate cure period. Although these comments were made in reference to subsections (d) and (c) respectively, the substance relates to the application of the rule, and is therefore addressed here.

Commission Response

The commission agrees that mothballed generation resources that will not be available to provide energy or ancillary services during the 2021-2022 winter weather season should not be required to adhere to the requirements of this rule. However, the generation entity in control of the generation resource must have received an ERCOT-approved notice of suspension for the 2021-2022 winter weather season prior to December 1, 2021 to exempt its resource from the requirements of this rule. If the generation entity intends to return the mothballed resource to service during the winter weather season, the resource is not required to comply with this rule until it is returned to service. The commission, therefore, revises subsection (a) of the rule accordingly.

Paragraph (b)(1), Definition of Cold Weather Critical Component

The proposed paragraph would define the term "cold weather critical component" as "any component that is susceptible to freezing, the occurrence of which is likely to lead to unit trip, derate, or failure to start."

AEP Companies, CenterPoint, LCRA TSC, Oncor, TNMP, and TPPA commented that the definition is focused on generation resources and requested either that it not apply to transmission facilities or that it be changed to expressly address transmission facilities. TPPA and Sharyland

recommended a revision to the definition so that it would apply more clearly to both generation resources and transmission facilities. Oncor requested clarification that "unit trip, derating, or failure to start" refers to a generation unit's tripping, derating, or failure. Oncor stated that the term "cold weather critical component" should apply only to TSP-owned high voltage switching stations and the high voltage portions of TSP-owned load-serving substations. Oncor further recommended that the commission specifically exclude the distribution-voltage portions of substations, as well as transmission lines, from this definition. Similarly, TNMP requested the addition of the following definition to reduce the scope of the rule: "Transmission system(s) and facility(ies) - Means a high-voltage switching station equipment or substation high-side load serving equipment."

Commission Response

The commission revises the definition of "cold weather critical component" to expressly apply to both generation entities and TSPs. The commission has applied elements of both TPPA's and Oncor's recommendations and addresses TNMP's request. The revised definition captures all transmission-voltage components within the fence surrounding a TSP's high-voltage switching station or substation. This amended definition is also appropriate for the standards in this rule because it focuses preparations on the transmission components most susceptible to preventable outages that could affect system reliability during a winter weather emergency.

TEC requested that the definition of cold weather critical components be changed to include components that will cause a generation resource to trip offline and which may reasonably be

protected against freezing. TEC stated that this change would provide certainty to resource owners and TSPs regarding applicable components and would prioritize components that can be protected against freezing by applying protective measures. According to TEC, if covered components are not limited to those that can reasonably be protected, entities will lack certainty regarding regulatory compliance; the universe of eligible components will be undefined and may include components that cannot be reasonably protected.

Commission Response

The commission declines to adopt TEC's recommendation to expressly limit the definition to components that can be protected against freezing by applying protective measures. The commission expects that an entity will use appropriate professional judgment to identify and protect those components that are critical to continuous operation to ensure that its implementation of the rule has a meaningful result.

LCRA requested deletion of the term "cold weather critical component." LCRA asserted that the proposed definition could potentially include millions of individual components that make up a generating facility. LCRA claimed that any component of a generation resource that fails could in theory lead to the resource tripping offline, becoming incapable of starting, or derating its available capacity. Moreover, LCRA suggested that any component could theoretically freeze. Because the definition, in LCRA's opinion, implicates every component of every generation resource, the rule creates an "impossibly broad and unenforceable standard" that leaves generation entities with little understanding of what preparations need to be undertaken for winter operation.

Commission Response

The commission declines to adopt LCRA's recommendation because its hypothetical scenarios stray beyond the concept of a "critical component." Not every piece of equipment in a generation resource is critical to the reliable operation of that resource. Moreover, both FERC, in its February 2021 Cold Weather Grid Operations: Preliminary Findings and Recommendations report (2021 FERC report), and the 2012 Quanta Report place the identification of critical components and freeze protection schemes near the top of the lists in their respective recommendations. The commission expects that an entity will use appropriate professional judgment to ensure that its compliance with the rule will produce a meaningful result.

Vistra stated that the definition of cold weather critical component goes beyond focusing on a unit failure that would affect system reliability in the ERCOT power region, which was the goal of SB 3. Instead, Vistra continued, the definition identifies a critical component as one which, if it freezes, "is likely to lead to unit trip, derate, or failure to start." Vistra stated that this definition could result in an unworkable standard because hundreds of thousands of components contribute in a way to maximize output. According to Vistra, derates are common and largely unavoidable, especially in extreme conditions, and provided an example of environmental monitoring equipment becoming impacted by weather conditions, requiring an environmental derate while the issue is investigated and remediated. Vistra indicated that a better definition would cover a non-weatherized component failure caused by freezing that would lead to a total and immediate loss of unit output, and TCPA made a similar comment.

Commission Response

Although a derate may be necessary in a weather emergency to address an issue, as described in Vistra's comments, the definition does not refer to such a scenario. Rather, the definition is limited to the freezing of a cold weather critical component being the direct cause of a derate. Accordingly, the commission declines to adopt Vistra's recommendation.

Enel and RWE requested a revision to clarify that cold weather critical components are required to function in defined operating ranges. Capital Power stated that wind turbine blades are not susceptible to freezing (although they are susceptible to icing) and requested that wind turbine blades and poor road conditions that do not allow personnel to access facilities be excluded from the definition.

Commission Response

The commission addresses the issue of operating ranges, which was raised by Enel and RWE, in its response to comments on paragraph (c)(1) of the rule.

The commission declines to adopt Capital Power's recommendation to exclude specific components from the definition of "cold weather critical component". However, the commission finds that addition of a reference to icing in the definition is appropriate and revises the paragraph accordingly.

The commission also revises the definition to refer to a resource rather than an undefined "unit."

Paragraph (b)(2), Definition of Energy Storage Resource

The proposed paragraph would define energy storage resource as "[a]n energy storage system registered with ERCOT for the purpose of providing energy or ancillary services to the ERCOT grid and associated facilities behind the system's point of interconnection necessary for the operation of the system."

TCPA and Calpine requested deletion of the definition. They stated that energy storage resources are generation resources and, therefore, can be covered by the definition of generation resource. TEC requested that the definition be changed to refer to a facility "that sells" energy or ancillary services to better track the language of PURA §35.0021(a).

Commission Response

The commission declines to adopt the recommendations to delete the definition of energy storage resource or change the definition of generation resource. This rule applies within the ERCOT power region: therefore, the definition's similarity to the comparable definition in the ERCOT Protocols is appropriate.

However. consistent with the discussion below regarding the definition of generation resource, the commission revises the definition of energy storage resource to limit the application of the term only to those associated facilities controlled by the generation entity and that are not part of a manufacturing process that is separate from the generation of electricity.

Paragraph (b)(4), Definition of Generation Resource

The proposed paragraph would define generation resource as "[a] generator 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 behind the generator's point of interconnection necessary for the operation of the generator."

Calpine and TCPA requested that the definition include only facilities owned and controlled by the generator and described an arrangement where a generator uses steam from an industrial process not controlled by the generator. TIEC requested revision of the definition to reference "auxiliary" facilities instead of "associated facilities," with the intent of excluding distinct manufacturing processes and avoiding disputes about whether non-generating industrial facilities that consume steam or may otherwise be electrically connected to a cogeneration unit are also required to be weatherized. TEC requested that the definition be changed to refer to a facility "that sells" energy or ancillary services to better track the language of PURA §35.0021(a).

Commission Response

The commission agrees with Calpine and TIEC that the definition of generation resource should be limited to those associated facilities controlled by the generation entity, and revises the rule accordingly. The commission, however, declines to further limit the definition to apply to associated facilities that are both controlled and owned by the generation entity because some associated facilities could be controlled contractually rather than through ownership.

The commission also declines to adopt TIEC's recommendation to change "associated" to "auxiliary." According to TIEC, the term "auxiliary" refers to a more limited set of manufacturing equipment. As a result, equipment or facilities that could directly impact the generation resource's operations might remain unprotected. The commission agrees with TIEC that the scope of the rule should not apply to equipment or facilities that are part of a manufacturing process that is separate from the generation of electricity and revises the definition accordingly.

Paragraph (b)(5), Definition of Inspection

The proposed paragraph would define inspection as follows: "The activities that ERCOT engages in to determine whether a generation entity is in compliance with subsection (c) of this section or whether a TSP is in compliance with 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. ERCOT will determine, in consultation with the commission, the number, extent, and content of inspections and may conduct inspections using both employees and contractors."

Oncor requested that either this definition of inspection or subsection (g) be clarified to explicitly state that ERCOT's inspection authority under the rule derives from the commission's statutory authority under PURA §14.204, which allows the commission to authorize an agent to "inspect the plant, equipment, and other property of a public utility within its jurisdiction ... at a reasonable

time for a reasonable purpose." Oncor also stated that ERCOT's inspection program should require that inspections occur at a reasonable time with reasonable advanced notice to the TSP and that the rule should recognize that ERCOT-conducted inspections should comply with applicable NERC requirements, including a TSP's physical security plan for station access.

Commission Response

The rules adopted herein implement PURA §38.075(b), which requires ERCOT to inspect transmission facilities in the ERCOT power region. While PURA §14.204 authorizes the commission and its designated agents to inspect plant, equipment, and property of a public utility, citation to this statute does not provide any added clarity to ERCOT's scope of authority to implement this rule. Similarly, the commission declines to incorporate a reference to the NERC requirements suggested by Oncor because it is unnecessary. However, the commission revises paragraphs (d)(1) and (g)(1) to require generation entities and TSPs, respectively, to admit ERCOT inspectors into areas of the resource or station that will be inspected. Because the safety of the inspectors and employees and the security of the resource and station are of paramount importance, the commission also expects all parties to take the appropriate safeguards during inspections.

TEC, Calpine, and TCPA recommended changes to the definition of inspection that would enable stakeholders to provide input into the policies and procedures of ERCOT's inspection of generation resources and transmission facilities. TEC requested that ERCOT adopt rules regarding the details of ERCOT-conducted inspections for the phase-one rule standards, and that the commission consider and adopt specific inspection protocols in the phase-two rule. According to

TEC, these actions would create transparency and consistency in the inspection framework and would allow market participants to clearly understand and provide feedback on the number, extent, and content of the inspections because these parameters would be formalized in rules. Calpine and TCPA requested that the commission require ERCOT to consult with stakeholders to create inspection criteria.

Commission Response

The commission declines to change the definition of inspection. An entity must comprehensively prepare its facilities for weather emergencies instead of focusing efforts on specific components of its facilities known to be included in ERCOT's inspection. The rule provides sufficient specificity for the inspections while giving ERCOT the flexibility to conduct the inspections in an efficient, and effective manner. The commission may consider specifying additional requirements for ERCOT inspections as part of the phase-two development of the weather emergency preparedness reliability standards.

The proposed definition of inspection contained a provision that requires ERCOT to determine the number, extent, and content of inspections in consultation with the commission. Because this provision imposes a requirement on ERCOT, the commission moves the provision from this definition to paragraphs (d)(1) and (g)(1). The commission revises the definition to specifically refer to paragraphs (1) of subsections (c) and (f) and to acknowledge that ERCOT needs the flexibility to prioritize its inspections based on risk level, as required by PURA §35.0021(c-1) and §38.075(c).

Paragraph (b)(6), Definition of Resource

The proposed paragraph would define resource as "[a] generation resource or energy storage resource."

Calpine and TCPA requested deletion of this definition on the basis that it is unnecessary because the definition of generation entity includes the term resource in it.

Commission Response

A definition of resource allows the defined terms "generation resource" and "energy storage resource" to be easily addressed jointly throughout the rule. Therefore, the Commission declines to adopt Calpine and TCPA's recommendation.

Proposed Paragraph (b)(7); Adopted Paragraph (b)(8), Weather Emergency Preparation Measures

The proposed paragraph would define weather emergency preparation measures as "[m]easures that a generation entity or TSP takes to support the function of a facility in extreme weather conditions, including weatherization, fuel security, staffing plans, operational readiness, and structural preparations."

TEC requested revision of the definition to incorporate the preparation standard articulated in PURA §35.0021. TCPA requested a revision to specify that the term is limited to aspects of the electric system under the generation entity's control or the TSP's control and cited fuel security as an example of something that should be excluded. Calpine also requested that fuel security be

excluded. SEIA requested that the definition be limited to measures described in paragraphs (c)(1) and (f)(1) of the rule. TEC also requested that "including" be changed to "which may include,".

Commission Response

The commission declines to limit the definition of "Weather emergency preparation measures" as recommended by TEC, TCPA, Calpine, and SEIA. The definition describes measures that a generation entity or TSP may take to meet the requirements in paragraphs (c)(1) and (f)(1) of the rule. Those paragraphs address any relevant limitations. Accordingly, the commission deletes the non-exclusive list of types of measures at the end of the definition and instead addresses the types of measures in subparagraphs (c)(1)(A) and (f)(1)(A).

Other Terms

The AEP Companies noted that the definition of weather emergency preparation measures includes a term "extreme weather conditions" that is itself undefined. Capital Power requested a definition of "extreme weather" that would allow generation entities to determine the definition of cold weather based on the unit's location, the owner's experience with operations during cold weather events, and additional commonly used industry resources.

Oncor Cities requested a definition of "winter weather conditions," and APA and ACP requested a definition of "cold weather." APA and ACP also requested a definition of "weather emergency."

Commission Response

The commission accepts APA and ACP's recommendation to define "weather emergency." This rule sets reliability standards for weather emergencies as required by PURA §35.0021(b) and §38.075(a). Therefore, the commission adds a new paragraph (7) to define weather emergency as "a situation resulting from weather conditions that produce a 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."

The commission declines to add a definition of extreme weather, extreme weather conditions, winter weather conditions, or cold weather as recommended by the commenters. The commission's new definition of "weather emergency" will provide the context and clarity sought by the commenters.

Subsection (c), Weather Emergency Preparedness Reliability Standards for a Generation Entity

The proposed subsection would establish weather emergency preparedness reliability standards and related procedures for generation entities in preparation for the 2021–2022 winter weather season.

Calpine and TCPA requested that the commission remove "phase one" from the title of the subsection of the rule. Calpine stated that the term could be interpreted to imply that this rule is not final and, therefore, does not fully comply with the statutory deadline for implementation of the reliability standards imposed by SB 3. TCPA stated that there is no need to designate phases

in the rule; when a future phase is implemented, the rule will be amended to reflect those new requirements.

Commission Response

The commission agrees that "phase one" in the title of this subsection is not necessary, and deletes the phrase accordingly.

Paragraph (c)(1), Reliability Standards

The proposed paragraph would establish weather emergency preparedness reliability standards for generation entities in preparation for the 2021–2022 winter weather season.

Fuel-Related Standards

TAEBA stated that the proposed rule does not establish any fuel-related standards or require any specific measures to reduce fuel supply risk. City of Houston requested the addition of a requirement that generators must contract with fuel suppliers and fuel delivery entities with weatherized facilities. City of Houston stated that the cost and effort made by a generator to weatherize its facilities would be wasted if it does not have access to fuel because its suppliers did not weatherize their facilities. City of Houston acknowledged that this might not be possible for the 2021-2022 winter weather season and suggested that generators be required to implement this requirement to the extent possible. City of Houston also requested that the commission require a generator to submit information on its existing fuel supply and fuel delivery contracts that it is unable to modify to require the contractor to weatherize its facilities and fuel sources. City of Houston stated that this requirement will identify at-risk fuel supplies for the 2021-2022 winter

weather season and assist the commission in determining the state's preparedness and in preparing the commission' s weather emergency preparedness report to the Legislature.

Commission Response

The commission declines to establish fuel-related standards, require a generation entity to contract with fuel suppliers and fuel delivery entities with weatherized facilities, or require a generation entity to submit information on its current fuel contracts to the commission in this rule. The City of Houston's recommendations are beyond the scope of this rulemaking, which is focused on whether the generation entity itself has properly prepared its facilities and personnel for a weather emergency.

Technology-Specific Standards

Savion and Enel requested that the commission promulgate technology-specific requirements. Enel stated that many of these requirements apply broadly across technologies, such as proper documentation; identification of operating limitations and critical failure points; and training and drills, but that some requirements cannot be applied broadly across resources. Enel made resource-specific recommendations for wind, solar, and battery technologies. Similarly, Savion observed that neither the 2012 Quanta Report nor the 2011 FERC/NERC Report addressed solar or energy storage technologies. Savion argued that the commission needs to promulgate standards for solar and energy storage technologies before December 1, 2021 to prevent developers of these technologies from being exposed to $1,000,000 per day penalties for non-compliance.

Commission Response

The commission declines to include technology-specific requirements as requested by Savion and Enel. Technology-specific requirements are not appropriate or practical because technology continuously evolves. The generation entity is in the best position to know what is needed to comply with the rule for a specific resource. Subparagraphs (c)(1)(A) and (B) are adapted directly from the 2012 Quanta Report and the 2011 FERC/NERC Report. The commission expects a generation entity to apply appropriate professional judgment to comply with the rule to produce meaningful results.

December 1, 2021 Completion Deadline

Proposed subsection (c)(1) would also establish a December 1, 2021 deadline for compliance with the weather emergency preparedness reliability standards for generation entities. SEIA requested clarity about how the commission will address compliance in scenarios where the entity has requested a good cause exception under paragraph (c)(6). SEIA stated that an entity will have to make judgment calls on how to comply with paragraph (c)(1) without an assurance of whether its good cause exception has been granted.

Commission Response

In all of its actions related to complying with the requirements of paragraph (c)(1), a generation entity must use its best efforts. Even if a generation entity notifies commission staff of an assertion of good cause for noncompliance with the December 1, 2021 deadline, as provided by paragraph (c)(6), the generation entity must nevertheless use its best efforts to comply with paragraph (c)(1), including providing a plan to bring its resource(s) into compliance and a schedule by when the resource(s) will be in compliance with the paragraph.

A generation entity must not use a request for a good cause exception as a means to delay compliance with the rule. If commission staff disagrees with the entity's assertion of good cause, the generation entity may be subject to enforcement if it did not use its best efforts to comply with the rule requirements for which it sought a good cause exception.

Subparagraph (c)(1)(A), Preparations for Sustained Operation

The proposed subparagraph (c)(1)(A) would establish preparations necessary to ensure the sustained operation of all cold weather critical components during winter weather conditions, such as chemicals, auxiliary fuels, and other materials, and personnel required to operate the resource.

Calpine, Capital Power, Exelon, RWE, TEC, TCPA, TIEC, and Vistra requested that the commission limit the required weatherization measures to those that are reasonable and feasible. These commenters stated that requiring "all preparations necessary to ensure sustained operation" imposes a performance standard. Calpine stated that requiring "all" measures is overly broad because generation entities often learn of which measures are required to sustain operations from experience. Exelon and Capital Power stated that the qualifier is overly broad, covering an almost limitless set of weatherization preparations, without regard to duplication of preparations, their cost/economic benefits, or whether they are tied to the 2012 Quanta Report or an identified risk based on historical performance. TEC stated that without a reasonableness standard the rule would create limitless compliance requirements. TIEC stated that use of the word "ensure" suggests entities could be held at fault for failures beyond their control, thus transforming the rule into a perceived performance standard that could discourage investors from directing resources to the

ERCOT market. Capital Power suggested that "all necessary actions" should be further described to clarify what preparation steps would be required in order to comply with the rule.

Commission Response

The commission agrees that the rule should impose a preparation standard on a generation entity rather than a performance standard on the generation resource. The commission finds the adjective "necessary" could be interpreted as requiring a certain level of resource performance and, thus, replaces it with "intended." To intend is to plan or to have something in mind as a purpose or goal. The use of "intended" in this paragraph clarifies that the rule is a preparation standard. Without limitation, commission staff may take into consideration an entity's compliance with its own plan as a measure of best efforts in meeting the requirements of the rule.

As explained above in the discussion of the December 1, 2021 deadline in paragraph (c)(1), generation entities must use best efforts to meet the requirements specified throughout paragraph (c)(1). The commission changes "All actions" to "Best efforts" to reflect this preparation standard.

TPPA, Capital Power, LCRA, RWE, Enbridge, and APA/ACP requested that the commission define "sustained operation" to specify the length of operation required for compliance. Enbridge provided an example that that there may be fuel interruptions or extreme conditions that may cause unavoidable disruption to the equipment's operation, which might impact the "sustained operations" of the entity. TIEC suggested that the commission and ERCOT should focus oversight

activities on ensuring that generators take appropriate steps to reasonably winterize their generation units before cold weather occurs, rather than penalizing generators for the ultimate outcome, and to that end suggested replacing "ensure" with "allow" to precede "sustained operations."

Commission Response

The commission declines to define the term "sustained operation" because the regulatory standard of the provision is the preparations taken in advance of operations and not the amount of time an entity is capable of operating. Assuming the generation entity can demonstrate it used its best efforts intended to ensure sustained operation of the generation resource, the compliance standard should be met under the rule.

Enbridge, Enel, NextEra, and RWE stated that the rule needs to take equipment design limitations into account. NextEra stated that the proposed rule could require an operator to operate outside its design parameters and potentially void manufacturer warranties, damage equipment, or create unsafe operating conditions.

Enel recommended that, "as a baseline, no resource should be required to operate outside of limitations." Enbridge requested that the commission adopt language that would, instead, require winter weather preparation measures that would ensure that cold weather critical components perform "as originally designed" during winter weather conditions.

Commission Response

Although a generation entity must use its best efforts to comply with the requirements of paragraph (c)(1), a generation entity is not required to operate a resource outside of its limitations. However, the generation entity must use appropriate professional judgement to determine those limitations and must not set them in a manner that unnecessarily constrains the capabilities of the generation resources.

The commission replaces "preparations" with the defined term "weather emergency preparation measures" to clarify its intent. Consistent with its discussion of the definition of weather emergency preparation measures, proposed paragraph (b)(7), adopted paragraph (b)(8), the commission adds types of weather emergency preparation measures listed in the proposed definition to paragraph (c)(1)(A).

Subparagraph (c)(1)(B), Installation of Adequate Preparation Measures

The proposed subparagraph (c)(1)(B) would establish installation of adequate preparations necessary to ensure the sustained operation of all cold weather critical components during winter weather conditions, the failure of which could cause an outage or derate.

TEC requested the merger of subparagraph (c)(1)(B) into subparagraph (c)(1)(A) to create a list of possible measures, because it stated that a prescriptive list of specific measures may be inappropriate for certain resources or may inadvertently exclude needed activities best determined by operational personnel. Similarly, LCRA requested the commission move the concept of freeze-susceptible components into subparagraph (c)(1)(A), along with other modifications it stated better reflected the recommendations of the 2012 Quanta Report.

Commission Response

The commission declines to adopt TEC's and LCRA's recommendation to combine subparagraphs (c)(1)(A) and (c)(1)(B) because the subparagraphs address different requirements. Subparagraph (c)(1)(A) is intended to ensure generation entities use their operational expertise to prepare cold weather critical components for operation in winter weather conditions. Although LCRA stated that the term "cold weather critical component" is neither a statutorily defined term nor an industry term of art, the concept is not foreign to industry experts. For example, the term was included in the 2021 FERC report released on September 23, 2021.

Subparagraph (c)(1)(B), on the other hand, addresses specific recommendations developed in the aftermath of the February 2011 winter weather event. Therefore, the commission declines to make changes in response to these comments.

Calpine and TCPA stated that the actions required by subparagraph (c)(1)(B) may not be feasible to implement by December 1, 2021. Instead, they proposed changes to the rule that would allow generation entities to create an inventory of resources that would be used to prepare the generation resource for operation in extreme winter weather. Additionally, Calpine stated that the actions in the draft rule are not necessarily appropriate for extreme winter weather that is typical in the ERCOT power region.

Commission Response

The commission declines to remove the specific preparation measures enumerated in this subparagraph from the rule. Generation resources were not well prepared for winter storms in 2011 and 2021. Lessons learned from both the 2011 and 2021 winter weather events form the foundation for these preparation requirements, and future revisions to the rule may build upon them. The commission expects that a generation entity will use appropriate professional judgment when using its best efforts to implement weather emergency preparation measures. In addition, a generation entity is not required to implement a particular weather preparation measure specified in the rule if there is good cause for not doing so.

Several parties commented on the requirement to install adequate wind breaks for resources susceptible to outages or derate caused by wind. Enbridge expressed concern that the December 1, 2021 deadline to install these wind breaks may not be feasible. TAEBA sought clarification that the commission was not requiring wind generation resources with controls that shut off the turbine or reduce the turbine's revolutions per minute to install wind breaks, because these automated safety controls could be interpreted as an outage or deration. TPPA contemplated this requirement applied only to a thermal generation resource that is exposed to wind, and both TPPA and Capital Power stated that a strict reading of this rule could require wind generation resources to install wind breaks. TPPA and Capital Power requested that the commission tighten this language to better reflect its intent.

Commission Response

The commission declines to change the rule to explicitly exempt any type of resource from the requirements of subparagraph (c)(1)(B). The commission expects that a generation entity will use appropriate professional judgment to ensure that its compliance with the rule produces a meaningful result. For example, the installation of wind breaks at a wind generation resource would be an illogical interpretation of the rule requirements. In response to TAEBA's comment, the commission confirms that generation output limitations caused by predefined operational controls would not constitute a forced outage or deration in a winter weather emergency.

APA/ACP, Exelon, LCRA, and TCPA each stated that installation of enclosures on sensors for cold weather critical components can be impractical or ineffective in certain cases.

Commission Response

The commission references the 2012 Quanta Report and 2011 FERC/NERC Report as a basis for understanding the lessons learned from past experiences with severe winter weather conditions. To that end, if enclosing certain sensors on the generation resource would be counterproductive, a generation entity can explain in its winter weather readiness report required by paragraph (c)(2) that such an enclosure would render the sensor inoperable under the design or operating limits.

Capital Power and LCRA commented on the requirement to maintain freeze protection components for all equipment, including fuel delivery systems. Capital Power requested the commission provide a definition of a freeze protection component. For example, it wondered

whether insulation would be considered a freeze protection component. LCRA noted that not all equipment has its own freeze protection components. LCRA requested further clarification that generation entities should only be responsible for fuel delivery systems it owns and operates.

Commission Response

The commission declines to define "freeze protection component" or to enumerate specific components that comprise the category of freeze protection components. Generation entities have a variety of tools and options to protect equipment from freezing during a winter weather emergency. The commission expects a generation entity to rely on its expertise and professional judgment to determine what tools are best suited to protect its specific equipment and to maintain those tools so that they provide the required protection. However, the commission agrees to clarify that only fuel delivery systems controlled by the generation entity are required to have freeze protection equipment. Accordingly, the commission revises subparagraph (c)(1)(B).

Capital Power argued that monitoring systems for cold weather critical components should not be required for wind generation resources. Capital Power stated that anti-icing and de-icing technologies are not available in the United States, according to filings and presentations made by GE, Siemens, and Vestas, and therefore the systems to monitor for icing or freezing do not exist either. In support of its position, Capital Power also noted that NERC does not require installation of monitoring systems in regions that experience colder weather than Texas.

Commission Response

The commission declines to change the rule as recommended by Capital Power. NERC's new Cold Weather Reliability Standards are focused on planning. The commission's rule is focused on preparing. The two sets of federal and state regulations will work together to help achieve more reliable outcomes during winter weather emergencies. Moreover, the substitution of NERC's requirements for the ones in the proposed rule does not address the preparation set forth in PURA §35.0021.

Although Enbridge noted the inclusion of a good cause exception process in subsequent parts of the rule, it suggested that generation entities be allowed to either install the required preparation measures or submit a schedule for the installation of the measures to explicitly accommodate supply chain delays. Enbridge further clarified that such a schedule should only be permitted when the generation entity confirms it is unable to make the change without approval, involvement, and direction of the manufacturer.

Commission Response

The commission declines to change the rule as proposed by Enbridge. Generation entities should make their best efforts to complete the actions listed in paragraph (c)(1). The good cause exception provision contained in paragraph (c)(6) is the appropriate method for communicating these types of issues to the commission and ERCOT.

In response to the proposed requirement to establish a schedule to test freeze protection components on an ongoing monthly basis, TCPA stated that winter is the only season in which it would be feasible to test these components in a simulated cold weather environment.

Commission Response

The commission agrees with TCPA that monthly testing should be conducted during the winter weather season as a best practice preparation measure. The commission revises the rule to require testing at least once each month from November through March.

Subparagraph (c)(1)(C), Reoccurrence Prevention

The proposed subparagraph (c)(1)(C) would require a generation entity to take all actions necessary to prevent a reoccurrence of any cold weather critical component failure that occurred in the period between November 30, 2020, and March 1, 2021.

Calpine, TPPA, TEC, LCRA, Exelon, Vistra, TAEBA, SEIA, and APA/ACP argued that this provision is overly broad by requiring an undefined and potentially limitless set of actions that must be taken to "prevent" a recurring cold weather critical component failure. Moreover, the parties echoed comments filed concerning subparagraph (c)(1)(A) in that the requirement to take steps necessary to prevent a failure transforms the rule into a performance standard. According to these commenters, it is not feasible for a generation resource to guarantee it can prevent a component failure; however, it is feasible for a generation resource to guarantee it will take actions necessary to address a prior failure to reduce the likelihood of reoccurrence. Calpine proposed edits that would, in its opinion, maintain the commission's objective of implementing the rule as a preparation standard. Capital Power suggested the commission consider replacing the word "prevent" with the word "mitigate" to make clear that generation owners are not required to adhere to a strict level of perfection at any cost, human or material. Exelon proposed to insert "reasonably

necessary". TAEBA and SEIA similarly requested clarification that this provision would not require generation entities to take any actions that would put at risk the health or safety of employees or contractors.

Commission Response

Generation entities must use their best efforts to prevent repeated failures of cold weather critical components. The commission revises subparagraph (c)(1)(C) for consistency with the standards established in subparagraph (c)(1)(A). In addition, the commission reiterates that in no instance is a generation entity required to take an action that presents a real risk of bodily harm to its employees or contractors.

TAEBA and SEIA requested that the commission clarify that the proposed rules should not be interpreted to require a generation entity to implement a weather emergency preparation measure that is inconsistent with good utility practice or is contrary to the design or operating limitations of a generation resource. SEIA further argued that the requirements of this subsection should be interpreted in a manner that does not require a generation entity to implement weather emergency preparation measures that exceed the design or operating limitations prescribed by the original equipment manufacturer.

Commission Response

As the commission stated in response to comments on subparagraph (c)(1)(A), although a generation entity must use its best efforts to comply with the requirements of paragraph (c)(1), a generation entity is not required to operate a generation resource outside of its

limitations. However, the generation entity must use its professional judgement to determine those limitations and must not set them in a manner that unnecessarily constrains the capabilities of its resources. In addition, the generation entity can engage in good utility practice to the extent doing so is consistent with the rule's requirement for the use of best efforts.

TPPA and Enel suggested that resource related issues occurring during the period between November 30, 2020, and March 1, 2021, might implicate situations unrelated to operation during winter weather. For example, Enel requested clarification that outages and derations related to resources following operational requirements would not be implicated by this provision. TPPA requested that this requirement be limited to failures that occurred directly due to winter weather, rather than one-off occurrences unrelated to cold weather operations.

Commission Response

The commission agrees with TPPA and Enel's recommendation to clarify that subparagraph (c)(1)(C) to applies to failures that occurred due to winter weather conditions between November 30, 2020 and March 1, 2021, and revises the subparagraph accordingly.

Capital Power and Enbridge requested the commission explicitly acknowledge that blade turbine icing cannot be completely prevented.

Commission Response

The commission finds the recommended change to be superfluous, as the rule does not attempt to address every unique characteristic of every generation resource type.

LCRA requested that the commission be explicit that no provision of the rule will be interpreted as requiring a generation entity to redesign any subsystem of an existing generation facility. Specifically, LCRA stated that requiring generation entities to take "all actions" to prevent a weather-related failure hypothetically could require the entity to redesign and rebuild its resource.

Commission Response

As noted above, the commission revises subparagraph (c)(1)(C) for consistency with the standards established in subparagraph (c)(1)(A). This change deletes "all actions" and requires generation entities to use their "best efforts" to address the failures of cold weather critical components. The generation resource operator must decide how best to comply with the requirements of this rule; therefore, the commission declines to make the change recommended by LCRA.

Subparagraph (c)(1)(D), Training

The proposed subparagraph (c)(1)(D) would require a generation entity to provide training on winter weather preparations to operational personnel. Calpine and TCPA stated that generation resources must have employees who are trained not only in the necessary winter weather preparation standards but also in related operations to ensure reliable performance during a winter weather emergency. They each provided similar changes to clarify that training would occur on preparations and operations and be provided to relevant personnel. However, Oncor Cities

expressed concern about the lack of specificity in what training programs will be required, leaving the requirement open for broad interpretation. Oncor Cities stated that a rule that is open for broad interpretation and lacks compliance standards risks being ineffective.

Commission Response

The commission declines to adopt Oncor Cities' proposal for a standardized, specific training program for all generation resource types and operations procedures. The training programs must be flexible enough to meet resource-specific operational processes and weather emergency preparation measures. However, the commission agrees with Calpine's and TCPA's recommendation to focus the required training on winter weather preparations and operations and to deliver the training to relevant personnel. Delivering training on both winter weather emergency preparation measures and operations during weather emergencies will improve the effectiveness of operations personnel during weather emergencies. Accordingly, the commission adopts Calpine's recommended language revisions.

Enbridge requested that if the commission or ERCOT seek to enact specific requirements, they should be identified at the earliest possible opportunity so that generation entities would have time to submit comments on applicability and/or limitations.

Commission Response

Tex. Gov't Code §2001.029 requires the commission to consider public comment on the proposed rule prior to adopting any new regulations.

Subparagraph (c)(1)(E), Design and Operating Limitations

The proposed subparagraph (c)(1)(E) would require a generation entity to determine the minimum design temperature, minimum operating temperature, and other operating limitations based on temperature, precipitation, humidity, wind speed, and wind direction.

Calpine, Cities, TPPA, TCPA, LCRA, and Exelon stated that this provision does not specify an engineering standard to reference. Accordingly, they suggested a generation entity should be permitted to rely on operational history because a generation entity may have had operational experiences that diverge significantly from the resource's original design criteria. These commenters requested flexibility to base their resources' operating limitations on the lowest temperatures experienced by that resource.

Commission Response

The commission accepts the recommendation that a generation resource's operational limitations may be determined using operational history. Such operational history takes into account the February 2011 and 2021 winter events, which would be consistent with the legislative intent to take prior recent events into account in this rule. The commission, therefore, revises the rule accordingly.

Enbridge and APA/ACP requested the commission allow a generation entity to select which design and operating conditions are relevant to a specific resource and provide that data to the commission

because not all ambient conditions apply to all resource types and technologies. Both parties presented changes to provide this flexibility.

Commission Response

The commission declines to adopt Enbridge's and APA/ACP's recommendation to allow a generation entity discretion to choose which conditions are relevant to a specific generation resource. Reporting and review of design and operating limitation criteria are specific recommendations from the 2012 Quanta Report. The reported design and operating criteria do not impose a particular set of weather emergency preparation measures the entity must take. If particular conditions are not impactful on a particular generation resource, then the generation entity does not need to prepare for those conditions.

TEC suggested adding a new requirement to subsection (c)(1) that would require a generation entity to identify certain weather preparation measures that must be taken just in advance of a season or a predicted storm in order not to impact the resource's ability to maximize output of energy in other seasons.

Commission Response

Given that the focus of this rulemaking project is on the 2021-2022 winter weather season, the commission declines to add such a provision to the rule. However, the commission may consider TEC's recommendation in a future rulemaking project related to phase two weatherization standards.

Paragraph (c)(2), Generation Entity Winter Weather Readiness Report

The proposed paragraph would require that a winter weather readiness report with an attestation be submitted on a form prescribed by ERCOT and developed in consultation with commission staff. TPPA and Vistra requested an opportunity for stakeholder input into the development of the form. Capital Power requested that the form be specific to generator type to avoid confusion.

Commission Response

Given that the focus of this rulemaking project is on the 2021-2022 winter weather season, the commission declines to add a period of stakeholder review into the development of the winter weather readiness report form. Use of a form does not prevent a generation entity from including information that it considers relevant in its report.

The proposed paragraph would also require that a winter weather readiness report include a notarized attestation. Calpine, Enbridge, Exelon, Savion, TCPA, TIEC, and TPPA requested changes to the requirement that the attestation be sworn to by an officer of the generation entity with responsibility for the resource's operations. TCPA, Calpine, and Exelon each claimed that in corporations with multiple generation entity affiliates it may be difficult to determine which office is the highest-ranking representative. Similarly, TPPA noted that municipally owned utilities might be required to obtain the attestation of the city manager, mayor or city council.

Commission Response

The commission declines to make the requested changes. Given the importance of the information addressed in the winter readiness report, the commission is requiring that the

entity's highest-ranking representative, official, or officer with binding authority over the generation entity attest to the preparation measures conducted by the generation entity. With respect to the TPPA's request for clarification, the commission recognizes that the organizational structure of municipally owned utilities may vary and that a local government official or city council may be the highest-ranking authority for the generation entity. The commission clarifies that the rule does not require a resolution from an elected body or an attestation from an elected official to fulfill this rule requirement. The commission encourages each municipally owned utility to make a good faith effort to identify the appropriate person to provide the attestation.

With respect to the language in paragraph (c)(2), TEC stated that, because the activities identified in paragraph (c)(1) should not be exhaustive, may not be completed by the time of inspection (if the measures are seasonal or temporary in nature), or may be subject to a good cause exception, it would be more appropriate to attest to the actions taken "pursuant to" paragraph (c)(1) rather than describing activities taken "to complete" the requirements of paragraph (c)(1)

Commission Response

The commission declines to use the words "pursuant to" as suggested by TEC, because the word "complete" best describes the state of the best effort activities a generation entity is required to meet under paragraph (c)(1) when filing its winter weather readiness report. However, the commission revises subparagraph (c)(2)(B) to reflect in the attestation that a generation entity may request a good cause exception under paragraph (c)(6).

Paragraph (c)(3), ERCOT Inspection Checklist Form

The proposed paragraph would require ERCOT to develop a comprehensive checklist form.

Vistra and TCPA requested an opportunity for stakeholder input into the creation of the form and Capital Power requested an opportunity to review resource-specific forms before compliance is required. Specifically, TCPA and Vistra requested an opportunity to better understand the form to be able to provide feedback to ERCOT that would ensure information in the form was communicated clearly.

Commission Response

The commission declines to revise the rule in response to these comments. The development of an inspection checklist form is for the benefit of ERCOT's inspectors and is intended to provide information to the commission about ERCOT-conducted inspections. The commission has not included this requirement in the rule to give generation entities advance information on what ERCOT's inspectors may be specifically inspecting at the generation resource. Generation entities need to comprehensively prepare their generation facilities for weather emergencies instead of focusing on preparing specific components in anticipation of their inspection by ERCOT. Furthermore, in the development of its checklist form, ERCOT is necessarily limited to the standards in subparagraph (c)(1). However, the commission revises the rule to allow more than one checklist form to be used by ERCOT, since ERCOT's inspectors may need different checklist forms depending on such factors as the type of generation resource being inspected.

Calpine requested deletion of the reference to subsystems based on its assertion that the reference is duplicative and ambiguous.

Commission Response

The commission declines to adopt Calpine's recommendation to delete the reference to subsystems. The reference is appropriate to highlight the necessity of inspecting subsystems because a subsystem that malfunctions can have a significant impact on the operation of a generation resource.

Paragraph (c)(4), ERCOT Report on Generation Entity Winter Weather Readiness Report

The proposed paragraph would require ERCOT to file with the commission no later than December 10, 2021 a summary of the winter weather readiness reports filed under paragraph (c)(2) that addresses compliance of the generation entities with paragraphs (c)(1) and (2). Vistra and TCPA requested that the provision give a generation entity a reasonable period to appeal any determination of non-compliance reflected in ERCOT's report and to cure any identified deficiencies described in the report. TPPA asserted that the ERCOT report should be considered an inspection because of the proposed requirement that it address generation entities' compliance with paragraph (c)(1).

Commission Response

Because ERCOT will have only ten days to prepare and file this winter readiness report, the commission revises the rule provision to require a compliance report that addresses whether each generation entity submitted the report required by paragraph (c)(2) for each generation

resource under the generation entity's control and whether the generation entity submitted a notice asserting good cause for noncompliance under paragraph (c)(6). This rule revision makes moot TPPA's assertion and Vistra's request for an appeals process for an ERCOT determination in the report of noncompliance with paragraph (c)(1).

Calpine requested a January 15, 2022 deadline for ERCOT's report rather than the December 10, 2021 deadline in the proposed rule, arguing that the proposed deadline may not give ERCOT sufficient time.

Commission Response

The commission declines to make this change, because it has streamlined the requirements of what ERCOT must communicate in its December 10, 2021 report. Given the rule revision stated in the previous response, the commission finds there is sufficient time for ERCOT to prepare and submit the required winter readiness report by December 10, 2021.

Paragraph (c)(6), Good Cause Exception

The proposed paragraph would permit a generation entity to assert good cause for noncompliance with the specific requirements in paragraph (c)(1).

TPPA stated that good cause exceptions should be granted as a matter of enforcement discretion rather than in a contested case.

Commission Response

The commission accept TPPA's recommendation to eliminate the requirement for a contested case proceeding for a good cause exception to weather emergency preparation measures required in paragraph (c)(1). Although a contested case proceeding may provide additional transparency and formality to the review of a requested good cause exception, there are some types of good cause assertions that should not require a commission hearing, such as documented supply chain delays, that are likely to be resolved in a matter of days or weeks.

Instead of a mandatory contested case process, the commission concludes that assertions of good cause can initially be administered as enforcement investigations through which non-controversial requests can be efficiently reviewed and resolved and more complex, contentious issues can be addressed through a settlement process between the parties or the formal contested case process. The commission, therefore, revises paragraph (c)(6) accordingly.

Capital Power noted the lack of a deadline to request a good cause exception, and AARP requested a deadline for a good cause exception request and the notice to ERCOT of the request, and specifically requested that the deadline be before December 1, 2021, the date that a generation entity's winter weather readiness report is due. OPUC requested a process for reviewing a good cause exception, with a reasonable timeline for stakeholder comment.

Commission Response

The commission revises the rule provision to impose a December 1, 2021 deadline, the same date that a generation entity's winter weather readiness report is due under paragraph (c)(2). The commission declines to adopt OPUC's recommendation to add to the rule details of the review process for a request for good cause exception. The specifics of the review process should be addressed on a case-by-case basis, like all enforcement investigations are handled by the commission.

Enbridge requested a predetermination of good cause where the generation entity confirms that it is dependent on the equipment manufacturer for related preparations and the manufacturer confirms it cannot make the December 1, 2021 deadline. Enbridge also requested further detail on what documentation is required for a request for good cause exception.

Commission Response

The commission declines to make changes in response to Enbridge's requests. A determination of good cause may depend on the specific facts of the request and the provision is sufficiently specific with respect to required documentation given that the basis for a good cause exception may depend on the specific facts of a request.

LCRA requested clarification that a good cause exception request is not required to avoid redesign or reconstruction of a resource.

Commission Response

The commission makes no change to this provision in response to LCRA's request for the reasons addressed in its response to comments on subparagraph (c)(1)(c).

TIEC requested clarification that a good cause exception could allow a permanent exception to the requirements of paragraph (c)(1).

Commission Response

The commission clarifies clause (c)(6)(A)(iii)'s reference to a proposed compliance deadline for a request for a permanent exception.

AARP stated that an applicant for a good cause exception should be required to demonstrate it made every effort to meet the deadline; financial or cost considerations should not be sufficient to justify a good cause exception. In addition, AARP requested a limit on the maximum delay in meeting the weatherization deadline. AARP stated that delays should be short-lived and anything beyond a reasonable short period (e.g., 30 days) should be re-justified if allowed at all.

Commission Response

The commission agrees with AARP that the standard for a good cause exception should be high, and the commission intends to apply the standard accordingly. The commission declines to include specific maximum time limits in the rule as suggested by AARP. The justification for a good cause exception may often be fact specific and a compliance deadline must account for those specific factual circumstances.

OPUC requested a revision to ensure that specified consequences and penalties will be imposed by the commission, unless a good cause exception granted.

Commission Response

The commission declines to detail specific consequences and penalties for noncompliance under paragraph (c)(1). 16 TAC § 25.8 (relating to Classification System for Violations of Statutes, Rules, and Orders Applicable to Electric Service Providers) establishes a classification system for the assessment of administrative penalties. This assessment is fact-intensive and is therefore best made in response to an actual violation as part of an enforcement investigation by the commission.

Paragraph (d)(1), ERCOT Inspection of Generation Resources

This paragraph would require ERCOT to inspect generation resources.

Oncor Cities requested that the commission require the inspections be conducted on-site by qualified, full-time ERCOT inspectors or by inspectors employed by another qualified entity selected by the commission and ERCOT. Oncor Cities also requested that ERCOT present a plan for hiring and training inspectors. Finally, Oncor Cities requested that ERCOT establish a mandatory inspection schedule to which it must adhere.

Commission Response

The commission declines to adopt the changes proposed by Oncor Cities. The commission determines that ERCOT can suitably use its expertise and industry insights to determine

how best to schedule and conduct inspections of generation resources. ERCOT's plans to engage full-time inspection staff and supplemental outside contractors are best determined by ERCOT.

Oncor Cities expressed concern about ERCOT's ability to both conduct inspections and maintain focus on its other critical core functions.

Commission Response

Oncor Cities' concerns about ERCOT's other critical core functions are beyond the scope of this rulemaking project, which is focused on developing weather emergency preparation measures and reliability standards for generation resources and transmission facilities.

ERCOT Prioritization of Inspections Based on Risk Level

This paragraph would require ERCOT to prioritize its inspection schedule based on risk level.

TAEBA stated that the commission should define the term risk level and clarify whether ERCOT's pre-inspection risk level assessment of generators will be publicly available and how often ERCOT will be required to update its assessment to reflect measures taken by generators to enhance reliability. Enel similarly requested clarification of the risk level ERCOT will use.

Commission Response

The commission declines to define the term risk level. The rule enumerates several characteristics of risk to grid reliability upon which ERCOT may determine how to

effectively prioritize its inspections. Moreover, due to security concerns, ERCOT will not publicly post whether the loss of generating capacity at a particular generation resource presents a reliability risk.

As explained in the discussion of the definition of inspection in paragraph (b)(5) of the rule, the commission moves the provision that requires ERCOT to determine the number, extent, and content of inspections in consultation with the commission to this paragraph (d)(1) as well as paragraph (g)(1). To address the discussion in paragraph (b)(5) related to physical security of generation resources to be inspected, the commission revises the rule to require ERCOT to notify a generation entity of an upcoming inspection, ensure ERCOT's inspectors have access to the generation resource to be inspected, and permit a generation entity to escort ERCOT's inspectors while they are on site.

The commission also replaces "extreme weather conditions" with "weather emergency conditions" to make this requirement consistent with the overarching context of the requirements in paragraph (c)(1).

Paragraph (d)(2), ERCOT Inspection Report

The proposed paragraph would require an inspection report and require actions to be taken for deficiencies that are identified in the report.

TPPA requested that the inspection report be provided in writing so that a generation entity will have complete information regarding the results of the inspection.

Commission Response

The commission declines to adjust the rule to require that the inspection report be provided in writing because doing so would unnecessarily limit the manner in which an inspection assessment may be provided most efficiently to the generation entity. In some instances, it may be most effective for ERCOT to provide immediate feedback to the generation entity at the time of the inspection. In other instances, a more detailed, written report should be provided to the generation entity. Given the timeframe for the winter 2021-2022 inspections, the commission is unwilling to hinder ERCOT's ability to provide important timely feedback.

Proposed paragraph (d)(2) would also require ERCOT to provide a reasonable period of time to a generation entity to cure deficiencies identified in an inspection report before any enforcement investigation can be taken. TEC requested that the commission add cost as one of the specific factors that ERCOT would use to determine an appropriate cure period.

Commission Response

The commission disagrees with TEC's proposal and declines to add cost to the list of factors ERCOT must consider when determining an appropriate cure period. Both the rule and PURA require ERCOT to provide a reasonable time period for generation entities to resolve noted deficiencies, and the rule requires ERCOT to consider the complexity of weather emergency preparation measures when it determines an appropriate cure period. The cost

of a given measure is not necessarily correlated with the amount of time the solution may take to implement.

TPPA, TEC, TCPA, and Calpine each requested that the commission entitle a generation entity to an appeal of ERCOT's determination of noncompliance and to be able to dispute the time period specified by ERCOT to remedy the deficiencies. Calpine also intimated that, because the rule is new and its interpretation will likely evolve over the coming months, a generation entity should be allowed to dispute ERCOT's findings, especially because the commission is able to apply a $1 million per day enforcement penalty for noncompliance.

Commission Response

The commission declines to change the rule to allow a generation entity to appeal ERCOT's determination of deficiencies or the amount of time specified by ERCOT to remedy deficiencies. The rule requires ERCOT to communicate its determination of noncompliance directly to a generation entity, and a noncompliant generation entity will have a reasonable amount of time to cure the deficiencies. The commission does revise the rule provision to allow a generation entity the opportunity to request a different amount of time to remedy deficiencies. Any such request, however, must be supported by documentation that justifies the different amount of time requested to cure the deficiency. The commission also notes that, although PURA §35.0021(g) requires the commission to impose an administrative penalty on a generation entity that has not cured its noncompliance within a reasonable amount of time, the amount of the administrative penalty will be determined through the

commission's enforcement process subject to PURA §15.023, which provides an entity with the opportunity to dispute an adverse finding through a contested case.

TPPA suggested that, as an alternative to an appeal process, the commission could clarify that §25.503(f)(2)(c) could be cited by a generation entity if ERCOT required a remedy within an unreasonable amount of time.

Commission Response

Section 25.503(f)(2) applies only to ERCOT procedures and protocols. §25.55 is not an ERCOT procedure or protocol. Therefore, a generation entity will not be excused from compliance with this rule simply by citing to §25.503(f)(2). The commission notes, however, that a generation entity is entitled to assert good cause for noncompliance with portions of this rule under paragraph (c)(6). Should a generation entity conclude that compliance with paragraph (c)(1) would jeopardize public health and safety or create risk of bodily harm or damage to equipment, for example, the generation entity can assert good cause for noncompliance or submit a request for a good cause exception. Further, it is the commission, not ERCOT, that ultimately determines whether the cure period was reasonable for enforcement purposes.

Proposed subsection (d)(2) would also require the cure period to be based on several factors, including ERCOT's determination of the risk of the resource's noncompliance to system reliability. Calpine commented that there are no metrics by which ERCOT must consider the "reliability risk of the resource's noncompliance" when determining an appropriate cure period, and therefore recommended the deletion of the clause from the rule.

Commission Response

The commission declines to adopt Calpine's recommendation to delete the clause, "the reliability risk of the resource's noncompliance" from the rule. The rule's entire focus is on mitigating risks to the reliable operation of the ERCOT bulk power system during a weather emergency. ERCOT's experience operating the bulk power system enables it to determine what type of risk a generation resource's noncompliance would have on bulk power system reliability. Not considering the reliability risk caused by a generation resource's noncompliance with this rule would be to ignore a core component of SB 3. Moreover, the commission regularly takes reliability risk into account when assessing administrative penalties for violations of ERCOT Protocols and the commission's rules.

Subsection (e), Weather-Related Failures by a Generation Resource to Provide Service

Proposed subsection (e) would require a generation entity with a resource that experiences repeated or major weather-related forced interruptions of service to contract with an independent engineer to assess the entity's plans and preparations for weather events.

Calpine requested that the commission clarify the term "repeated" because it could refer to multiple occurrences of forced interruption of service in one season or to occurrences of forced interruptions of service over more than one season. Calpine recommended "repeated" should be understood to mean multiple occurrences in same season, yet then provided language that deleted the word "repeated" and replaced it with "multiple occurrences of the same failures in similar conditions over a period of three years."

Commission Response

The commission declines to revise the subsection as suggested by Calpine. The language "repeated or major weather-related forced interruptions of service" is taken directly from PURA §35.0021 and should be understood to apply to recurring failures at a generation resource that result in a resource trip, deration, or failure to start. The commission, at this time, declines to define over what period of time a recurring failure at a generation resource would constitute a repeated forced interruption of service.

TEC suggested that the commission expanded the scope of the rule by including the term "maintenance-related outages" as a type of repeated or major weather-related forced interruptions of service contemplated by the statute. TEC's concern centered around the fact that maintenance outages are not necessarily indicative of a need for additional commission oversight. TEC then proposed to strike the entire clause "including forced outages, derates, or maintenance-related outages" from the subsection. Similarly, Enel requested the commission clarify that a resource on an outage that is necessary according to its operating plan should not be classified as a "weather-related failure."

Commission Response

TEC's and Enel's proposed revisions are too broad. Maintenance-related outages are not *always* a signal that additional oversight by the commission is needed, because a generation resource operator may try to take advantage of small windows of time over several days to fix multiple problems to keep the generation resource online when it is needed. In addition, as noted by Enel, certain types of generation resources are required to stop operating under more severe weather conditions; for example, wind generators cannot safely operate when wind speeds exceed a certain threshold.

However, if a generation entity must take repeated maintenance level outages at a generation resource due to a failure to adequately prepare the generation resource for winter weather operations, the repeated maintenance-level outage *is* a signal to the commission that more oversight is required. If a generation resource is taking an outage for reasons beyond maintaining safe operating practices, additional commission oversight may be required. Moreover, TEC's exclusion of "forced outages" and "derates" suggests a desire to narrow the scope of the rule. Therefore, the commission revises the subsection by changing the word "including" to "such as" to demonstrate that forced outages, derates, and maintenance-level outages are examples of forced interruptions of service that may require a generation entity to engage an independent assessment of it generation resource.

Proposed subsection (e) would also require the engagement of an independent engineer who is not affiliated with the generation entity and has not participated in a previous assessment under this rule of one of the entity's resources.

Many commenters opposed excluding professional engineers who had participated in previous assessments of a resource experiencing repeated or major weather-related forced interruptions of service from conducting such an assessment again. TPPA, TEC, LCRA, Exelon, and Calpine each urged the commission to delete this prohibition because of a perceived limited pool of qualified and available engineers. LCRA further stated that the proposed restriction also imposed an unlawful restraint of trade.

Commission Response

The commission agrees with the commenters that the proposed limitation may result in unintentional difficulties to find qualified, independent engineers. However, it is important that generation entities use independent, unaffiliated engineers to conduct these inspections. Therefore, the commission revises the rule to prohibit the use of the same engineer more than once every five years, unless the generation entity can show that there are no other qualified, independent engineers reasonably available for engagement. Limiting the number of times an engineer can provide an independent assessment would not represent a restraint on free trade. The restriction imposed by subsection (e) is not for the benefit of one private party over another; rather, it is in the public's interest to ensure an engineer can assess generation resource readiness free from undue pressures of the generation entity and bias.

Proposed subsection (e) would also require ERCOT to adopt rules that implement this subsection. TAEBA, Exelon, and TCPA each requested clarification of the scope of and process ERCOT will use to adopt rules that implement this subsection. Specifically, Exelon wanted the scope of the ERCOT rule to consider whether it would be appropriate to require a wind generation entity to engage an independent consultant for repeated forced outages related to icing on turbine blades. Also, TCPA and TAEBA sought clarification of whether the rule adoption process will be open to the public or follow the traditional ERCOT market participant stakeholder procedures.

Commission Response

Currently, all ERCOT rules are adopted through an extensive stakeholder process, which provides multiple opportunities for market participants and other interested entities to provide ideas, submit feedback, and help shape market and reliability rules. The commission expects the rules required under subsection (e) to be adopted under the existing procedures or as amended by the ERCOT board of directors. In addition, all ERCOT protocols must be approved by the commission before becoming effective. The commission declines to prejudge the validity of including any specific type of component failure in the determination of whether repeated or major weather-related forced interruptions of service have occurred.

TPPA requested the commission clarify that the obligation of a generation entity to contract with a third-party qualified engineer to assess the entity's preparation measures, plans, procedures, and operations applies only after ERCOT adopts rules implementing this subsection (e).

Commission Response

The commission declines to delay the effective date of this rule provision, as requested by TPPA, until after ERCOT has adopted rules implementing subsection (e). PURA §35.0021(d) obligates the commission *by rule* to require a generation entity to contract with an independent person to assess the generation entity's preparations, plans, procedures, and operations. The commission expects ERCOT to adopt the rules necessary to implement this section in a timely fashion. However, the commission requires the assessment be conducted by an independent professional engineer, which should ensure that any assessments conducted prior to the adoption of rules by ERCOT are still meaningful.

TAEBA requested clarification of the conditions under which generation resources would be subject to additional inspections by ERCOT under subsection (e).

Commission Response

The commission declines to change the rule in response to this comment. Upon review of an independent engineer's generation resource assessment, ERCOT and the commission have discretion to consider the specific circumstances in determining whether the corrective actions taken by a generation entity to resolve the causes of a generation resource's repeated failures or major weather-related failures require additional scrutiny to ensure that the failures are unlikely to occur again under similar circumstances. Such additional inspections will adhere to the rules delineated in subsection (d).

Proposed subsection (e) would also require ERCOT to refer to the commission for investigation a generation entity that has violated the rule.

TEC and Texas Solar Power Association each requested clarification on the referral of violations of the rule. TEC requested the commission refine subsection (e) to clarify that ERCOT will only refer violations of this rule to the commission for enforcement of material deficiencies based on the independent engineer's assessment. TSPA requested clarity about what constitutes a reasonable period of time for a generation entity to cure a violation.

Commission Response

The commission declines to adopt TEC's recommendation to limit ERCOT referrals of violations only to material deficiencies. PURA §35.0021(c)(3) specifically requires ERCOT to report any violation of the rules adopted under this statute. Additionally, PURA §35.0021(g) requires the commission to impose an administrative penalty on a generation entity that violates these rules after giving the entity a reasonable opportunity to remedy the violation. The statutory requirements are clear, and the rule incorporates several opportunities for a generation entity to engage with ERCOT and the commission to correct a violation before enforcement action is taken by the commission.

The commission also declines to further define what constitutes a reasonable period of time to cure violations under this provision. Like with paragraph (d)(2), the commission retains its discretion to determine a compliance investigation process that allows ERCOT, the

generation entity, and the commission the opportunity to engage in meaningful discussions about how best to quickly resolve violations of the rule.

Subsection (f), Weather Emergency Preparedness Reliability Standards for a Transmission Service Provider

Proposed subsection (f) would establish weather preparation requirements that a TSP must take in advance of the 2021-2022 winter weather season. Calpine requested that if the commission does not adopt its suggestion to delete the words "phase one" included in the heading of subsection (c), then the heading of subsection (f) should be modified to include "phase one."

Commission Response

The commission deleted "phase one" from the heading of subsection (c). Accordingly, the commission declines to add "phase one" to the heading for subsection (f).

Oncor requested the commission extend the deadline to comply with the requirements of paragraphs (f)(1) and (f)(2) to December 15, 2021. Oncor stated that the December 1, 2021 deadline creates tight timing challenges to conduct training and complete inspections. Oncor suggested the extended deadline would enhance the expected benefits of these requirements.

Commission Response

The commission declines to extend the deadline imposed in paragraphs (f)(1) and (f)(2). TSPs incapable of completing the requirements are able to file a request for a good cause exception under paragraph (f)(2).

Paragraph (f)(1), Weather Emergency Preparation Measures

TNMP suggested adding the word "transmission" to clarify "its systems and facilities" in subsection (f)(1). Similarly, TEC suggested clarifying that the commission intended the systems and facilities identified through subsection (f)(1) to be those operated at transmission voltage. TEC requested the editing of subparagraphs (f)(1)(E), (f)(1)(F), and (f)(1)(H) to insert transmission voltage to describe certain components, systems, and equipment. Oncor requested clarification that the proposed rule applies to transmission-voltage switching stations and substations and not the distribution-voltage side of substations. AEP Companies requested clarification that winter weather emergency preparation measures enumerated throughout subsection (f)(1) apply only to high-voltage switching stations operating at or above 60 kilovolts.

Commission Response

The commission agrees with the commenters that the intent of subsection (f)(1) is to prepare components and equipment that operate at transmission level voltage. In paragraph (b)(1), the commission revises the definition of cold weather critical component applicable to TSPs to mean only transmission-voltage equipment located inside the fence surrounding a TSP's high-voltage switching station or substation. The commission finds additional revisions as recommended by the commenters above are not needed with this revised definition in place.

AEP Companies, TNMP, and Oncor stated that subparagraphs (A), (B), and (H) are not drawn directly from the 2011 FERC/NERC Report recommendations and should be deferred to phase two of the commission's weather preparedness rulemaking process where these provisions can be

developed and discussed by stakeholders. CenterPoint stated that the requirements listed in subparagraphs (f)(1)(A), (f)(1)(B), (f)(1)(C), and (f)(1)(H) are not recommendations made in the 2011 FERC/NERC Report. Moreover, CenterPoint stated that these provisions are "too vague and ambitious for such quick implementation" and should be implemented in a future phase of the rulemaking.

Commission Response

The commission declines to remove the requested provisions from paragraph (f)(1), because these requirements are intended to prepare transmission systems to maintain service quality and reliability during the 2021-2022 winter weather season, in accordance with PURA §38.075. Exclusively addressing recommendations from the 2011 winter weather event would ignore lessons learned from the most recent 2021 winter weather event.

Sharyland commented that a "cold weather critical component" of a facility within a TSP's system that could freeze *and* likely result in a generation unit tripping, derating, or failing to start would include power transformers, high voltage circuit breakers, and certain specific elements within those components. Sharyland supported subparagraphs (f)(1)(A), (f)(1)(B), (f)(1)(C), and (f)(1)(H) assuming the inclusion of those components.

Commission Response

The commission revises the definition of cold weather critical component in paragraph (b)(1) rendering Sharyland's comments moot. The revised definition specifically addresses cold

weather critical components applicable to TSPs, in part, by removing references to generation resources.

Subparagraph (f)(1)(A), Preparation of Cold Weather Critical Components

TPPA and TNMP recommended the Commission clarify the definition of "sustained operation" in this provision to define the length of time a TSP is expected to ensure operation. LCRA TSC stated that the provision should be changed because it proposes to require a TSP to "ensure" a specific performance outcome, which is neither appropriate nor consistent. TEC proposed changes to reflect the preparation standard articulated in PURA §38.075 and to make explicit that actions must be reasonable and appropriate, in line with good utility practice.

Commission Response

The commission agrees with the commenters that the rule should impose a preparation standard on a TSP rather than a performance standard. The commission finds that the adjective "necessary" could be interpreted as requiring a certain level of performance and, thus, replaces it with "intended." To intend is to plan or to have something in mind as a purpose or goal. The use of "intended" should clarify that the rule is a preparation standard.

The commission requires a TSP to use its best efforts to meet the requirements specified throughout paragraph (f)(1). The commission changes "All actions" to "Best efforts" to reflect the preparation standard. The TSP must decide how best to comply with the requirements of this rule and further has the option to assert good cause for noncompliance.

The commission replaces "preparations" with the defined term "weather emergency preparation measures" to clarify its intent. Consistent with its discussion of the definition of weather emergency preparation measures with respect to proposed paragraph (b)(7), adopted paragraph (b)(8), the commission adds types of weather emergency preparation measures listed in proposed paragraph (b)(7) to subparagraph (f)(1)(A).

Finally, the commission declines to define the term "sustained operation" because the reliability standard in the rule provision pertains to the preparations taken in advance of operations, not the amount of time a transmission facility is capable of operating. Assuming the TSP can demonstrate it used best efforts intended to ensure sustained operation of the facility, the compliance standard should be met.

Subparagraph (f)(1)(C), Preventing Reoccurrence of Failures

The proposed subparagraph would require all actions necessary to address cold weather critical component failures that occurred under winter weather conditions in the period between November 30, 2020 and March 1, 2021.

Several commenters requested clarifications of subparagraph (f)(1)(C), claiming it is too broad. LCRA TSC stated that the proposed language "all actions necessary" transformed the rule into a performance standard, while CenterPoint recommended that the actions taken be "reasonable and prudent". CenterPoint also requested that the components be "owned and operated by the TSP." TPPA and TEC suggested that subparagraph (f)(1)(C) should be limited to failures that occurred directly due to winter weather, rather than one-off occurrences unrelated to cold weather

operations. AEP Companies recommended that the provision apply only to circuit breaker or transformer failures that occurred due to freezing temperatures in the designated period. City of Houston stated that the provision should require a TSP to verify the need for the additional items; the estimated costs, expected benefits of the upgrades, and how this would have helped prevent any outages that occurred during Winter Storm Uri.

Commission Response

The commission agrees with the commenters that "all actions necessary" should be deleted and, consistent with its revision to subparagraph (c)(1)(C), the commission changes the phrase to "best efforts to." In addition, the commission agrees with commenters and revises subparagraph (c)(1)(C) to apply only to failures that occurred due to winter weather conditions between November 30, 2020 and March 1, 2021. However, the commission declines to limit the scope of the subparagraph to circuit breakers and transformers failures because other cold weather critical components during winter weather conditions are also cause for concern. The commission also declines to add "owned and operated by the TSP" as the commission has clarified the definition of cold weather critical component in paragraph (b)(1). The commission declines to require the verification requested City of Houston because a TSP is already required to prove the reasonableness of costs it seeks to recover in transmission rates.

Subparagraph (f)(1)(D), Training

Oncor Cities stated that the lack of standards contained in the subparagraph could leave the rule open to broad interpretation. TNMP proposed either replacing "winter weather preparation" with

"load shed procedure training" or adding the new term to the subsection to more closely align with the 2011 FERC Winter Report. AEP Companies requested the commission not add any new training requirements in advance of the 2021-2022 winter weather season. In the alternative, AEP Companies stated that the training should focus on weather emergency preparation measures. CenterPoint recommended adding "including load shedding procedures" to the proposed language.

Commission Response

The commission revises subparagraph (f)(1)(D) to mirror revisions to subparagraph (c)(1)(D). The commission declines to adopt Oncor Cities' recommendation and notes the training programs must be flexible enough to meet facility-specific operational guidelines and weather preparations. The commission also declines to add a new term or change the rule to specify the training requirement should be focused on load shed procedures. There are many preparations TSPs will need to take to get ready for the upcoming winter weather season, and the commission declines to specify particular types of training requirements.

Subparagraph (f)(1)(E), SF6 Gas Breakers and Metering

TPPA requested the commission clarify that these requirements only apply to existing installations that use sulfur hexafluoride gas and should not be interpreted as an instruction that existing transmission breakers (or other equipment) that do not use sulfur hexafluoride gas be replaced with those that do. Oncor suggested that it would be more effective to inspect the items listed closer to the expected cold weather temperatures or other winter weather emergency.

Commission Response

As noted above, the commission changes subparagraph (f)(1)(A) by deleting "all actions" and instead requiring TSPs to use their "best efforts" to address the failures of cold weather critical components. A TSP must decide how best to comply with the requirements of this rule using its expertise and professional judgment; therefore, the commission declines to make the change recommended by TPPA. However, the commission replaces "extreme cold weather" with "winter weather emergency" to make this requirement consistent with the overarching requirements of paragraph (f)(1).

AEP Companies and CenterPoint recommended correcting a typographical error, replacing "by" with "and" to align with the 2011 FERC/NERC Report recommendation regarding SF6 gas in breakers, while Sharyland would prefer using "including."

Commission Response

The commission accepts AEP Companies and CenterPoint's recommendation and revises the rule accordingly. The commission declines to adopt Sharyland's recommendation in favor of the recommendation provided by AEP Companies and CenterPoint.

Subsection (f)(1)(F), Operability of Power Transformers

CenterPoint recommended adding auto transformers to the list of equipment a TSP must verify are operable in cold temperatures. CenterPoint also suggested deleting "extreme" as a description of the type of cold weather in which transformers should be prepared to operate.

Commission Response

The commission accepts CenterPoint's recommendation to include auto transformers in the rule language because they should be covered by this provision. The commission also replaces "extreme cold temperatures" with "winter weather emergencies" to clarify the circumstances for preparation.

Proposed Subparagraph (f)(1)(G), Determination of Ambient Temperatures

Sharyland was unclear about the scope of a TSP's equipment addressed by the provision and suggested that an overly broad interpretation of the "equipment" could lead to irrational outcomes. TEC recommended deleting this subpart because of the ambiguity of "equipment" and the difficulty of confirming ambient temperatures outside operations in actual weather conditions. TEC also noted overlap in reporting requirements with subparagraph (f)(1)(H) in that both require determination of temperatures and operating limitations. TPPA requested clarification as to whether the commission wanted an independent analysis of the specifications or if providing manufacturer specifications would suffice. AEP Companies proposed revisions to track more closely to the 2011 FERC/NERC Report recommendations.

Commission Response

The commission agrees with TEC that subparagraph (f)(1)(G) overlaps with subparagraph (f)(1)(H) and notes that the analysis required to document ambient temperatures may require greater effort than can be achieved in this rulemaking project timeline. Therefore, the commission will accept minimum design temperatures or minimum experienced operating temperatures, and other operating limitations as specified in subparagraph

25.55(f)(1)(H). The commission, therefore, deletes proposed subparagraph (f)(1)(G) but may reconsider it in a future rulemaking project.

Proposed Subparagraph (f)(1)(H), Design and Operating Limitations

Oncor Cities requested specific standards be included and was unsure if the determination of limitations is intended to be based on manufacturing specifications or based on the operations experience of each specific resource. Sharyland supported allowing the TSP to determine limitations, which would likely be based on various design specifications from the numerous transmission standards or from the design criteria from the original equipment manufacturers. LCRA TSC suggested that the provision be modified such that TSPs could provide minimum design temperature, minimum operating temperatures, or other operating limitations. AEP Companies, Oncor, TNMP, and CenterPoint proposed addressing design, operating, and other limitations in phase two of the rulemaking.

Commission Response

The commission accepts these commenters' recommendation for a transmission facility's operational limitations to be determined using operational history. Such operational history includes the February 2011 and 2021 winter weather events and is consistent with the legislative aim to take recent prior events into account. The commission, therefore, revises the rule accordingly.

Paragraph (f)(2), Winter Weather Readiness Report

TEC requested a revision to paragraph (f)(2) to use the words "pursuant to" when describing activities to be reported in the attestation under paragraph (f)(1) rather than the word "to complete" because, according to TEC, those activities should not be exhaustive, may not be completed by the time of inspection (if the measures are seasonal or temporary in nature), or may be subject to a good cause exception.

Commission Response

The commission declines to use the words "pursuant to" as suggested by TEC, because the word "complete" best describes the state of the best effort activities a TSP is required to meet under paragraph (f)(1). However, the commission revises subparagraph (f)(2)(B) to reflect in the attestation that a TSP may request a good cause exception under paragraph (f)(4).

AEP Companies requested that "all activities" be replaced with "weather emergency preparation measures."

Commission Response

The commission declines to adopt AEP Companies' recommendation, because the use of "all activities" emphasizes the comprehensive nature of the requirement. The commission notes that "all activities" should be interpreted within the overall context of the rule and that a TSP will use appropriate professional judgment when using its best efforts to implement weather emergency preparation measures.

AEP Companies requested the winter weather readiness report include a summary sheet that confirms the TSP has completed the necessary preparation measures and a description of measures taken by the TSP. AEP requested these changes to ease the TSP's reporting and submission of the required information given the short timeline afforded to TSPs for complying with the reporting requirements.

Commission Response

The commission declines to make the recommended changes to the TSPs' winter weather readiness report. Like the TSPs, ERCOT has a short timeline to gather and analyze the TSPs' winter weather readiness reports. ERCOT is capable of developing a comprehensive form that can be efficiently filled out by the TSPs. Finally, the form will be developed in consultation with commission staff, who will help ensure a balance of efficiency and completeness.

Paragraph (f)(3), ERCOT Compliance Report

AEP Companies requested deletion of the phrase "for all facilities subject to the requirements" as unnecessary.

Commission Response

The commission declines to make this change because the phrase emphasizes the requirement that the report be comprehensive. However, the commission revises this paragraph to make it consistent with revisions made to paragraph (c)(4).

Paragraph (f)(4), Good Cause Exception Request

CenterPoint requested a December 1, 2021 deadline for the submission of a request. CenterPoint also requested a revision to tie the detailed description and supporting documentation required by clause (f)(4)(A)(ii) to the requirement for which the good cause exception is requested rather than compliance more generally with paragraph (f)(1).

Commission Response

Consistent with CenterPoint's request and the revision to paragraph (c)(6), the commission revises the rule provision to impose a December 1, 2021 deadline for submission of a request for good cause exception. The commission also agrees with the requested revision to refer in clause (f)(4)(A)(ii) to the requirement for which the good cause exception is requested. In addition, the commission revises paragraph (f)(4) to make it consistent with the revisions to paragraph (c)(6) to provide for a streamlined process for good cause exceptions requests.

Subsection (g), Inspections for a Transmission Service Provider

Paragraph (g)(1), ERCOT Inspections

Proposed paragraph (g)(1) would require ERCOT to inspect the preparations of transmission systems and facilities ahead of the 2021-2022 winter weather season and requires ERCOT to prioritize inspections based on a risk assessment.

Oncor Cities recommended the commission require the inspections to be conducted on-site by qualified, full-time ERCOT inspectors or by inspectors employed by another qualified entity selected by the commission and ERCOT. Oncor Cities also requested ERCOT to present a plan

for hiring and training inspectors. Finally, Oncor Cities proposed ERCOT establish a mandatory inspection schedule to which it must adhere.

Commission Response

The commission declines to adopt the changes proposed by Oncor Cities for the same reasons enumerated in its response to comments on paragraph (d)(1).

Oncor Cities expressed concern about ERCOT's ability to both conduct inspections and maintain focus on its other critical core functions.

Commission Response

Oncor Cities' concerns about ERCOT's other critical core functions are beyond the scope of this rulemaking project, which is focused on developing weather emergency preparation measures and reliability standards for generation resources and transmission facilities.

AEP companies requested ERCOT be required to provide sufficient notice to a TSP of a physical inspection of a substation to ensure the TSP can arrange safety escorts.

Commission Response

The commission revises the rule to require ERCOT to provide at least 48 hours' notice so that a TSP can make necessary safety and security arrangements. In order to remain consistent with the discussion in paragraph (b)(5) related to the physical security of facilities to be inspected by ERCOT, the commission also revises the rule to ensure ERCOT's

inspectors have access to the facility, and permit TSPs to escort ERCOT's inspectors while they are on site.

TPPA, TEC, and Oncor each recommended changes that would limit inspections to transmission voltage equipment owned and operated by a TSP. All three commenters noted that as proposed the rule could be interpreted to require inspection of a TSP's entire system, both inside and outside a substation fence line and including hundreds to thousands of miles of transmission line. TPPA specifically cited the extensive cost and logistical challenge of such a broad interpretation of the rule.

TAEBA's comments presumed ERCOT will inspect thousands of miles of transmission lines and TAEBA advised the commission that artificial intelligence and risk management software can aid in the identification of potential problems areas in the transmission system to help establish a prioritization scheme for the inspection schedule.

Commission Response

The commission adds clarifying language to paragraph (g)(1) instead of adding a new paragraph to limit the scope of ERCOT's inspections of a TSP's facilities within the fence surrounding a TSP's high-voltage switching station or substation.

Because the scope of the rule is being clarified to require inspection only of inside-station-fence facilities, TAEBA's comments are moot.

The commission replaces "extreme weather conditions" with "weather emergency conditions" to make this requirement consistent with the overarching context of subsection (f).

Subsection (g)(2), ERCOT Inspection Report

Proposed paragraph (g)(2) would require ERCOT to report on its inspections of transmission facilities, identify compliance deficiencies to the TSP, and provide a reasonable period of time for the TSP to remedy the deficiencies.

City of Houston commented that ERCOT should be required to identify all TSP weatherization projects that will not be completed prior to the beginning of the 2021-2022 winter weather season. City of Houston stated that this information would be helpful for the commission's report to the legislature on weather emergency preparedness, required under PURA §186.007.

Commission Response

The commission finds that additional reporting is not required to meet the requirements of PURA §38.075. The weather emergency preparedness report is not within the scope of this rule and is being considered under Project Number 51841. Additionally, under subsection (h), ERCOT must report to the commission any TSP that violates the rule.

As discussed in its comments on proposed paragraph (d)(2), TEC recommended ERCOT be explicitly required to consider both cost and time when determining a cure period for a TSP to remedy deficiencies identified in its inspections. CenterPoint requested ERCOT consider all

relevant facts and circumstances when determining a cure period and provided a non-exhaustive list of examples.

Commission Response

The commission declines to add to the list of factors that ERCOT must consider when determining an appropriate cure period. Both the rule and PURA require ERCOT to provide a reasonable time period for an entity to remedy noted deficiencies, and the rule requires ERCOT to consider the complexity of the weather emergency preparation measures when it determines an appropriate cure period. The word "must" in this directive requires ERCOT to consider each of the factors described in the rule but does not indicate that these factors are the only factors ERCOT is allowed to consider when evaluating an appropriate cure period.

TPPA, TEC, and CenterPoint each requested the commission entitle a TSP to an appeal of ERCOT's determination of a cure period to remedy the identified deficiencies. The appeal process, according to these commenters, would ensure the TSP and commission have an opportunity to address the reasonableness of the cure period. Similarly, TNMP and CenterPoint recommended the commission allow ERCOT to consider any reasonable factors that may affect a TSP's ability to remedy a deficiency.

Commission Response

The rule requires ERCOT to communicate its determination of noncompliance directly to the TSP, and a noncompliant TSP will have a reasonable amount of time to cure the

deficiencies. The commission accepts TNMP's and CenterPoint's recommendations that consideration of the logistics of remedying a deficiency should be part of ERCOT's process to determine a reasonable cure period. The commission revises the rule provision to allow a TSP the opportunity to ask for a different amount of time to remedy deficiencies. Any such request must be supported by documentation to justify the additional time needed to cure a deficiency. However, the commission declines to add a specific appeals process consistent with paragraph (c)(4).

TPPA suggested that, as an alternative to an appeal process, the commission could clarify that §25.503(f)(2)(c) could be cited by a TSP if ERCOT required a remedy within an unreasonable amount of time.

Commission Response

For the same reasons cited in its response to TPPA's identical comment in subsection (d)(2), the commission determines that §25.503(f)(2) does not apply to instructions issued by ERCOT under this rule.

Proposed paragraph (g)(2) would require ERCOT to provide a report on its inspection of transmission facilities. TPPA requested the inspection report be provided in writing so that a TSP will have complete information regarding the results of the inspection.

Commission Response

The commission declines to change the rule to require the report be provided in writing because it would unnecessarily limit the manner in which ERCOT's inspection assessment may be provided most efficiently to the TSP. In some instances, it may be most effective for ERCOT to provide immediate feedback to the TSP at the time of the assessment. In other instances, a more detailed, written report should be provided to a TSP. Given the timeframe for the 2021-2022 winter weather season inspections, the commission is unwilling to hinder ERCOT's ability to provide important timely feedback.

Subsection (h), Weather-Related Failures by a Transmission Service Provider to Provide Service

Proposed subsection (h) would require a TSP with a facility that experiences repeated or major weather-related forced interruptions of service to contract with an independent engineer to assess the entity plans and preparations for weather events. The proposed subsection would also require ERCOT to adopt rules that specify the circumstances for which this requirement applies and specify the scope and contents of the assessment.

TNMP, AEP Companies, and CenterPoint each recommended the commission remove subsection (h) from the rule and reconsider it during a future rulemaking phase. TNMP stated that without more specific scoping and implementation rules adopted through the ERCOT stakeholder process, the subsection could require a TSP to contract with an independent engineer for any weather-related outage. AEP Companies also stated that more deliberation about the scope of the independent engineer reports is warranted. In the alternative, however, AEP Companies and CenterPoint recommended the commission clarify which rules would be subject to referral to the

commission for enforcement. CenterPoint declared the subsection to be impractical and unreasonable because the rule did not provide any principles to guide ERCOT in exercising the requirement to adopt rules implementing this subsection.

Commission Response

Currently, all ERCOT rules are adopted through an extensive stakeholder process, which provides multiple opportunities for market participants and other interested parties to provide ideas, submit feedback, and help shape market and reliability rules. The commission expects the rules required under subsection (h) to be adopted under the existing procedures or as amended by the ERCOT board of directors. In addition, all ERCOT protocols must be approved by the commission before becoming effective. The commission declines to prejudge the validity of including any specific type of component failure in the determination of whether repeated or major weather-related forced interruptions of service have occurred.

Additionally, PURA §38.075(d) requires the commission to impose an administrative penalty on a TSP that violates these rules after giving the TSP a reasonable opportunity to remedy the violation. The statutory requirements are clear, and the rules incorporate several opportunities for a TSP to engage with ERCOT and the commission to correct a violation before any enforcement action is taken by the commission.

Finally, the commission recognizes that CenterPoint's comments were written with the understanding that its entire transmission system would be subject to ERCOT's inspection under subsection (g)(1). With the clarification that the requirements enumerated in

subsection (f) are limited to transmission-voltage facilities within a station controlled by a TSP, the compliance inspections under subsection (g) will be limited to the same facilities. Therefore, the commission finds that the requirements imposed under subsection (h) are neither impractical nor unreasonable.

However, the commission refines the subsection to eliminate terms more suited for the evaluation of generation resources.

TEC and LCRA TSC alternatively stated that subsection (h) should be eliminated from the rule because PURA §38.075 does not contain language that authorizes the commission to require the hiring of an independent engineer to assess facilities that have experienced repeated or major weather-related forced outages. In fact, LCRA TSC claimed that subsection (h) is contrary to the plain language of the statute.

Commission Response

The commission disagrees with TEC and LCRA TSC. Although PURA §38.075 does not contain the specific language requiring the engagement of independent engineers, PURA §38.005(f) does provide the commission with broad authority to compel TSPs to adhere to operational criteria established by ERCOT or adopted by the commission. Additionally, PURA §39.151(i) allows the commission to delegate authority to ERCOT to enforce operating standards within the ERCOT power region. The requirement to engage an independent consultant to provide a third-party review of preparations taken at a transmission-voltage station is focused on the core components of SB 3, namely mitigating

risks to the reliable operation of ERCOT's bulk power system during a weather emergency. When repeated failures of equipment inside a station affect reliable operations, it is within the public interest to require additional analyses that could provide meaningful remediation strategies. Accordingly, the commission declines to delete subsection (h) from the rule.

Proposed subsection (h) would require the engagement of an independent engineer who is not affiliated with the TSP and has not participated in a previous assessment under this rule of the TSP's system or facilities.

Many respondents opposed excluding professional engineers who had participated in previous assessments of the TSP's system or facilities experiencing repeated or major weather-related forced interruptions of service from conducting such an assessment again. TNMP, CenterPoint, and AEP Companies each stated that if the commission chooses to retain subsection (h), then it should delete this prohibition because of a perceived limited pool of qualified and available engineers.

Commission Response

The commission agrees with the commenters that the proposed limitation may result in unintentional difficulties to find qualified, independent engineers. However, it is important to the commission that TSPs use independent, unaffiliated engineers to conduct these inspections. Therefore, the commission revises the rule to prohibit use of the same engineer more than once every five years, unless the TSP can show there are no other qualified, independent engineers reasonably available for engagement.

Proposed subsection (h) would also require ERCOT to refer to the commission for enforcement a TSP that has violated the rule and failed to remedy the deficiency within a reasonable amount of time.

CenterPoint again requested deletion of subsection (h) because it does not explicitly detail each step to be taken in an enforcement proceeding under this rule. The City of Houston recommended the commission specify that penalties may be assessed against TSPs that fail to remedy deficiencies within the cure period.

Commission Response

As noted above, the commission finds that the inclusion of subsection (h) to be in the public interest. CenterPoint's assertion that there is no visibility or certainty in the enforcement process is not persuasive. Like the other TSPs operating in the ERCOT power region, CenterPoint has experience with enforcement investigations conducted by commission staff and should understand well the discretionary nature of the process to find resolution to violations of a statute or commission rule. The commission notes that PURA §38.075(d) requires the commission to impose an administrative penalty on a TSP that violates the rule and fails to remedy the deficiency in a reasonable amount of time. The commission takes this obligation seriously and retains subsection (h) accordingly.

The commission similarly declines to change subsection (h) to provide that administrative penalties may be assessed in an enforcement action. PURA §38.075 requires the commission

to assess administrative penalties in enforcement investigations brought under this rule. Changing the rule in the manner proposed would not provide any clarity as to how the statute is to be implemented by the commission.

All comments, including any not specifically referenced herein, were fully considered by the commission. In adopting this rule, the commission makes other minor modifications for the purpose of clarifying its intent.

The section is adopted under Public Utility Regulatory Act (PURA), Tex. Util. Code §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 commission with the authority to make and enforce rules reasonably required in the exercise of its powers and jurisdiction; §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 statutes: PURA §14.001, §14.002, §35.0021, and §38.075.

§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.

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

(4) **Generation resource** – A generator 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) **Inspection** –Activities that ERCOT engages in to determine whether a generation entity is in compliance with all or parts of paragraph (c)(1) of this section or whether a TSP is in compliance with all or parts of paragraph (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.

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

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

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

(1) By December 1, 2021, a generation entity must complete the following winter weather emergency preparation measures for each resource under its control.

(A) Use best efforts to implement weather emergency preparation measures intended 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 the resource;

(B) Install adequate wind breaks for resources susceptible to outages or derates caused by wind; enclose sensors for cold weather critical components; inspect thermal insulation for damage or degradation and repair damaged or degraded insulation; confirm the operability of instrument air moisture prevention systems; conduct maintenance of freeze protection components for all applicable equipment, including fuel delivery systems controlled by the generation entity, the failure of which could cause an outage or derate, and establish a schedule for testing of such freeze protection components on a monthly basis from November through March; and install monitoring systems for cold weather critical components, including circuitry providing freeze protection or preventing 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) Provide training 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) By December 1, 2021, a generation entity 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:

(A) Describes 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) 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 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 (2)(A) of this paragraph.

(3) No later than December 10, 2021, ERCOT must file with the commission comprehensive checklist forms based on 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 to the inspections of the generation entity's resources.

(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

(v) 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 accuracy and veracity of the information in the request.

(F) ERCOT is a required party in a proceeding initiated 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.

(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 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 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 commission personnel, 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 access to any part of the facility upon request and

must make the generation entity's staff available to answer questions. A generation entity may escort ERCOT and commission personnel at all times during an inspection. During the inspection, ERCOT or commission personnel may take photographs and 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) of this section.

(B) If the generation entity has not complied with a requirement in subsection (c)(1) 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 a different amount of time to remedy the 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.

(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 clause (B)(iii) of this subparagraph.

(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.

(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 must not have participated in previous assessments for the resource for at least five years, unless the generation entity can document that no other qualified professional engineers are reasonably available for engagement. 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.

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

(1) By December 1, 2021, a TSP must complete the following winter weather preparations for its transmission system and facilities.

(A) Use best efforts to implement weather emergency preparation measures intended 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;

(B) Confirm the ability of all systems and subsystems containing cold weather critical components required to ensure operation of each of the TSP's substations within the design and operating limitations addressed in subparagraph (1)(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) Confirm 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;

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

(i) Checking heaters in the control cabinets;

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

(iii) Checking bushing oil levels; and

(iv) Checking the nitrogen pressure, if necessary.

(G) Determine minimum design temperature or minimum experienced operating temperature, and other operating limitations based on temperature, precipitation, humidity, wind speed, and wind direction for facilities containing cold weather critical components.

(2) By December 1, 2021, 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:

(A) Describes 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) 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 (2)(A) of this paragraph.

(3) No later than December 10, 2021, ERCOT must file with the commission a compliance report that addresses whether each TSP has submitted the winter weather readiness report required by paragraph (2) of this subsection for its transmission system and facilities and whether the TSP submitted an assertion of good cause for noncompliance under paragraph (4) of this subsection.

(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 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, 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 access to any part of the facility upon request and must make the TSP's staff available to answer questions. A TSP may escort ERCOT and commission personnel at all times during an inspection. During the inspection, ERCOT and commission personnel 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) of this subsection.

(B) If the TSP has not complied with a requirement in subsection (f)(1) 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 a different amount of time to remedy the 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.

(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 clause (B)(iii) of this subparagraph.

(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.

(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 must not have participated in previous assessments for this system or facility for at least five years, unless the TSP can document that no other qualified professional engineers are reasonably available for engagement. 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.

This agency certifies that the adoption has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority. It is therefore ordered by the Public Utility Commission of Texas that §25.55, relating to weather emergency preparedness, is hereby adopted with changes to the text as proposed.

Signed at Austin, Texas the _____ day of October 2021.

PUBLIC UTILITY COMMISSION OF TEXAS

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PETER LAKE, CHAIRMAN

_____

WILL MCADAMS, COMMISSIONER

_____

LORI COBOS, COMMISSIONER

_____

JIMMY GLOTFELTY, COMMISSIONER