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Received - 2022-05-19 03:20:32 PM Control Number - 53401 ItemNumber - 4

OPEN MEETING COVER SHEET

MEMORANDUM AND PROPOSAL FOR PUBLICATION

MEETING DATE: May 26, 2022

DATE DELIVERED: May 19, 2022

AGENDA ITEM NO.: 29

CAPTION: Project No. 53401 – Electric Weather

Preparedness Standards-Phase II

DESCRIPTION: Memo and Proposal for Publication

Public Utility Commission of Texas

Memorandum

TO: Chairman Peter Lake

Commissioner Will McAdams Commissioner Lori Cobos Commissioner Jimmy Glotfelty

FROM: David Smeltzer, Director of Rules and Projects

DATE: May 19, 2022

RE: May 26, 2022 Open Meeting – Agenda Item No. #29

Project No. 53401, Electric Weather Preparedness Standards-Phase II

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

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

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

PROJECT NO. 53401

ELECTRIC WEATHER PREPAREDNESS STANDARDS- PHASE II	\$ \$ \$ \$ \$ \$	PUBLIC UTILITY COMMISSION OF TEXAS
(STAFF REC	COMME	NDATION)

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

1	The Public Utility Commission of Texas (commission) proposes the repeal of 16 Texas
2	Administrative Code (TAC) §25.55 relating to Weather Emergency Preparedness and proposes
3	new 16 TAC §25.55 relating to Weather Emergency Preparedness. New 16 TAC §25.55 will
4	require generation entities and transmission service providers (TSPs) in the ERCOT power region
5	to maintain preparation standards for both winter and summer seasons. The new rule will also
6	require the Electric Reliability Council of Texas, Inc. (ERCOT) to conduct on-site inspections of
7	every generation resource and transmission facility in the ERCOT region.
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9	New 16 TAC §25.55 implements §13 and §16 of Senate Bill 3 from the 87th Regular Session of
10	the Texas Legislature, which amended Public Utility Authority Act (PURA) §35.0021 relating to
11	Emergency Weather Preparedness and §38.075 relating to Emergency Weather Preparedness.
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13	The commission also requests comment from interested persons on the following areas:

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

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

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

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Growth Impact Statement

- 11 The agency provides the following governmental growth impact statement for the proposed rule,
- as required by Texas Government Code §2001.0221. The agency has determined that for each
- 13 year of the first five years that the proposed rule is in effect, the following statements will apply:
- 14 (1) the proposed rule will not create a government program and will not eliminate a government
- 15 program;
- 16 (2) implementation of the proposed rule will not require the creation of new employee positions
- and will not require the elimination of existing employee positions;
- 18 (3) implementation of the proposed rule will not require an increase and will not require a decrease
- in future legislative appropriations to the agency;
- 20 (4) the proposed rule will not require an increase and will not require a decrease in fees paid to the
- 21 agency;

- 1 (5) the proposed rule will not, in effect, create a new regulation, because it is replacing a similar
- 2 regulation;
- 3 (6) the proposed rule will repeal an existing regulation, but it will replace that regulation with a
- 4 similar regulation;
- 5 (7) the same number of individuals will be subject to the proposed rule's applicability as were
- 6 subject to the applicability of the rule it is being proposed to replace; and
- 7 (8) the proposed rule will not affect this state's economy.

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- Fiscal Impact on Small and Micro-Businesses and Rural Communities
- 10 There is no adverse economic effect anticipated for small businesses, micro-businesses, or rural
- 11 communities as a result of implementing the proposed rule. Accordingly, no economic impact
- 12 statement or regulatory flexibility analysis is required under Texas Government Code
- 13 §2006.002(c).

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

- 19 Fiscal Impact on State and Local Government
- 20 Ramya Ramaswamy, senior engineering specialist with the market analysis division, has
- determined that for the first five-year period the proposed rule is in effect, there will be no fiscal
- 22 implications for the state or for units of local government under Texas Government Code
- 23 §2001.024(a)(4) as a result of enforcing or administering the section.

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Public Benefits

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

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Local Employment Impact Statement

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

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Costs to Regulated Persons

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

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Public Hearing

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

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

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Public Comments

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

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

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Statutory Authority

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

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

- 9 Cross Reference to Statute: Public Utility Regulatory Act §14.001, §14.002, §35.0021, and
- 10 §38.075.

- 1 §25.55. Weather Emergency Preparedness.
- 2 [repeal]
- §25.55. Weather Emergency Preparedness. 3
- This section applies to the Electric Reliability Council of Texas, Inc. 4 (a) Application.
- 5 (ERCOT) and to generation entities and transmission service providers (TSPs) in the
- ERCOT power region. 6
 - A generation resource with an ERCOT-approved notice of suspension of operations (1) for the summer season or winter season is not required to comply with this section until the return to service date identified in its notice of change of generation resource designation required under the ERCOT protocols.
 - A new generation resource or transmission facility that is scheduled to begin (2) commercial operations during the summer season or winter season must meet the requirements of this section prior to either the commercial operations date established in the ERCOT interconnection process for generation resources or initial energization for transmission facilities, as applicable.

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- **Definitions.** In this section, the following definitions apply unless the context indicates (b) otherwise.
- **Energy storage resource** -- An energy storage system registered with ERCOT as 19 (1) 20 an energy storage resource for the purpose of providing energy or ancillary services to the ERCOT grid and associated facilities controlled by the generation entity that are behind the system's point of interconnection, necessary for the operation of the 22

1		system, and not part of a manufacturing process that is separate from the generation
2		of electricity.
3	(2)	Generation entity An ERCOT-registered resource entity acting on behalf of an
4		ERCOT-registered generation resource or energy storage resource.
5	(3)	Generation resource A generator registered with ERCOT as a generation
6		resource and capable of providing energy or ancillary services to the ERCOT grid,
7		as well as associated facilities controlled by the generation entity that are behind
8		the generator's point of interconnection, necessary for the operation of the
9		generator, and not part of a manufacturing process that is separate from the
10		generation of electricity.
11	(4)	Inspection Activities that ERCOT or its agents engage in to determine whether
12		a generation entity is in compliance with all or parts of subsection (c) of this section
13		or whether a TSP is in compliance with all or parts of subsection (f) of this section.
14		An inspection may include site visits, assessments of procedures, interviews, and
15		review of information provided by a generation entity or TSP in response to a
16		request by ERCOT, including review of evaluations conducted by the generation
17		entity or TSP or its contractor.
18	(5)	Major weather-related forced interruption of service The loss of 7,500
19		megawatt-hours of generation service or transmission capability occurring as a
20		result of a weather emergency.
21	(6)	Repeated weather-related forced interruption of service Three or more of any
22		combination of the following occurrences as a result of a weather emergency within

any three year period: a failure to start, a forced outage, or a deration of more than

1			fifty percent of the nameplate capacity of a generation resource or a transmission
2			facility.
3		(7)	Resource A generation resource or energy storage resource.
4		(8)	Summer season June 1 to September 30 each year.
5		(9)	Transmission facility A transmission-voltage element inside the fence
6			surrounding a TSP's high-voltage switching station or substation.
7		(10)	Weather critical component Any component of a resource or transmission
8			facility that is susceptible to fail during a weather emergency, the occurrence of
9			which failure is likely to significantly hinder the ability of the resource or
10			transmission facility to function as intended or, for a resource, is likely to lead to a
11			trip, derate, or failure to start.
12		(11)	Weather emergency A situation resulting from weather conditions that produces
13			significant risk for a TSP that firm load must be shed or a situation for which
14			ERCOT provides advance notice to market participants involving weather-related
15			risks to the ERCOT power region.
16		(12)	Weather emergency preparation measures Measures that a generation entity
17			or TSP takes to support the function of a resource or transmission facility during a
18			weather emergency.
19		(13)	Winter season December 1 to March 31 each year.
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21	(c)	Weat	her emergency preparedness reliability standards for a generation entity.
22		(1)	Winter season preparations. By December 1 each year, a generation entity must
23			complete the following winter weather emergency preparation measures for each

1	resource under its control. A generation entity must maintain these measures
2	throughout the winter season. A generation entity must update its winter weather
3	emergency preparation measures no later than one year after ERCOT files a
4	historical weather study report under subsection (i) of this section.
5	(A) Implement weather emergency preparation measures reasonably expected
6	to ensure the sustained operation of all cold weather critical components
7	during winter weather conditions. Such measures include, as appropriate
8	for the resource:
9	(i) Installation of adequate wind breaks and other structural
10	preparations as needed for resources susceptible to outages or
11	derates caused by wind;
12	(ii) Installation of insulation and enclosures for all cold weather critical
13	components;
14	(iii) Inspection of existing thermal insulation and associated forms of
15	water-proofing for damage or degradation, and repair of damaged or
16	degraded insulation and associated forms of water-proofing;
17	(iv) Assurance of the availability and appropriate safekeeping of
18	sufficient chemicals, auxiliary fuels, and other materials necessary
19	for sustained operations during a winter weather emergency;
20	(v) Assurance of the operability of instrument air moisture prevention
21	systems;
22	(vi) Maintenance of freeze protection equipment for all cold weather
23	critical components, including fuel delivery systems controlled by

1				the generation entity, and testing freeze protection equipment on a
2				monthly basis from November 1 through March 31; and
3			(vii)	Installation of monitoring systems for all cold weather critical
4				components, including circuitry that provides freeze protection or
5				prevents instrument air moisture;
6		(B)	Begin	ning in 2023, implement weather emergency preparation measures, in
7			additio	on to the weather emergency preparation measures required by
8			paragr	raph (A) of this subsection, reasonably expected to ensure sustained
9			operat	ion of the resource during the lesser of the minimum ambient
10			tempe	rature at which the resource has experienced sustained operations or
11			the 95	5 th percentile minimum average 72-hour temperature reported in
12			ERCC	T's historical weather study, required under subsection (i) of this
13			section	n, for the weather zone in which the resource is located.
14		(C)	Revie	w the adequacy of staffing plans to be used during a winter weather
15			emerg	ency and revise the staffing plans, as appropriate.
16		(D)	Train	relevant operational personnel on winter weather preparations and
17			operat	ions.
18	(2)	Summ	ier seas	son preparations. By June 1 each year, a generation entity must
19		comple	ete the	following summer weather emergency preparation measures for each
20		resour	ce unde	er its control. A generation entity must maintain these measures
21		throug	hout th	ne summer season. A generation entity must update its summer
22		weathe	er emer	gency preparation measures no later than one year after ERCOT files
23		a histo	rical w	eather study report under subsection (i) of this section.

1	(A)	Imple	ment weather emergency preparation measures reasonably expected
2		to ens	sure the sustained operation of all hot weather critical components
3		during	g summer weather conditions. Such measures include, as appropriate
4		for the	e resource:
5		(i)	Identification of regulatory and legal limitations of cooling capacity,
6			water withdrawal, maximum discharge temperatures, and rights for
7			additional water supply;
8		(ii)	Assurance of adequate water supplies for cooling towers, reservoirs,
9			heat exchangers, and adequate cooling capacity of the water supplies
10			used in the cooling towers, reservoirs, and heat exchangers;
11		(iii)	Assurance of availability and appropriate safekeeping of adequate
12			equipment to remove heat and moisture from all hot weather critical
13			components;
14		(iv)	Assurance of the availability of sufficient chemicals, coolants,
15			auxiliary fuels, and other materials necessary for sustained
16			operations during a summer weather emergency;
17		(v)	Maintenance of all hot weather critical components, including air
18			flow or cooling systems, and testing of all components on a monthly
19			basis from May 1 through September 30; and
20		(vi)	Installation of monitoring systems for all hot weather critical
21			components.
22	(B)	Begin	ning in 2023, implement weather emergency preparation measures, in
23		additi	on to the weather emergency preparation measures required by

1			paragr	aph (A) of this subsection, reasonably expected to ensure sustained
2			operat	ion of the resource during the greater of the maximum ambient
3			tempe	rature at which the resource has experienced sustained operations or
4			the 95	th percentile maximum average 72-hour temperature reported in
5			ERCC	T's historical weather study, required under subsection (i) of this
6			section	n, for the weather zone in which the resource is located.
7		(C)	Revie	w the adequacy of staffing plans to be used during a summer weather
8			emerg	ency and revise the staffing plans, as appropriate.
9		(D)	Train	relevant operational personnel on summer weather preparations and
10			operat	ions.
11	(3)	Decla	ration (of preparedness. A generation entity must submit to ERCOT, on a
12		form 1	prescrib	ed by ERCOT, the following declarations of weather preparedness:
12 13		form j		ed by ERCOT, the following declarations of weather preparedness: clier than November 1 and no later than December 1 of each year, a
			No ear	
13			No ear	clier than November 1 and no later than December 1 of each year, a
13 14			No ear	clier than November 1 and no later than December 1 of each year, a
13 14 15			No ear	clier than November 1 and no later than December 1 of each year, a stion entity must submit a declaration of winter weather preparedness
13141516			No ear	clier than November 1 and no later than December 1 of each year, a stion entity must submit a declaration of winter weather preparedness. Identifies every resource under the entity's control for which the
1314151617			No ear general that:	clier than November 1 and no later than December 1 of each year, a stion entity must submit a declaration of winter weather preparedness. Identifies every resource under the entity's control for which the declaration is being submitted;
13 14 15 16 17			No ear general that:	clier than November 1 and no later than December 1 of each year, a stion entity must submit a declaration of winter weather preparedness. Identifies every resource under the entity's control for which the declaration is being submitted; Summarizes all activities engaged in by the generation entity to
 13 14 15 16 17 18 19 			No ear general that: (i) (ii)	clier than November 1 and no later than December 1 of each year, a action entity must submit a declaration of winter weather preparedness. Identifies every resource under the entity's control for which the declaration is being submitted; Summarizes all activities engaged in by the generation entity to complete the requirements of paragraph (1) of this subsection;

1		(iv)	Includes any additional information required by the ERCOT
2			protocols; and
3		(v)	Includes a notarized attestation sworn to by the generation entity's
4			highest-ranking representative, official, or officer with binding
5			authority over the generation entity attesting to the completion of all
6			applicable activities described in paragraph (1) of this subsection,
7			and to the accuracy and veracity of the information described in
8			subparagraph (3)(A) of this paragraph.
9	(B)	No ear	rlier than May 1 and no later than June 1 of each year, a generation
10		entity	must submit a declaration of summer weather preparedness that at a
11		minim	um:
12		(i)	Identifies every resource under the entity's control for which the
13			declaration is being submitted;
14		(ii)	Summarizes all activities engaged in by the generation entity to
15			complete the requirements of paragraph (2) of this subsection;
16		(iii)	Provides the maximum ambient temperature at which each resource
17			has experienced sustained operations, as measured at the resource
18			site or the weather station nearest to the resource site;
19		(iv)	Includes any additional information required by the ERCOT
20			protocols; and
21		(v)	Includes a notarized attestation sworn to by the generation entity's
22			highest-ranking representative, official, or officer with binding
23			authority over the generation entity attesting to the completion of all

1		applicable activities described in paragraph (2) of this subsection,
2		and to the accuracy and veracity of the information described in
3		subparagraph (3)(B) of this paragraph.
4	(C)	A generation entity must submit the appropriate declaration of preparedness
5		to ERCOT prior to returning a mothballed or decommissioned resource to

service during the winter or summer season.

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

(d) **ERCOT** inspection of resources.

(1) ERCOT must conduct inspections of resources and may prioritize inspections based on factors such as whether a resource is critical for electric grid reliability; has experienced a forced outage, forced derate, or failure to start related to weather emergency conditions; or has other vulnerabilities related to weather emergency conditions. ERCOT must determine, in consultation with commission staff, the number, extent, and content of inspections, provided that every resource interconnected to the ERCOT power region must be inspected at least once every

1		three y	ears. ERCOT must develop, in consultation with commission staff, a winter
2		weathe	r inspection checklist and a summer weather inspection checklist for use
3		during	resource inspections. Inspections may be conducted by ERCOT's
4		employ	rees or contractors.
5		(A)	ERCOT must provide each generation entity at least 48 hours' notice of an
6			inspection unless otherwise agreed by the generation entity and ERCOT.
7			Upon provision of the required notice, a generation entity must grant
8			access to its facility to ERCOT and to commission staff, including an
9			employee of a contractor designated by ERCOT or the commission.
10		(B)	During the inspection, a generation entity must provide ERCOT and
11			commission staff access to any part of the facility upon request. A
12			generation entity must provide access to inspection, maintenance, and
13			other records associated with weather emergency preparation measures
14			and must make the generation entity's staff available to answer questions.
15			A generation entity may escort ERCOT and commission staff at all times
16			during an inspection. During the inspection, ERCOT or commission staff
17			may take photographs or video recordings of any part of the facility and
18			may conduct interviews of facility personnel designated by the generation
19			entity.
20	(2)	ERCO'	Γ inspection report.
21		(A)	ERCOT must provide a report on its inspection of a resource to the

generation entity. The inspection report must address whether the

1		generation entity has complied with the requirements in subsection (c)(1)
2		or (c)(2) of this section.
3	(B)	If the generation entity has not complied with a requirement in subsection
4		(c)(1) or (c)(2) of this section, ERCOT must provide the generation entity
5		a reasonable period to cure the identified deficiencies.
6		(i) The cure period determined by ERCOT must consider what
7		weather emergency preparation measures the generation entity
8		may be reasonably expected to have taken before ERCOT's
9		inspection, the reliability risk of the resource's noncompliance, and
10		the complexity of the measures needed to cure the deficiency.
11		(ii) The generation entity may request ERCOT provide a longer period
12		to cure the identified deficiencies. The request must be
13		accompanied by documentation that supports the request.
14		(iii) ERCOT, in consultation with commission staff, will determine the
15		final cure period after considering a request for a longer period to
16		cure the identified deficiencies.
17	(C)	ERCOT must report to commission staff any generation entity that does
18		not remedy the deficiencies identified under subparagraph (A) of this
19		paragraph within the cure period determined by ERCOT under
20		subparagraph (B) of this paragraph.
21	(D)	A generation entity reported by ERCOT to commission staff under
22		subparagraph (C) of this paragraph will be subject to enforcement
23		investigation under §22.246 (relating to Administrative Penalties) of this

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

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

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

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

2	update it	ts winte	er weather preparation measures no later than one year after ERCO
3	files a hi	storica	al weather study report under subjection (i) of this section.
4	(A) I	mplem	nent weather emergency preparation measures reasonably expected
5	to	o ensu	are the sustained operation of all cold weather critical components
6	d	luring	winter weather conditions. Such measures include, as appropriate
7	f	or the	facility:
8	(i)	Confirmation of the operability of all systems and subsystems
9			containing all cold weather critical components;
10	(ii)	Confirmation that the sulfur hexafluoride gas in breakers and
11			metering and other electrical equipment is at the correct pressure and
12			temperature to operate safely during winter weather emergencies
13			and perform annual maintenance that tests sulfur hexafluoride
14			breaker heaters and supporting circuitry to assure that they are
15			functional; and
16	(iii)	Confirmation of the operability of power transformers and auto
17			transformers in winter weather emergencies by:
18			(a) Inspecting heaters in the control cabinets;
19			(b) Verification that main tank oil levels are appropriate for
20			actual oil temperature;
21			(c) Inspecting bushing oil levels;
22			(d) Inspecting the nitrogen pressure, if necessary; and

1			(e) Verification of proper oil quality such that moisture and
2			dissolved gases are within acceptable ranges for winter
3			weather conditions.
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5		(B)	Beginning in 2023, implement weather emergency preparation measures,
6			in addition to the weather emergency preparation measures required by
7			paragraph (A) of this subsection, reasonably expected to ensure the
8			sustained operation of the TSP's transmission facilities during the lesser
9			of the minimum ambient temperature at which the facility has experienced
10			sustained operations or the 95th percentile minimum average 72-hour
11			temperature reported in ERCOT's historical weather study, required under
12			subsection (i) of this section, for the weather zone in which the facility is
13			located.
14		(C)	Review the adequacy of staffing plans to be used during a winter weather
15			emergency and revise the staffing plans, as appropriate.
16		(D)	Train relevant operational personnel on winter weather preparations and
17			operations.
18	(2)	Summ	ner season preparations. By June 1 each year, a TSP must complete the
19		follow	ring summer weather preparation measures for its transmission facilities. A
20		TSP n	nust maintain these measures throughout the summer season. A TSP must
21		update	e its summer weather preparation measures no later than one year after

ERCOT files a historical weather study report under subsection (i) of this section.

1	(A)	Imple	ment weather emergency preparation measures reasonably expected
2		to ens	sure the sustained operation of all hot weather critical components
3		during	g summer weather conditions. Such measures include, as appropriate
4		for the	e facility:
5		(i)	Inspecting transformer coolers on a monthly basis between May 1
6			and September 30;
7		(ii)	Cleaning transformer coolers on a regular basis during the summer
8			season;
9		(iii)	Verifying proper cooling fan and pump control capabilities and
10			settings;
11		(iv)	Confirmation of the availability of sufficient chemicals, coolants,
12			and other materials necessary for sustained operations during a
13			summer weather emergency; and
14		(v)	Confirmation that sufficient chemicals, coolants, and other materials
15			necessary for sustained operations during a summer weather
16			emergency are protected from heat and drought.
17			
18	(B)	Begin	ning in 2023, implement weather emergency preparation measures, in
19		additi	on to the weather emergency preparation measures required by
20		parag	raph (A) of this subsection, reasonably expected to ensure the
21		sustai	ned operation of the TSP's transmission facilities during the greater
22		of the	maximum ambient temperature at which the facility has experienced
23		sustai	ned operations or the 95 th percentile maximum average 72-hour

1			tempe	rature reported in ERCOT's historical weather study, required under
2			subsec	ction (i) of this section, for the weather zone in which the facility is
3			locate	d.
4		(C)	Revie	w the adequacy of staffing plans to be used during a summer weather
5			emerg	ency and revise the staffing plans, as appropriate.
6		(D)	Train	relevant operational personnel on summer weather preparations and
7			operat	ions.
8	(3)	Decla	ration	of preparedness. A TSP must submit to ERCOT, on a form
9		presci	ibed by	ERCOT, the following declarations of weather preparedness:
10		(A)	No ea	rlier than November 1 and no later than December 1 of each year, a
11			TSP n	nust submit a declaration of winter weather preparedness that:
12			(i)	Identifies each transmission substation or switchyard under the
13				TSP's control for which the declaration is being submitted;
14			(ii)	Summarizes all activities engaged in by the TSP to complete the
15				requirements of paragraph (1) of this subsection,
16			(iii)	Provides the minimum ambient temperature at which each
17				substation or switchyard has experienced sustained operations, as
18				measured at the transmission facility or the weather station nearest
19				to the transmission facility;
20			(iv)	Includes any additional information required by the ERCOT
21				protocols; and
22			(v)	Includes a notarized attestation sworn to by the TSP's highest-
23				ranking representative, official, or officer with binding authority

1			over the TSP, attesting to the completion of all activities described
2			in paragraph (1) of this subsection, and to the accuracy and veracity
3			of the information described in subparagraph (3)(A) of this
4			paragraph.
5	(B)	No ear	rlier than May 1 and no later than June 1 of each year, a TSP must
6		submi	t a declaration of summer weather preparedness that at a minimum:
7		(i)	Identifies each transmission substations or switchyard under the
8			TSP's control for which the declaration is being submitted;
9		(ii)	Summarizes all activities engaged in by the TSP to complete the
10			requirements of paragraph (2) of this subsection,
11		(iii)	Provides maximum ambient temperature at which each substation
12			or switchyard has experienced sustained operations, as measured at
13			the transmission facility or the weather station nearest to the
14			transmission facility;
15		(iii)	Includes any additional information required by the ERCOT
16			protocols; and
17		(iv)	Includes a notarized attestation sworn to by the TSP's highest-
18			ranking representative, official, or officer with binding authority
19			over the generation entity attesting to the completion of all activities
20			described in paragraph (2) of this subsection, and to the accuracy
21			and veracity of the information described in subparagraph (3)(B) of
22			this paragraph.

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

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

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

1		(A)	ERCOT must provide each TSP at least 48 hours' notice of an inspection
2			unless otherwise agreed by the TSP and ERCOT. Upon provision of the
3			required notice, a TSP must grant access to its facility to ERCOT and
4			commission staff, including an employee of a contractor designated by
5			ERCOT or the commission to conduct, oversee, or observe the inspection.
6		(B)	During the inspection, a TSP must provide ERCOT and commission staff
7			access to any part of the facility upon request. A TSP must provide access
8			to inspection, maintenance, and other records associated with weather
9			preparation measures, and must make the TSP's staff available to answer
10			questions. A TSP may escort ERCOT and commission staff at all times
11			during an inspection. During the inspection, ERCOT and commission staff
12			may take photographs and video recordings of any part of the facility and
13			may conduct interviews of facility personnel designated by the TSP.
14	(2)	ERCC	OT inspection report.
15		(A)	ERCOT must provide a report on its inspection of a transmission system
16			or facility to the TSP. The inspection report must address whether the TSP
17			has complied with the requirements in paragraph (f)(1) or (f)(2) of this
18			subsection.
19		(B)	If the TSP has not complied with a requirement in subsection (f)(1) or
20			(f)(2) of this section, ERCOT must provide the TSP a reasonable period to
21			cure the identified deficiencies.
22			(i) The cure period determined by ERCOT must consider what
23			weather emergency preparation measures the TSP may be

1				reasonably expected to have taken before ERCOT's inspection, the
2				reliability risk of the TSP's noncompliance, and the complexity of
3				the measures needed to cure the deficiency.
4			(ii)	The TSP may request ERCOT provide a longer period to cure the
5				identified deficiencies. The request must be accompanied by
6				documentation that supports the request.
7			(iii)	ERCOT, in consultation with commission staff, will determine the
8				final cure period after considering a request for a longer period to
9				cure the identified deficiencies.
10		(C)	ERCC	T must report to commission staff any TSP that does not remedy the
11			deficie	encies identified under subparagraph (A) of this paragraph within the
12			cure p	period determined by ERCOT under subparagraph (B) of this
13			paragr	aph.
14		(D)	A TSI	P reported by ERCOT to commission staff under subparagraph (C)
15			of this	s paragraph will be subject to enforcement investigation under
16			§22.24	46 (relating to Administrative Penalties) of this title. A violation of
17			this se	ction is a Class A violation under §25.8(b)(3)(A) and may be subject
18			to a pe	enalty not to exceed \$1,000,000 per violation per day.
19				
20	(h)	Weather-rela	ited fai	lures by a TSP to provide service. A TSP with a transmission
21		facility that e	xperien	ces repeated or major weather-related forced interruptions of service
22		must contrac	t with	a qualified professional engineer to assess its weather emergency
23		preparation n	neasure	s, plans, procedures, and operations. The qualified professional

engineer must not be an employee of the TSP or its affiliate. The qualified professional engineer must not have participated in previous assessments for this facility for at least five years, unless the TSP provides documentation that no other qualified professional engineers are reasonably available for engagement. The qualified professional engineer must conduct a root cause analysis of the failure and develop a corrective action plan to address any weather-related causes of the failure. The TSP must submit the qualified professional engineer's assessment to the commission and ERCOT. A TSP to which this subsection applies may be subject to additional inspections by ERCOT. ERCOT must refer to commission staff for investigation any TSP that violates this subsection.

(i)

- ERCOT historical weather study. ERCOT must study historical weather data across each weather zone classified in the ERCOT protocols. ERCOT must file with the commission a report summarizing the results of the historical weather study at least once every five years, beginning no later than November 1, 2026.
 - (1) At a minimum, ERCOT must calculate the 90th, 95th, and 99th percentiles of:
 - (A) the daily minimum temperature in each weather zone;
 - (B) the daily maximum temperature in each weather zone;
 - (C) the maximum sustained wind speed in each weather zone;
 - (D) the minimum average 72-hour temperature in each weather zone;
 - (E) the maximum average 72-hour temperature in each weather zone; and
 - (F) the minimum average wind chill in each weather zone.
- (2) ERCOT may add additional parameters to the historical weather study.

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

1 This agency hereby certifies that the proposal has been reviewed by legal counsel and found	counsel and found to
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be within the agency's legal authority to adopt. 2

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4 ISSUED IN AUSTIN, TEXAS ON THE ___ DAY OF MAY 2022 BY THE 5 6 PUBLIC UTILITY COMMISSION OF TEXAS ANDREA GONZALEZ

§25.55. Weather Emergency Preparedness.

(a) Application. This section applies to the Electric Reliability Council of Texas, Inc. (ERCOT) and to generation entities and transmission service providers (TSPs) in the ERCOT power region. A generation resource with an ERCOT approved notice of suspension of operations for the 2021-2022 winter weather season is not required to be in

compliance under this section until it is returned to service.

- (1) A generation resource with an ERCOT-approved notice of suspension of operations

 for the summer season or winter season is not required to comply with this section

 until the return to service date identified in its notice of change of generation

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

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

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

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

- (3)(2) **Generation entity** -- An ERCOT-registered resource entity acting on behalf of an ERCOT-registered generation resource or energy storage resource.
- (4)(3) Generation resource -- A generator registered with ERCOT as a generation resource and capable of providing energy or ancillary services to the ERCOT grid and that is registered with ERCOT as a generation resource, as well as associated facilities controlled by the generation entity that are behind the generator's point of interconnection, necessary for the operation of the generator, and not part of a manufacturing process that is separate from the generation of electricity.
- (5)(4) Inspection Activities that ERCOT engages or its agents engage in to determine whether a generation entity is in compliance with all or parts of subsection (c)(1) of this section or whether a TSP is in compliance with all or parts of subsection (f)(1) of this section. An inspection may include site visits; assessments of procedures; interviews; and review of information provided by a generation entity or TSP in response to a request by ERCOT, including review of evaluations conducted by the generation entity or TSP or its contractor.

21

1	<u>(5)</u>	Major weather-related forced interruption of service The loss of 7,500
2		megawatt-hours of generation service or transmission capability occurring as a
3		result of a weather emergency.
4	(6)	Repeated weather-related forced interruption of service Three or more of any
5		combination of the following occurrences as a result of a weather emergency within
6		any three year period: a failure to start, a forced outage, or a deration of more than
7		fifty percent of the nameplate capacity of a generation resource or a transmission
8		facility.
9	<u>(7)</u>	_Resource A generation resource or energy storage resource.
10	(7) (8)	Summer season June 1 to September 30 each year.
11	<u>(9)</u>	Transmission facility A transmission-voltage element inside the fence
12		surrounding a TSP's high-voltage switching station or substation.
13	<u>(10</u>)	Weather critical component Any component of a resource or transmission
14		facility that is susceptible to fail during a weather emergency, the occurrence of
15		which failure is likely to significantly hinder the ability of the resource or
16		transmission facility to function as intended or, for a resource, is likely to lead to a
17		trip, derate, or failure to start.
18	<u>(11)</u>	Weather emergency A situation resulting from weather conditions that produces
19		significant risk for a TSP that firm load must be shed or a situation for which

risks to the ERCOT power region.

ERCOT provides advance notice to market participants involving weather-related

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

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

- (c) Weather emergency preparedness reliability standards for a generation entity.
 - (1) Winter season preparations. By December 1, 2021 each year, a generation entity must complete the following winter weather emergency preparation measures for each resource under its control. A generation entity must maintain these measures throughout the winter season. A generation entity must update its winter weather emergency preparation measures no later than one year after ERCOT files a historical weather study report under subsection (i) of this section.
 - (A) Use best efforts to implement Implement weather emergency preparation measures intended reasonably expected to ensure the sustained operation of all cold weather critical components during winter weather conditions, including weatherization, onsite fuel security, staffing plans, operational readiness, and structural preparations; secure sufficient chemicals, auxiliary fuels, and other materials; and personnel required to operate . Such measures include, as appropriate for the resource;
 - (B)(i) InstallInstallation of adequate wind breaks and other structural preparations as needed for resources susceptible to outages or derates caused by wind; enclose sensors for

1	<u>(11)</u>	Installation of insulation and enclosures for all inspect cold weather
2		critical components;
3	(iii)	Inspection of existing confirm thermal insulation and associated
4		forms of water-proofing for damage or degradation, and repair of
5		damaged or degraded insulation ; and associated forms of water-
6		proofing:
7	<u>(iv)</u>	Assurance of the availability and appropriate safekeeping of
8		sufficient chemicals, auxiliary fuels, and other materials necessary
9		for sustained operations during a winter weather emergency;
10	<u>(v)</u>	Assurance of the operability of instrument air moisture prevention
11		systems;-conduct maintenance
12	(vi)	Maintenance of freeze protection components for all applicable
13		equipment for all cold weather critical components, including fuel
14		delivery systems controlled by the generation entity, the failure of
15		which could cause an outage or derate, and establish a schedule for
16		and testing of such freeze protection components equipment on a
17		monthly basis from November 1 through March 31; and install
18	(vii)	Installation of monitoring systems for all cold weather critical
19		components, including circuitry providingthat provides freeze
20		protection or preventing prevents instrument air moisture;
21	(C) Use be	est efforts to address cold weather critical component failures that
22	occurre	ed because of winter weather conditions in the period between
23	Novem	nber 30, 2020, and March 1, 2021;
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1		(D) (B) Provide training Beginning in 2023, implement weather emergency
2		preparation measures, in addition to the weather emergency preparation
3		measures required by paragraph (A) of this subsection, reasonably expected
4		to ensure sustained operation of the resource during the lesser of the
5		minimum ambient temperature at which the resource has experienced
6		sustained operations or the 95th percentile minimum average 72-hour
7		temperature reported in ERCOT's historical weather study, required under
8		subsection (i) of this section, for the weather zone in which the resource is
9		located.
10		(C) Review the adequacy of staffing plans to be used during a winter weather
11		emergency and revise the staffing plans, as appropriate.
12	ı	(D) Train relevant operational personnel on winter weather preparations and
13		operations-to relevant operational personnel; and
14	1	(E) Determine minimum design temperature or minimum experienced
15		operating temperature, and other operating limitations based on
16		temperature, precipitation, humidity, wind speed, and wind direction.
17	(2)	Summer season preparations. By December June 1, 2021 each year, a generation
18		entity must complete the following summer weather emergency preparation
19	:	measures for each resource under its control. A generation entity must maintain
20	:	these measures throughout the summer season. A generation entity must update its
21		summer weather emergency preparation measures no later than one year after
22	:	ERCOT files a historical weather study report under subsection (i) of this section.

1	<u>(A)</u>	Imple	ment weather emergency preparation measures reasonably expected
2		to ens	sure the sustained operation of all hot weather critical components
3		during	g summer weather conditions. Such measures include, as appropriate
4		for the	e resource:
5		<u>(i)</u>	Identification of regulatory and legal limitations of cooling capacity,
6			water withdrawal, maximum discharge temperatures, and rights for
7			additional water supply;
8		<u>(ii)</u>	Assurance of adequate water supplies for cooling towers, reservoirs,
9			heat exchangers, and adequate cooling capacity of the water supplies
10			used in the cooling towers, reservoirs, and heat exchangers;
11		(iii)	Assurance of availability and appropriate safekeeping of adequate
12			equipment to remove heat and moisture from all hot weather critical
13			components;
14		(iv)	Assurance of the availability of sufficient chemicals, coolants,
15			auxiliary fuels, and other materials necessary for sustained
16			operations during a summer weather emergency;
17		<u>(v)</u>	Maintenance of all hot weather critical components, including air
18			flow or cooling systems, and testing of all components on a monthly
19			basis from May 1 through September 30; and
20		<u>(vi)</u>	Installation of monitoring systems for all hot weather critical
21			components.
22	<u>(B)</u>	Begin	ning in 2023, implement weather emergency preparation measures, in
23		<u>additi</u>	on to the weather emergency preparation measures required by
			Page 7 of 30

1			paragraph (A) of this subsection, reasonably expected to ensure sustained
2			operation of the resource during the greater of the maximum ambient
3			temperature at which the resource has experienced sustained operations or
4			the 95th percentile maximum average 72-hour temperature reported in
5			ERCOT's historical weather study, required under subsection (i) of this
6			section, for the weather zone in which the resource is located.
7		<u>(C)</u>	Review the adequacy of staffing plans to be used during a summer weather
8			emergency and revise the staffing plans, as appropriate.
9		<u>(D)</u>	Train relevant operational personnel on summer weather preparations and
10			operations.
11	(3)	Decla	ration of preparedness. A generation entity must submit to the commission
12		and-E	ERCOT, on a form prescribed by ERCOT, the following declarations of
13		weath	er preparedness:
14		<u>(A)</u>	No earlier than November 1 and developed in consultation with commission
15			staffno later than December 1 of each year, a generation entity must submit
16			<u>a declaration of</u> winter weather readiness report <u>preparedness</u> that:
17			(A)(i) Describes Identifies every resource under the entity's control for
18			which the declaration is being submitted;
19			(ii) Summarizes all activities engaged in by the generation entity to
20			complete the requirements of paragraph (1) of this subsection,
21			including any assertions of good cause for noncompliance submitted
22			under paragraph (6) of this subsection; and;

1	(B)(111) Provides the minimum ambient temperature at which each
2	resource has experienced sustained operations, as measured at the
3	resource site or the weather station nearest to the resource site;
4	(iv) Includes any additional information required by the ERCOT
5	protocols; and
6	(v) Includes a notarized attestation sworn to by the generation entity's
7	highest-ranking representative, official, or officer with binding
8	authority over the generation entity attesting to the completion of all
9	applicable activities described in paragraph (1) of this subsection,
10	subject to any notice of or request for good cause exception
11	submitted under paragraph (6) of this subsection, and to the
12	accuracy and veracity of the information described in subparagraph
13	(3)(A) of this paragraph.
14	(3)(B) No earlier than May 1 and no later than December 10, 2021, ERCOT June
15	1 of each year, a generation entity must file with the commission
16	comprehensive checklist forms based on submit a declaration of summer
17	weather preparedness that at a minimum:
18	(i) Identifies every resource under the entity's control for which the
19	declaration is being submitted;
20	(ii) Summarizes all activities engaged in by the generation entity to
21	complete the requirements of paragraph (1) of this subsection that
22	include checking systems and subsystems containing cold weather
23	critical components. ERCOT must use a generation entity's winter
	Page 9 of 30

1	weather readiness report submitted under paragraph (2) of this
2	subsection-to adapt the checklist;
3	(iii) Provides the maximum ambient temperature at which each resource
4	has experienced sustained operations, as measured at the resource
5	site or the weather station nearest to the inspections of the generation
6	entity's resources.resource site;
7	(4) No later than December 10, 2021, ERCOT must file with the commission a
8	compliance report that addresses whether each generation entity has submitted the
9	winter weather readiness report required by paragraph (2) of this subsection for
10	each resource under the generation entity's control and whether the generation
11	entity submitted an assertion of good cause for noncompliance under paragraph (6)
12	of this subsection.
13	(5) A generation entity that timely submits to ERCOT the winter weather readiness
14	report required by paragraph (2) of this subsection is exempt, for the 2021 calendar
15	year, from the requirement in Section 3.21(3) of the ERCOT Protocols that requires
16	a generation entity to submit the Declaration of Completion of Generation Resource
17	Winter Weatherization Preparations no earlier than November 1 and no later than
18	December 1 of each year.
19	(6) Good cause exception. A generation entity may submit by December 1, 2021 a
20	notice to the commission asserting good cause for noncompliance with specific
21	requirements listed in paragraph (1) of this subsection. The notice must be
22	submitted as part of the generation entity's winter readiness report under paragraph
23	(2) of this subsection.

1	(A) A generation entity's notice must include:
2	(i) A succinct explanation and supporting documentation of the
3	generation entity's inability to comply with a specific requirement
4	of paragraph (1) of this subsection;
5	(ii) A succinct description and supporting documentation of the
6	generation entity's efforts that have been made to comply with the
7	paragraph (1) of this subsection;
8	(iii) A plan, with supporting documentation, to comply with each
9	specific requirement of paragraph (1) of this subsection for which
10	good cause is being asserted, unless good cause exists not to comply
11	with the requirement on a permanent basis. A plan under this
12	subparagraph must include a proposed compliance deadline for each
13	requirement of paragraph (1) of this subsection for which the good
14	cause for noncompliance is being asserted and proposed filing
15	deadlines for the generation entity to provide the commission with
16	updates on its compliance status.
17	(B) Commission staff will work with ERCOT to expeditiously review notices
18	asserting good cause for noncompliance. Commission staff may notify a
19	generation entity that it disagrees with the generation entity's assertion of
20	good cause and will file the notification in the project in which the winter
21	weather readiness reports are filed. In addition, ERCOT may evaluate the
22	generation entity's assertion of good cause as part of an inspection of the
23	generation entity's resources.
	Page 11 of 30

1	(C)	To preserve a good cause exception, a generation entity must submit to the
2		commission a request for approval of a good cause exception within sever
3		days of receipt of commission staff's notice of disagreement with the
4		generation entity's assertion.
5	(D)	The commission may order a generation entity to submit a request for
6		approval of good cause exception.
7	(E)	A request for approval of good cause exception must contain the following
8		(i) A detailed explanation and supporting documentation of the
9		inability of the generation entity to comply with a specific
10		requirement of paragraph (1) of this subsection;
11		(ii) A detailed description and supporting documentation of the efforts
12		that have been made to comply with paragraph (1) of this subsection
13		(iii) A plan, with supporting documentation, to comply with each
14		specific requirement of paragraph (1) of this subsection for which
15		the good cause exception is being requested, unless the generation
16		entity is seeking a permanent exception to the requirement. A plan
17		under this subparagraph must include a proposed compliance
18		deadline for each requirement of paragraph (1) of this subsection for
19		which the good cause exception is being requested and proposed
20		filing deadlines for the generation entity to provide the commission
21		with updates on its compliance status.
22		(iv) Proof that notice of the request has been provided to ERCOT; and

1,		(iv) Includes any additional information required by the ERCOT
2		protocols; and
3		(v) A <u>Includes a</u> notarized attestation sworn to by the generation entity's
4		highest-ranking representative, official, or officer with binding
5		authority over the generation entity attesting to the completion of all
6		applicable activities described in paragraph (2) of this subsection,
7		and to the accuracy and veracity of the information in the request.
8		described in subparagraph (3)(B) of this paragraph.
9		(F) (C) A generation entity must submit the appropriate declaration of
10		preparedness to ERCOT isprior to returning a mothballed or
11		decommissioned resource to service during the winter or summer season.
12	<u>(4)</u>	No later than December 20 of each year, ERCOT must file with the commission a
13		compliance report that addresses whether each generation entity has submitted the
14		declaration of winter weather preparedness required party in a proceeding initiated
15		under by subparagraph (£3)(A) of this paragraph. subsection for each resource
16		under the generation entity's control.
17	<u>(5)</u>	No later than June 20 of each year, ERCOT must makefile with the commission a
18		recommendation to the commission on the request by the deadline set
19		forthcompliance report that addresses whether each generation entity has submitted
20		the declaration of summer weather preparedness required by the presiding officer
21		in the proceeding subparagraph (3)(B) of this subsection for each resource under the
22		generation entity's control.
23		

(1)

(d) ERCOT inspection of generation-resources.

- 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. ERCOTand may prioritize inspections based on factors such as whether a generation resource is critical for electric grid reliability; has experienced a forced outage, forced derate, or failure to start related to weather emergency conditions; or has other vulnerabilities related to weather emergency conditions. ERCOT must determine, in consultation with commission staff, the number, extent, and content of inspections and may conduct inspections using both employees and, provided that every resource interconnected to the ERCOT power region must be inspected at least once every three years. ERCOT must develop, in consultation with commission staff, a winter weather inspection checklist and a summer weather inspection checklist for use during resource inspections. Inspections may be conducted by ERCOT's employees or contractors.
 - (A) ERCOT must provide each generation entity at least 48 hours' notice of an inspection unless otherwise agreed by the generation entity and ERCOT.

 Upon provision of the required notice, a generation entity must grant access to its facility to ERCOT and to commission personnelstaff, 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 personnelstaff access to any part of the facility upon request.
 A generation entity must provide access to inspection, maintenance, and

1			other	records associated with weather emergency preparation measures
2			and n	nust make the generation entity's staff available to answer questions.
3			A ge	neration entity may escort ERCOT and commission personnelstaff at
4			all ti	mes during an inspection. During the inspection, ERCOT or
5			comr	nission personnelstaff may take photographs andor video recordings
6			of an	y part of the facility and may conduct interviews of facility personnel
7			desig	nated by the generation entity.
8	(2)	ERCC	T inspe	ection report.
9		(A)_	ERCC	OT must provide a report on its inspection of a resource to the
10			genera	ation entity. The inspection report must address whether the
11			genera	ation entity has complied with the requirements in subsection (c)(1)
12			or (c)((2) of this section.
13		(B)_	If the	generation entity has not complied with a requirement in subsection
14			(c)(1 <u>)</u>	or (c)(2) of this section, ERCOT must provide the generation entity
15			a reas	onable period to cure the identified deficiencies.
16			(i)_	The cure period determined by ERCOT must consider what
17				weather emergency preparation measures the generation entity
18				may be reasonably expected to have taken before ERCOT's
19				inspection, the reliability risk of the resource's noncompliance, and
20				the complexity of the measures needed to cure the deficiency.
21			(ii)_	The generation entity may request ERCOT determine provide a
22				different amount of timelonger period to remedycure the identified

1		deficiencies. The request must be accompanied by documentation
2		that supports the request for a different amount of time.
3		(iii) ERCOT, in consultation with commission staff, will determine the
4		final cure period after considering a request for a different amount
5		of timelonger period to cure the identified deficiencies.
6		(C)_ ERCOT must report to commission staff any generation entity that does
7		not remedy the deficiencies identified under subparagraph (A) of this
8		paragraph within the cure period determined by ERCOT under
9		subparagraph (B)(iii) of this paragraph.
10		(D)_ A generation entity reported by ERCOT to commission staff under
11		subparagraph (C) of this paragraph will be subject to enforcement
12		investigation under §22.246 (relating to Administrative Penalties) of this
13		title. A violation of this section is a Class A violation under
14		§25.8(b)(3)(A) (relating to Classification System for Violations of
15		Statutes, Rules, and Orders Applicable to Electric Service Providers) and
16		may be subject to a penalty not to exceed \$1,000,000 per violation per day.
17		
18	(e)	Weather-related failures by a generation entity to provide service. A generation
19		entity with a resource that experiences repeated or major weather-related forced
20		interruptions of service, such as forced outages, derates, or maintenance-related outages
21		must contract with a qualified professional engineer to assess its weather emergency
22		preparation measures, plans, procedures, and operations. The qualified professional
23		engineer must not be an employee of the generation entity or its affiliate and. The

qualified professional engineer must not have participated in previous assessments for the resource for at least five years, unless the generation entity can documentprovides documentation that no other qualified professional engineers are reasonably available for engagement. The qualified professional engineer must conduct a root cause analysis of the failure and develop a corrective action plan to address any weather-related causes of the failure. The generation entity must submit the qualified professional engineer's assessment to the commission and ERCOT. ERCOT must adopt rules that specify the circumstances for which this requirement applies and specify the scope and contents of the assessment. A generation entity to which this subsection applies may be subject to additional inspections by ERCOT. ERCOT must refer to commission staff for investigation any generation entity that violates this rule does not comply with a provision of this subsection.

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

- (1) <u>Winter season preparations.</u> By December 1, 2021 each year, a TSP must complete the following winter weather preparations preparation measures for its transmission system and facilities.
- (A) Use best efforts to implement TSP must maintain these measures throughout the winter season. A TSP must update its winter weather preparation measures no later than one year after ERCOT files a historical weather study report under subjection (i) of this section.
 - (A) Implement weather emergency preparation measures intended reasonably expected to ensure the sustained operation of all cold weather critical

1	components during winter weather conditions, including weatherization,
2	staffing plans, operational readiness, and structural preparations; secure
3	sufficient chemicals, auxiliary fuels, and other materials; and personnel
4	required to operate the transmission system and facilities;. Such measures
5	include, as appropriate for the facility:
6	(B)(i) Confirm Confirmation of the ability operability of all systems and
7	subsystems containing all cold weather critical components
8	required to ensure operation of each of the TSP's substations within
9	the design and operating limitations addressed in subparagraph (G)
10	of this paragraph;
11	(C) Use best efforts to address cold weather critical component failures that
12	occurred because of winter weather conditions in the period between
13	November 30, 2020 and March 1, 2021;
14	(D) Provide training on winter weather preparations and operations to relevant
15	operational personnel;
16	(E)(ii) Confirm Confirmation that the sulfur hexafluoride gas in breakers
17	and metering and other electrical equipment is at the correct pressure
18	and temperature to operate safely during winter weather
19	emergencies, and perform annual maintenance that tests sulfur
20	hexafluoride breaker heaters and supporting circuitry to assure that
21	they are functional; and

1	(F) (iii) Confirm Confirmation of the operability of power
2	transformers and auto transformers in winter weather emergencies
3	by:
4	(i)(a) Checking Inspecting heaters in the control cabinets;
5	(ii)(b) Verifying Verification that main tank oil levels are
6	appropriate for actual oil temperature;
7	(iii) (c) Checking Inspecting bushing oil levels; and
8	(iv) (d) Checking Inspecting the nitrogen pressure, if
9	necessary-; and
10	(e) Verification of proper oil quality such that moisture and
11	dissolved gases are within acceptable ranges for winter
12	weather conditions.
13	
14	(B) (G) Determine Beginning in 2023, implement weather emergency
15	preparation measures, in addition to the weather emergency preparation
16	measures required by paragraph (A) of this subsection, reasonably
17	expected to ensure the sustained operation of the TSP's transmission
18	<u>facilities during the lesser of the</u> minimum <u>designambient</u> temperature or
19	minimum at which the facility has experienced operatingsustained
20	operations or the 95 th percentile minimum average 72-hour temperature,
21	and other operating limitations based on temperature, precipitation,
22	humidity, wind speed, reported in ERCOT's historical weather study,

1		required under subsection (i) of this section, for the weather zone in which
2		the facility is located.
3		(C) Review the adequacy of staffing plans to be used during a winter weather
4		emergency and wind direction for facilities containing coldrevise the
5		staffing plans, as appropriate.
6		(D) Train relevant operational personnel on winter weather preparations and
7		operations.
8	(2)	Summer season preparations. By June 1 each year, a TSP must complete the
9		following summer weather preparation measures for its transmission facilities. A
10		TSP must maintain these measures throughout the summer season. A TSP must
11		update its summer weather preparation measures no later than one year after
12		ERCOT files a historical weather study report under subsection (i) of this section.
13		(A) Implement weather emergency preparation measures reasonably expected
14		to ensure the sustained operation of all hot weather critical components-
15		during summer weather conditions. Such measures include, as appropriate
16		for the facility:
17		(2)(i) By December 1, 2021, Inspecting transformer coolers on a monthly
18		basis between May 1 and September 30;
19		(ii) Cleaning transformer coolers on a regular basis during the summer
20		<u>season;</u>
21		(iii) Verifying proper cooling fan and pump control capabilities and
22		settings;

1			(iv) Confirmation of the availability of sufficient chemicals, coolants,
2			and other materials necessary for sustained operations during a
3			summer weather emergency; and
4			(v) Confirmation that sufficient chemicals, coolants, and other materials
5			necessary for sustained operations during a summer weather
6			emergency are protected from heat and drought.
7			
8		<u>(B)</u>	Beginning in 2023, implement weather emergency preparation measures, in
9			addition to the weather emergency preparation measures required by
10			paragraph (A) of this subsection, reasonably expected to ensure the
11			sustained operation of the TSP's transmission facilities during the greater
12			of the maximum ambient temperature at which the facility has experienced
13			sustained operations or the 95th percentile maximum average 72-hour
14			temperature reported in ERCOT's historical weather study, required under
15			subsection (i) of this section, for the weather zone in which the facility is
16			located.
17		<u>(C)</u>	Review the adequacy of staffing plans to be used during a summer weather
18			emergency and revise the staffing plans, as appropriate.
19		(D)	Train relevant operational personnel on summer weather preparations and
20			operations.
21	(3)	Decla	ration of preparedness. A TSP must submit to the commission and ERCOT,

on a form prescribed by ERCOT-and developed in consultation with commission

22

1	staff,	a winter	weather readiness report that:, the following declarations of weather
2	prepar	redness:	
3	<u>(A)</u>	_ Descri	bes No earlier than November 1 and no later than December 1 of each
4		year, a	TSP must submit a declaration of winter weather preparedness that:
5		<u>(i)</u>	Identifies each transmission substation or switchyard under the
6			TSP's control for which the declaration is being submitted;
7		<u>(ii)</u>	Summarizes all activities engaged in by the TSP to complete the
8			requirements of paragraph (1) of this subsection, including any
9			assertions of good cause for noncompliance submitted under
10			paragraph (4) of this subsection; and
11		(B) (iii	Provides the minimum ambient temperature at which each
12			substation or switchyard has experienced sustained operations, as
13			measured at the transmission facility or the weather station nearest
14			to the transmission facility;
15		<u>(iv)</u>	Includes any additional information required by the ERCOT
16			protocols; and
17		<u>(v)</u>	Includes a notarized attestation sworn to by the TSP's highest-
18			ranking representative, official, or officer with binding authority
19			over the TSP, attesting to the completion of all activities described
20			in paragraph (1) of this subsection, subject to any notice of or request
21			for good cause exception submitted under paragraph (4) of this
22			subsection, and to the accuracy and veracity of the information
23			described in subparagraph (3)(A) of this paragraph.
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1		(2) (B) 140	later than December 10, 2021 No earlier than May 1 and no later than
2		June	e 1 of each year, a TSP must submit a declaration of summer weather
3		prep	paredness that at a minimum:
4		<u>(i)</u>	Identifies each transmission substations or switchyard under the
5			TSP's control for which the declaration is being submitted;
6		<u>(ii)</u>	Summarizes all activities engaged in by the TSP to complete the
7			requirements of paragraph (2) of this subsection,
8		<u>(iii)</u>	Provides maximum ambient temperature at which each substation
9			or switchyard has experienced sustained operations, as measured at
10			the transmission facility or the weather station nearest to the
11			transmission facility;
12		(iii)	Includes any additional information required by the ERCOT
13			protocols; and
14		(iv)	Includes a notarized attestation sworn to by the TSP's highest-
15			ranking representative, official, or officer with binding authority
16			over the generation entity attesting to the completion of all activities
17			described in paragraph (2) of this subsection, and to the accuracy
18			and veracity of the information described in subparagraph (3)(B) of
19			this paragraph.
20	<u>(4)</u>	No later that	an December 20 of each year, ERCOT must file with the commission a
21		compliance	report that addresses whether each TSP has submitted the declaration
22		of winter w	reather preparedness required by subparagraph (3)(A) of this subsection
23		for all trans	mission facilities under the TSP's control.

1	<u>(5)</u>	No later than June 20 of each year, ERCOT must file with the commission a
2		compliance report that addresses whether each TSP has submitted the
3		winterdeclaration of summer weather readiness reportpreparedness required by
4		paragraph (2subparagraph (3)(B) of this subsection for itsall transmission system
5		and facilities and whether the TSP submitted an assertion of good cause for
6		noncompliance under paragraph (4) of this subsectionthe TSP's control.
7	(4)	Good cause exception. A TSP may submit to the commission by December 1, 2021
8		a notice asserting good cause for noncompliance with specific requirements listed
9		in paragraph (1) of this subsection. The notice must be submitted as part of the
10		TSP's winter weather readiness report under paragraph (2) of this subsection.
11		(A) A TSP's notice must include:
12		(i) A succinct explanation and supporting documentation of the TSP's
13		inability to comply with a specific requirement of paragraph (1) of
14		this subsection;
15		(ii) A succinct description and supporting documentation of the efforts
16		that have been made to comply with the requirement; and
17		(iii) A plan, with supporting documentation, to comply with each specific
18		requirement of paragraph (1) of this subsection for which good cause is
19		being asserted, unless good cause exists not to comply with the requirement
20		on a permanent basis. A plan under this subparagraph must include a
21		proposed compliance deadline for each requirement of paragraph (1) of this
22		subsection for which good cause for noncompliance is being asserted and

1	proposed filing deadlines for the TSP to provide the commission with
2	updates on the TSP's compliance status.
3	(B) Commission staff will work with ERCOT to expeditiously review notices
4	asserting good cause for noncompliance. Commission staff may notify a
5	TSP that it disagrees with the TSP's assertion of good cause and will file
6	the notification in the project in which the winter weather readiness reports
7	are filed. In addition, ERCOT may evaluate the TSP's assertion of good
8	cause as part of an inspection of the transmission facility.
9	(C) To preserve a good cause exception, a TSP must submit to the commission
10	a request for approval of a good cause exception within seven days of
11	receipt of commission staff's notice of staff's disagreement with the TSP's
12	assertion.
13	(D) The commission may order a TSP to submit a request for approval of good
14	cause exception.
15	(E) A request for approval of good cause exception must contain the following:
16	(i) A detailed explanation and supporting documentation of the
17	inability of the TSP to comply with the specific requirement of
18	paragraph (1) of this subsection;
19	(ii) A detailed description and supporting documentation of the efforts
20	that have been made to comply with paragraph (1) of this subsection;
21	(iii) A plan, with supporting documentation, to comply with each
22	specific requirement of paragraph (1) of this subsection for which
23	the good cause exception is being requested, unless the TSP is
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23

1			seeking a permanent exception to the requirement. A plan under
2			this subparagraph must include a proposed compliance deadline for
3			each requirement of paragraph (1) of this subsection for which the
4			good cause exception is being requested and proposed filing
5			deadlines for the TSP to provide the commission with updates on its
6			compliance status.
7			(iv) Proof that notice of the request has been provided to ERCOT; and
8			(v) A notarized attestation sworn to by the TSP's highest-ranking
9			representative, official, or officer with binding authority over the
10			TSP attesting to the accuracy and veracity of the information in the
11			request.
12			(F) ERCOT is a required party to the proceeding under subparagraph (E) of this
13			paragraph. ERCOT must make a recommendation to the commission or
14			the request by the deadline set forth by the presiding officer in the
15			proceeding.
16			
17	(g)	ERC	OT inspections of transmission systems and facilities.
18		(1)	ERCOT-conducted inspections. ERCOT must conduct inspections of transmission
19			facilities within the fence surrounding a TSP's high voltage switching station or
20			substation for the 2021 2022 winter weather season and must prioritize its
21			inspection schedule based on risk level. ERCOT may prioritize inspections based
22			on factors such as whether atransmission facility is critical for electric grid

reliability; has experienced a forced outage or other failure related to weather

emergency conditions; or has other vulnerabilities related to weather emergency conditions. ERCOT must determine, in consultation with commission staff, the number, extent, and content of inspections and may conduct inspections using both employees and, as well as develop a risk-based methodology for selecting at least ten percent of substations or switchyards providing transmission service to be inspected at least once every three years. ERCOT must develop, in consultation with commission staff, a winter weather inspection checklist and a summer weather inspection checklist for use during facility inspections. Inspections may be conducted by ERCOT's employees or contractors.

- (A) ERCOT must provide each TSP at least 48 hours' notice of an inspection unless otherwise agreed by the TSP and ERCOT. Upon provision of the required notice, a TSP must grant access to its facility to ERCOT and commission personnelstaff, 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 personnelstaff access to any part of the facility upon request. A TSP must provide access to inspection, maintenance, and other records associated with weather preparation measures, and must make the TSP's staff available to answer questions. A TSP may escort ERCOT and commission personnelstaff at all times during an inspection. During the inspection, ERCOT and commission personnelstaff may take photographs and video

1			recor	dings of any part of the facility and may conduct interviews of facility
2			perso	onnel designated by the TSP.
3	(2)-	ERCC	T insp	ection report.
4		(A)_	ERCO	OT must provide a report on its inspection of a transmission system
5			or faci	lity to the TSP. The inspection report must address whether the TSP
6			has co	implied with the requirements in subsection paragraph (f)(1) or (f)(2)
7			of this	s sectionsubsection.
8		(B)_	If the	TSP has not complied with a requirement in subsection (f)(1) or
9			<u>(f)(2)</u>	of this section, ERCOT must provide the TSP a reasonable period to
10			cure tl	ne identified deficiencies.
11			(i)_	The cure period determined by ERCOT must consider what
12				weather emergency preparation measures the TSP may be
13				reasonably expected to have taken before ERCOT's inspection, the
14				reliability risk of the TSP's noncompliance, and the complexity of
15				the measures needed to cure the deficiency.
16			(ii)_	The TSP may request ERCOT determine provide a different
17				amount of time longer period to remedycure the identified
18				deficiencies. The request must be accompanied by documentation
19				that supports the request-for a different amount of time.
20			(iii)_	ERCOT, in consultation with commission staff, will determine the
21				final cure period after considering a request for a different amount
22				of time.longer period to cure the identified deficiencies.

1	(C)_	ERCOT must report to commission staff any TSP that does not remedy the
2		deficiencies identified under subparagraph (A) of this paragraph within the
3		cure period determined by ERCOT under subparagraph (B)(iii) of this
4		paragraph.
5	(D)_	A TSP reported by ERCOT to commission staff under subparagraph (C)

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

(h)

weather-related failures by a TSP to provide service. A TSP with a transmission system or facility that experiences repeated or major weather-related forced interruptions of service must contract with a qualified professional engineer to assess its weather emergency preparation measures, plans, procedures, and operations. The qualified professional engineer must not be an employee of the TSP or its affiliate and. The qualified professional engineer must not have participated in previous assessments for this system or facility for at least five years, unless the TSP can document provides documentation that no other qualified professional engineers are reasonably available for engagement. The qualified professional engineer must conduct a root cause analysis of the failure and develop a corrective action plan to address any weather-related causes of the failure. The TSP must submit the qualified professional engineer's assessment to the commission and ERCOT. ERCOT must adopt rules that specify the circumstances for which this requirement applies and specify the scope and contents of the assessment. A TSP to which

1	this subsection applies may be subject to additional inspections by ERCOT. ERCOT m	ıust
2	refer to commission staff for investigation any TSP that violates this rule.subsection.	
3		
4	(i) ERCOT historical weather study. ERCOT must study historical weather data acr	'OSS
5	each weather zone classified in the ERCOT protocols. ERCOT must file with	the
6	commission a report summarizing the results of the historical weather study at least o	<u>nce</u>
7	every five years, beginning no later than November 1, 2026.	
8	(1) At a minimum, ERCOT must calculate the 90th, 95th, and 99th percentiles of:	
9	(A) the daily minimum temperature in each weather zone;	
10	(B) the daily maximum temperature in each weather zone;	
11	(C) the maximum sustained wind speed in each weather zone;	
12	(D) the minimum average 72-hour temperature in each weather zone;	
13	(E) the maximum average 72-hour temperature in each weather zone; and	
14	(F) the minimum average wind chill in each weather zone.	
15	(2) ERCOT may add additional parameters to the historical weather study.	
16	(3) ERCOT must take into consideration weather predictions produced by the office	e of
17	the state climatologist when preparing the historical weather study.	