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PROJECT NO. 51840

**RULEMAKING TO ESTABLISH
ELECTRIC WEATHERIZATION
STANDARDS**

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**PUBLIC UTILITY COMMISSION

OF TEXAS**

COMMISSION STAFF'S DISCUSSION DRAFT AND QUESTIONS FOR COMMENT

1 The Public Utility Commission of Texas Staff proposes for discussion a draft of new 16 Texas
2 Administrative Code (TAC) §25.55 to implement weather emergency preparedness measures
3 for generation entities and transmission service providers in the Electric Reliability Council of
4 Texas (ERCOT) power region, as required by Senate Bill 3, 87th Legislature Session (Regular
5 Session).

6

7 Commission Staff also requests comments on the following questions:

8 1. What is the availability of statistically reliable weather information from, e.g. the
9 American Society of Heating, Refrigeration and Air Conditioning Engineers; National
10 Weather Service; or other sources for the ERCOT power region? Please share the
11 source of that information.

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

15

16 Staff requests written comment on the discussion draft and responses to the questions for
17 comment by 3 p.m. CT on **July 30, 2021**. Comments should be organized in a manner
18 consistent with the organization of the draft rule. **Additionally, Commission Staff requests**

19 **that all commenters include a bulleted executive summary to assist in review of the filed**

1 **comments. Commission Staff also reminds commenters to refer to the definitions of 16**
2 **TAC §25.5 for terms that may not be defined or otherwise clearly indicated in the**
3 **context of the discussion draft.**

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5 Comments may be filed through the interchange on the Commission’s website. **All responses**
6 **should reference Project No. 51840.**

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8 Questions concerning this project should be referred to Kristin Abbott at
9 kristin.abbott@puc.texas.gov or (512) 936-7459. Deaf and hard of hearing individuals with
10 text telephones (TTY) may contact the Commission through Relay Texas by dialing 7-1-1.

1 **§25.55. Weather Emergency Preparedness.**

2
3 (a) **Application.** This section applies to the Electric Reliability Council of Texas, Inc. (ERCOT)
4 and to generation entities and transmission service providers in the ERCOT power region.
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6 (b) **Definitions.** In this section, the following definitions apply unless the context indicates
7 otherwise.

8 (1) **Generation entity** – Any ERCOT-registered Resource Entity with one or more ERCOT-
9 registered Generation Resource or Energy Storage Resource, as those terms are defined in
10 the ERCOT Protocols.

11 (2) **Inspection** – The activities that ERCOT engages in to determine whether a generation
12 entity is in compliance with subsection (d) of this section or whether a transmission
13 service provider is in compliance with subsection (i) of this section. An inspection may
14 include site visits; assessments of procedures; interviews; and information provided by a
15 generation entity or transmission service provider, including the results of inspections
16 conducted by the generation entity or transmission service provider or its contractor.
17 ERCOT may conduct inspections using both employees and contractors.

18 (3) **Resource** – A Generation Resource or Energy Storage Resource as defined in the ERCOT
19 Protocols.

20 (4) **Weather preparation measures** – Measures that a generation entity or transmission
21 service provider may take to improve the function of a facility in extreme weather
22 conditions, including weatherization, fuel security, staffing plans, operational readiness,
23 and structural preparations.

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

(1) Weather study criteria. The weather study must include statistical probabilities for a range of weather scenarios in the 95th, 98th, and 99th percentile probabilities for the established weather zones. The weather study must address a comprehensive range of weather event scenarios that may impact transmission and generation performance in the ERCOT power region. These scenarios must include, at a minimum, parameters for high and low temperatures, wind, humidity, precipitation, and duration.

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

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

1 (1) Basic weather reliability standard. A generation entity must maintain weather preparation
2 measures that reasonably ensure that its resource can provide service at the resource's
3 applicable rated capability as defined by ERCOT under the 95th percentile of each of the
4 extreme weather scenarios specified in the weather study approved by the commission
5 under subsection (c) of this section.

6 (2) Enhanced weather reliability service standard. A generation entity may elect to maintain
7 weather preparation measures that reasonably ensure its resource can provide service at
8 the resource's applicable rated capability as defined by ERCOT under the 98th percentile
9 of each of the extreme weather scenarios specified in the weather study approved by the
10 commission under subsection (c) of this section. A resource that meets this standard may
11 qualify to provide an enhanced weather reliability service procured by ERCOT.

12 (3) Black Start Service (BSS) weather reliability standard. For a resource that provides BSS,
13 a generation entity must maintain weather preparation measures that reasonably ensure
14 the resource can provide service at the resource's applicable rated capability under the
15 99.7th percentile of the extreme weather scenarios specified in the weather study
16 approved by the commission under subsection (c) of this section.

17 (4) New resource. A generation entity must maintain weather preparation measures that
18 reasonably ensure that its new resource can meet the basic weather reliability standard
19 under paragraph (1) of this subsection before it commences commercial operations. The
20 generation entity must submit to ERCOT a compliance study as described in paragraph
21 (f)(1) of this section by a deadline specified by ERCOT.

22
23 **(e) Implementation of weather reliability standards for a generation entity.**

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

4 (A) For each resource with more than 650 megawatts (MW) of nameplate capacity in
5 operation on January 1, 2022, no later than November 30, 2022;

6 (B) For each resource with at least 250 MW and no more than 650 MW of nameplate
7 capacity in operation on January 1, 2022, no later than November 30, 2023; and

8 (C) For each resource with less than 250 of nameplate capacity in operation on January 1,
9 2022, no later than November 30, 2024.

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

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

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

21
22 **(f) Compliance with weather reliability standards for a generation entity.**

23 (1) Compliance study. Each generation entity must submit to ERCOT a study that confirms
24 compliance with the applicable weather reliability standard in subsection (d) for each

1 resource in its control. The study must be conducted by a qualified professional engineer
2 who is not an employee of the generation entity or affiliate.

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

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

9 (2) Annual report. Each generation entity must submit an annual report to ERCOT no later
10 than November 1 of each year that addresses compliance with subsection (d) of this
11 section. The report must include the name of the generation entity, a list of the generation
12 entity's resources, a summary of activities related to compliance, and all other
13 information prescribed by ERCOT in its market rules. The annual report must also
14 include a notarized affidavit sworn to by the chief executive officer of the generation
15 entity, attesting that each of the generation entity's resources is in compliance with
16 subsection (d) of this section.

17
18 **(g) Inspections for a Generation Entity.**

19 (1) ERCOT inspections. ERCOT must implement an inspection program that reasonably
20 determines whether the resources in the ERCOT power region are in compliance with
21 subsection (d) of this section. ERCOT must implement an inspection schedule that
22 ensures that each resource is inspected at least once every three years for compliance with
23 subsection (d) of this section. ERCOT may conduct inspections more frequently than
24 every three years and must prioritize in its inspection schedule any generation resource it

1 determines is critical for electric grid reliability. ERCOT may also prioritize inspections
2 of other resources, including a generation resource that has experienced a forced outage,
3 forced derate, or failure to start during extreme weather conditions, or that has exhibited
4 other vulnerabilities to weather conditions or deficiencies in weather emergency
5 preparedness. ERCOT has the discretion to determine the extent and content of particular
6 inspections.

7 (2) ERCOT inspection report. ERCOT must provide a report on its inspection of a resource
8 to the generation entity. The inspection report must address whether the resource was in
9 compliance with subsection (d) of this section and, if it was not, provide the generation
10 entity a reasonable period to cure the identified deficiencies. The cure period determined
11 by ERCOT must consider what weather preparation measures the generation entity may
12 be reasonably expected to have taken before ERCOT's inspection, the reliability risk of
13 the resource's noncompliance, and the complexity of the weather preparation measures
14 needed to cure the deficiency.

15
16 **(h) Violations of weather reliability standards by a generation entity.**

17 (1) Administrative penalty. The commission will impose an administrative penalty on a
18 generation entity that has violated subsection (d) of this section and does not cure the
19 violation within a reasonable period of time.

20 (2) Limitations on provision of BSS or any enhanced weather reliability service. A
21 generation entity must not use a resource to provide BSS or an enhanced weather
22 reliability service implemented under subsection (d) of this section if the resource has
23 been found by ERCOT to have violated compliance with subsection (d) of this section
24 until ERCOT has determined that the violation has been cured. However, ERCOT may

1 allow the continued use of the resource for the service if it determines that the resource is
2 needed for reliability reasons and must direct the generation entity to use best efforts to
3 expeditiously cure the violation.

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

15
16 (i) **Weather reliability standards for a transmission service provider.** A transmission service
17 provider must maintain weather preparation measures that reasonably ensure that its
18 transmission system can provide service at the system's applicable rated capabilities as
19 defined by ERCOT under the 98th percentile of each of the extreme weather scenarios
20 specified in the weather study approved by the commission under subsection (c) of this
21 section and must, at a minimum, be in conformance with good utility practice.

22
23 (j) **Implementation of weather reliability standards for transmission facilities.** A
24 transmission service provider's transmission system must meet subsection (i) of this section

1 no later than November 30, 2023, except for transmission facilities outside of a substation or
2 switching substation that were designed in conformance with good utility practice but are
3 insufficient to meet the standard. The provider must submit to the commission and ERCOT
4 by November 30, 2023 a report that details any facilities that were designed in conformance
5 with good utility practice but are insufficient to meet the standard and a detailed description
6 of any plan with cost estimates to rebuild the facilities to bring them into compliance with the
7 standard. ERCOT may recommend and the commission may order the rebuilding of facilities
8 to bring them into compliance with the standard.

9
10 **(k) Compliance with weather reliability standards by a transmission service provider. A**

11 transmission service provider must submit an annual report to ERCOT no later than
12 November 1 of each year that addresses compliance with subsection (i) of this section. The
13 report must include the name of the provider, a summary of activities related to compliance,
14 and all other information prescribed by ERCOT in its market rules. The annual report must
15 also include a notarized affidavit sworn to by the chief executive officer of the provider that
16 its transmission system is in compliance with the weather reliability standard in subsection (i)
17 of this section.

18
19 **(l) Inspections for a transmission service provider.**

20 (1) ERCOT inspections. ERCOT must implement an inspection program that reasonably
21 determines whether the transmission systems in the ERCOT power region are in
22 compliance with subsection (i) of this section. ERCOT must implement an inspection
23 schedule that ensures that each transmission system is inspected at least once every three
24 years for compliance with subsection (i) of this section. ERCOT may conduct

1 inspections more frequently than every three years and must prioritize in its inspection
2 schedule any transmission facility it determines is critical for reliability. ERCOT may
3 also prioritize other transmission facilities for inspection, including a transmission facility
4 that has experienced a forced outage or other failures during extreme weather conditions,
5 or has otherwise exhibited other vulnerabilities to weather conditions or deficiencies in
6 weather emergency preparedness. ERCOT has the discretion to determine the extent and
7 content of particular inspections.

8 (2) ERCOT inspection report. ERCOT must provide a report on its inspection of
9 transmission facilities to the transmission service provider. The inspection report must
10 address whether the facilities were in compliance with subsection (i) of this section and,
11 if they were not, provide the transmission service provider a reasonable period to cure the
12 identified deficiencies. The cure period determined by ERCOT must consider what
13 weather preparation measures the provider may be reasonably expected to have taken
14 before ERCOT's inspection, the reliability risk of a forced outage of the facilities, and the
15 complexity of the weather preparation measures needed to cure the deficiencies.

16
17 **(m) Violations of reliability standards for a transmission service provider.**

18 (1) Administrative penalty. The commission will impose an administrative penalty on a
19 transmission service provider that has violated a weather reliability standard in subsection
20 (i) of this section and does not cure the violation within a reasonable period of time.

21 (2) Operation during cure period. A transmission service provider may continue to operate its
22 transmission facility during the cure period unless otherwise determined by ERCOT.

23 (3) Weather-related failures to provide service. For a transmission system that experiences
24 repeated or major weather-related forced interruptions of service, including forced

1 outages, derates, or maintenance-related outages that result in a failure to comply with
2 subsection (d) of this section, the transmission service provider must have a qualified
3 professional engineer assess its weather preparation measures, plans, procedures, and
4 operations and submit the assessment to the commission and ERCOT. ERCOT must
5 adopt rules that specify the circumstances for which this requirement applies and specify
6 the scope and contents of the assessment. A provider may be subject to additional
7 inspections by ERCOT and referral to the commission for enforcement of any violation
8 of the commission's rules and failure to cure the identified deficiencies within a
9 reasonable period of time.