



# Transmission Service Provider (TSP) Winter Inspection Checklists

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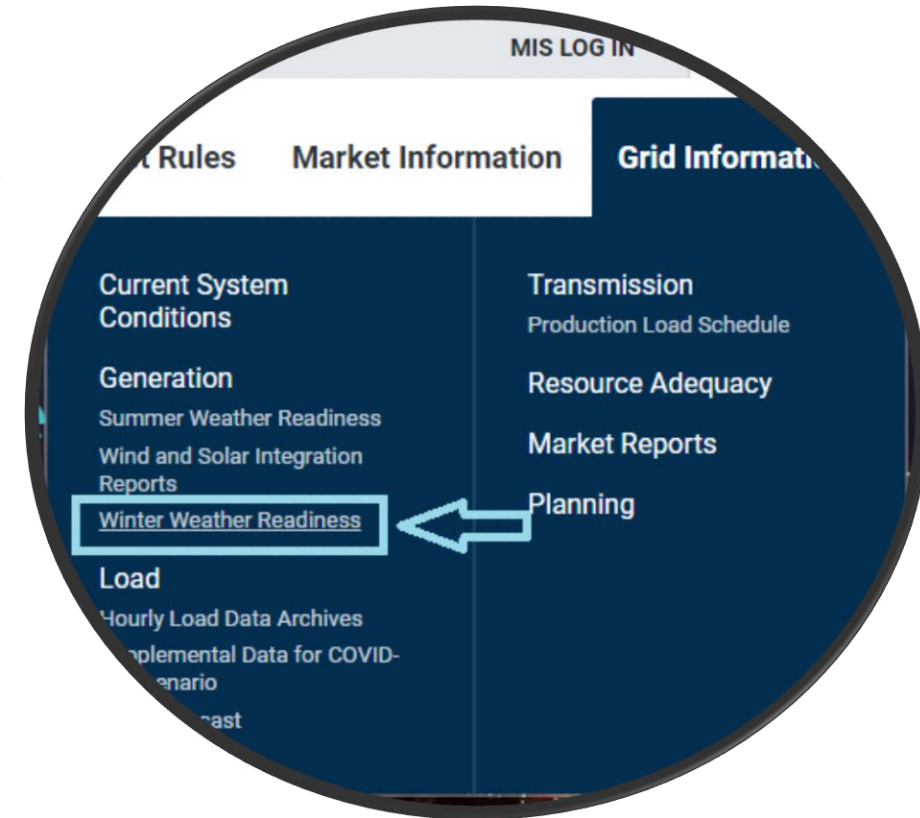
October 26, 2023

## Introduction

- Weatherization Checklist developed in accordance with PUCT 16 TAC §25.55 Weather Emergency Preparedness: predominantly per subsection (f)(1).
- Weatherization and Inspection Team does not provide a legal interpretation of §25.55 Weather Emergency Preparedness.
- Inspection schedule is confidential, access limited to ERCOT and PUCT.
- Inspection scheduling period: December 4, 2023, to February 29, 2024.
- Inspection exclusions:
  - Monday, December 25<sup>th</sup> - Christmas Day
  - Tuesday, December 26<sup>th</sup> - Day after Christmas
  - Monday, January 1<sup>st</sup> - New Year's Day
  - Monday, January 15<sup>th</sup> - Martin Luther King Jr. Day
  - Monday, February 19<sup>th</sup> - Presidents' Day

## Basic Requirements

- By December 1 each year, a TSP must complete certain prescribed winter weather preparation measures for its transmission facilities.
- A TSP must maintain these measures throughout the winter season and complete any ongoing requirements at the appropriate time.
- If necessary to come into compliance, a TSP must update its winter weather preparation measures no later than one year after ERCOT files a new historical weather study report.



# TSP Checklist

- The Rule:
  - 16 TAC § 25.55 (f) (1) (E): Beginning in 2023, create a list of all cold weather critical components, review the list at least annually prior to the beginning of the winter season, and update the list as necessary.

- The Checklist:

- List of cold weather critical components (CWCCs)
- *Review list at least annually before winter season and update list as necessary*

Yes	No	N/A
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# TSP Checklist

- The Rule:
  - 16 TAC § 25.55 (f) (1) (A) (i): Confirmation of the operability of all systems and subsystems containing all cold weather critical components;
- The Checklist:
- Records confirming the operability of all systems and subsystems containing all CWCCs prior to winter season
- Records confirming operability throughout the winter season and completion of any ongoing requirements at the appropriate time

Yes	No	N/A
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# TSP Checklist

- The Rule:
  - 16 TAC § 25.55 (f) (1) (A) (ii): Confirmation that the sulfur hexafluoride gas in breakers and metering and other electrical equipment is at the correct pressure and temperature to operate safely during winter weather emergencies, and perform annual maintenance that tests sulfur hexafluoride breaker heaters and supporting circuitry to assure that they are functional;

- The Checklist:

- Records confirming that the sulfur hexafluoride (SF6) gas in breakers and metering and other electrical equipment is at the correct pressure and temperature prior to winter season
- Records confirming that above equipment is at the correct pressure and temperature throughout the winter season
- Records of performing annual maintenance that tests SF6 breaker heaters and supporting circuitry to assure that they are functional prior to winter season

Yes	No	N/A
0	0	0
0	0	0
0	0	0

# TSP Checklist

- The Rule:
  - 16 TAC § 25.55 (f) (1) (A) (iii) (I): Confirmation of the operability of power transformers and auto transformers in winter weather emergencies by:
    - Inspecting heaters in the control cabinets;
- The Checklist:
- Prior to winter season, records to confirm the operability of power transformers and auto transformers in winter weather emergencies by:
  - Inspecting heaters in the control cabinets;
- Records to confirm the operability of power transformers and auto transformers throughout the winter season by:
  - Inspecting heaters in the control cabinets;

Yes	No	N/A
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# TSP Checklist

- The Rule:
  - 16 TAC § 25.55 (f) (1) (A) (iii) (II): Confirmation of the operability of power transformers and auto transformers in winter weather emergencies by:
    - Verification that main tank oil levels are appropriate for actual oil temperature;
  
- The Checklist:
- Prior to winter season, records to confirm the operability of power transformers and auto transformers in winter weather emergencies by:
  - Verification that main tank oil levels are appropriate for actual oil temperature;
  
- Records to confirm the operability of power transformers and auto transformers throughout the winter season by:
  - Verification that main tank oil levels are appropriate for actual oil temperature;

Yes	No	N/A
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# TSP Checklist

- The Rule:
  - 16 TAC § 25.55 (f) (1) (A) (iii) (III): Confirmation of the operability of power transformers and auto transformers in winter weather emergencies by:
    - Inspecting bushing oil levels;
- The Checklist:
- Prior to winter season, records to confirm the operability of power transformers and auto transformers in winter weather emergencies by:
  - Inspecting bushing oil levels;
- Records to confirm the operability of power transformers and auto transformers throughout the winter season by:
  - Inspecting bushing oil levels;

Yes	No	N/A
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# TSP Checklist

- The Rule:
  - 16 TAC § 25.55 (f) (1) (A) (iii) (IV): Confirmation of the operability of power transformers and auto transformers in winter weather emergencies by:
    - Inspecting the nitrogen pressure, if necessary;
  
- The Checklist:
- Prior to winter season, records to confirm the operability of power transformers and auto transformers in winter weather emergencies by:
  - Inspecting the nitrogen pressure, if necessary;
  
- Records to confirm the operability of power transformers and auto transformers throughout the winter season by:
  - Inspecting the nitrogen pressure, if necessary;

Yes	No	N/A
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# TSP Checklist

- The Rule:
  - 16 TAC § 25.55 (f) (1) (A) (iii) (V): Confirmation of the operability of power transformers and auto transformers in winter weather emergencies by:
    - Verification of proper oil quality such that moisture and dissolved gases are within acceptable ranges for winter weather conditions;
- The Checklist:
- Prior to winter season, records to confirm the operability of power transformers and auto transformers in winter weather emergencies by:
  - Verification of proper oil quality such that moisture **and** dissolved gases are within acceptable ranges for winter weather conditions;

Yes	No	N/A
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# TSP Checklist

- The Rule:
  - 16 TAC § 25.55 (f) (1) (A): Implement weather emergency preparation measures that could reasonably be expected to ensure the sustained operation of all cold weather critical components during winter weather conditions. Where appropriate, such measures may be implemented using either personnel or automated systems. Such measures include, as appropriate for the facility:
- The Checklist:
- Does the TSP have records it implemented weather emergency preparation measures that could reasonably be expected to ensure the sustained operation of all CWCCs during winter weather conditions using either personnel or automated systems where appropriate?

Yes	No	N/A
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# TSP Checklist (Superseded 11/15/23 by questions on next slide)

- The Rule:
  - 16 TAC § 25.55 (f) (1) (B): Beginning in 2023, implement weather emergency preparation measures by December 1 each year, in addition to the weather emergency preparation measures required by subparagraph (A) of this paragraph, that could reasonably be expected to ensure the sustained operation of the TSP’s transmission facilities at the 95th percentile minimum average 72-hour wind chill temperature reported in ERCOT’s historical weather study, required under subsection (i) of this section, for the weather zone in which the facility is located.

- The Checklist:

- Mechanism to self-determine if existing measures are adequate.  
If not, implement additional weather emergency preparation measures to meet subparagraph (f)(1)(B)
- Records of determining adequacy of existing measures or implementing additional measures reasonably expected to ensure sustained operation at of the TSP’s transmission facilities at temperature in ERCOT’s historical weather study

Yes	No	N/A
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# TSP Checklist - Revised questions for 16 TAC § 25.55 (f)(1)(B)

- The Rule:
  - 16 TAC § 25.55 (f) (1) (B):
- The Checklist:
- **Records demonstrating that the TSP’s existing weather emergency preparation measures are adequate to meet (f)(1)(B). (Method of demonstration may be 1) a wind chill value calculated from the design basis cold temperature and the design basis wind speed, 2) historical operational data, or 3) other. If other, confer with W&I management after inspection.)**
- **(Second question only applies if answer to first question was “No”) Records demonstrating TSP implemented additional weather emergency preparation measures to meet (f)(1)(B).**

Yes	No	N/A
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# TSP Checklist

- The Rule:
  - 16 TAC § 25.55 (f) (1) (C): Review the adequacy of staffing plans to be used during a winter weather emergency and revise the staffing plans, as appropriate.
- The Checklist:
- Records of reviewing adequacy of staffing plans for a winter weather emergency
- If appropriate, revised staffing plans

Yes	No
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# TSP Checklist

- The Rule:
  - 16 TAC § 25.55 (f) (1) (D): Train relevant operational personnel on winter weather preparations and operations.

- The Checklist:

- Records of training personnel on winter weather preparations and operations

Yes	No
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# TSP Checklist

- The Rule:
  - 16 TAC § 25.55 (g) (2) (B) (i): The cure period determined by ERCOT must consider what weather emergency preparation measures the TSP may be reasonably expected to have taken before ERCOT’s inspection, the reliability risk of the resource’s noncompliance, and the complexity of the measures needed to cure the deficiency.

- The Checklist:

- If the TSP has not complied with any part of 25.55(f)(1), confer with the TSP on a cure period to address identified deficiencies and document accordingly.

The weatherization team will discuss the factors, determine an appropriate cure period, and inform the TSP of the cure period.

Yes	No
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# Communications

- Per (g)(1)(A), Within 24 hours of receiving notice of inspection, a TSP must provide ERCOT, commission staff, and designated contractors all TSP requirements for facility access. Upon provision of the required written notice, a TSP must grant access to its facility to ERCOT and to commission staff, including an employee of a contractor designated by ERCOT or the commission to conduct, oversee, or observe the inspection.
- In order to avoid late submission of declarations and late responses to Notice of Inspections, please assure ERCOT has your correct AR/BAR data and that those email boxes are checked frequently.
- Selected TSP(s) AR/BAR, and site contacts must route ALL **inspections-related** communications through:
  - TSPWeatherizationInspections@ERCOT.com
- All Cure period-related communications and Inspection Report (IR) transmission will be accomplished through:
  - cureperiod@ercot.com
- For ALL other inquiries, contact your ERCOT Account Manager or ERCOT Client Services at (512) 248-3900 or clientservices@ercot.com.

## Best Inspection Preparation Practices

- Effective communication and collaboration between the Market Participant's personnel and the Weatherization and Inspection Team will support successful completion of winter inspections.
- Creating and maintaining systematic and logical records of items relevant to PUCT 16 TAC § 25.55 Weather Emergency Preparedness regulations will facilitate the inspection process.
- Ensure specificity of records regarding facilities.
- Provide well-organized records to Inspector/Inspection Team for a seamless winter inspection process.



THANK YOU