



Generation Entity and Transmission Service Provider Summer Inspection Checklists

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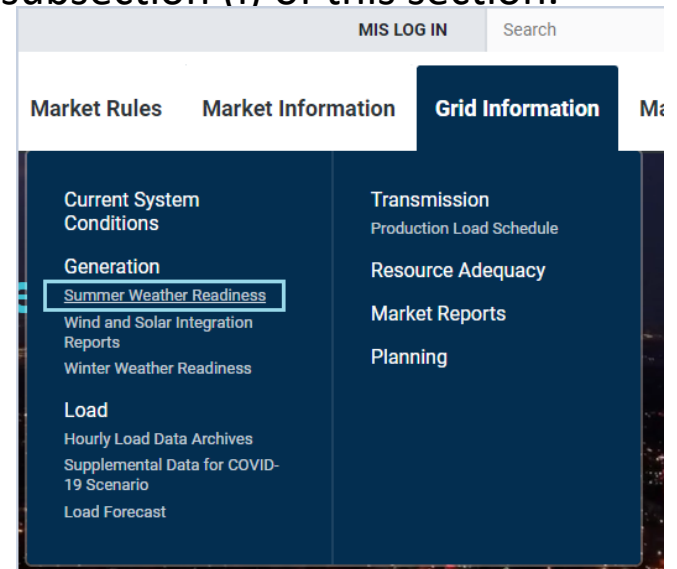
April 19, 2023

Introduction

- Weatherization Checklist developed in accordance with PUCT 16 TAC §25.55 Weather Emergency Preparedness; predominantly per subsection (c)(2) and (f)(2).
- Weatherization and Inspection Team refrains from providing a legal interpretation of §25.55 Weather Emergency Preparedness.
- Inspection schedule to be developed in May 2023; schedule confidentiality maintained, access limited to ERCOT and PUCT.
- Market Notices for Summer Weatherization Preparedness Inspections to be disseminated in advance to Generation Entities (GE) and Transmission Service Providers (TSP) by ERCOT Weatherization and Inspection Team.
- Inspection scheduling period: June 5, 2023, to September 29, 2023.
- Inspection exclusions: Independence Day (Tuesday, 7/4/23) and Labor Day (Monday, 9/4/23)

Basic Requirements

- 16 TAC § 25.55 (c)(2) states:
 - ❑ By June 1 each year, a generation entity must complete the following summer weather emergency preparation measures for each resource under its control.
 - ❑ A generation entity must maintain these measures throughout the summer season and complete any ongoing or monthly requirements at the appropriate time.
 - ❑ If necessary to come into compliance, a generation entity must update its summer weather emergency preparation measures no later than one year after ERCOT files a historical weather study report under subsection (i) of this section.



GE Checklist

The RULE:

16 TAC § 25.55 (c) (2) (A) (i) - Identification of regulatory and legal limitations of cooling capacity, water withdrawal, maximum discharge temperatures, and rights for additional water supply;

The Checklist:

Records it identified regulatory and legal limitations of:

- Cooling capacity
- Water withdrawal
- Maximum discharge temperatures
- Rights for additional water supply

Comments:

Yes	No	N/A
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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GE Checklist

The RULE:

16 TAC § 25.55 (c) (2) (A) (ii) - Arrange and plan for the provision and storage of adequate water supplies for cooling towers, reservoirs, heat exchangers, and adequate cooling capacity of the water supplies used in the cooling towers, reservoirs, and heat exchangers;

The Checklist: Part 1

Records it arranged and planned for provision and storage of adequate water supplies for:

- Cooling towers
- Reservoirs
- Heat exchangers

Yes	No	N/A
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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Comments:

GE Checklist

The RULE:

16 TAC § 25.55 (c) (2) (A) (ii) - Arrange and plan for the provision and storage of adequate water supplies for cooling towers, reservoirs, heat exchangers, and adequate cooling capacity of the water supplies used in the cooling towers, reservoirs, and heat exchangers;

The Checklist: Part 2

Records it has adequate cooling capacity of the water supplies used in:

- Cooling towers
- Reservoirs
- Heat exchangers

Comments:

Yes	No	N/A
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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

GE Checklist

The RULE:

16 TAC § 25.55 (c) (2) (A) (iii) - Arrange and plan for the provision and storage of availability and appropriate safekeeping of adequate equipment to remove heat and moisture from all hot weather critical components;

The Checklist:

To remove heat and moisture from all hot weather critical components (as applicable), are there records of arranging and planning for:

- Provision of adequate equipment
- Storage of adequate equipment
- Appropriate safekeeping of adequate equipment

Comments:

Yes	No	N/A
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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

GE Checklist

The RULE:

16 TAC § 25.55 (c) (2) (A) (iv) - Arrange and provide for the availability of sufficient chemicals, coolants, auxiliary fuels, and other materials necessary for sustained operations during a summer weather emergency;

The Checklist:

Records of arranging and providing for the availability of sufficient:

- Chemicals (e.g., biocides, coagulants, etc.)
- Coolants (e.g., glycol, hydrogen, transformer oils, etc.)
- Auxiliary fuels (e.g., diesel, propane, offsite NG storage, etc.)
- Other materials for sustained operation during a summer weather emergency

Yes	No	N/A
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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

GE Checklist

The RULE:

16 TAC § 25.55 (c) (2) (A) (v) - Maintenance of all hot weather critical components, including air flow or cooling systems, and verifying the functionality of all components prior to and on a monthly basis during the summer season;

The Checklist: Part 1

Records of maintaining:

- Hot weather critical components
- Air flow or cooling systems (e.g., condensers, cooling towers, heat exchangers, pumps, etc.)
- HVAC for rooms/cabinets with hot weather critical components

Yes	No	N/A
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

GE Checklist

The RULE:

16 TAC § 25.55 (c) (2) (A) (v) - Maintenance of all hot weather critical components, including air flow or cooling systems, and verifying the functionality of all components prior to and on a monthly basis during the summer season;

The Checklist: Part 2

Records of verifying:

- functionality of all components prior to summer season
- functionality of all components each month during summer season

Comments:

Yes	No	N/A
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

GE Checklist

The RULE:

16 TAC § 25.55 (c) (2) (A) (vi) - Monitoring of all hot weather critical components.

The Checklist:

- Records entity has monitored all hot weather critical components
- Entity can demonstrate it monitors hot weather critical components

Yes	No	N/A
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

GE Checklist

The RULE:

16 TAC § 25.55 (c) (2) (B) - Beginning in 2023, implement weather emergency preparation measures by June 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 sustained operation of the resource during the greater of the maximum ambient temperature at which the resource has experienced sustained operations or the 95th percentile maximum average 72-hour temperature reported in ERCOT's historical weather study, required under subsection (i) of this section, for the weather zone in which the resource is located.

The Checklist: Part 1

- Records of implementing additional measures reasonably expected to ensure sustained operation at maximum ambient temperature resource has experienced sustained operations

Yes	No	N/A
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

GE Checklist

The RULE:

16 TAC § 25.55 (c) (2) (B) - Beginning in 2023, implement weather emergency preparation measures by June 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 sustained operation of the resource during the greater of the maximum ambient temperature at which the resource has experienced sustained operations or the 95th percentile maximum average 72-hour temperature reported in ERCOT's historical weather study, required under subsection (i) of this section, for the weather zone in which the resource is located.

The Checklist: Part 2

- Records of implementing additional measures reasonably expected to ensure sustained operation at the temperature in ERCOT's historical weather study

Yes	No	N/A
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

GE Checklist

The RULE:

16 TAC § 25.55 (c) (2) (C) - Review the adequacy of staffing plans to be used during a summer weather emergency and revise the staffing plans, as appropriate.

The Checklist:

- Records of reviewing adequacy of staffing plans for a summer weather emergency.
- If appropriate, revised staffing plans

Comments:

Yes	No	N/A
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

GE Checklist

The RULE:

16 TAC § 25.55 (c) (2) (D) - Train relevant operational personnel on summer weather preparations and operations.

The Checklist:

- Records of training personnel on summer weather preparations and operations

Comments:

Yes	No	N/A
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

GE Checklist

The RULE:

16 TAC § 25.55 (c) (2) (E) - Beginning in 2023, create a list of all hot weather critical components, review the list at least annually prior to the beginning of the summer season, and update the list as necessary

The Checklist:

- List of all hot weather critical components
- Mechanism to review list at least annually before summer season
- Mechanism to update list as necessary

Comments:

Yes	No	N/A
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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GE Checklist

The RULE:

16 TAC § 25.55 (c) (2) (A) - Implement weather emergency preparation measures that could reasonably be expected to ensure the sustained operation of all hot weather critical components during summer weather conditions. Where appropriate, such measures may be implemented using either personnel or automated systems.

The Checklist:

- Does the GE have records it implemented weather emergency preparation measures that could reasonably be expected to ensure the sustained operation of all hot weather critical components during summer weather conditions using either personnel or automated systems where appropriate?

Comments:

Yes	No	N/A
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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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GE Checklist

The RULE:

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

The Checklist:

- If the GE has not complied with any part of 25.55(c)(2), confer with the GE 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 GE of the cure period.

Comments:

Yes	No
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<input type="checkbox"/>	<input type="checkbox"/>
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Basic Requirements

- 16 TAC § 25.55 (f)(2) states:
 - By June 1 each year, a TSP must complete the following summer weather preparation measures for its transmission facilities.
 - A TSP must maintain these measures throughout the summer season and complete any ongoing, monthly, or regular requirements at the appropriate time.
 - If necessary to come into compliance, a TSP must update its summer weather preparation measures no later than one year after ERCOT files a historical weather study report under subsection (i) of this section.

TSP Checklist

The RULE:

16 TAC § 25.55 (f) (2) (A) (i) - Inspecting transformer cooling systems prior to and on a monthly basis during the summer season;

The Checklist:

- Records of inspecting transformer cooling systems prior to summer season
- Records of inspecting transformer cooling systems monthly

Yes	No	N/A
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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

TSP Checklist

The RULE:

16 TAC § 25.55 (f) (2) (A) (ii) - Cleaning transformer cooling systems prior to and on a regular basis during the summer season;

The Checklist:

- Records of cleaning transformer cooling systems prior to summer season
- Records of cleaning transformer cooling systems on regular basis

Comments:

Yes	No	N/A
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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

TSP Checklist

The RULE:

16 TAC § 25.55 (f) (2) (A) (iii) - Verifying proper functioning of cooling fans and pump controls

The Checklist:

- Records of verifying proper functioning of cooling fans
- Records of verifying proper functioning of pump controls

Yes	No	N/A
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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

NOTE: Includes HVAC units for rooms with hot weather critical components

Comments:

TSP Checklist

The RULE:

16 TAC § 25.55 (f) (2) (A) (iv) - Arrange and provide for the availability of sufficient chemicals, coolants, and other materials necessary for sustained operations during a summer weather emergency;

The Checklist:

Records of arranging and providing for availability of sufficient:

- Chemicals
- Coolants
- Other materials

Comments:

Yes	No	N/A
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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

TSP Checklist

The RULE:

16 TAC § 25.55 (f) (2) (A) (v) - Confirmation that sufficient chemicals, coolants, and other materials necessary for sustained operations during a summer weather emergency are protected from heat and drought.

The Checklist:

TSP has confirmed the following are protected from heat and drought:

- Sufficient chemicals
- Coolants
- Other Materials

Yes	No	N/A
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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

TSP Checklist

The RULE:

16 TAC § 25.55 (f) (2) (B) - Beginning in 2023, implement weather emergency preparation measures by June 1 each year, in addition to the weather emergency preparation measures required by subparagraph (A) of this paragraph on, that could reasonably be expected to ensure the sustained operation of the TSP's transmission facilities during the greater of the maximum ambient temperature at which the facility has experienced sustained operations or the 95th percentile maximum average 72-hour temperature reported in ERCOT's historical weather study, required under subsection (i) of this section, for the weather zone in which the facility is located.

The Checklist: Part 1

- Records of implementing additional measures reasonably expected to ensure sustained operation at maximum ambient temperature resource has experienced sustained operations

Yes	No	N/A
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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Comments:

TSP Checklist

The RULE:

16 TAC § 25.55 (c) (2) (B) - Beginning in 2023, implement weather emergency preparation measures by June 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 sustained operation of the resource during the greater of the maximum ambient temperature at which the resource has experienced sustained operations or the 95th percentile maximum average 72-hour temperature reported in ERCOT's historical weather study, required under subsection (i) of this section, for the weather zone in which the resource is located.

The Checklist: Part 2

- Records of implementing additional measures reasonably expected to ensure sustained operation at the temperature in ERCOT's historical weather study

Comments:

Yes	No	N/A
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

TSP Checklist

The RULE:

16 TAC § 25.55 (f) (2) (C) - Review the adequacy of staffing plans to be used during a summer weather emergency and revise the staffing plans, as appropriate.

The Checklist:

- Records of reviewing adequacy of staffing plans for a summer weather emergency.
- If appropriate, revised staffing plans

Comments:

Yes	No	N/A
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

TSP Checklist

The RULE:

16 TAC § 25.55 (f) (2) (D) - Train relevant operational personnel on summer weather preparations and operations.

The Checklist:

- Records of training personnel on summer weather preparations and operations

Comments:

Yes	No	N/A
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

TSP Checklist

The RULE:

16 TAC § 25.55 (f) (2) (E) - Beginning in 2023, create a list of all hot weather critical components, review the list at least annually prior to the beginning of the summer season, and update the list as necessary

The Checklist:

- List of all hot weather critical components
- Mechanism to review list at least annually before summer season
- Mechanism to update list as necessary

Comments:

Yes	No	N/A
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

TSP Checklist

The RULE:

16 TAC § 25.55 (f) (2) (A) - Implement weather emergency preparation measures that could reasonably be expected to ensure the sustained operation of all hot weather critical components during summer weather conditions. Where appropriate, such measures may be implemented using either personnel or automated systems.

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 hot weather critical components during summer weather conditions using either personnel or automated systems where appropriate?

Yes	No	N/A
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Comments:

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 TSP'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)(2), 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.

Comments:

Yes	No
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<input type="checkbox"/>	<input type="checkbox"/>
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Communications

- Per (d)(1)(A) and (g)(1)(A), Within 24 hours of receiving notice of inspection, a TSP or GE must provide ERCOT, commission staff, and designated contractors all TSP or GE requirements for facility access. Upon provision of the required written notice, a TSP or GE 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.
- Selected GE(s) AR/BAR, and site contacts must route ALL inspections-related communications through:
GenerationWeatherizationInspections@ERCOT.com
- Selected TSP(s) AR/BAR, and site contacts must route ALL inspections-related communications through:
TSPWeatherizationInspections@ERCOT.com

Conclusion

- Effective communication and collaboration between the Market Participant's personnel and the Weatherization and Inspection Team will support successful completion of summer 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 resources, substations, or switchyards.
- Provide well-organized records to Inspector/Inspection Team for a seamless summer inspection process.



THANK YOU